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Economic History of Authors' Rights and Creative Industries in Czechoslovakia

Disertační práce

Praha 2020

Charles University

Faculty of Social Sciences

Institute of Economic Studies

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Economic History of Authors' Rights and Creative Industries in Czechoslovakia

Dissertation thesis

Prague 2020

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Year of the defense: 2020

References

Moravcová, H. (2020). *Economic History of Authors' Rights and Creative Industries in Czechoslovakia* (Dissertation thesis). Praha. 141 pages. Advisor: doc. PhDr. Ing. Antonie Doležalová Ph.D.

Abstract

The thesis analyzes the impact of cultural policy on creative industries in Czechoslovakia. The first chapter is devoted to economics of authors' rights. It identifies inconsistencies in its three main assumptions, that undermine proper understanding of the effects of copyright and authors' rights. It provides a framework for optimization behavior of authors, that respects that market transactions between authors, users and consumers take place not on one, but on many markets where a work is spread.

The second chapter reveals that the emergence of the Authors' Rights Act in interwar Czechoslovakia was the result of the influence of particular interest groups. The most important organizations are identified. Their mutual interconnection and linkage to the state facilitated their ability to directly influence the wording of the new law and its practical application. They used favorable conditions, like interventionist thinking of the society. Moreover, Czechoslovakia had to implement an international copyright treaty, part of the peace treaty signed by Czechoslovakia after the Great War.

The third chapter consists of two case studies about creative industries in Czechoslovakia. The first case study proves the volatility of art markets using the development of the performance of creative industries in the interwar Czechoslovakia. It illustrates high degree of uncertainty that authors faced. The second case study analyzes the impact of state interventions on the film industry between 1932 and 1945. It shows that there is no relationship of real costs and the popularity of films. OLS reveals that the level of subsides is positively associated with the popularity of films from thirties of the 20th century on the 0.01 confidence level for modern viewers. The popularity is measured by the proxy using rating of users of csfd.cz (a fan platform).

Abstrakt

Práce analyzuje dopady kulturní politiky Československa na kreativní průmysly. První kapitola je věnována ekonomii autorských práv. Identifikuje rozpory tří základních předpokladů ekonomie autorského práva, které znemožňují správné porozumění jeho dopadům. Poskytuje rámec pro optimalizační chování autorů, který respektuje, že tržní transakce mezi autory, uživateli a spotřebiteli neprobíhají pouze na jednom, ale na mnoha různých trzích, na nichž je dílo šířeno.

Druhá kapitola ukazuje, že vznik nového autorského zákona, který byl přijat za první republiky, je výsledkem působení zájmových skupin. Identifikuje nejdůležitější organizace. Jejich vzájemné propojení a jejich vazby na státní aparát přispěly k tomu, že byly schopny přímo ovlivnit znění nového zákona a jeho praktickou aplikaci. Využívaly příznivých předpokladů pro své působení, např. intervencionistické smýšlení společnosti. Československo navíc muselo implementovat mezinárodní smlouvu o autorských právech přičleněnou k mírovým podmínkám, které Československo po velké válce podepsalo.

Třetí kapitola se skládá ze dvou případových studií o kreativních průmyslech v Československu. První případová studie pomocí analýzy vývoje kreativních průmyslů za první republiky ukazuje, jaké volatilitě a vysoké míře nejistoty autoři tehdy čelili. Druhá případová studie analyzuje dopad státních zásahů na filmový průmysl v letech 1932 až 1945. Ukazuje, že mezi reálnými náklady a popularitou filmů neexistuje žádný statistický vztah. Avšak regresní analýza pomocí OLS na hladině spolehlivosti 0,01 dokládá, že je výše subvencí pozitivně spojena s úrovní popularity filmů pro současné publikum. Ta je reprezentována zástupnou proměnnou, a sice hodnocením uživatelů csfd.cz (Československé filmové databáze).

Keywords

authors' rights, copyright, public good, markets for works protected by authors' rights, interest groups, institutional development, cultural policy, film industry, rent seeking

Klíčová slova

autorské právo, copyright, veřejný statek, trhy pro autorskoprávně chráněná díla, zájmové skupiny, institucionální vývoj, kulturní politika, filmové odvětví, proces dobývání renty

Length of the work: 141 pages

Declaration

- 1. I hereby declare that I have compiled this thesis using the listed literature and resources only.
- 2. I hereby declare that my thesis has not been used to gain any other academic title.
- 3. I fully agree to my work being used for study and scientific purposes.

In Prague on Hana Moravcová

Acknowledgement

I would like to express my highest gratitude to my supervisor, Antonie Doležalová, for her great advices and comments. Antonie's enthusiasm, her support and patience, helped me go on and finishing the dissertation. Antonie gave me the opportunity to work on a unique project about the Czechoslovak film, which was a perfect stimulus for my research.

I would like to thank cordially Tereza Czesany Dvořáková for her expertise and valuable insights in the film history and for the effort she devoted to our film project. It was a great experience to cooperate with Tereza.

I would like to thank my husband Tadeáš, and my parents for giving me the scarcest input – time to do the research.

I would like to thank Marek Goldstein for the consultation of the case study about the economic history of film.

Certain parts of this thesis are outcomes of the grant activity financed by the Czech Film Fund (n. 1364/2016) and the grant activity "The Czech Film between Arts and Business. The Economic History of Czech Film." financed by the Ministry of Culture of the Czech Republic.

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List of abbreviations

CMO Collective management organization (collecting society)

OSA "Ochranné sdružení autorské československých skladatelů, spisovatelů a nakladatelů, s. r. o." – CMO for music works

Introduction

The central topic of the thesis is an analysis of the cultural policy of Czechoslovakia from the economic history perspective. Economic theory assumes that creative industries produce a wide range of public goods (Samuelson, 1954) or products suffering from the positive externality problem. This problem is inherently present in the character of information goods, as non-tangible, non-divisible and non-depletable source which is hard to trade. (Arrow, 1962; Demsetz, 1969) State actively influenced markets of the creative production and supported creating so called merit goods. (Fullerton, 1991)

Towse (2000, p. 128), describing the existing literature of cultural economics, discusses the book of Cowen *In Praise of Commercial Culture* (1998). The book uses historical examples to prove that the culture has developed thanks to free market, not despite it. On the other hand, the role of the state was to preserve the current state of the culture, hinder innovation and use it for propaganda. According to Towse, cultural goods are specific due to the structure of demand and supply and thus, the market concentrates around stars. The concentration is amplified by the huge economies of scale and relatively high portion of the sunk costs for the first master copy. Creative industries are characterized by frequent network effects, cumulative ownership of different media and the most importantly: uncertainty about the future demand.

Economic activity is affected by many factors, among which the effort to decrease transaction costs by economic agents is omnipresent, as the theses show for the period of first Czechoslovak Republic. The necessity to cope with the problem of prohibitively high transaction costs (Coase, 1937, 1960) is relevant for the economic and business history of all economic agents in Czechoslovakia, both in the economic life of the whole country and especially for those seeking economic profit in creative industries. The most evident case is represented by the operation of collective management organizations for collecting royalties for using creative works.

Concentration as a tool for rationalization of the production was one of the main responses of economic and political elites of Czechoslovakia to the Great Depression (Kárník II, 2018, p. 58). The process of monopolization was even codified by the law (Průcha et al. I, 2004, p. 278). The businesspeople lived in an environment where political parties were closely related to economic organization for the production and financial services. Social dimension was crucial almost for all areas of economic activity. Umbrella organizations that unified the groups of employers and employees, producers and consumers, firms and non-profit organization were omnipresent. It was the prevalent way how different kind of economic agents

communicated and negotiated their mutual relations and, of course, the relationship with the state. Increasing their negotiation power was one goal, but saving transactions costs was the second one, not less important.

The attempt to reach the concentration of the voice of stakeholders into a few organizations in order to minimize the transaction costs subject to prospective incremental benefits is common to the all areas which are analyzed by the dissertation thesis. This unifying motivation that drove the behavior of economic agents in creative industries were amplified especially in case when a product behaved more or less like a public good. The reason is that conclusion of voluntary market transactions between producers of public goods and final consumers is possible only subject to very high transaction costs. The case of externalities could be in theory resolved in line with economic efficiency, but only when transaction costs for negotiation of market transaction are bearable (Coase, 1960). However, this is not the case for some artistic production. That is why, as the thesis documents, the institutions that should save the transaction costs emerged, like collective management organization for the protection of authors' rights.

The copyright protection is perceived as a decisive incentive for the creative activity. The mainstream literature on economics of copyright asserts that copyright helps internalize a positive externality that emerges when a creative work provides external benefits that cannot be reaped by authors on the base of voluntary market transactions. Thus, copyright enables authors to force users of their works to pay for the uses even though their works are intangible goods which are nonrival and nonexcludable. It helps solve the free rider problem.

From a legal point of view, the institution of authors' rights had been established in the legal framework of Czech countries more than one hundred years ago. The European continental authors' rights are a matter of justice, something that authors deserve due to the fact that they have natural right to own products of labor in line with John Locke's philosophy. Locke's approach to intellectual property is provided by Damstedt (2003), who oppose to the established, standard view. Damstedt pointed to another principle advocated by John Locke: Locke insisted on preventing wasting. Damstedt asserts, that this is why copyright, making creative non-tangible goods artificially scarce, goes against the Locke's philosophy.

The pillars of economics of copyright (e.g. Watt, 2004; Posner, 2005; Varian, 2005) uniformly recognize the basic assumption about the role of copyright as a core incentive for the creative activity. Copyright management organizations (CMOs) help fulfil this basic aim of copyright protection. The oldest organization for management of authors' right in Czechoslovakia is OSA "Ochranné sdružení autorské československých skladatelů, spisovatelů

a nakladatelů, s. r. o., today Ochranný svaz autorský pro práva k dílům hudebním, z.s." – CMO for music works.

OSA is connected with other copyright management organizations around the world. It means that it is a part of the web interrelated by mutual agreements. Domestic users pay for using the works of both domestic and foreign authors and OSA distributes the royalties either to domestic authors or to foreign CMOs. On the other hand, OSA receives the royalties from foreign organizations for the uses of works of domestic authors and it redistributes this income to domestic authors in accordance with its internal rules.

From a macroeconomic point of view, the activity of CMOs does not represent an overwhelming volume of transactions. OSA's total revenues (including royalties from abroad – less than 60 million CZK) was slightly above 1.2 billion CZK (approx. 48 million EUR) in 2018. Average royalty distributed to an author, heir or music publisher was around 58 000 CZK (around 2300 EUR) per year. As already indicated by the results of the study of Kretschmer and Hardwick (2007), the distribution of royalties might be substantially uneven. This means that there might be a group of authors that makes a living from royalties from OSA and for them it might constitute a decisive incentive for their creation.

Czechoslovak economic history shows that creativity was protected either by the legal protection toward intangible property (copyright or authors' rights²) or by subsidies or the protection against foreign competition. In both cases, it is the state that provided the financial aid or adjusted existed institutions in favor of artists – authors. This is exactly in line with the prediction of cultural economics (Towse, 2000, p. 112). The state was seemingly ready to solve the underproduction problem notoriously connected to the provision of public goods. However, a deeper study of the economic history of institutional changes related to creative industries reveals rather contradictive results. The state, in fact, did not care about the general well-being so much as it did about the well-being of the members of interest groups³.

One aspect is common to all measures that were applied by the state during the Czechoslovak history. The policymakers responded to the demand of the businessmen in the creative industries. Thus, this thesis is a contribution to institutional economics and the theory

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¹ OSA represents more than 9000 of Czech rightsholders. (OSA, annual report 2018, p. 61)

² Copyright and authors' rights are treated equivalently in this text. However, they represent two different legal systems: Anglo-Saxon common law and European continental law. Even if there are only few practical differences between the two systems, they are based on different legal and philosophical grounds.

³ See chapter no. 2.

of public choice as it proves how interest groups representing creative industries affected the state. Moreover, it shows how interests groups enforced the new rules and policies that brought benefit only to small fraction of the population (authors, film makers), when costs (generally the taxes, or quasi-taxes) were borne by the broad population. This was fully in line with the concept of the rent seeking process (Tullock, 1967; Krueger, 1974).

Objective

In general, my research followed three goals:

- 1. Economic theory that explains the reasons and consequences of providing governmental financial aid directly to an industry or indirectly by the protection of the domestic market is well developed and generally understood by economists. On the other hand, in the field of economics of authors' rights, there is still a gap between theory and practice. That is the reason why the first goal is devoted to answering the question what the authors' rights system is. The thesis analyzes how it affects the transactions between creators, users and final consumers of works. It identifies methodological gaps of established economics of copyright and offers proposals for their refinement and completion. This part of the thesis follows a principle that economics based on methodological individualism has not sufficient range of tools to prove efficiency or inefficiency of the authors' rights system. But, as the thesis shows, it has sufficient range of tools for explaining ways, how the law affects creation and distribution of works.
- 2. To answer the question by whom or by what factors the development of the authors' rights system in Czech countries was driven. The research touches the very origin of authors' rights: the beginnings of the Authors' Rights Act in first Czechoslovak Republic, that replaced old Austro-Hungarian law. In accordance with theoretical contributions of new institutional economics, it analyzes whether the authors' rights system is a consequence of the influence of interest groups. The ambition of this part of the research is to find out factors that influenced the existing shape of the authors' rights system and to explain the influence of international aspects (such as treaties) as well as domestic factors (interest groups). It clarifies the specific process of rent seeking driven by interest groups that started in the late 19th century.
- 3. The way how the state affects the creative industries was not only by creating institutional framework for the functioning of authors' rights. Generally, the economic history of creative industries during first Czechoslovak Republic is inevitably connected with the

attempts to financially contribute to the functioning of cultural institutions⁴. The third goal was devoted to analyzing two issues. First was to find out, which conditions did the creators had to face. The thesis helps explain, which circumstances led them to call for the aid from the state budget. The second issue was to analyze the impact of state cultural policies on creative industries. The aim was to identify and, when possible, quantify, the relationship of impulses given by cultural policy and the development of film industry, which was chosen a representative case. All branches of creators met in order to produce genuinely new and unique product - the sound film. Both inputs (like scenario, music, etc.) and the final output, the film itself, were protected by the authors' rights act.

The literature about economic history of Czechoslovakia

The basic overview of economic history of Czechoslovakia is offered by Faltus, Průcha, 2006 (p. 51 – 61, 75 – 79). All aspects of economic history of Czechoslovakia in 1918 to 1945 are elaborated in detail by Průcha et al. (I. part, 2004) in Economic and Social History of Czechoslovakia. For the thesis, it was the key resource about the process of monopolization and concentration of the economy driven by the state. Kárník (2017, 2018, 2018) provides a very wide description of social, cultural, political and socio-economic conditions of first Czechoslovak Republic (in three parts of Czech Countries in the Era of First Republic, from 1918-1938). Kárník's publications are the source describing how closely was the political life connected with social and economic processes and how it mirrored in the cultural life and public debate. The publication of Alice Teichová An Economic Background to Munich (2008) was important for the thesis only as a source of information how the foreign cartels contributed to concentration and monopolization of Czechoslovak economy. For wider overview of general economic history of Czechoslovakia in English, there is Teichová's The Czechoslovak Economy 1918-1980 from 1988.

The state-of-the-art. Critical review of literature of economics of copyright

There is a broad range of economic literature roughly explaining the principles of copyright. Particular contributions are primarily based on the utilitarian philosophy. Simply put, it is based on the assumption that there exists an optimal level of the copyright protection.

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⁴ A significant example might be the case of nationalization of the National Theatre. The government ownership was in effect from 1930. Its purpose was to safe the theatre from the adverse economic consequences of the Great Depression (Kárník III, 2018, p. 327).

On the one hand, copyright provides incentives for authors to create works that generate benefits for the users. On the other hand, it gives monopoly power over their intellectual property to authors. Thus, the price for getting access to a work exceeds zero marginal costs for spreading the work and the death weigh loss occurs. Hence, an optimal level of protection should balance these marginal benefits and marginal costs. Existing models of supply and demand for creative works are oversimplified as they ignore the complexity of relations between particular authors and users of their works. They omit that they either use framework regulated by authors' rights or they interact on a free market. Moreover, specifics of the regime of authors' rights (based on other philosophy than copyright) are overlooked as well.

The debate about economics of copyright was opened in thirties of 20th century by Arnold Plant, followed by a few reactions over next decades. Around 2000, the debate intensified as the new impulses came in the world of copyright and creation of protected works had to face the new phenomena of sharing the digital content. Both proponents and opponents of copyright expressed their opinions whether the copyright system is well-designed in order to promote the production and dissemination of valuable artistic works and thus raise the social welfare. Not only studies, but also textbooks describing economics of copyright currently exist (Watt 2014).

The literature can be divided into several large groups.

- 1. Literature explaining the mechanism how copyright protection affects the creation of works
- 2. Literature attempting to estimate the ideal setting of copyright system (especially term of protection)
- 3. Literature considering the effects of file sharing on the production of artistic works and modelling optimal pricing strategy for authors
- 4. Literature on empirics of the effects of copyright
- 5. Literature on the role of collective management organizations

The first and most important group of literature consists of works showing how economics can help explain how the copyright works. Rather skeptical view is provided by Plant (1934a, 1934b), criticizing the concept of copyright and patents. He rejects to deem property rights as an equivalent to copyright or patents (1934a, p. 31) as he insists that property rights are reasonable only if there is a scarcity problem. This is not the case of e.g. intangible artistic works that, once created, are a nonrival and nonexludable in consumption. Actually, such a piece of work cannot be even consumed, no matter the number of consumers. Plant also

presents within his comprehensive overview of history of copyright examples of remuneration for artist without copyright and he focuses on the production of books.

Hurt (1966) presents other approaches how the existence of copyright could be reasoned. First, it could be either the natural right of an author to the fruits of his creation (inspired by John Locke) or a moral obligation of the society to reward author for his contribution. Second, the rationale for the copyright lies in the promotion of well-being and Hurt tries to examine if it holds true. He states that only some authors need to be induced by copyright to produce a work. On the other hand, he assumes that without copyright, private economic benefits from a work would be lower than social benefits and thus the quantity of works would be inefficiently low (positive externality case).

Landes and Posner (1989) explain that there is significant cost of creating a work but the cost of reproducing and spreading a work is negligible. Therefore, a price near to marginal cost would not allow for authors to recover their fix cost. Copyright enables authors to become a monopolist and thus raise the price for an access to a work above marginal cost. Providing such an incentive to authors brings benefits (additional works) but also cost stemming from limiting access to works and cost for administering the copyright. Landes and Posner also provide a formal model of copyright protection describing main effects of making copies on creation of works. The article contains comments from the economics' point of view on some features of the scope of the copyright (protection of expression vs. ideas, derivative works, fair use, term of protection).

An introduction to the Law and Economics of Intellectual Property is given by Besen and Raskind (1991). It describes generally the features of copyright system and shows how different rules are applied (limitation of copyright like e.g. fair use, transfer of rights including collective management of rights and rules for creating derivatives works).

Romer (2002) deals with effects of property rights for nonrival goods emphasizing the trade-off between under-provision of a good and monopoly distortions. He considers the effect of sharing music files and points out to some estimates that welfare loss caused by the monopoly character of copyright protection (dead weight loss) might be greater than revenues of holders of copyright (p. 214).

Boldrin and Levine (2002), most eloquent opponents of current copyright system argue that exclusive control by authors of uses of their works by other people is economically dangerous (p. 2). They see initial cost to produce an indivisible work as sunk, not fixed. The fixed costs should be considered only in the process of producing the first unit of the product that embodies the work (a medium). Boldrin and Levine present example showing that cost of

monopoly exceeds the welfare consisting of consumer and producer surplus (p. 3). Due to intangible character of works, it is costly to supervise compliance with copyright, as compared to tangible goods. Moreover, technologies designed to prevent making digital copies might cause malfunctioning of computers that are naturally used for other purposes than using artistic works.

Watt (2004) in his general overview of economics of copyright states that ownership of valuable assets is a basic precondition for well-functioning of the society. Ownership allows for legitimate market transactions. It is difficult to define ownership for intangible assets which make them vulnerable to plundering. Easier is the copying, more costly is the enforcement of property rights to intangible goods – i.e. copyright, modified property right. The explanation of all basic issues related to economics of copyright (monopoly vs. incentives trade-offs, effects of illegal copying) are elaborated. He also mentions that not all illegal copies circulating among people represent a lost for the author because some consumers would not have purchased the access to a work legally as it is too costly for them (p. 160). Watt also sums up strategies which could be used by authors to overcome illegal copying threat (p. 162). Watt calls for further empiric work as well as for inducing the element of risk and uncertainty.

Posner (2005) discusses the optimal term of protection pointing out some negative effects that could be caused by too generous protection. It may bring return, which is higher than fixed costs. Authors would be overcompensated and thus copyright can cause excessive production of works attracting resources that could have been used for other potentially more socially valuable projects. Economists are not able to assess whether the net economic loss or benefit is the case for current copyright system. Limitation of duration of copyright is necessary as all later authors need inputs for their creation from public domain (p. 61). Posner explains the usefulness of the concept of the fair use and protection of expression rather than ideas (similarly as with Landes in 1989). The rest of paper is devoted to other forms of intellectual property like patents and trademarks. As regards current technological development, Posner assumes that on the one hand, authors would suffer from more copying, but on the other hand, they can benefit from facilitating the direct sale and enlarging the market. From the public choice perspective, the asymmetry of interests is the reason, why holders of copyright fight so fiercely for expansion of copyright.

Varian (2005) delivers a brief history of copyright. He explains basic parameters, how copyright could be described. While discussing the term of copyright, he advocates for compulsory registration of authors and their works to prevent high transaction cost (today all works are protected on informal basis). Varian emphasizes that copyright is not only prohibition

of making copies but it involves also other rules that touches all who want to use a work in different ways (p. 128). Varian presents few simple models that explain what must be considered when setting prices by authors: transaction costs for organizing sharing and whether a copy is an inferior good. The higher is the price, the more incentives are given to sharing. Paper concludes with proposals for business models in a world without copyright.

The above-mentioned authors therefore provide basic insights into the topic. But also, Yoo (2007) and Conley and Yoo (2009) bring an important contribution. They suggest that an intangible artistic work cannot be examined as a pure public good and present their own implications for the analysis of copyright. A work as impure public good eliminates the problem of underproduction. They also advocate for allowing price discrimination which will increase the supply of works.

The second group of literature could be characterized by its attempt to define optimal copyright protection or at least define it under given conditions and model assumptions. As authors of these models admit, these models are naturally very simplified, and one could doubt about their value for decision making in practical copyright policy. One of these simplifications lies in modelling copyright protection like a function. However, in practice, it consists of the wide range of complex rules. Ones of the first in this field were Landes and Posner (1989) discussed above. However, Novos and Waldman (1984) provide also their model of changes in social welfare due to underproduction or underutilization caused by copyright protection.

Kobolt (1995) emphasizes an important aspect: an intangible good could be spread only with some medium. And only this pair is duplicated when making a copy. Only the intangible good is the public good, but the pair might not be nonrival and nonexcludable. In their model, the impact of increased copyright protection on production depends on whether rise in gross profit of authors has stronger effect than increase in the cost of creation.

Yoon (2002) similarly as Kobolt (1995) and Novos and Waldman (1984) models changes in social welfare due to underproduction and underutilization and accounts for development cost.

Boldrin and Levine (2008) try to assess current setting of copyright (and other branches of intellectual property) quantitatively, based on a model that accounts for the size of the market. They find out that optimal term of protection for copyright should be 2 years (instead of current 70 years after the death of an author). Previously, Liebowitz and Margolis (2003) reacted to requirement of 17 famous economists that the term of copyright protection should not be prolonged retroactively as had been proposed in Sonny Bono Copyright Term Extension Act of 1998 in USA. Liebowitz and Margolis argue that retroactivity might encourage a group of

marginal authors to enter the market. But Boldrin and Levine point out that the argumentation of these economists had to be supplemented by further analysis.

Pollock (2007) derives from his model following results: the lower the cost of production, the lower is the level of optimal copyright protection (less cost needs to be recovered) and optimal level of copyright protection will fall over time as the number of existing works increases.

The third group of the literature is more heterogeneous, and it is in some respects closely related to the literature about the optimal protection that is based on models. Its common pattern is an attempt to explain the impact of piracy. It is done either empirically or by developing theoretical models that defines optimal pricing policy for authors in piracy environment where typically online sharing is present.

Empirical evidence with mixed results was provided by Hui and Png (2002), Gopal et al. (2006), Liebowitz (2006) and Oberholzer-Gee and Strumpf (2010). Gopal et al. (2006) e.g. suggest that sampling of music has positive impact on sales of music industry.

First contribution of Liebowitz (1985) suggests that authors can sell their works for higher price if sharing is expected (as he shows on example of libraries and photocopying of journals). Takeyama (1997) asserts that when unauthorized copying emerges the firm is better off when it does not enforce copyright among low-demand consumers and does fully enforce copyright among high demand consumers. King and Lampe (2003) propose the similar view considering also network externalities. Opposite opinion was declared by Klein et al. (2002), they conclude that the effect of massive sharing of music files is the decrease in the value of copyrighted works. Harbaugh and Khemka (2010) suggest introducing not more intensive but more extensive copyright protection that might result in greater incentives to create and in reducing cost of monopoly power.

Others topics are examined in the economic literature such as if performers should have copyright (they have) by Globerman and Rothman (1982), moral rights of authors and artists by Hansmann and Santilli (1997), indirect liability of those who offer platforms for sharing by Landes and Lichtman (2003), the impossibility to apply price discrimination in the regime of copyright protection by Mortimer (2007), the impact of Google Book Search on the level of copyright protection by Lichtman (2009), possible overestimation of value of their works by authors (Buccafusco and Sprigman, 2011) and international convergence of the level of copyrighted production, when poor countries growth faster than developed countries, by Kim (2011).

In the Czech Republic, there exists an article of Šíma (2005) considering copyright to be an inefficient artificial institutional framework that authors gained in the process of rent seeking as a monopoly guaranteed by the state. The contribution of Minárik (2012) on the rules applicable to the right to translation should be mentioned as well.

The fourth group of the literature could be described as an attempt to empirically test whether the creative activity responds to incentives given by copyright. The overview of empirical research on copyright is provided by Handke (2012). In chapter 5, he offers the results of studies related to the effects of copyright law on the market for copyrighted works, especially its impact on the supply of works. He cites the research of Khan (2004) and Scherer (2008) that showed that the introduction or the extension of copyright law in the USA and in Europe during 18th and 19th century had no substantial effect on creative activity, and he calls for further empirical research on the impact of introducing the copyright law at its beginning. The statistical study of Giorcelli and Moser (2014) shows that the adoption of copyright law in Italian states during 19th century led to increase in the number and also the quality of operas.

The basic assumption of the economic theory that copyright is a key incentive to create is relativized by, e.g., Johnson (2011). He shows that majority of surveyed firms had no idea that their intellectual works could be protected by patents and copyright. The paper of Sprigman (2017) reveals that the empirical studies so far have not given a clear-cut answer to the question whether copyright really spurs creative activity, similarly as Towse (2008, p. 251). Already in 1966, Hurt expressed his doubts about the incentivizing role of copyright (p. 425). The study of Cammaerts et al. (2013, p. 10) asserts that majority of creative activity takes place with no relation to copyright. According to the study of Centre for Intellectual Property and Information Law (2006, p. 49), the prolonging of the period for which works are protected does not lead to higher creative activity. Lunney (2012, p. 17) points out that an author might work less as a consequence of revenues from the copyright, due to their welfare effect, that moves him back to lower quantity of labor on his labor supply curve. This was the case of Verdi, that really reduced his production as he became rich thanks to authors' rights (Scherer, 2008).

Handke also refers to Hui and Png (2002) who showed that the Sonny Bono Act from 1998 that extended copyright in the USA from 50 to 70 years had no significant impact on the production of new films. According to Landes and Posner (2003), extension of US copyright in 1962 and 1998 had no effect on the number of copyright registrations. Neither the study of Png and Wang (2006) from 19 countries did prove any significant effect of copyright extensions on the film production in 1991-2002. Baker and Cunningham (2009) found a small effect of court decisions that strengthened the enforcing of copyright on the number of registrations of all kinds

of copyrighted works in the USA and Canada. Not mentioned in Handke's text, Ku et al. (2009), who statistically explored the impact of extensions of copyright in USA, stated that the changes in copyright had no relevance for the new registrations of works.

As regards current market conditions, there exist a few studies focusing on whether the revenues gained through copyright are important for creators. DiCola's article (2013) Money from Music: Survey Evidence on Musicians' Revenue and Lessons About Copyright Incentives finds out that copyright revenues represent only negligible revenue stemming from musicians' current activity, instead it promises substantial revenues in case of future wide popularity. His research was focused on American musicians (including performers). Kretschmer and Hardwick (2007) present Authors' earnings from copyright and non-copyright sources: A survey of 25,000 British and German writers. It revealed that the distribution of income from collecting societies is more skewed (higher Gini Coefficient) than in case of the contractual writing income. The results suggest that the issue of creativity must be considered in the framework including the labor market characteristic of authors. Moreover, the results themselves do not provide information about the role of copyright as an incentive, it merely describes the state of the market and related institutional background as the result of historical development.

Other contributions to the process of answering the question about the effect of copyright on creative activity are of experimental character. Charness and Grieco (2018) conducted an experiment showing the effect of financial incentives on creativity. In their experiments, financial reward did not lead to enhancing so called open creativity (i.e. creation without an ex ante goal). Buccafusco et al. (2014) showed the effect of different requirements for the level of creativity on the incentives and on the behavior of creators. Their experiment revealed that different type of creativity responds differently and that, generally, higher thresholds (of the level of originality) lead to higher creativity. According to behavioral analysis of Tor and Oliar (2008), the rule setting the term of protection for the lifetime plus certain years motivates to invest in creation more than a rule setting a fixed term of protection.

The fourth group of the literature thus not bring a clear answer whether the system of copyright and authors' rights serves as a basis of the internalization of positive externalities that originate in artistic production. The reason why measuring and proving the impact of copyright is inherently very problematic could be clarified with the principles highlighted in chapter one. According to the refinement of the existing theory that I offer in this chapter, authors' rights have different impact on different creators operating on different markets, depending on the mix of media through which they spread their work. Such a mix is specific to each author. This

differentiation explains why measuring and capturing the rise in creative activity as a response to changes in copyright or authors' rights is methodologically so challenging. It seems that it might be a decisive incentive for some authors and a very poor incentive for the others. Indeed, it has been already suggested by Kretschmer and Hardwick (2007).

Fifth group of literature is devoted to the topic of CMOs. As regards economics of collective management organizations, there is no attention devoted to their role as the main source of providing incentives. Rather, only certain aspects are analyzed, like in case of Towse (2012, 2013), who debated the economic effect of digitalization on the administration of musical copyright. She asserted that even in conditions when digitalization might be seen as a reason to increase the competition and to allow choosing among many CMOs, there is still the strong case for maintaining monopoly of collecting societies as their activity has character of natural monopoly with decreasing average costs and low marginal costs. The digitalization did not change this important pattern of collective societies⁵. She also argues that blanket licensing (the possibility for users to get permission to use the entire repertoire that is managed by the collecting society) intensifies the effect of saving transaction costs and enhances the solidarity among authors. Towse also considers why there are no mergers of collective management organizations. First, it is given by national legislation that guarantees their monopoly positions. Second, there would be no additional profit as collecting societies already created strongly interrelated web of mutual cooperation.

Watt (2015) develops the role of collecting societies as the tool for authors to reduce the risk, especially when blanket licenses are issued. Watt sees as Pareto efficient a situation when entire revenue is divided among authors in such a way that it is impossible to alter the distribution so that at least one individual is made better off without making at least one other individual worse off⁶, no matter the intensity of using different works. Collective management of rights is seen as a form of insurance, benefiting from saving transaction costs that would be otherwise spent to monitor using of works. In economic reality, the practice of burdensome monitoring of uses serves as a basis for distribution of royalties, aiming at promoting the incentivizing role of copyright.

⁵ The digitalization changed technically the way how collective societies work and exchange information, nevertheless the substance of their activity remains the same.

⁶ Moreover, when all members are risk averse: "each member of the mutual should receive an individual payoff that depends only on the level of the aggregate surplus".

But on the other hand, considering that the royalties imposed on users are based on unilateral decision of collecting societies (in the Czech Republic, it is supervised by the government), these arbitrarily chosen amounts have nothing to do with the process of creating the market price on the free market⁷. As the activity of CMOs must be perceived as the government intervention that helps subsidize authors, it is far from complying criteria for economic efficiency. Similarly, as in case of taxes, the royalties imposed on users are always source of inefficiency, as no authority is able to set royalties based exactly on benefits provided by the works and distribute royalties to authors exactly according to the cost for a creation of a specific work. In other words, exact internalizing of the externality is impossible. Having in mind this basic character of copyright protection, it is worthless to analyze the economic efficiency of CMOs as such. To sum up — monitoring of uses of works might be better for promoting the incentivizing role of the copyright law. Nevertheless, it does not mean economic efficiency.

Thus, debates about the efficiency of CMOs are in fact about how to run them with minimum cost and burden. Towse and Watt accept the basic assumption about the effect of copyright as a crucial incentive for authors to create. Therefore, they do not see in the activity of collective societies the inefficiency discussed above. Moreover, they see them as firms on a market even though they are rather in a position of an exclusive government agency serving the interest of authors. It is true that there is bargaining between collective societies and certain professional organizations (e.g. representatives of hotel owners) about the price for blanket licensing. However, in most cases the users⁸ can either accept the price for a license or leave the "market" without any permission to use the works.

The structure of the thesis

The thesis is organized as follows: The first two chapters consist of two already published and slightly adjusted papers. The first paper about economic theory of authors' rights was published in *Politická Ekonomie* [Political Economy] in 2018⁹. It is devoted to economic

⁷ For more about attempts to set royalties as if there were on the real market, see Gans (2018).

⁸ In 2018, OSA have concluded contracts with approx. 50 000 users.

⁹ This paper was presented as a contribution for the The Society for Economic Research on Copyright Issues - Annual Congress, held in Turin, Italy, July 2017, later published as Moravcová, H. (2018). Korekce tří metodologických omylů ekonomie autorského práva. Politická ekonomie, 66(3), 384-398. doi: 10.18267/j.polek.1194.

theory of authors' rights. It identifies inconsistencies in its three main assumptions, that undermine the proper understanding of the effects of copyright and authors' rights. First assumption is that authors' works are like public goods that needs the protection of authors' rights to overcome the free rider problem. The correction provided stresses, that a work can be perceived only on a medium. For the analysis of authors' rights, one needs to consider that not all pairs "work + medium" behave like a public good. Second assumption is that authors' rights enable authors to charge the price above marginal costs that tend to be close to zero. It is rejected as too simplistic because the authors' rights affect each market with pairs "work + medium" differently and moreover, it ensures for authors a non-market revenue. The complexity of authors' rights also explains why the third assumption that they can be modelled as a single index is meaningless. A new framework for the optimization behavior of authors is offered, pointing to the fact that it takes place not on one, but on many markets where a work is spread.

The second one, "The history of the beginnings and development of authors' rights during first Czechoslovak Republic" is devoted to the historical analysis of the process of the adoption of the Authors' Rights Act as an example of the rent seeking by interest groups. It was published in 2015 in Hospodářské dějiny [Economic History]¹⁰. Its main finding is that the emergence of the Authors' Rights Act in Czechoslovakia was the result of the influence of interest groups. The most important organizations are identified. Their mutual interconnection and linkage to the state facilitated their ability to directly influence the wording of the new law and its practical application. They used very favorable conditions: Czechoslovakia had to implement an international copyright treaty and the public and lawmakers were prone to rely on the state interventionism. The issue of the social justice was very sensitive for them and the remedy of the social status of authors was among the main reasons used in the argumentation of the interest groups.

Thanks to the cooperation with my colleagues in the two grant projects described below, we were able to gather the data needed for evaluating the impact of the state incentives on creative industries. I focused my research on the film industry, especially on incentives that were provided by the state to film producers.

¹⁰ Moravcová, H. (2015). Historie vzniku a vývoje autorského zákona v období první republiky. *Hospodářské Dějiny = Economic History*, 28(2), 109-131.

Certain topics from the paper were presented at 2nd Copernicus Graduate School Interdisciplinary Conference Good Governance and Civil Society held in Toruń, Poland, April 2013 and later published in a conference proceeding (Beránková, 2014).

During the last three years, I participated in the two projects focused on economic history of the Czechoslovak film industry. The first project called "How much did the Czech film cost in the past?" was financed by the Czech Film Fund (n. 1364/2016) and consequent project called "The Czech Film between Arts and Business. The Economic History of Czech Film." was financed by the Ministry of Culture of the Czech Republic. The first project aims at critical analysis of available archive resources about film production information of economic character and the opportunities it provides for economic analysis. It aims at gathering data from available archive resources that are comparable across different periods, production companies, and films¹¹. The second project was devoted to analyzing different aspects of the development of the film industry, its market structure and conditions for financing. It identifies how the film industry had been shaped by different institutional, political, economic and technological factors and impulses. Projects have two outcomes. First, the joint paper by Tereza Czesany Dvořáková, Antonie Doležalová and Hana Moravcová "The microeconomic analysis of the Czech film: The history of the Czech film in the mirror of its economic data", which was published in the journal *Iluminace*. Second, the joint paper by Antonie Doležalová and Hana Moravcová, forthcoming in Business History as "Czechoslovak Film Industry on the Way from Private Business to Public Good (1918-1945)". 12

I am also preparing a comprehensive study for the Hlávka's Foundation. "Economic policy as a source of economic incentives for creative industries in the history of Czechoslovakia". This study contains elements of the economic history analysis not only for authors' rights and film, but also other sub-industries like music. It illustrates the attempts of the state to regulate the whole cultural life in Czechoslovakia.

The third chapter consists of two case studies that are focused on various aspects of creative industries. The short introduction to the third chapter includes also basics of economic theory that reasons why the state supports creative industries. The first case study is devoted to the economical-historical analysis of the performance of creative industries in Czechoslovakia. It analyzes the performance of the art markets and their volatility in Prague and the film industry during first Czechoslovak Republic. The second case study analyzes the film industry in the

¹¹ The results were presented at European Business History Association 21st Annual Congress in Vienna, August 2017.

¹² Doležalová, A., & Moravcová, H. (2020/04/26). Czechoslovak film industry on the way from private business to public good (1918-1945). *Business History*, 1-20. https://doi.org/10.1080/00076791.2020.1751822

interwar Czechoslovakia and the Protectorate¹³. It examines the statistical relationship of the popularity (represented by valuation of users of the web page csfd.cz, *Czechoslovak Film Database*) and the level of real production costs. A similar analysis was undertaken for the popularity of films for modern audience and variability of the film subsidies.

Methodology

The methods I use correspond to the research questions I ask. I combine historical methods, descriptive statistics and statistical methods like ordinary least square linear regressions or parametric tests.

The first chapter is theoretical one and employs the deductive and comparative methods. In this dissertation, I use the term authors' rights as the analysis is based on the Czechoslovak or Czech environment. However, the current literature is often based on the analysis of copyright, or economists do not specify which regime they intended to study. There is an assumption, that is quite common in the literature, that the role of copyright is just prevent others from making copies. On the one hand, this assumption is too far from the reality. On the other hand, the need to simplify the real world to isolate just one phenomenon and analyze it *ceteris paribus* is fully appropriate. Nevertheless, the complexity of the system of authors' rights is immense and thus, the models and considerations based on these simplistic assumptions are not able to assess properly the impact of the authors' rights and to deliver consistent policy recommendations. Being aware of the difference between simple assumptions for models and complicated economic and legal reality opens a potentially huge space for the research.

For the second chapter that deals with the history of authors' rights in first Czechoslovak Republic, the historical method prevails. I examine mainly the contemporary legal literature, the journals and magazines of professionals and the minutes from the meetings of both chambers of the Parliament, as well as legislative documents from all the stages of the legislative process. Thanks to these resources, the thesis shows which organizations influenced MPs and how they managed to practically attain their goals. The resources provided a strong evidence that they were personally interconnected between each other and with the governmental officials. The thesis analyzes social context and circumstances under which the

¹³ Certain parts of this case study were presented at The British Association for Slavonic and East European Studies (BASEES) Annual Conference, Cambridge, UK, April 2019.

interest groups exerted their influence, explaining why they did not face many obstacles, benefiting from existing rules and from the international law.

The third chapter is based on historical, quantitative and econometric method. It is predominantly based on the primary resources from archive collections. Organization, description and extraction of data from hundreds of files about the costs and other production information and about the amounts of subsidies to films, was the first step. Also, minutes of a government body that decided about allocation of subsidies was an important and very rich resource. Then monetary categories were expressed in real (stable) prices of 2016 CZK (Mitchell, 1976 and Information Service of CZSO).

Since the main goal of the second case study is to answer the question what films were supported by the government, I run OLS linear regression to find out, whether there is a quantifiable relationship between the level of subsidies and the rating given by users of a fan platform csfd.cz (*Czechoslovak Film Database*). I use a proxy, given the circumstances, that reflects best the popularity of films for modern audience. I also use the OLS method to find out, whether the variability of real production costs could explain the variability of valuation of csfd.cz users. I also employ parametric statistical tests to test certain hypothesis about the impact of different policy regimes. I interpret all these econometric results with respect to institutional framework and institutional breaks that were typical for the film industry. The conditions in which film-entrepreneurs did their business were changed surprisingly often and it was the state power that was the ultimate source of shocks and new incentives.

1. Correction of three methodological errors in economics of authors' rights

1.1.Introduction

The aim of this theoretical contribution is to identify the main methodological errors of current economics of authors' rights and to reformulate the basis for economic analysis of authors' rights using a holistic approach. The text brings a correction of three methodological errors of the roots of economics of authors' rights and a new framework for the analysis of the process of the creation and dissemination of works, not only by authors but also by users, respecting the complexity of authors' rights.

This text is based on a wide range of the literature¹⁴ of economics of copyright as nowadays, the relevant literature is oriented mainly towards the Anglo-Saxon system of copyright and thus ignores its differences from the continental system of authors' rights. Both systems work currently almost identically, although the legal science distinguishes between the two of them. Each country might exhibit differences in the application of authors' rights or copyright as standardized by international treaties (eventually by EU law) and these differences are given by a specific historical development. This analysis is based on the Czech Act No. 121/2000 Coll. on Authors' Rights. As the principles for the functioning of authors' rights and copyright are close to each other, the presented results are valid for the environment of copyright as well. The literature devoted to economics of copyright is sufficiently relevant also for studying economics of authors' rights from the perspective of this text.

The literature serving as a starting point for most researchers neglects the complexity of the process of creation, dissemination and consumption of works and uses models with too unrealistic and restrictive assumptions. Using a holistic approach leads to a necessity to reformulate the following three assumptions:

1. Author's piece of work is a public good, and marginal costs for any additional copy are close to zero.

See https://www.copyrightevidence.org/evidence-org/evid

- 2. Authors' rights enable authors setting the price above the marginal cost and thus gaining revenue for recovering the cost¹⁵ of creation.
- 3. Protection of authors' rights can be aggregated into one index, and their duration is a representative measure of the strength of the protection.

The first methodological error, that a work behaves like a public good, is corrected thanks to an analysis of the essence of a work and the way it is spread to consumers. The literature has so far overlooked that the author's work is always spread in connection with a certain good or service (hereafter the medium). Since these "work + medium" pairs may no longer possess the characteristics of a public good (i.e. nonrivalry and non-excludability in consumption), they can easily become the subject of voluntary market transactions. This, in certain cases, avoids the free rider problem. The model example illustrates that in the process of creating and disseminating works, there are authors (creators of the work), users (those who mediate the work, spread it) and consumers (those who perceive the work and benefit from it) and that the revenue of an author depends on the choice of the mix of media, with which he or she will distribute the work.

The second methodological mistake that copyright turns an author into a monopoly firm, allowing him to set a price above the marginal cost, is revised by analyzing the mechanisms of functioning of authors' rights and their effects. Authors' rights not only prevent copying, but also prevent other uses of the work. This reveals two main types of their impact, namely the influence on the monopoly power of authors in the individual media markets and the provision of non-market revenue, which is a source of economic inefficiency.

The correction of the third methodological error that the legal protection for authors can be summed up in one variable is based on the assumption that authors' rights affect each medium market differentially, due to economic, institutional and technological factors. Therefore, the duration of economic rights is just one, not a decisive parameter of the power of the protection.

Based on a new framework of assumptions for analyzing the impact of authors' rights resulting from the correction of the three most significant methodological errors of the existing literature, a scheme describing how authors supply their work through media on individual markets, how they meet the demand for their works and how authors' rights interfere with the

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¹⁵ Cost here means the standard concept of economic production costs, i.e. both implicit and explicit opportunity costs (sacrificed goods or services that would have been produced had the inputs been used alternatively).

market, is designed. The offered scheme is simplified, but universal and fully complies with the basic principles under which works are created and distributed under the conditions of the existence of authors' rights across various historical periods and geographical areas.

The basic premises of the economic theory of copyright as summarized in three above mentioned methodological errors are used across the relevant literature. The contributions of Plant (1934a, 1934b), Hurt (1966), Novos and Waldman (1984), Landes and Posner (1989), Besen and Raskind (1991), Boldrin and Levine (2002), Varian (2005), Posner (2005), Lunney (2012), Watt (2014) and Kinukawa (2016) have the same methodological basis for analyzing the authors' rights: balancing the increment in costs and benefits¹⁶ using welfare economics so that the positive externality generated by works would be internalized, and the social welfare would be maximized. A critical approach of Austrian economic school stands against this utilitarian view. Austrian school perceives authors' rights as an artificial institutional arrangement that emerged due to the rent-seeking process and that generates artificial scarcity (Šíma, 2005). Intangible goods are non-depletable resources, and therefore property rights to them do not constitute a way of peacefully resolving conflicts over scarce resources for society, as it is the case of property rights with tangible goods.

The European system of authors' rights did not present itself as a means for attaining the maximal social welfare. Its reasoning was always different; it should serve to protect the rights of an author as his natural claim for the product of his or her labor (Hurt, 1966, p. 421). The utility and cost of authors and utility and cost of users and consumers are not possible to easily find out, measure, aggregate and mutually compare. The cash flows generated due to authors' rights are given arbitrarily, hence, because of the information asymmetry, they cannot reflect individual cost and utility. Searching for the optimal settings of authors' rights using economic theory of welfare is inherently impossible, therefore, this text strictly uses methodological subjectivism and individualism.

¹⁶ There is a basic precondition that the authors' rights are a key incentive for authors to create and thus it indirectly causes the increase in the utility from perceiving newly created works. The empirical and theoretical studies do not provide a clear answer to a question what is the mutual relationship of authors' rights and creation of new pieces of work (Towse, 2008, p. 251). The economists counted among costs of copyright the deadweight loss caused by the monopoly, transaction costs, expression costs, the opportunity costs (i.e. social costs) and the costs caused by inefficiency stemming from the fact that the copyright compensates some authors more and others less than is optimal.

1.2. First incorrect assumption: Author's piece of work is a public good, and marginal costs for any additional copy are close to zero

The literature assumes that a piece of author's work is a very specific good. Its nonrivalry and non-excludability lead to its classification as a public good and serves as a justification of authors' rights as a mechanism for securing the provision of a public good that overcomes the free-rider problem.

The attempts to modify the perception of pieces of work like a public good brought Yoo (2007), Conley and Yoo (2009), and Lunney (2009). Yoo (2007) and Conley and Yoo (2009) consider the optimal provision of a piece of work as a public good concentrating on its key characteristic: indivisibility (stressed also by Samuelson, 1954). According to them, each consumer demands not a specific quantity (a specific number of units) of a public good, but the public good as a whole. Yoo (2007, p. 706) considers pieces of work to be mixed goods and models its provision using the spatial competition model. The contribution of Lunney (2009) distinguishes between continuous and discrete public goods. The continuous public good can be provided in different scales (different intensity, different quantities – like national defense and mosquito control), whereas a discrete public good always exists in a quantity of one unit and in a given scale. He generally treats pieces of work as discrete public goods. With a numerical example using the game theory approach, he describes the conditions for their provision. Neither Lunney nor Yoo and Conley take into account different markets through which a piece of work is spread, instead, they unrealistically assume that a particular piece of work is traded only in one market.

A piece of work in a real world never behaves like a pure public good. It does not spread on its own (like the light of a lamp on a public street¹⁷ that simply shines on every passer-by),

[,]

¹⁷ To be precise, the light of a streetlamp on a public street can be considered as an analogy to a piece of work. In both cases (light and work), the issue of underproduction originates in the character of a way how it is distributed to those that enjoy utility from the existence of a good. The way, how the good is delivered (in other words – a medium), is in both cases based on the specific degree of nonrivalry and non-excludability. And it helps understand why light on a public street is always a public good. In the case of streetlight, power supply, cables, posts and lamps are just the inputs, factors of production, like the work of a creator. On the contrary, the case of light that is spread on a publicly available street, that is relatively costly to close and guard and impossible to deplete, is a classic example of a public good. In other words, public street is like a medium that makes from the light a public good. In the same vein, one can consider another example when light is like a club good: the light

but only in connection with another good or service (a medium). And it is this combination that is decisive for classifying a piece of work as a public good. The only case when a piece of work exists without any medium is its deposition into human mind — only this case could be fully classified as a public good. It has a specific implication: a piece of work is an intangible good that moves it away from the cases of typical public goods from textbooks like a lighthouse or public defense. The difference is obvious, bare thinking of the light of a lighthouse or the national defense does not contribute to the production and provision of such a public good at all. Whereas once a piece of work is in mind, it can be principally mediated (provided) to other people.

A necessity to use a medium for spreading works reduces the inability of authors to fight the free-rider problem and to internalize a positive externality generated by their pieces of work. The problem of authors to obtain revenue for using their pieces of work does not stem from the fact that their pieces of work would be a public good. It stems from the fact that in some cases, the users are able to spread the piece of work instead of the author himself because some media possess the undesirable properties of nonrivalry and non-excludability. Not a piece of work, but certain pairs "work + medium" might behave like a public good. Once such a risky pair is circulating among economic agents, the author might not be the only one who provides the given piece of work. The good becomes *de facto* non-marketable or hardly marketable. Nevertheless, as evident from the following example, it is not the case for every pair "work + medium", some of them are, on the contrary, very successfully marketable.

Example A: 1931, Czechoslovakia, a jazz musical composer Jaroslav Ježek just composed for a play Don Juan & Comp. of the Liberated Theatre a prelude Bugatti Step. His composition is used in three ways: every time a play is repeated (50 times per year), then it was recorded on the gramophone plate (1000 pieces sold yearly), and the music part was published (1000 pieces sold yearly as well). These numbers include the impact of competitors as the system of authors' rights is not present in this model example¹⁸. The remuneration for the author from the users for the permission to use the composition depends on sales that are generated by monopolistically competitive markets. In this model example, the authorized users and the author have identical interests. The revenue of Jaroslav Ježek and the number of the media sold by him or by authorized users is influenced by the pairs "work + medium", that are spread by

on a private garden, when the garden is a medium, which one can easily prevent others to use. (However, it is not depletable and rival in consumption.)

¹⁸ In reality, the Act was approved in 1926.

competing users. Their impact as regards individual ways of using the composition is as follows: No one else plays the play Don Juan & Comp. as the Liberated Theatre is the only and irreplaceable original¹⁹. Therefore, there is no impact on the revenue from using the composition in the theatre. Half a year after the publication of the original gramophone plate, another pianist decided to record his own performance of Bugatti Step. 400 of these gramophone plates are sold, but for a lower price. Without this competing edition, 1200 of originals would have been sold and for a higher price (as Ježek might have enjoyed greater monopoly power). The overall impact of the entrance of a competing user is a decline of revenues to 80 % of the level with no competition. Also, the music part is spread by competitors. The composition is so popular that everybody wants to play it at home. The competitors benefit from the great demand and due to their activity, the revenue of Ježek decreased to 60 % of the level with no competition. The competitors sold their 1000 copies (for lower price); without them, Ježek would have sold 1500 copies (for higher price). The prospective impact of greater awareness among people about Bugatti Step, that might have increased the demand for the tickets to the theatre is not included, even though it might have led to greater price for tickets, greater revenue for the theatre and consequently for Jaroslav Ježek.

With these hypothetical numbers, it is possible to express, how much the competition destroyed the revenues of Jaroslav Ježek. The numbers about transactions in the whole market and those, where the author or authorized users were one of the trading parties, determine the rate of marketability of all pairs "work + medium" offered in the individual markets by the author. In the above described example, the rate of marketability is (50/50 + 1000/1400 + 1000/2000)/3 = 0,738. It is determined as the average of the ratios of transactions realized by the author (or authorized users) and all transactions within the specific market with a unique pair "work + medium" (assuming that all markets generate the same revenue that means equal weights for all ratios).

¹⁹ The case of the Liberated Theatre with unique performers Jiří Voskovec and Jan Werich is really specific for the Czechoslovak environment. For the audience, they were the only accepted original with no close substitutes. That made from this medium an excludable and rival good, which was easily marketable. According to Kárník (III, 2018, p. 332, p. 395), even during the Great Depression, the Liberated Theatre did not suffer problems caused by low attendance. Voskovec and Werich authored their parodic, satiric and comedy plays by themselves and their interpretation was crucial for their success.

Because of the competition, the revenue of Jaroslav Ježek reached only (1 + 0.8 + 0.6) / 3 = 80 % of the maximum (i.e. if Ježek was in the monopoly position). Again, all markets are weighted equally. It is obvious that the revenue is lower compared to the case when the author has 100% control over all the markets for media spreading his composition, at the same time the author did not lose all the revenue. His success depends on the rate of marketability on different markets with different media spreading his piece of work.

Example B:

2017, the Czech Republic. The band of local enthusiasts composed together a song X. This song will be interpreted only in the live performance during a local ball. The remuneration consists of the refreshment during the event. The rate of marketability, in this case, is 100 %, the revenue reached 100 % of the maximum (as the ball is only once a year and the band does not want to perform the song in other events). The revenue of authors in example B is substantially lower than in example A, however, in example A, the authors totally controls the markets with media spreading their composition.

The examples show that even without the protection of authors' rights, there exist opportunities how to get the revenue, and the situations when authors are not endangered by competition at all. It is possible thanks to the fact, that an author can produce and supply pairs "work + medium", that possess such characteristics, that the competitors are not able to spread them. In the case of Ježek's composition, this was the case of the theatre play, when all free riders are easily excludable and when the rivalry is represented by the limited number of seats in the theatre. In example B, such an easily marketable medium is the ball.

The argument that the costs for copies of a piece of work are close to zero (e.g. Kinukawa, 2016, p. 3, following Landes and Posner, 1989) that drives the price on a competitive market to zero, does not make sense in an environment, when authors supply their works with the help of media on different markets. Some media possess the properties of increasing marginal costs (for other concerts in a year, the musicians might demand higher wages, similarly as the employees of the theatre with a higher frequency of performances). This argumentation is totally in accordance with proposals of Varian (2005, p. 134), but with the emphasis on the explanation of the role of public and private goods in the process of provision of works of authors.

At first sight, it appears that the shape of the marginal costs curve does not influence the ability of creators to extract revenues from different markets with different media. But if one leaves the traditional theoretic assumption about works as public goods and the problem that marginal costs equal to price, which is close to zero, it is evident that the behavior of the curve

of marginal costs differs market from market. E.g., the production of a private good is typically accompanied by the property of increasing marginal costs for producing any additional unit. This is typically a case of a rival and excludable medium. That contrasts with case of public good with zero marginal costs for providing access to any additional consumer. Due to the assumption of raising marginal costs that equal to marginal revenue in an optimum, authors earn profit that helps recover the costs of creation in case of easily marketable goods even on the competitive market (of course, there must be such a demand that allow them to set the price that would cover the total average cost per medium). Nevertheless, the higher monopoly power the author has, the higher price above marginal costs the author can set. For an author, monopolistic competition is more realistic than perfect competition due to differentiated product.

Sometimes, a work is connected to a medium and spreads like a club good (excludable but not rival, case of a natural monopoly). Monopoly character explains why the revenue of authors is secured. With sufficiently high demand, there is no need to protect a natural monopoly firm by copyright – the price it charges to maximize the profit (where marginal costs equal to marginal revenue) is above the level of marginal costs and naturally, above the level of average total costs. In an optimum, marginal costs are below average total costs and profit is the difference between the price and average total costs multiplied by units sold.

1.3. Second incorrect assumption: Authors' rights enable authors setting the price above the marginal cost and thus gaining revenue for recovering the cost of creation

It is too simplistic to assert that authors' rights only enable authors to raise the price for individual copies above the marginal costs. As already pointed by Kitch (2000), the monopoly (exclusive) right to use their pieces of work does not make from an author a monopolist. Such simplification omits the real practical functioning of the system of authors' rights. The assumption n. 2 would be correct if the authors' rights were possible to interpret as a single rule: only the author can disseminate all copies of his or her piece of work. But in that case, there would be no reason for the Czech Act on Authors' Rights to have 118 paragraphs. The key to understanding the functioning of the legal rules is to distinguish different roles of users (those who spread a work) and consumers (those who perceive it). Another important aspect is to recognize that making copies is only one way of using a piece of work, among many others.

The crucial role of the authors' rights is to regulate the behavior of users, not the consumers. Simply, it regulates any activity when a piece of work is spread with any medium.

However, the existing models of economics of authors' rights usually simplify their role into one manner they influence the market: it limits the number of copies that are produced by pirates, ignoring other ways of using than making and disseminating copies. The literature overlooks the fact that a piece of work is not supplied on one single market, but on more different markets: e.g. when the music is used in advertisement (E15, 2013), when hotel guests have opportunity to perceive pieces of work thanks to a TV in their room (Aktuálně.cz, 2016) or when customers listen to the radio in a shop ("Spočítejte si, kolik Vás bude stát užití hudby při vašem podnikání.", 2020). All these examples have one thing in common – they are often the subject of legal litigations. On each of these markets, the functions of supply and demand behave differently and specifically depending on how strongly a specific pair "work + medium" behaves like a public good, i.e. how strongly it exhibits the properties of nonrivalry and nonexcludability. Is it easy or costly for authors to conclude voluntary market transactions (in other words the question of marketability rate)? What is the shape of the marginal costs curve? These are questions that cannot be answered for one piece of work uniformly. Contrary, every single market for a medium carrying a work has its own set of parameters; and one piece of work could be spread by a wide range of different media.

Authors' rights affect every single market with a medium variably and specifically. E.g., it is very costly to enforce the absolute respect of the ban of making copies and spread them on the internet. In comparison with it, overseeing using a melody in a musical is not relatively so costly. The impossibility to model the impact of authors' rights uniformly complicates the realistic expression of its functioning by formal mathematic apparatus, as suggested by Landes and Posner (1989) or Kinukawa (2016). Nevertheless, its effect is basically twofold: First, it prevents competitors from supplying specific pairs "work + medium" instead of an author himself. The more successful is the system of authors' rights in enforcing the duties of users, the more monopoly power is conferred to an author. On each individual market with a specific medium, an author behaves like a firm in the monopolistic competition whose monopoly power (ability to set a price) is given by the strength of authors' rights and by his or her ability to realize with consumers voluntary market transactions. It contradicts the traditional view of the literature where an author becomes a monopoly firm operating in a single market where nobody else is allowed to supply additional quantities (i.e. copies) of a piece of work.

The second effect is that it enables authors to gain a nonmarket revenue²⁰. The markets with pieces of work are modified by a government intervention, which brings into its functioning nonmarket elements, especially due to the activity of collecting societies or, in other words, collective managers of authors' rights. The transactions between authors and users that are necessary to realize because otherwise the law would be broken are classified as nonmarket. If there were no authors' rights, the users would not be motivated to contact and bargain with authors. Once a piece of work appears on a medium that can be disseminated to consumers, the users would do it freely, enjoying the benefits stemming from the intangible and nondepletable character of pieces of work. According to Lunney (2009, p. 32) providing access to a public good is from the economic point of view desirable as the limiting the access causes the deadweight loss. The nonmarket character of transactions between authors and users does not preclude the competition among authors. The users have the possibility not to purchase the permission for using a piece of work or use another piece of work. But since the process for obtaining licenses is given by the state coercion, this system is merely an imitation of the monopolistic competition (contrary to the markets with pairs "work + medium", that are traded voluntarily based on free consumers' decisions).

The nonmarket character of the revenue generated by the functioning of authors' rights is well visible while analyzing the related institutions, especially collecting societies, whose activity causes economic inefficiency (Šíma, 2005). Limiting the role of the free market and employing administrative and arbitrary decision-making in the remuneration of authors leads to weakening the function of market prices to equalize marginal opportunity costs for producing a good (in this case, individual pairs "work + medium"), or in other words the marginal rate of transformation will not converge. Because administratively determined royalties for users cannot respect the marginal rate of substitution of users of works, the royalties for authors blur the price signals and thus limit the process of equalizing the marginal rate of substitution and the marginal rate of transformation. Therefore, authors do not base their decisions about the production on the revealed preferences of consumers purchasing different combinations of a work and a medium voluntarily on the free market but they also calculate with the revenue from nonvoluntary nonmarket transactions. The tendency of markets to reach the production efficiency and distribution efficiency is lost. The prices do not help allocate scarce resources.

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²⁰ According to Šíma (2005), a rent, i.e. revenues from a quasi-taxation.

1.4. Third incorrect assumption: Protection of authors' rights can be aggregated into one index, and their duration is a representative measure of the strength of the protection

Novos and Waldman (1984) or Landes and Posner (1989) in their models on the impact of authors' rights on the creation of pieces of works represent its strength as a single variable (i.e. breadth). Kinukawa (2016) considers in his model two dimensions: length and breadth. Some contributions concentrate only on defining optimal length of the protection²¹. It is important to analyze not only how long the protection lasts but also what does it practically entail: who is entitled to acquire the nonmarket revenue, who and how collects the royalties, how are the revenues redistributed, who has the duty to deal with the authors or with their representatives and whether each author receives a nonmarket revenue which is equivalent to the frequency and to the commercial success of using his or her pieces of work. Considering these features results in an unsurmountable methodological problem for creating a single measure (or only two measures) of the strength of authors' rights.

The system of authors' rights is so complex institutional arrangement, that an increase in the protection by a mere change in the legislature (e.g., setting more severe sanctions in the law) might not bring to authors higher revenues – simply because of a simultaneous increase in enforcement costs. There might be only an increase in the transaction costs, but the level of protection is not elevated. The strength of the protection cannot be quantified simply according to the wording of the law because the conditions of the real world are even more important. These real-world conditions include (but are not limited to) the positions of collecting societies, how high royalties are demanded from users, whether the collecting societies are successful in their enforcement and, of course, decisions of courts. The influence of informal rules in the society as a full-fledged institutional framework should not be omitted as well as it contributes to forming the general opinion about the acceptance of copying on the internet. The level of available technologies is for the strength of authors' rights also decisive.

All that considerations have an important implication: The influence of authors' rights on individual authors is differentiated, depending on which combination of media for spreading his or her work the author chooses. But, e.g., the model of Kinukawa and many others are based on an assumption, that all uses (i.e., making and spreading copies, creating a derivative work, using music in a movie, etc.) are equal. But it is nonsense to model all uses uniformly and

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²¹ E.g. Liebowitz, Margolis (2003) or Pollock (2007).

approximate all uses to creating copies. The system of authors' rights regulates both these situations: performing a song on a concert by a musician, or listening to the song in radio by a hairdresser and his customers. But its impact on the two users is different.

Like many other economists, Kinukawa overlooks the differentiation of markets with the media carrying a piece of work. This differentiation makes it impossible to interpret the strength of authors' rights for all these markets s by a single aggregated measure. Contrary, it is necessary to take into account that every piece of work is spread by a specific mix of media.

1.5. Marginal analysis for differentiated markets with a piece of work

The marginal analysis as a tool for studying the markets has been used inappropriately since economists so far overlooked the differentiation of markets with works and their media. The piece of work is considered to be a public good, which effective provision is possible when the following condition is met (Yoo, 2007, p. 668):

$$\sum_{i} MRS_{\frac{Pc}{Pv}}^{i} = MRT_{\frac{Pc}{Pv}} \tag{1}$$

The optimal production of the public good should reach such a level where the sum of marginal rate of substitutions of the public for private good of individual consumers i (that is the ratio of the price for the access to the private (Pv) good and the price for the access to the public (Pc) good) equals the marginal rate of transformation for the production of the public (Pc) and private (Pv) good. What the society as a whole gains should be equal to what it sacrifices. It is necessary to reject a thesis that the scope (a size) of a piece of work could be quantified by the level of costs for its production (Yoo, 2007). The marginal analysis is meaningless here as a piece of work is only one, unique and it is not possible to extend it by any units (quantity is given) while using another input. The Bugatti Step of Jaroslav Ježek is a perfect example showing that every additional note would be redundant. Lunney (2009) comes to a similar conclusion thanks to distinguishing continuous and discrete public good.

The formal expression of the conditions for the optimal provision of pieces of work offered in this text differs from approaches offered, e.g., by Yoo (2007). The difference lies in respecting the existence of differentiated markets for media arising from one work and in respecting that marginal analysis for a piece of work as such (in Lunney's view discrete public good) is inappropriate. The optimization behavior takes place on each market separately. A piece of work is created when total economic costs for its creation are equal or lower than total

expected revenue. (No other state interventions than the system of authors' rights is considered in this scheme.)

$$TC \le TR$$
 (2)

The piece of work exists by itself, and it spreads only in connection with media. The costs for creation, once a piece is created, are given. The piece is a unique intangible unit, this is the reason why marginal analysis in this first step is not relevant. The optimization behavior of authors is a matter of their subsequent actions on markets with individual media. The authors in further steps maximize their profits on individual markets with different media. The sum of these profits from *m* markets is equal to *TR* and the analysis should focus on the process of profit maximization on these individual markets. In accordance with principles of methodological individualism and subjectivism, the profits here represent the outcome of voluntary market transactions with consumers, in other words, the interaction of supply and demand, according to the Austrian School, the only reliable representative of preferences. Otherwise, the analysis would be only a comparison of incomparable subjective categories that would contradict the methodological basis of this text.

$$TR = \sum_{m} \Pi_{m} \tag{3}$$

TR is the total revenue stemming from a piece of work and Π_m is the profit, which is the result of optimization on individual markets m with a specific medium. On the m-th market, the marginal revenue from the sale of the last unit of a certain medium (ticket for a concert, a piece of music part, a purchase on iTunes) is equalized with marginal costs for that last unit (the costs for another concert, the costs for another print, almost zero marginal costs for a recording available on the internet). There is an assumption that every author operates on markets with the character of monopolistic competition with different monopoly power. The monopoly power of an author is given by the rate of marketability (α_m) introduced in the discussion of the first methodological error and $0 \le \alpha_m \le 1$. α_m approaching 1 means that a good is easily marketable and the author in a given market with a medium easily concludes voluntary market transactions with consumers. α_m approaching zero means that the author has no monopoly power in the market that drives the price to the level of marginal costs (not necessarily to zero). The rate of marketability α_m is one of the factors that determines the ability of an author to set the price above marginal costs for the last unit of medium and therefore the level of mark-up. The profit on m-th market is:

$$\Pi_m = P_m^{opt} \cdot Q_m^{opt} - ATC_m^{opt} \cdot Q_m^{opt}. \tag{4}$$

And the author interacts with the demand:

$$P_m = \alpha_m \cdot p_m(Q_m) \ . \tag{5}$$

 P^{opt}_m is an optimal price, Q^{opt}_m is an optimal quantity of the medium, where the author on the m-th market maximizes the profit. ATC^{opt}_m are average total costs per one medium, but they do not include the costs for creation a piece of work – once it is created, such costs are sunk (Boldrin and Levine, 2002, p. 209) and have no relevance for optimization on related markets with media. Costs for creation are important only in the first step when the creator considers the creation. The author optimizes²² on the market m in a situation of a monopolistically competitive firm when he or she faces downward sloping demand curve and equalizes marginal costs and marginal revenue. Coefficient α_m , which is specific for each market, determines whether and how much the demand function will move to the left as a consequence of the inability of the author to realize with consumers voluntary market transactions. The case of total non-marketability, where $\alpha_m = 0$, means complete disappearance of the demand for the given medium. It would be typically the case of goods with strong nonrivalry and non-excludability. Conversely, $\alpha_m = 1$ means that there is no movement of the demand curve as a consequence of marketability problems.

The influence of authors' rights has to be added for the completeness. The formal expression of its two main effects results in the following changes that capture the amplification of the monopoly power of authors and getting the nonmarket revenue:

$$TR = \sum_{m} \Pi_{m}^{c} + TR^{c} \tag{6}$$

The total revenue consists of two components: the market revenue (i.e., the sum of all profits Π^c_m from all markets m) and the nonmarket revenue coming from users that comply with duties given by the system of authors' rights TR^c (from collecting societies or from individual licensing). Optimization on each market is similar to the case without authors' rights, but an author protected by authors' rights has an advantage: the function of demand does not decrease as a consequence of outflow of customers to competitors. Authors' rights affect each market specifically, therefore their ability to keep the demand up is differentiated depending on many factors (technical, institutional). Besides the rate of marketability, the demand function for a given medium is affected by a market specific rate representing the strength of authors' rights γ_m . The rate of the effect of authors' rights is able to return the demand curve back from the

the same rate.

²² By expressing the function of demand $P_m = \alpha_m \cdot p_m (Q_m)$, total revenue $TR_m = \alpha_m \cdot p_m (Q_m) \cdot Q_m$ and marginal revenue (which is derivative of TR_m with respect to Q_m) $MR_m = \alpha_m \cdot (p_m (Q_m) + p'_m (Q_m) \cdot Q_m)$, it is obvious, that coefficient α_m affects both the demand function for a medium and the marginal revenue function at

position from which it was taken by nonrivalry and non-excludability of a specific pair "work + medium". That is why $\gamma_m \in (1; 1/\alpha_m)$. When authors' rights are ineffective, γ_m is close to 1; when they fully compensate the influence of α_m , it is equal to $1/\alpha_m$. The general expression of the demand function that includes the influence of authors' rights is as follows:

$$P_m = \gamma_m \cdot \alpha_m \cdot p_m(Q_m) \tag{7}$$

What if the media will not be supplied by the author himself, but by authorized users that paid for the possibility to use a piece of work? The situation of an author does not change substantially, the equation (6) still holds. However, the weight of different components of the revenue changes. The element $\sum_m \Pi^c_m$ will be close to zero as the author does not supply media on different markets (and users do so, optimizing on individual markets m instead of him). The revenue of the author, in this case, will predominantly consist of licensing fees, i.e., from TR^c .

"Supplying the media by himself" cannot be taken literally, as also in the artistic world, the division of labor is widely used. Instead, it refers to a situation when an author spread his or her piece of work on media by himself or when he or she uses an economic agent with identical interests to prevent the principle agent problem. The mutual relations of authors and users are different – their interests are in conflict; they are competitors that are able to steal the demand for the media to each other (e.g. when the Bugatti Step is performed in one city during one evening in two clubs). On a specific market with a given media, both the author and the users can supply the pair "work + medium". Therefore, $\Pi^c{r}_m$ will be lower (as a part of the demand will be taken by a licensed user), nevertheless, the author is compensated by higher volume of TR^c .

A situation, when the distribution of all media is undertaken only be non-licensed users and the consumers receive the access to a piece of work for free could be in this model explained in two ways: either the piece of work is bundled to a medium with extremely low marketability, that drives the parameter α_m to zero, or authors' rights are not able to tame these pirates (e.g. due to too costly enforcement) and γ_m is equal to one and, moreover, the author is unable to get any revenue from selling licenses or from collecting societies (zero TR^c). The opposite is the situation when an author is extremely successful on all individual markets with media (he or she gets from all markets $m \Pi^c m$) and, at the same time, he or she gets revenues thanks to the system of authors' rights TR^c .

1.6. Conclusion – economic theory of authors' rights needs to take into account that authors operate on more markets

In this chapter, the correction of three methodological errors of the basics of economic theory of authors' rights is elaborated and a new framework is developed. It describes the process of creation and distribution of works by authors or users of works and how they interact with the demand. The existing paradigm of economic theory is thus complemented by a holistic view that respects the complexity of economic processes associated with the creation and dissemination of works.

The first assumption that the authors' rights are a decisive motivation to create since authors' works are like public good that need legal protection to fight the free rider problem was corrected showing that a work can be perceived only in connection with a medium good or service. As many kinds of such pairs do not behave like a public good, authors can appropriate a certain level of revenue depending on how strongly different pairs "work + medium" possess properties of non-excludability and nonrivalry. Therefore, authors can participate in voluntary market transactions, and their revenue depends on their choice of media through which they provide access to their work. A model example reveals that a suitable mix of media helps authors prevent the free rider problem and even if non-authorized users disseminate a piece of work, the revenue of an author does not disappear. Moreover, a work in connection with a medium good or service does not exhibit the property of zero marginal costs.

The second assumption that the system of authors' rights enables authors charging the price above marginal costs (that are assumed to be close to zero) was rejected as too simplistic. Actually, the role of authors' rights, as a very complex institution, differs significantly across individual markets with different pairs "work + medium". Generally, it brings two effects: it helps foster the monopoly power of an author in the specific market with "work + medium" (thus securing a market revenue) and it provides income based on the duties of users given by the legal protection of authors' rights (bringing to authors a non-market revenue stemming from non-voluntary transactions). This view strongly contrasts with traditional treatment of authors' rights as a simple rule that forbids making copies.

The variety of markets arising from one piece of work explains why the third assumption that copyright can be modelled as a single index is meaningless. The protection of authors' rights concerning one piece of work affects many markets on which a specific pair "work + medium" is traded. The strength of such protection, therefore, varies depending on the specific features of every single market (technical, institutional, economic). This implies that each

existing piece of work is protected by an individual level of protection that contradicts existing model approaches using a single variable describing the level of protection that affects all authors and all works universally. In addition, the duration of protection should be regarded as equally important as other rules of the system of authors' rights.

A new framework shows that optimization behavior and marginal analysis are relevant only with respect to individual markets with a pair "work + medium". That means there is no case for marginal analysis in the first step of a decision-making process about creating or not creating a piece of work comparing total economic costs and total expected revenue. As total expected revenue consists of the sum of profits coming from individual markets with pairs "work + medium", the optimization behavior aimed at profit maximization should be studied on these individual markets. Authors face the demand for a specific pair "work + medium", and the demand is affected by the properties of media as the level of nonrivalry and non-excludability and by the unique (market specific) level of protection of authors' rights. Moreover, the profit of authors is augmented by non-market income from users due to the system of authors' rights.

2. The history of the beginnings and development of authors' rights during first Czechoslovak Republic

2.1.Introduction

Authors' rights as a specific kind of intellectual property raises many legal, philosophic and economic questions. Aim of this chapter is to perform a historical analysis whether, how and why domestic and foreign interest groups contributed significantly to the establishment and strengthening of the system of authors' rights. I use the historical method and analyze the legislative process that led to the adoption of the new Authors' Rights Act in twenties of the 20th century in Czechoslovakia. A series of related questions needed to be resolved.

In the first part, I explain the essence of the functioning of the system of authors' rights and necessary consequent changes in the institutional framework such as the existence of collective management organizations (CMO). In the second part, I answer the question which were the conditions and institutional framework that determined the space for action of interest groups. Then, I present particular organizations that lobby for the benefits of their members not only by affecting the wording of the Authors' Rights Act. I also show how closely were these organizations interconnected by personalities and how they practically influenced the legal and institutional environment. I show the argumentation and explanation they used and whether policymakers accepted their views or criticized the authors' rights issues.

To answer all these questions, I use the historical method, i.e. I studied contemporary resources. The basic source describing the process of adopting the Authors' Rights Act are prints and steno-protocols from the Parliament of the Czechoslovak Republic. Records from the Senate ("Senát národního shromáždění", 1920) and the Chamber of Deputies ("Společná česko-slovenská digitální parlamentní knihovna"), not only illuminate the legislative process, but also reveal the rhetoric associated with the creation of the Authors' Rights Act.

Laštovka (1998) offers the list of Prague associations and clubs, that reveals how the social and musical life flourished in Prague during first Czechoslovak Republic. However, these hobby clubs did not play any important role in the process of creating the new law.

Macek (1963) is a very discussed personality in a book written by a prominent authors' rights lawyer, Jan Löwenbach²³ (1921). The contribution of Macek is an example of leftist and interventionist thinking typical for the debates about authors' rights.

Another group of contemporary sources is the legal literature, which provided a guidance on how to deal with the new law in practice and examples of how the law was applied. It also contained a summary of views on the law, its brief history and justification of its usefulness. The aforementioned advocate Löwenbach was the most productive author. Therefore, six of his publications were used in the study. Besides Löwenbach, another key figure was prof. Dr. Karel Hermann-Otavský²⁴. He published less books, but he contributed very often to the journal Competition and Creation.

Čejka (1940) created a brochure about association for the protection of authors (CMO). It provides a detailed description of its activity and its internal organization. I also used two publications dealing with the legal aspects of the film. Both books (Hora, 1937; Knap, 1945) devoted certain chapters to authors' rights and its application typical to the film industry.

Soutěž a tvorba [Competition and Creation - a journal for the protection of trademarks, authors' rights and unfair competition issues] (1928-1950), contains a lot of valuable information from the whole range of intellectual property rights. It represents not only personalities related with authors' rights (and other intellectual property law), but also domestic and foreign organizations. It also contains fragments of the public debate that took place in the press, including the reaction of the lobby of authors. The reader is also acquainted with recent

²³ As explained below, Jan Löwenbach played one of the main roles in the process of adopting the new Authors' Rights Act: he took part in discussing all the legislation, became a member of several domestic interest groups and, according to available resources, was associated with almost every activity, whether formally or informally. Since he was considered an international authority, he represented Czechoslovakia in diplomatic negotiations abroad. He led the journal Competition and Creation from its inception (1928) until the outbreak of World War II, when he emigrated to the USA. His interest resulted from his affection for musical art. In addition to his lawyer's profession, he also worked on librettos under the pseudonym J. L. Budín and was a music journalist. ("Löwenbach, Jan", 2010)

²⁴ He was the first rector of Charles University in independent Czechoslovakia. The study below illustrates his influence on the new law. He was advisor for the wording of the law, represented Czechoslovakia at international negotiations and contributed to the journal Competition and Creation.

judgments²⁵, newly published literature and related legislation. The journal also reports on the development of international meetings.

2.2. Basic features of the system of authors' rights

Authors' rights and its management via CMOs is rather young legal discipline. It appeared as a product of modern era, establishing intellectual (intangible) property equivalent to tangible property²⁶. Although the concept of traditional tangible property is artificially attributed to intangible goods, it gradually became integral part of modern law around the world. The Roman law did not recognize copyright or authors' rights, neither contracts between publishers and authors (Löwenbach, 1921, p. 4). The modern authors' rights started to develop since the French Revolution that elevated these claims of authors to special type of rights toward intangible property (Löwenbach, 1929, p. 3).

Authors' rights give authors the exclusive right to use their work preventing others from use it without permission. However, they usually do not grant such authorization free of charge. Therefore, from the 19th century, the era of collecting so-called royalties began. However, with the advancement of civilization associated with closer cultural connections and shortening of distances, it has ceased to be easy to "oversee" who has used the works. Supervision of users of works is able only at high transaction costs, in practice prohibitive. However, authors coped with these prohibitive costs with help of CMOs who collect fees from users for the authors and then redistribute them according to certain policies.

CMOs each specialize in their home country²⁷, but at the same time they work closely together and the collected royalties go to domestic and foreign authors (to countries that participate in international agreements). For this purpose, *Ochranné sdružení autorské československých skladatelů, spisovatelů a nakladatelů, s. r. o.* [the Association for the Protection of Czechoslovak Composers, Writers and Publishers] was founded in 1919 (Hora, 1937, p. 409-412); hereinafter OSA (today known as "*Ochranný svaz autorský pro práva k dílům hudebním, z.s.*" – CMO for music works). Later, other CMOs were established. However,

²⁵ The Ministry of Justice was subscribed to the journal Competition and Creation and recommended that judges send their judgments to the editorial office of the journal.

²⁶ More about the beginnings of copyright as a monopoly power given to publishers, not to authors, in Lessig (2004), Šíma (2005), Zandl (2011).

²⁷ It is not a necessity for an author to use only the national institution – according to the law of the European Union, users are free to choose any CMO in the European Union.

they do not compete with each other as they manage different kind of rights to works (drama, literature, music compositions, sound²⁸) or rights related to authors' rights (such as rights to e.g. music performance, acting, making records).

It is difficult (sometimes impossible) to exchange the property rights to works that are easy to copy, spread with minimum costs and impossible to consume and deplete. The easier is to get an access to a work, the more costly the management of authors' rights is (both individual and collective), i.e. ensuring that authors receive their fair²⁹ royalty for every single use of their work around the world. The state intervened³⁰ in favor of authors by introducing institutional framework for enforcing authors' rights. Thus, the costs for making transactions with users decreased significantly thanks to the coercive power of the state. It introduced duties for the users that save costs for authors and CMOs and sanctions that motivates users to comply with the law. These both national and international legal interventions force the users to pay for something that would be otherwise for free.

In the area of authors' rights, there is no single and stable arrangement, the scope of authors' rights has undergone and is undergoing a rapid development. Their application is very complex and confusing. Their functioning does not have clear boundaries and principles. The law is often adapted in response to the demands of authors and their representatives who require tools to combat the challenges brought by latest technologic development. Copyright is unpredictable - what legal science inherently described as not covered by authors' rights in the first half of the 20th century is now commonly protected³¹. It is also difficult to treat and understand legal relations where two different legal regimes meet: European (continental) and Anglo-Saxon. (von Lewinski, 2008, p. 33-63) The differences between them are smaller over

²⁸ The latest CMO which is authorized to collectively manage the rights of authors is The Protective Association of Sound Engineers - Authors, a registered association, that was established in 2003 and it was given the authorization for its activity by the Ministry of Culture in 2006 ("The Protective Association of Sound Engineers - Authors, a registered association (OAZA) - OUR SERVICES", 2020).

²⁹ Fair royalty is a term used by § 97d of the current Czech Authors' Rights Act n. 121/200 Coll. (as amended by later acts) about compulsory collective management of authors' rights.

³⁰ In the case of Czechoslovakia, the heavy intervention of the state took place in the studied period of first Czechoslovak Republic.

³¹ The example of an inconsistent treatment of certain issues by the law is the case of rights related to authors' rights, especially the right of performing artist to their performance according to § 1 of the current Czech Authors' Rights Act n. 121/200 Coll. (as amended by later acts). In the twenties of the 20th century a performance had a status of an adaptation, therefore acting was not protected by the Authors' Rights Act. (Löwenbach, 1948)

time and both become more mutually compatible. But this process was difficult and required a number of international negotiations (Scheinpflug, 1946, p. 39-43).

2.3. Involvement of interest groups in the legislative process of the Authors' Rights Act

2.3.1. Preconditions to the emergence of the new Authors' Rights Act

This subchapter answers the question what was the framework for the activity of interest groups and why the international context was so important for them. The new, modern Authors' Rights Act was not created in legal and social vacuum. Its previous versions were in place during the era of Austro-Hungarian Empire. Therefore, for the Czech lands, an Act n. 197 Coll. and for the region of Slovakia and Carpathian Ruthenia, an Act n. XVI were still in effect during first Czechoslovak Republic (Löwenbach, 1929, p. 3). The senator Mayr-Harting said (77. meeting on November 9, 1921, 1. electing period, 4. session) that the old law was of a good quality, drafted by excellent lawyers. Even though the authors required reciprocal international protection, the Empire delayed its involvement in international treaties for the benefit of nations that were allegedly suppressed and less culturally developed. It allowed for spreading the cheap reproduction of foreign works, especially the French and English ones. USA did benefit from the same kind of legal backwardness in the similar way (Boldrin, Levine, 2008, p. 25).

The duality of the law in Czechoslovakia implicated per se the necessity of unification and change. But another impulse for the creation of the new Authors' Rights Act originated in the international law. During the twenties when a new modern Act was drafted, a stable platform for organizing international diplomatic negotiations already existed. When the representatives of Czechoslovakia (who were actually representatives of the interest groups) joined the international meetings, they just started to participate on the continuing project that had been launched years ago. The key international treaty joined by Czechoslovakia was the Berne Convention³². The Bern Convention was a part of the Treaty of Saint-Germain-en-Laye, which Czechoslovakia signed after the Great War. The international treaties have a priority in the hierarchy of the sources of the law. That is why the adaptation of the Czechoslovak law to the

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³² This basic standard of copyright protection is still in force today; it brought the principle that authors' rights are automatic with no need for any formal registration; and then also the mutual international recognition of copyright in states that have adopted the Berne Convention.

Berne Convention was inevitable. The peace treaty was signed September 10, 1919 and ratification of the Berne Convention followed February 22, 1921 (Explanatory report, the Senate print 227, 1. electing period, 2. session).

It was International Literary and Artistic Association, established in 1878, that organized the international diplomatic meetings. It created the Berne Convention and by attaching it to the Treaty of Saint-Germain-en-Laye, it contributed to the dissemination of the principles of authors' rights among states forming the Berne Union, i.e. Union for the Protection of Literary and Artistic Works. The states could participate in the Berne Union even if they were not forced to do it by the peace treaty. Czechoslovak department of the International Literary and Artistic Association was established on May 18, 1927 at the building of OSA. OSA helpfully provided venue for the next meetings of the Czechoslovak department of the International Literary and Artistic Association also in the future. ("Zprávy spolkové", 1928, p. 25-26)

International Association for the Protection of Business (Intellectual) Property had a broader scope of interest than International Literary and Artistic Association. It established a branch in Czechoslovakia and influenced both the public debate and drafting of the legislature. Field of interest was wide, including patents, trademarks, and fight against unfair competition. The Czechoslovak branch was established in 1926 with support of the Chamber of Commerce and Business in Prague. The Czechoslovak national group of participants was supposedly one of the strongest in Europe. A broad range of professional guilds and experts from the public and universities participated in its activity. ("Zprávy spolkové", 1928, p. 25-26)

OSA, the Czechoslovak CMO, had also its international counterparty. E.g., the first common congress of CMOs (Confederation of Authors' Associations) took place in April, 1927, and it was repeated a year later. ("Zprávy spolkové", 1927)

The protection of performing arts was a task for Commission Interparlamentaire, International Labor Office, Confederation of Mental Workers, Comité International de la T. S. F. and Organization of Actors. (Morávek, 1930)

Twenties and thirties of the 20th century in Czechoslovakia was a very favorable period for the creation or extension of authors' rights. The Great War destroyed existing principles of the morality and changed the importance of particular values of Europeans who started to accept the leftists thinking. They gradually got used to the widespread power of the state (Doležalová, 2011). The Czechoslovak political representation across the whole political spectrum perceived a more active role of the state in the field of authors' rights and art (especially music) as the

only feasible³³. For MPs, the economic efficiency aspect was not essential, the legislators thought primarily as lawyers. The cost-effectiveness of the proposed provisions and their impact had rarely been discussed. Specific individual provisions which, according to deputies or senators, caused huge and unacceptable costs in comparison with proposed objectives, were, however, questioned and rejected. Nevertheless, it is worthy to stress that policymakers did not employ critical thinking, therefore, they did not assess the impact of the law as a whole with all its intended and unintended consequences. The critical judgement that could result (and often did result) in rejection of certain provisions was concentrated just on a narrow part of the system.

The purpose of the newly proposed measures in the field of culture and music was to achieve social justice (i.e. redress of social injustice), in particular in favor of allegedly socially disadvantaged groups. State intervened not only in the area of authors' rights. Legislators endeavored to improve the state of music education and the social and material status of musicians through the state support and strict professional organization³⁴.

For example, a compulsory license introduced in 1936 by an amendment to the Authors' Rights Act (Act No. 120/1936 Coll.) is an evidence that the new law was created with regard to the state's interests. In the case of broadcasting a work by radio, the Rome Conference on the revision of the Bern Convention (1928) recommended a compulsory license (as was the case, e.g., for Germany). That is, authors were obliged to grant a permission to use a work by the radio. But an author had to get an appropriate fair remuneration and his non-material interests could not be harmed. In that case, the author could deny the use. However, the compulsory license was only valid for domestic companies owned partially or wholly by the state. Legislators praised how well they resolved the conflicting interests of authors and the public. Indeed, the state sought to control radio as a tool to educate citizens. (Löwenbach, 1937)

The interventionist character of the system of authors' rights is illustrated by the fact that World War II did not bring any substantial changes in OSA's activities. Czechoslovak CMO managed the rights already fully in line with the principles of centrally planned economy. Especially, if we consider aspects as compulsory organization of entrepreneurs into associations and setting fix binding prices (Doležalová, 2010, p. 472). The only difference was that all the

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³³ The composition of Committees working on the new act was heterogeneous as well as the membership in political parties of senators and deputies that discussed the drafting. The description of their thoughts and debates is based solely on primary resources (prints, steno-protocols).

³⁴ E.g. the Senate prints 1593 (year 1921), 749 (1926), 422 a 539 (1921), 787 (1921), 1326 (1922).

level of royalties had to be approved by the Supreme Pricing Authority (Knap, 1945). But the reporting duty of operators of various events existed before the WWII, both towards OSA and the authorities that cooperated with OSA. Every event or entertainment production had to be officially authorized in advance (Čejka, 1940, p. 6). The decree of the Ministry of Education No. 76 of 30 March 1937, on the rate of royalties for performing musical works, required the organizer to report all circumstances (program, capacity, entrance fee) 14 days in advance. When the information was not reported on time, OSA could have raised the royalties by the costs for investigation and oversight (Hora, 1937, p. 420).

2.3.2. Interest groups of authors and their mutual connection

Although Czechoslovakia was a country where social life flourished thanks to numerous associations and clubs (Laštovka, 1998), their impact was mainly local and focused on the community. They did not typically act as stakeholders that would have a say in the process of drafting the new Authors' Rights Act. But there existed organizations that played a crucial role in the legislative process. Primary sources are incredibly full of evidence about their activities. The policymakers were ready to ask for and comply with advices of experts from legal environment and authors' lobby. On the other hand, the interest groups proudly announced how they cooperated with the government. Among the most active ones, there were The Association of Writers, Composers and Publishers, The Association of Musical Composers in Prague (Explanatory report, the Senate print 227, 1. electing period, 2. session), Union of Czechoslovak Musicians, Union of Music Occupation, Deutscher Musikerverband, Trade Union of Musicians (Löwenbach, 1931, p. 22), Literární sekce Umělecké besedy [The Literary Section of the Artists' Forum] and the Syndicate of Czechoslovak Writers and Music Composers, hereinafter the Syndicate ("Zprávy spolkové", 1927), OSA and Czechoslovak department of the International Literary and Artistic Association, that was important as an umbrella organization.

The Syndicate ("Zprávy spolkové", 1928, p. 76) published regularly and openly detailed information about its activities, proudly explaining which objectives it had and how it attained them. As a speaker of the whole lobby, it was perceived as the most superior occupational association defending the rights of artists and authors and endeavoring for the amelioration of their social and material status. Its lobbyist activity was allegedly complicated by the fact that the public focused mostly to practical politics that had impact on the majority of the population or had more visible, tangible, impact. It contributed to reach the agreement between publishers and authors about minimum honorarium, subsequently stated in a collective contract. It developed significant pressure on politicians to enact the new Authors' Rights Act and

Publishing Act. It managed to arrange that Czechoslovak authors were rewarder for the use of their works in the USA. It was Bohumil Zahradník Brodský, a ministerial official, that helped get contribution from the state budget for establishing pension funds for all authors, including fine arts professionals. Besides, it established a fund, from which it provided financial help to ill and disabled members (its assets amounted to 142 000 CZK in 1928). Lawyer Adolf Červinka provided to members legal services free of charge.

The Syndicate helped its members protect their interests communicating to bureaucracy, the Parliament and to international organizations. One of its success can be illustrated on the case of a controversial provision about the compulsory license for mechanical rights: The syndicate prevented enacting a rule according to which once a right was given to a gramophone company to use a work, any other company could use it as well, provided that it will pay a fair royalty to an author. Nevertheless, it was unsuccessful when it tried to persuade the government that it should have established a state-owned and state-managed hostel for artists and journalists. Assets of the Syndicate amounted to more than 466 000 CZK. Not only ministries (of Education, Foreign Affairs and Justice) were really supportive but also both the Chamber of Deputies and the Senate. Karel Čapek, a famous writer, was also a member of the Syndicate. However, he resigned in 1928.

The Club of Czechoslovak Composers, The Club of Publishers and The Club of Lyricists (Löwenbach, 1931, p. 22) established OSA in 1919 as an association subscribed in the register of associations. However, as Hora (1937, p. 409-412) pointed out, its activity did not have the character of a cooperative. On the contrary, the purpose of OSA was, according to the law, common business venture for the benefit of its members. This contrasts with the role of OSA today, being a non-profit association.

The important break in the history of OSA came with an amendment to the Authors' Rights Act from 1936. It conferred to OSA an exclusive power to manage so called small performing rights. That meant for the users that if they wanted to use a work of an author represented by OSA, that OSA was the only counterparty from which a user could get the permission and to which a user had to pay the royalty. OSA had exclusivity in the management of rights of represented authors when somebody used works in the following way: public non-theatrical performance, mechanical reproduction of works with or without the text, transmission of works to a medium for the mechanical reproduction, using a work in a film and broadcasting a work by the radio. No other entity in Czechoslovakia was allowed to manage the same bundle of rights as OSA. If the work was authored by a person not represented by OSA, of course, the transaction had to be done between a user and an author. That seems fully logical on the first

sight, but it contrasts with current legal arrangement for compulsory collective rights management according to § 97d of the Act. n. 121/2000 Coll., as amended by later acts. The difference lies in the fact, that, according to certain interpretation of the law, users should get the license from OSA (and other CMOs) even if he or she does not use the works of authors represented by CMOs and he or she has to pay appropriate royalties³⁵.

Both the state and the stakeholders were convicted that their cooperation is crucial for the whole process of drafting the new Authors' Rights Act (n. 218/1926 Coll.), the same held true for the creation of its amendment in 1936. Possible conflict of interests was not identified or admitted at all. The experts appointed by the Chamber of Deputies that helped draft the text of the law were personalities like Jan Löwenbach, Karel Hermann-Otavský, together with university professors Frankl and Miřička. (Print 447, Chamber of Deputies, 2. electing period, 2. session, 1926)

The resource that most openly refers about interconnections among different personalities from the field of arts and authors' rights is the aforementioned journal *Soutěž a tvorba* [Competition and Creation]. The examples of such personalities are the chairman of OSA J. B. Foerster and the director of OSA Karel Balling. (Löwenbach, 1931, p. 23)

The debates about the amendment of the act n. 218/1926 Coll., that started in reaction to the Rome revision (1928) of the Berne Convention, took place at several forums. However, basically the same group of people was present on different occasions, like the congress of lawyers in Brno in 1930 (Morávek, 1930, p. 170-174). To solve the most complicated questions related to the Rome revision from 1928, the Czechoslovak department of the International Literary and Artistic Association established so called Radio Committee. Its members were Karel Hermann-Otavský, Jan Löwenbach, Otakar Šourek, Karel Balling a Karel Scheinpflug.

A famous writer, Viktor Dyk, was an excellent example of the member of the interest groups who was able to influence the law very easily: Dyk was a Senator of the National Assembly. Moreover, he was the chairman of the Syndicate and the chairman of the Literary Section of the Artists' Forum. During the discussion on the 50. meeting of the Senate on

use a work for broadcasting, making a reproduction of a work (a physical or electronic copy), resale of the original of a work of art, lending of a work. (more in detail in § 97d of Act. n. 121/2000 Coll., as amended by later acts)

³⁵ When the original paper (Moravcová, 2015) was published, the legal framework was different, stricter, and did not allow for users to switch from contracts with CMOs to contracts with users or their representatives other than CMOs. Nowadays, the practice seems to leave the old model – users of works created by independent authors have not to bargain with CMOs like OSA. Today, the rights reserved for OSA to manage are the right to

November 24, 1926 (2. election period, 3. session), he combated openly and fiercely for the benefits for his occupation. He demanded enacting rules that would contribute to improvements of social and material situation of authors. Thus, he advocated for prolonging the period for which works are protected from 30 to 50 years. He insisted on introducing moral rights that would prevent disrespectful use of a work. He wanted literary works to be protected and authors remunerated also when a work was used in the radio (but that provision was enacted later, with the amendment of the law in 1936). Then, Dyk strongly criticized a provision according to which an adaptation of a work was allowed when a new piece was original and, moreover, protected by the Authors' Rights Act in the same vein as the original. Dyk simply worried about possible plagiarism.

During numerous occasions, different associations organized meetings to unify their lobby strategies ("Zprávy spolkové", 1927). E.g., in 1927, Literary Section of the Artists' Forum organized a discussion about authors' rights and its amendment, started by the chairman Viktor Dyk. After informing the audience about the wishes and complaints of stakeholders, it affirmed that on the next occasion more associations had to be invited to ensure proper formulation their common interest. Adolf Červinka continued with expressing concerns about provisions about adaptation. He did not like that adaptation is vaguely defined in the Act and that authors did not possess an exclusive right for translation. Translation should have been classified (according to Červinka) as a use for which a permission and a payment is needed, not as a permitted adaptation.

The 3rd Debate Evening of the Literary Section of the Artists' Forum held in 1928 shows how important was the involvement of ministry officials. Jan Löwenbach talked about necessary improvements of provisions about using works by the radio. Karel Hermann-Otavský said that the law should have regulated only relations that existed in reality. Other speakers were Adolf Červinka, Rudolf Medek, dr. Burda on behalf of Ministry of Post and chief commissioner Daneš from the Ministry of Education.

The Authors' Right Act introduced a special new institution: advisory boards to courts. They provide to judges expert opinions of a technical character but they were forbidden to interpret the legal text as such. (Löwenbach, 1948, p. 106) The members of the boards were in most cases the authors and lobby representatives. ("Znalecké sbory pro obor autorského práva", 1927) The same names are present in resources about OSA, the Syndicate, advisory boards or news about international negotiations. Comparing the composition of Advisory Board for Musical Works ("Zprávy spolkové", 1927) and members of Czechoslovak department of the International Literary and Artistic Association ("Zprávy spolkové", 1928, p. 25-26) illustrates

close mutual relations between the two organizations. Even though there is only one case of direct overlap between the two groups (Karel Balling, director of OSA), the two lists bring evidence, that the members of the two bodies were connected also with other cultural institutions. Many personalities were in other Advisory Boards and were present on other occasions that were important for economic history of authors' rights, like Jan Löwenbach and Karel Hermann-Otavský.

Advisory Board for Music Works	Czechoslovak department of the
	International Literary and Artistic
	Association
Chairman Dr. Jan Branberger (official	Chairman Karel Hermann-Otavský
of Ministry of Education)	Dr. Hanuš Jelínek
• Karel Balling (director of OSA)	• prof. Dr. V. Tille (member of Advisory
• J. B. Foerster (professor at the Prague	Board for Literature)
music conservatory, music composer and	Jan Löwenbach
chairman of OSA)	Karel Balling
Dr. Vladimír Helfert (university	E. Weinfurter (member of Advisory
professor in Brno and writer)	Board for Literature)
Antonín Hromádka (inspector of	• K. M. Čapek-Chod (a famous writer)
private music schools)	Dr. Otto Gellner
Frico Kafenda (director of the music	• prof. Dr. K. Kadlec
academy in Bratislava)	• Ing. Fr. Khol (Dramatic Union)
• Jan Kunc (composer, director of music	Karel Scheinpflug (member of
and dramatic conservatory in Brno)	Advisory Board for Literature)
Rudolf Prochaska (retired government)	• prof. Dr. O. Sommer (who made a
official and composer)	speech in 1930 at the congress of lawyers
• Dr. Erich Steinhard (editor of the	in Bratislava on the revision of the Bern
magazine Auftakt)	Convention)
Otakar Šourek (chief municipality	J. Štolovský (chairman of the
official and music critic, who made a	Syndicate of Fine Arts, and member of
speech in 1930 at the congress of lawyers	Advisory Board for Fine Arts)
in Bratislava on the revision of the Bern	• architect O. Novotný (member of
Convention)	Advisory Board for Fine Arts)
• Dr. Václav Štěpán (composer)	• prof. Dr. Frant. Weyr
	Miroslav Rutte (Dramatic Union)
	• J. Riedl.
	• J. Riedl.

Table 1: The comparison of members of organizations representing interest groups

2.3.3. How and where did the interest groups exercised their influence

Interest groups managed to directly influence the wording of the law because they were able to have their representatives in the right places at the right time. This subchapter explains how they were involved in international negotiations, how they participated in the preparation of the law and how they influenced the practical implementation of the law through a special institution called advisory boards.

The influence of interest groups was strong even beyond the borders of Czechoslovakia. In 1927, the congress of the Confederation of Authors' Associations was attended by Jan Löwenbach and director of OSA Jan Balling. ("Zprávy spolkové", 1927) In 1928, Czechoslovakia was represented by the Dramatic Union (Engel-Müller, Fr. Kohl, Dr. E. Konrád, Dr. M. Rutte) and by OSA with Karel Balling and Jan Löwenbach. They discussed topics such as a uniform method of collecting royalties, the status of an adaptation, uses in film or the radio and a compulsory license for mechanical instruments (which was removed from the Czechoslovak Authors' Rights Act during the legislative process).

At the Rome Conference for the revision of the Bern Convention, Czechoslovakia was represented by dr. Vojtěch Mastný and Hermann-Otavský (Hermann-Otavský, 1928, p. 77-80). These names correspond the fact that the Czechoslovak state was represented at the international meetings by interest groups representatives themselves, not, e.g., by ministerial officials.

The bill was debated in the Parliament from 1920 to 1926, an unusually long period (senator Böhr, debate on 49. meeting on November 18, 1926, 2. election period, 3. session). The delay was caused mainly by numerous debates and consultations. Even at the stage of the government's draft, the spirit of the law was already very similar to today's version of the law. However, it was not so complicated given the stage of technology of that time. The relatively fast work of the Committee on Constitutional and Legal Affairs of the Senate was replaced by a long period of reshaping of the original proposals by the Committee on Constitutional and Legal Affairs of the Chamber of Deputies - i.e. continuous extension of deadlines and deeper improvement of material by established committees and sub-committees. On November 24, 1926, Authors' Rights Act No. 218/1926 Coll. was adopted – six years after the government proposal was made by the Minister of Justice Popelka, and five years after the ratification of the Berne Convention.

The debates were based on the opinions of experts from practice like Karel Hermann-Otavský and Jan Löwenbach as representatives of interest groups. This is explicitly stated (not only) in the explanatory report (the Senate print 227, 1. electing period, 2. session). The interest group of users was not involved, as users were not usually organized, naturally due to their dispersed and minor costs contrasting with huge benefits in stake for the interest groups of authors.

The Ministry of Justice, the parliamentary Committees (both Cultural Committee and Committee on Constitutional and Legal Affairs) and appointed experts were those who had the main say in the design of the law. Senators and deputies almost automatically voted on the proposed outline of the law. The discussions during the meetings did not have any substantial impact to the main principles of the law itself. The explanatory memorandum, the subsequent prints and the legislators did not question the necessity to adopt the new Authors' Rights Act. The need to adapt Czechoslovak law to the Bern Convention was primary. Moreover, being part of the Berne Union was a matter of prestige. Thanks to it and thanks to the successful argumentation about social justice, the Czechoslovak Authors' Rights Act overcame the level of protection according to the Berne Convention and provided for authors even stronger protection (Löwenbach, 1937, p. 1). The legislators were inspired also by foreign authors' rights acts.

The above-mentioned ambiguity of the law, respectively the lack of stable principles of fair authors' rights, caused that it was difficult to find a compromise about some of the provisions. The influence of interest groups is rather indirectly derived here. It follows from the fact that the provisions in question changed during the course of the legislative process in favor of the authors rather than in favor of the users of the works. It was justified in the prints by the wishes of the so-called interested parties. The draft of the bill has undergone a significant change favorable to authors especially when the Committees of the Chamber of Deputies worked on it. Thus, dramatic changes occurred in the very end of the legislative process in 1926.

Provisions that caused conflicts among legislators (and sometimes among experts as well) were numerous: e.g., the boundaries between the authors' rights to the work of art and the right of the owner of a particular art object. Today it is necessary to ask the author of the text for permission to add the music and pay a royalty. At that time, however, negotiations resulted in the rule that anyone who creates a new work by adding music to a text is also protected by the law and did not commit offence. Huge disaccord was caused by attempts to introduce the compulsory license for mechanical reproduction. I.e., if the author gave license to use the work

to one gramophone company, he must have granted the license to any other company that requested for it. This provision should have secured maximum competition on the market with gramophone records³⁶. (Explanatory report, the Senate print 227, 1. electing period, 2. session) In the end, however, this rule has been omitted. There was a conflict about remuneration for artists, who, with each successive sale of his work, gains a share of the transaction - this provision has survived to the present day. In the 1920s, however, it opened emotive discussions because it was not clear how to secure it practically and economically. (77. meeting on November 9, 1921, 1. electing period, 4. session) The duration of the protection for a work, when royalties must be paid to the author, his heirs or to CMO, is a classic case of arbitrary decision-making by legislators (debate on 49. meeting on November 18, 1926, 2. election period, 3. session). Interest groups were successful, because they achieved to raise the duration of the protection from 30 to 50 years after an author's death (then royalties went to the heirs). Today this period is 70 years for most types of rights. Another suggestion that royalties should be collected forever and after the initial period lasting for the life of an author plus 50 years, the funds should have gone to the state budget, was quite vigorously rejected (Explanatory report, the Senate print 227, 1. electing period, 2. session). During the final stage of the legislative process, a proposal emerged that forbids use a work by disrespectful way so that the feelings of the nation would not have been hurt. (Print 447, Chamber of Deputies, 2. electing period, 2. session, 1926) This is an equivalent of § 11 and § 70 of the Act n. 121/2000 Coll., as amended by later acts.

The provision legalizing the activity of OSA appeared at the very end of the legislative process (Print 447, Chamber of Deputies, 2. electing period, 2. session, 1926). So that OSA was authorized by the law to collect royalties. Their amount should have been determined by OSA and other professional associations, or, in the absence of such an agreement, by the tariffs issued by the Ministry of Education. Deputies and Senators believed that the ministry would find the right balance between the interests of authors and users. (50. meeting of the Senate on November 24, 1926, 2. election period, 3. session) However, in subsequent practice, tariffs issued by the ministry were usually higher than those set in OSA's agreements (Čejka, 1940, p. 15). Existence of these two options resulted in significant changes in the institutional framework. If users wanted to reach an agreement on using a bundle of works³⁷ for an

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³⁶ In reality, the gramophone industry was subject to cartel agreement (Průcha et al., 2004, p. 284).

 $^{^{37}}$ Equivalently to cumulative agreements according to § 98a of the Act no. 121/2000 Coll., as amended by later acts.

acceptable price, they had to become members of a certain professional organization that engaged in the negotiations with OSA. However, this has entailed the costs of organizing the associations and negotiations for many professions. Thus, saving transaction costs was not for free at all. For example, cinema operators have negotiated with OSA about this type of contract (Hora, 1937, p. 420).

Lawmakers were aware that the new law brought conflicts between OSA and the music users and debated in particular about the problems the innkeepers faced. (debate on 49. meeting on November 18, 1926, 2. election period, 3. session) They refused to pay the royalties in the beginning of the existence of OSA, the agreement was achieved later. The authority of OSA was finally confirmed by the new Authors' Rights Act, without which the collection of royalties did not have a legal basis. That is why OSA was before 1926 confronted with lawsuits about illegal collecting of royalties. Löwenbach (1948, p. 82) mentions that initially, there were complaints against OSA's activities that it levied royalties on the basis of a unilateral decision. Even today, operators of restaurants and other services express their disagreement with the royalties they see as unfair.

By the regulation No. 10 Coll. of February 17, 1927, the government established the so-called advisory boards (Löwenbach, 1929, p. 14), in which, as documented above, representatives of the author lobby were active. Indeed, an example of such a decision (Löwenbach, 1930, s. 46), when OSA sued a café, shows that the experts delivered to the court an opinion that was in favor of OSA. The case of the café got to the Supreme Court: the verdict was that protected works had to be played in the premises of the café, as it is natural that such works are required by customers. The claim of OSA was 3170 CZK.

2.3.4. The argumentation of the interest groups

Argumentation of the interest groups used the social atmosphere that was very supportive to the state interventionism (Dolažalová, 2011, p. 412). For them, social justice meant protection of authors' rights. Besides, they stressed the importance of authors for national well-being. And that is the argumentation that could have succeeded during first republic.

A typical explanation of the necessity to properly develop authors' rights was, in short, based on the following principles: Authors were the intellectual elite of the nation. However, they were not recognized and sometimes abused since the Battle of White Mountain in 1620. Contrasting to the situation of authors abroad, the Czechoslovak authors never reached sufficiently satisfying and prestige social and economic position, even though they consider themselves as the guarantee for the cultural prosperity of the nation. They felt their work to be

an important mission. (Löwenbach, 1931) It is worthy to mention here, that the continental system of authors' rights is based on the principle of informality – that is the rights of authors starts when a work is created, with no necessity to register it. It is valid for every author, not only the elite ones and registered at OSA. However, the argumentation said that only the elite authors that really contribute to higher level of the cultural environment in Czechoslovakia should be supported by appropriate law. They perceived themselves as cultural and moral authorities.

In this respect, Löwenbach praised the work of Radiojournal, partially owned by the state, which is said to have succeeded in the promotion of the Czech music abroad and also broadcasted new pieces of foreign music in Czechoslovakia. According to him, Radiojournal selected high-quality works and refused to broadcast "light, too light music". (Löwenbach, 1931, p. 21) Authors intended to use the mechanism for collecting and distributing royalties primarily for qualified artists, such as composers of classical music. They overlooked the possibility that by definition this system should serve anyone who becomes the creator of the original work. They did not admit that there were more creators in reality than authors represented by OSA would accept under the protection of OSA.

The rhetoric of the representatives of interest groups argued that, during the 19th century, the intellectuals sacrificed their material well-being on the altar of their homeland. Even the publishers did not usually enjoy excessive profits and often published works only as a goodwill gesture. With the advent of the 20th century, however, both business and creative activity flourished. The only one who was able to adapt was the publishers, while the authors still did not receive the reward, which they deserve due to the benefits they provide for the nation. Social reform should therefore favor authors over a more capable and cunning publisher. Löwenbach (1921, p. 7-14) quotes proposals made by Tille (a member of the Board of the Czechoslovak department of the International Literary and Artistic Association and member of Advisory Board for Literature), who advocated stricter conditions under which the publishing contract is negotiated, and certainty of income for the author. However, such an approach did not take into account that when negotiating a publishing contract, the publishers is at greater risk (they do not know in advance what the demand for the work will be). If publishers had to accept stricter conditions for the contracts and had to ensure certain revenue for the authors, some of the contracts would not be concluded, due to too high risk of works with uncertain sales.

Antonín Macek (1963) (social democrat, later communist) published in twenties his bizarre project on state planning of art. He proposed the establishment of a single state organization that would only publish truly valuable works, guarantee the authors a permanent remuneration, and "would send an author of literary crap mercilessly to an office". (Löwenbach, 1921, p. 13) The impoverished publisher would then only issue great and inexpensive art. Macek, however, did not explain how to distinguish between valuable literature and the trash.

2.3.5. Criticism and its impact on the content of the Authors' Rights Act

The greatest critic of the concept of authors' rights in the Parliament was Senator Hampl - a member of the Communist Party of Czechoslovakia, who sarcastically blamed capitalism for failing to secure remuneration for creators of the nation's culture. "The institution of authors' rights itself compromises today's social order and reveals its true nature. Capitalist society based on private enterprise is not able to and cannot naturally ensure the existence of those, who, as the society boasts, are the creators of its culture." (debate on 49. meeting on November 18, 1926, 2. election period, 3. session)

Senator Dyk responded vigorously to Hampl's speech: "[...] I ask if he (Hampl) did not perceive the situation of authors in Russia to be suspicious. [...] The government simply suppressed press of any kind that was uncomfortable [...]. This means that the Bolshevik government has forced so many and so many intellectual workers to either adapt to the present declassify state or hunger." (50. meeting of the Senate on November 24, 1926, 2. election period, 3. session)

But there were other critical reactions that triggered a series of other contributions. For example, an opinion emerged highlighting the disadvantage of the new law in the sense that more royalties outflowed from us abroad than in Czechoslovakia for "our" works (successful "our" works included translations of works by brothers Čapek, Langer and Čapek- Chod). The discordant reply and explanation were then published by Löwenbach: protection of authors' rights cannot be judged from an economic point of view, failure to participate in the international system for the protection of authors would have downgraded the Czech lands to a lower level. It is a moral obligation of Czechoslovakia to take part in international protection of authors' rights. The protection of Czechoslovak authors was described as an asset by Löwenbach. Moreover, Löwenbach stated that foreign royalties were not high and they also prevented poor translation overproduction. (Löwenbach, 1929, p. 42-43) However, Löwenbach had forgotten in his interpretation that assets and liabilities were not traded at level of the states, but of course, at the level of individual authors and users of their works. And it was not directly

a state entity that would benefit or lose from the trade with works, but OSA, a company narrowly specialized in the organization of that trade, relying on exclusive state authorization (exclusivity status of OSA was confirmed by the amendment to the Authors' Rights Act in 1936).

The opinion of Adolf Červinka (1929, p. 43-45) (vice-chairman of the Syndicate) is also very critical. He considers the Berne Union as way to achieve economic benefit, especially by England and France, whose works are most widely translated and played in the world. Červinka believed that their pressure played a dominant role in process of the expansion of the system of authors' rights. He pointed out that creative works are primarily made and spread for business, despite the seeming idealism of the International Literary and Artistic Association. Červinka argued that decisions on authors' rights issues should be made with statistics in hand, and not just as a pure scientific legal hobby. According to Červinka, although these foreign works were very popular in Czechoslovakia, it would be advisable to regulate their use. And not only because the production was often inferior. He regretted that such a leak of national wealth (i.e. payments abroad for royalties for these worthless works) could not be captured statistically³⁸. Importing and purchasing licenses to foreign works not only costed something (approx. 1,000-1,500 francs for the license to a French novel³⁹), but also competed with the domestic production, which had no chance to succeed. According to Červinka, Czechoslovakia was mistaken in failing to realize that its political allies could be its economic enemies and, without considering all the consequences, joined to the Bern Convention.

The willingness of the representatives of Czechoslovakia went too far at peace conferences and Červinka criticized them for not having made reservations that would respect the specific domestic situation. Thus, Červinka was one of a number of those who argued in favor of national interests, demanding the protection of domestic subjects, and valued the import of foreign culture as inferior and undermining level of the culture in Czechoslovakia. Legislators used the same rhetoric in the debates (debate on 49. meeting on November 18, 1926,

³⁸ The issue of outflows of payments abroad that required foreign currency (i.e. gold) and made pressure on the balance of payment was important during both the twenties and thirties, together with outflows of earnings from foreign investments (Teichová, 2008, p. 380). Import of goods and services and export of capital that raised the supply of Czech Koruna had to be subject to the regime of the gold standard. The Czech Koruna were deflated during the Great Depression in 1934 and 1936. (Faltus, Průcha, 2006, p. 56)

³⁹ In 1927, according to the Droit de l'auteur magazine, 676 translated works were published in Czechoslovakia and because of their popularity they were published in a much larger volume than Czech works.

2. election period, 3. session). Červinka also pointed out explicitly that the results of international negotiations were decisive, and changes in the domestic legislation were only their consequence.

In response to this criticism, Otto Gellner (1929, p. 45) claimed that the importance of royalties for the balance of payments was overestimated. He pointed out that the payments for patents were far higher and that no one would argue that they are the reason to leave the system of patent protection. According to him, by respecting the patent law, Czechoslovakia only followed the obvious postulate of modern cultural and legal development.

If we look at the context of the whole society, it is evident, that almost all types of economic activities were represented on a voluntary basis by an umbrella organization that should have enforced the common interest of participants. It is evident for twenties, like for firms in an industry (Kárník I, 2017, p. 427) or for workers in trade unions (Kárník I, 2017, p. 518). E.g., from 1925, the unemployment benefits were distributed exclusively by trade unions, that increased their importance dramatically. In twenties, many industries of national economy were subject to rising centralization and monopolization (Faltus, Průcha, 2006, p. 55). The economy was influenced by the foreign capital of western nations and the role of cartels was important mainly due to influence of German groups. Foreign investments penetrated deeply into basic industries and into economically strong enterprises that were relatively highly concentrated (Teichová, 2008, p. 378 – 380). The role of organizations and concentration in economic life of Czechoslovakia was stronger with the response of the government to the Great Depression (Průcha et al. I, 2004, p. 277 and Kárník II, 2017, p. 82). Many firms and cooperatives were directly connected to political parties, like the agrarian complex (Kárník II, 2017, p. 292).

Why those that were forced to pay royalties to OSA did not organized themselves to prevent enacting new rules? Those, whose opposition was present in historical resources, was the organization of innkeepers. No action against authors' rights was found for the case of film-makers and cinemas or book publishers or music labels (with the potential to pay abroad relatively more)⁴⁰. Nevertheless, organizations for their representation existed. The explanation lies in the theory of diffused interest (Olson, 1971). The users that paid relatively small amounts (relatively to all their costs) were not motivated to spend transaction costs for defining and enforcing their common attitude. On the other hand, the authors had at stake potentially

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⁴⁰ Moreover, the music publishers received part of royalties collected by OSA (Szczepanik, 2009, p. 345).

important part of their future life revenue stream. Increment transaction cost for their rent seeking activity had the potential to bring substantial rise in their future wealth. The benefits for authors in the form of stream of payments from foreign countries were concentrated in contrast with diffused costs that had to be paid by Czechoslovak users to foreigners. Moreover, film-makers were both in the role of payers for the rights and the recipients of royalties (Knapp 1945, p. 41-45). They used protected works, but on the other hand, the film was protected as well. All other users like music and literature publishers already paid for the uses in line with the old law. What was new in the act from 1926, was the role of OSA that started to collect money instead of authors themselves from the wide range of business as inns, restaurants, cafés and small cultural events producers like village balls. With the new Act, any form of using a work that resulted in its spreading and making it publicly available, was, in contrast with previous rules, regulated and had to be subject to payments of royalties.

2.4. Conclusion – the role of interest groups was crucial

Authors' rights and the system of CMO are modern institutional arrangements that allow authors and CMOs to oversee and control the use of works and enforce paying for the licenses. In the absence of internationally coordinated system of copyright and authors' rights and sanctions for infringements, authors or CMOs could not force users to pay for the use of works, which, due to their specific nature, would be accessible at a negligible cost.

This chapter reveals that this institutional arrangement emerged as a result of interest groups activity and illustrates this with a historical analysis of the legislative process leading to the adoption of the new Authors' Rights Act during first Czechoslovak Republic. However, it was not only Czechoslovak interest groups and organizations that represented them who had an influence on the creation of the new law, adopted in 1926. Already during the 19th century, international negotiations on copyright took place. Their outcome, the so-called Bern Convention, was attached to the Saint-Germain peace conditions. Signing them after the Great War meant for Czechoslovakia the need to adapt its laws to the Bern Convention.

It was this primary assumption that greatly facilitated the enforcing of demands of organizations representing Czechoslovak authors. However, the Bern Convention was created and developed from the impulse of interest groups operating in other states, to whose efforts the Czechoslovaks joined after 1918. Moreover, authors' rights, albeit for authors in insufficiently functional form, had been already part of the law in Czechoslovakia. The task of the authors was therefore to convince the legislators that rules in the law had to exceed the level of protection given by the Bern Convention. Indeed, interest groups managed to finish this task

successfully. It was thanks to the social atmosphere when public and policymakers did not hesitate to use the state intervention for solving various problems. People sensitively perceived the issue of social justice and were in favor of measures that should have brought general benefit and have raised the well-being of the nation.

Among the dozens of organizations associating interest groups, the most important are the Syndicate of Czechoslovak Writers and Music Composers, OSA – Association for the Protection of Czechoslovak Composers, Writers and Publishers and the Czechoslovak department of the International Literary and Artistic Association. Not only did these organizations cooperate and organize meetings together, but they were personally connected. Personalities such as Löwenbach, Hermann-Otavský, and Balling were at the same time carrying out at least several of the following activities: published, taught at universities, discussed at the debates organized by related organizations, advised lawmakers on the wording of proposals, represented Czechoslovakia at international meetings and worked in advisory boards (institutions that provided expert opinions to the court in the matters of authors' rights). The Senator, writer and chairman of the Syndicate, Viktor Dyk, was obviously in the conflict of interests. However, it did not prevent him to fiercely combat in favor of rules favorable for authors.

Ministerial officials were closely linked to activities of interest groups. It is striking that participation in international negotiations was the domain of interest groups representatives, instead of officials, i.e. direct representatives of the state. Naturally, interest groups influenced the legislature by commenting the legislative proposals and by proposing their own wording. The creators of the law listened to the opinions of practitioners; this procedure was not hidden at all. However, these experts were representatives of interest groups of authors, who thus logically had the opportunity to transform the law according to their needs. From the changes that the proposal has undergone in the legislative process, I infer that the interest groups had succeeded.

The argumentation with which interest groups justified the proposed rules skillfully exploited the sentiment of society. The new act was supposed to correct the unfair situation that Czechoslovak authors had to face up to now. The authors considered themselves to be the elite of the nation, which is responsible for its cultural development and for cultivating the taste of the population. Though they performed their role with extreme dedication, the nation had not yet adequately rewarded them. The new act was supposed to ensure the authors the higher social standing which they deserved. That meant securing them materially.

The criticism of the new law was primarily concerned with the effects of international protection on the balance of payments and international reserves. The answer to the complaints that foreign exchange outflowed abroad while paying for licenses was simple: authors' rights are a matter of prestige and Czechoslovakia must keep pace with other progressive states. Other criticisms related to the overall ineffectiveness of the new law, which did not provide sufficient livelihood guarantees for authors, and was accompanied by suggestions that the state should supervise and manage both artistic creativity and remuneration for it.

However, these critical opinions did not affect the essence of the law. The progress made at international meetings determined the direction and basic features of the development of copyright protection. Therefore, interest groups of authors in Czechoslovakia operated in two fields, in the field of international diplomacy and at home. They struggled for consistent and strict enforcement of the Act which they helped create. They affected particular provisions, the wording of which was of key importance for the practical implementation of the law because, as we know, the Devil is hiding in the detail.

3. Two case studies from economic history of creative industries in Czechoslovakia

The third chapter entails two case studies that illustrate the conditions under which the state and creative industries interacted. In the first case study, I consider the performance of creative industries in general, pointing to the fact, that they faced high degree of uncertainty. That might have driven them to lobby for the protection from the government. Their inability to achieve social and economic security and stable revenues for their livelihood was the primary problem for which the politicians from the whole political spectrum were ready to deliver a solution. I use descriptive statistics to compare which branch suffered most from the high level of volatility and how the volatility changed over time.

The second case study analyzes the impact of the direct financial support of the state on the films' popularity. The popularity is measured by rating of modern contemporary viewers expressed on an internet fan platform Czechoslovak Film Database. This contribution is a part of the debate in the economic literature about the role of the state as an incentivizing factor for the production of so-called merit good. Even though proclamations of the government officials and lobby representatives at that times that their ultimate goal was the care about quality of the Czechoslovak film and education and cultivation of the audience, it is methodologically impossible to prove or disapprove it. But we can measure how the variability of allocated subsidies affects the variability of the popularity of particular films. The proxy I use implies that the analysis does not describe the relationship of costs and subsidies and contemporary popularity⁴¹. However, it shows whether and to what extend the government body decided about the level of subsidies efficiently from the point of view of present viewers. In the same vein, we could ask whether films with higher budget are valued by the modern audience higher.

Theory of providing a cultural public good

The theory assumes that particularities of the production and distribution of the cultural goods move markets with that goods far from the perfect competition. This is driven by three problems: risk-aversion, indivisibilities and inappropriability (Demsetz, 1969, p. 5). The issue of risk-aversion relates to the fact that investment in the production of an information good are

⁴¹ Nevertheless, the correlation coefficient for the number of weeks for which I film was screened Prague premiere cinemas (used in Doležalová, Moravcová, 2020) and csfd.cz valuation is 33 % for the period of thirties. Therefore, the films popular in thirties are more or less popular also for the modern audience.

subject to a greater level of risk compared to tangible goods and that the government might help fostering investment in these activities by shifting the associated risks from private subjects to itself. This might be done through so called pooling, concentrating all creative activities centrally and producing a more diversified portfolio of projects (Demsetz, 1969, p. 9). Every activity for reducing the risks has its costs and Demsetz (1969) point out to the fact that, generally, there is no proof that the risk transmission undertaken by the private sector is inferior in terms of economic efficiency in comparison with the transmission of risks to the government. Arrow (1962) points out that the private shift of risks away from private entities is always incomplete, but Demsetz (1969) stipulates that having in mind costs for reducing risks (no free lunch principle), this is only a natural implication, not necessarily a market failure. The issue of difficulties with appropriability should be according to Demsetz (1969, p. 11) solved by defining and enforcing property rights, although he admits greater transaction costs compared to the case of an ordinary tangible good. The issue of indivisibility relates to the problem of provision of public goods.

Let us focus on properties of movies. Do they really suffer underproduction as suggested by Arrow (1962) and Demsetz (1969)? The question of appropriability is conditioned not only to the institutions but also to the technological progress, i.e. the way the creators are able to interact with consumers on the market. The intensity of properties of public goods like nonrivalry and nonexcludability was weaker considering their distribution (mainly through cinemas). It was relatively easy (compared to later historical periods) to manage the property rights towards films as the level of technological progress did not enable prospective free riders to purchase a copy of the film, make its own copy and consequently spread this copy instead of the entitled holders of the film. Such an activity would be too costly. Moreover, the probability of detection and punishment of such an activity was dramatically higher, compared e.g. with situations generated by the digital age we face today. Even if technically the production of films had all preconditions of being a competitive industry (thanks to the properties of the movies as easily marketable goods and thanks to the fact that the free and functioning private market for risks transferring existed, therefore, transferring risks on private subjects was not inherently impossible), an opposite direction of institutional development followed. (Doležalová, Moravcová, 2020, p. 2) To summarize, based on the lack of properties usually defining the public good, movies were easily marketable and the appropriability problem practically did not exist. From that point of view, the state aid was unnecessary and would have led to an overproduction of films. The standpoint that films do not need any state subsidies is supported

also by Fullerton (1991, p. 75). The film as a commodity was also defined by Sedgwick and Pokorny (2005, p. 10), who stress that the film requires a specific system of provision.

The theory of transaction costs explaining the concentration of the film industry

Nature of the firm (Coase, 1937) introduced a concept of transaction costs that help explain the size of a firm. On the one hand, the tendency of saving the costs might have led to the greater concentration of the industry. From the Coase's perspective these costs consist of costs for creating contracts, supervision of its fulfilment and generally inconveniences arising from the fact that the services are provided by external subjects, moreover potentially charging the price above the level of average total costs, depending on the competitiveness of the market with a specific good or service. On the other hand, merges and acquisitions or other forms of close cooperation within industry might lead to the loss of efficiency due to the fact, that decisions about the production are not driven any more by information about scarcity derived from the market prices, but they are made arbitrarily. What is more, the inclusion of a firm within a centralized entity will lead to the diminishing of incentives that formerly led this firm to compete in terms of price and quality with other firms on the market. Therefore, using resources internally might gradually become more and more expensive compared to using resources externally.

Czesany Dvořáková (2011) and Doležalová, Moravcová (2020) show the centralization and monopolization of the industry. That could be explained also by savings on transaction costs for making "contracts" with the government, i.e. lobbying. Reducing the number of parties participating in the discussion about the state aid was a reasonable strategy to follow.

Summing up, the tendency of the film industry to create one huge undertaking was probably driven not only by classical Coase's arguments about saving transaction costs for market exchange and related management of contracts, but also by an attempt to reduce the transaction costs for negotiating the support from the government.

Theory explaining the governmental support of the film

The film industry organized itself in order to negotiate the state aid and reshape related institutions for their benefit. According to the logic of the rent-seeking process (Krueger, 1974) they spent resources for lobbying activities as long as any additional costs for lobbying were just balanced by increment in benefits, especially a rent. A rent had not only a form of a monopolistic profit, but also direct subsidy or less visible (and subtler) changes of institutions that help an interest group either save costs or raise funds.

The social costs (what useful alternatives the society has to forgo when resources are spent in this non-productive way) of the rent-seeking by the special interest group also depend on how many resources were spent for persuading the government. The tougher was the task, the higher social costs. Therefore, the general institutional setting is important for answering the question about social costs. The more paternalistic and interventionalist government means that interest groups might benefit from it and save its costs for acquiring a rent. In such a society, the government is often pushed by voters and taxpayers to social awareness and such a mood might be extremely favorable for action of interest groups. Actually, this specifically happened during first Czechoslovak Republic.

What the theory suggests is that sometimes, proponents of the state aid perceive the cultural good to be a merit good with its intrinsic value with special properties which existence is just good for the society. Again, the concept of externalities and the free rider problem resulted in a theory that people are willing to be taxed because they know that the proceeds from the taxation will be used for funding cultural projects and they are aware of the fact that the compulsory taxation overcomes the free rider problem and thus makes every taxpayer happier than in the case when only voluntary contribution were gathered (Fullerton, 1991). From a previous discussion stating a movie should not be classified as a public good, this argumentation loses its attractiveness. But considering a paternalistic society protecting the creation and dissemination of so-called merit goods, government might be in a role making taxpayers involuntarily happy, knowing better than individuals what their cultural taste should look like.

The theory does not give a clear-cut answer whether the incentives introduced by the measures of the state for supporting creative industries really leads to a desirable goal, i.e. to producing the merit goods that makes taxpayers involuntarily happier.

3.1. Economic Performance of Creative Industries in Interwar Czechoslovakia

The first case study is devoted to the development of creative industries. Its aim is to follow a hypothesis, that the markets for art were volatile during first Czechoslovak Republic, as predicted by economic theory that assumes that authors face unpredictable demand. This unpredictability of the future stream of revenue stems from two issues. The first is, that the creator does not know ex ante, which work will be commercially successful (like Sedgwick, Pokorny 2005, p. 87, pointed out for the case of film).

Data, that would illustrate the unpredictability of demand for different pieces, in terms of revenues are not, so far, available. Nevertheless, we could use the data about the number of weeks for which a film was screened in Prague premier cinemas (Doležalová, Moravcová, 2020) to illustrate, that the distribution of the success was uneven and is typically accompanied by the existence of a few hits. Data for other sub-industries of creative industries has not been so far gathered.

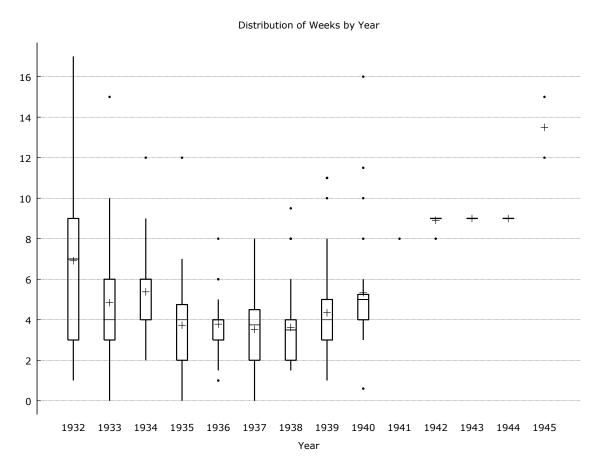


Figure 1: Distribution of the duration of the screening of films in Prague premiere cinemas (note, that during war years, the number was uniform for all films – 9 weeks – which was given by state authorities)

The second issue arises from the fact that all industries, not only the creative ones, had to cope with the consequences of the Great Depression, which adversely affected the demand for cultural goods (e.g., illustrated by Sedgwick and Pokorny, 2005, p. 159 for the case of Warners' Brothers' films). For the Czech environment, Doležalová and Moravcová (2020, p. 10) show that the film industry had to face the decrease in cinema attendance that resulted from the recession. Thus, this volatility might have implicated that authors strived for governmental protection that helped them cope with uncertainty. It is predominantly based on the data about cultural events and organizations in Prague, that can be extracted from statistic yearbooks by

Czechoslovak Statistical Office. Among available statistics, I choose those that I consider to be most contributive on the one hand. On the other hand, I wanted to diversify information about a specific sub-industry as much as possible. For the theatre, there are numbers of Prague theatres, all plays that were presented, and the number of plays authored by a Czechoslovak. Then, there are the numbers of Prague art exhibitions, the number of artists whose works were exhibited, including how many of them were Czechoslovaks, and the number of exhibited works. From the branch of music, I use the number of Prague concerts, the number of performed works and how many of them were authored by Czechoslovaks. For the film industry, I use the number of Czech and foreign long feature films in distribution (silent and talkies), the number of produced silent films and Czech versions of talkies, the number of cinemas in Czechoslovakia (both with and without sound equipment) and the number of film producers.

The time series consist of years 1928 – 1936, given the available resources. The nature of data does not provide space to use the methods of inferential statistics, as all data represents the development in the "treatment group". Thus, we are not able to statistically describe the difference in the development of those who were affected by the cultural policy and those that were not. The state applied its continuous cultural policy to all art branches in the form of different incentives. Therefore, one cannot identify one institutional breakdown as a single "treatment" affecting just one subgroup of subjects in the sample (treatment group) and not the rest of the subjects (control group).

The volatility of the development of the creative industries is analyzed by the methods of descriptive statistics. Let us start with the development of music industry. Comparing with the changes of real GDP per capita, the music market is much more volatile. All these three variables are significantly correlated. GDP that decreased in absolute terms (i.e., a negative growth rate) is an evidence of the Great Depression, that at that times affected Czechoslovakia. All rates of changes are calculated as $(Y_t - Y_{t-1}) / Y_{t-1}$. Y_t is a given variable representing the creative production in a specific year. A negative shock was caused by the inception of sound film – hundreds of musicians that produced background music in cinemas, lost their jobs (Kárník III, 2018, p. 346). On the other hand – the new sound film also required musical inputs, be it compositions or their performance. It is not the coincidence that The Municipal Symphonic Orchestra FOK (Film, Opera, Concert) was established in 1934 to deliver the most prestigious film music (Kárník III, 2018, p. 356).

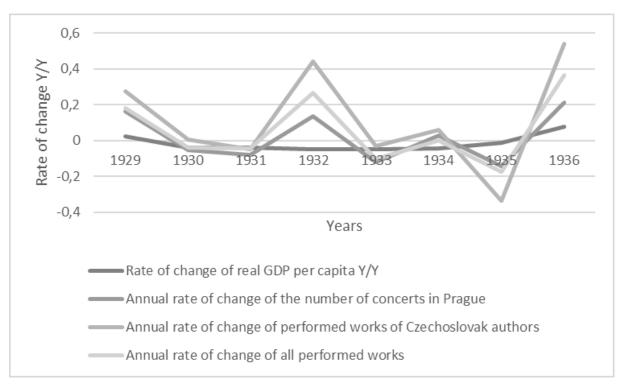


Figure 2: The development of music market in Prague (1928-1936), growth rates (Y/Y)

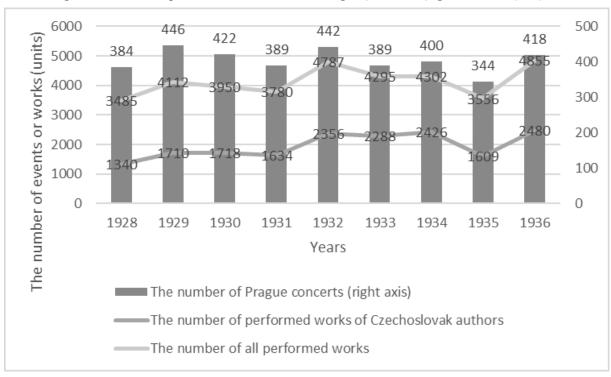


Figure 3: The development of music market in Prague (1928-1936), absolute values

The Figure about the development on the drama market, that contains year on year growth rates, shows that the theatres suffer the high volatility as well. The development of the overall number of plays and the number of plays authored by a Czechoslovak is highly correlated (97 %). But the correlation of growth rates for theatres and plays (both all and

Czechoslovak) is only 10 %. The volatility is again much higher than the baseline represented by GDP changes. Kárník III., 2018, p. 327, mentions that during first Czechoslovak Republic, all theatres (with rare exceptions like Divadlo Vlasty Buriana [The Vlasta Burian Theatre] and Osvobozené divadlo [The Liberated Theatre]) suffered financial difficulties, especially during the Great Depression.

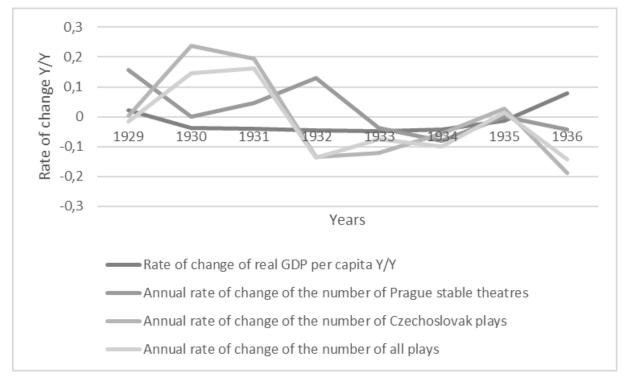


Figure 4: The development of drama market in Prague (1928-1936), growth rates Y/Y

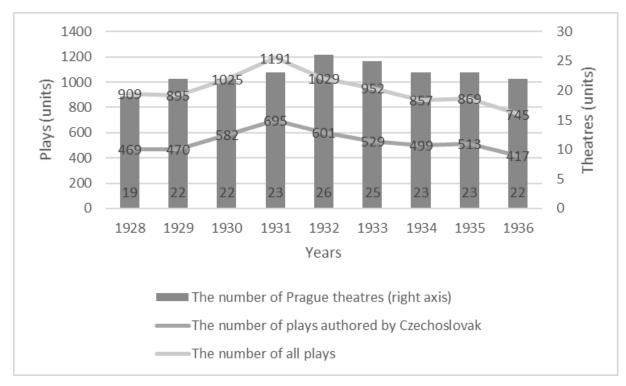


Figure 5: The development of drama market in Prague (1928-1936), absolute values

The next figure describes the development on the fine arts market represented by Prague exhibitions, the number of works of all artists and the number of Czechoslovak artists (again the year on year rate of change is used). This sub-industry was exposed to the volatility similarly as the two above discussed ones. But in contrast with them, it exhibits an unambiguously positive growth trend. The null hypothesis there is no correlation is rejected only for the mutual relationship of the rate of change in the number of exhibitions and in the overall number of exhibited works in Prague. The correlation between the two is 76 %.

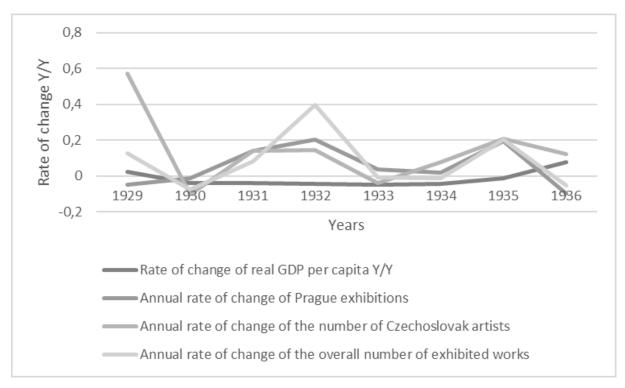


Figure 6: The development of the fine arts market in Prague (1928-1936), growth rates Y/Y

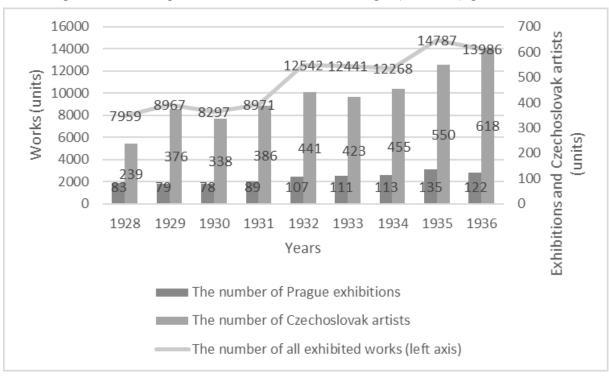


Figure 7: The development of the fine arts market in Prague (1928-1936), absolute values

If we look at rate of change year over year in the film industry, we realize that film-makers and also other parts of the distribution chain had to cope with high degree of changes. Often, growth was replaced by decline and the next year, the opposite development emerged. The drop in the number of distributed films in 1932 is the result of introducing the protectionist

contingent system, that allowed to import films only to producers of Czechoslovak films or to those that paid them for import permits. Another factor, that contributed to fluctuations, was the beginning of sound film. First six Czech speaking films were shot in 1930. This technological change required to raise the capital endowment of producers as the costs for using the sound equipment were relatively very high (Doležalová, Moravcová, 2020, p. 16).

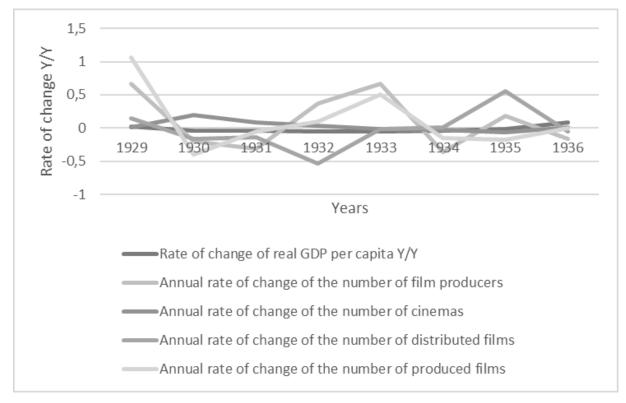


Figure 8: The development of the film industry in Czechoslovakia (1928-1936), growth rates Y/Y, Havelka 1935-1937, Havelka 1967, Štábla 1989, author's calculation (the number of cinemas is for the whole Czechoslovakia and includes both sound and non-sound cinema theatres; the number of films produced is the number of silent films and in 1930 when both silent and talkies were produced, there is a sum of the two categories /6 sound and 15 silent/; the number of films in distribution is for Czechoslovak and foreign films, both talkies and silent - the sum is for years 1929 - 1933)

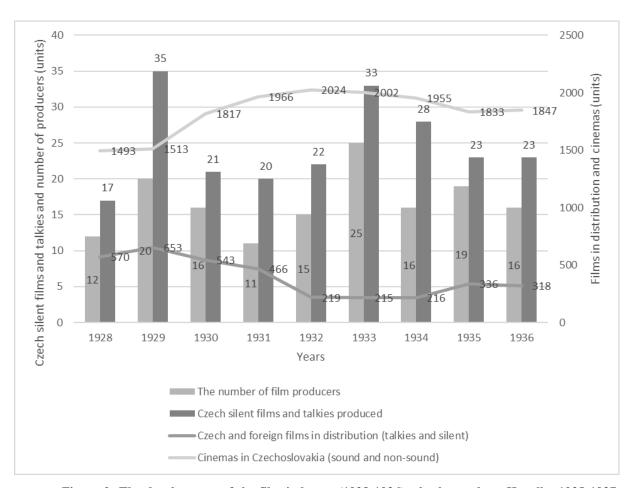


Figure 9: The development of the film industry (1928-1936), absolute values, Havelka 1935-1937, Havelka 1967, Štábla 1989, author's calculation

The numbers from statistical yearbooks of Czech Statistical Office and film industry publications⁴² can reveal whether there was a tendency toward stability of creative industries or whether the measure of volatility was variable over time. The figure bellow shows that the second proposition is true, i.e., the risk inherent in the creative business was significantly changing over time.

⁴² Their reliability (for the case of production costs) was confirmed by the research in Czesany Dvořáková, Doležalová, Moravcová, 2020.

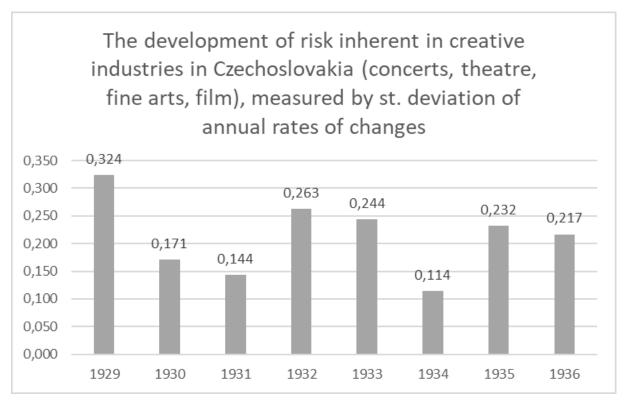


Figure 10: The development of the risk in creative industries (1928-1936)

The figure, that compares the standard deviation of annual rate of changes in particular creative industries, shows the film as the riskiest business. The market for the live performance of music in Prague is the second riskiest. The Prague drama market and exhibitions were relatively more stable.

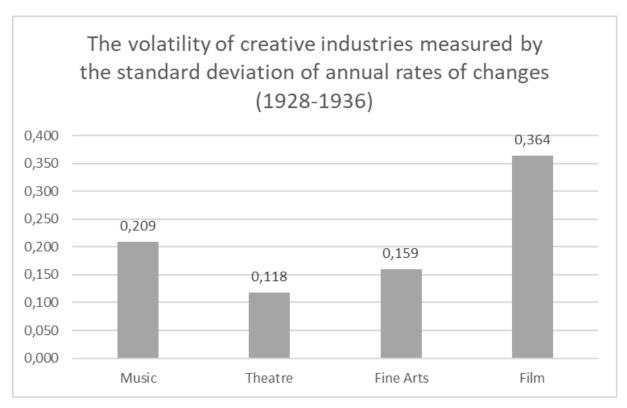


Figure 11: The volatility of creative industries measured by the standard deviation of annual rates of changes (1928-1936)

To sum up, there was undoubtedly very high degree of uncertainty and risk present in all analyzed art branches. If we compare their development with the real GDP per capita changes, the volatility is even more visible. The analysis suggests that creators faced unpredictable demand in line with the propositions of economic theory (Towse, 2000, p. 112) and due to general uncertainty typical for running a creative business in Czechoslovakia in thirties of the 20th century.

3.2. The relationship between the popularity and the government subsidies⁴³

The joint paper "Czechoslovak Film Industry on the Way from Private Business to Public Good (1918-1945)" by Doležalová and Moravcová is related to the complicated relation of the state and the film industry and deals with narrative used by the film producers and by policymakers. It describes the forms of interventions the state exerted toward the film industry. It also presents how the interventions changed the structure of the film industry.

In the third part of this paper, we enquire whether there is any statistical relationship between the level of utility and subsidies, following a hypothesis about the inefficiency of state subsidies. As a proxy for utility, we use the duration of weeks for which a film was screened in Prague premiere cinemas. We assumed that the subsidies did not affect the effectiveness of the film industry. Our findings indicate that the opposite is true.

This case study answers two basic questions: 1) whether there is a statistic relationship between the level of state subsidies and present popularity of films produced between 1932 and 1945 in Czechoslovakia; 2) whether there is a statistic relationship between the costs of films and their popularity for modern viewers. As a proxy variable for the popularity I use valuation of users of the fan platform *Czechoslovak Film Database* (csfd.cz). I consider long feature Czech speaking films⁴⁴.

The case study is organized as follows: A basic overview of existing papers covering the topic of relations of costs, subsidies and success of films is offered. Then I explain the complicated institutional development of rules applicable to the system of the governmental support to the film industry. Later, I present the descriptive statistics of the users' valuation from csfd.cz. And finally, I deliver the methodology and present the results.

Lucerna film, inventory number 66, sign. IV./c; Filmový poradní sbor, inventory number 36, sign. VII; Filmový poradní sbor, inventory number 37, sign. VIII;

National archive:

Ministerstvo průmyslu a obchodu, Filmový poradní sbor: box 2345, sign. 114616/36; box 2346, 2347; box 2754, 2755, sign. 115769/36. (52. meeting on 13 January 1936 - 140. meeting on 10 February 1938)

The detailed list of funds (hundreds of inventory number and signatures, especially for the data about costs) would be too long for this text and it will be provided upon request at hanal moravcova (at) gmail (dot) com.

⁴³ Certain parts of this case study were presented at The British Association for Slavonic and East European Studies (BASEES) Annual Conference, Cambridge, UK, April 2019.

⁴⁴ National film archive:

This case study contributes to the wide spectrum of papers about the relations between the budgets of the films, subsidies it received and its consequent success during the lifecycle of films. To be precise, the aim of the literature is rather to predict the box-office revenues by different methods and using different explanatory variables, not only a budget and a subsidy (e.g. Bagella and Becchetti 1999). The relation of the stardom presence and revenues is analyzed as well (e.g. Albert 1998, or Pokorny and Sedgwick 1999, 2001). As regards the period of thirties and forties, that are subject of this case study, economics of Hollywood and distribution of its production have been already documented and analyzed (e. g. Sedgwick and Pokorny 1998). Also, regional patterns of tastes of consumers were a subject of studies (Sedgwick and Pokorny 2012 or Sedgwick et al. 2013). Sedgwick et al. (2019) show that there is a difference in the demand patterns for different regions of post-war Italy. A concise overview of the literature about the relations of budgets, subsidies and box-office revenues is offered by Gunter (2018). A study with a goal similar to this case study, but for present Italy, was done by Teti et al. (2014) and also (2018), finding that subsidies are ineffective and they do not lead to higher success of films in cinema theatres. The literature focused on history of film as a medium that treats many its aspects, including economic conditions and the role of cartelization and patent wars in sound technology for film in thirties of the 20th century in Czechoslovakia is in Szczepanik (2009). The book also describes the functioning of the musical markets for gramophone plates and musical parts and their connection to the film industry. Certain aspects of the relationship of Czechoslovak filmmakers and the state are in Klimeš (2016).

Doležalová, Moravcová (2020) reveals how the system for the direct subsidies to film industry developed and how it affected its structure: The flat support of 100 000 CZK nominally for almost all films and strict restriction of import during the contingent system⁴⁵ from 1932-

⁴⁵ The support of the government was aimed at producers of Czech films that were often also distribution companies. A producer of one Czech film could either import a certain number of foreign films or sell his permits (contingent bill) to another importer and thus receive the financial support. 7 contingent bills each for 15 000 CZK yielded 105 000 CZK. According to Klimeš (2016, p. 177), all films were given the financial aid of 100 000 CZK in the form of import permits except for the film Funebrák from 1932 [The Undertaker]. The ratio of produced and imported films was 7:1 and total import limited to 210 films (Štábla 1989 III, p. 42). Havelka (1935) shows that in the summer 1934 the ratio was changed to 6:1 and the fee for a contingent bill was raised to 17 000 CZK. Later, in the autumn 1934 the ratio was 5:1 and the fee increased to 20 000 CZK. Thus, the overall volume of the support remained approximately the same for the whole period 1932-1934. However, the competition of foreign films was limited more and more.

1934 was followed by the registration system⁴⁶ (1935-1939). During the registration system, a newly established government body Film Advisory Board decided which films could have been imported. For each imported film, there was a fee of 20 000 CZK nominally collected into a Registration Fund. The Board, established within Ministry of Industry, Trade and Business, then allocated money from the Fund individually. They deliberated and discussed the proposals for each film, considering production program, financing, scenario etc.

According to the decree n. 131.126/34 about the regulation of the import of cinematographic films exposed to the light, everybody who imported into Czechoslovakia more than 5 foreign films had to distribute one Czechoslovak cultural-educational film supplement (short film added to the main program) based on a motive approved by the Board. It could be also one Czechoslovak long feature film if it had cultural-educational characteristics. The contingent system thus still existed, but in a modified, light version: those who rented foreign films had to rent also the films that were in line with the interest of the state.

From 1935, the practice emerged that a typical level of a subsidy was 140 000 CZK. The first part 80 000 CZK was released for a film which production program was approved by the Board, once the producer proved the shooting started in the studio. This was stated not by the decree but by a guideline made by Ministry of Industry, Trade and Business and Central Association of Cinematographs.

The decree was only a basic framework, the Board approved many other guidelines during the first year of its activity. In 1936, there was a tension in the Board about the rules and the consistency of the decision-making process. This fight well visible in archive resources (minutes from the meetings) resulted in the adoption of the Guideline for application for subsidies, resp. contributions to produce cs. sound films. The second was the Guideline for granting subsidies and contributions to produce cs. films and for granting the state guarantee in competence of the Film Advisory Board. In April 1937, the Financial Committee within the Film Advisory Board was established. Its members were representatives of Ministry of Finance, Ministry of Industry, Trade and Business, and the majority shareholder of the largest company in the Czechoslovak film industry, the AB company owning the Barrandov Studio.

The new members of the Film Advisory Board were from January 1937 according to the decree 5/222/37 the representatives of Ministry of Finance, Ministry of National Defense,

⁴⁶ The inception of the registration system brought the end of the boycott of the Czechoslovak market by Americans that started during the contingent system.

Czechoslovak Film Union (unifying film workers) and Czechoslovak Film Company in Prague (Havelka, 1937, p. 14).

According to the wording of the Guidelines, there was a straightforward tendency to prioritize the national interest. Those films, that were perceived to be naïve and bad quality were not recognized and thus, not supported. The films with high artistic potential should have been attended by directors in training. According these new two guidelines, the basic subsidy was 70 000 CZK and another subsidy (the contribution 70 000 CZK) was given to those films that were recommended for the realization by the Board. It was possible to obtain the contribution also ex post when prior objections were refuted thanks to the presentation of the final film. Only an exceptional piece of work could get another 70 000 CZK (i.e. 210 000 CZK totally). The production program had to be approved prior to the realization.

Beside a direct support, films also could have obtained a guarantee. Granting the state guarantee meant for the producer huge overseeing not only by the creditor but also by the state that required satisfying a wide range of other conditions. The state prohibited the commonly used practice of distributors (often operating as producers) attaching several foreign films when a cinema wanted to rent only a Czechoslovak film. According to Szczepanik (2009, p. 77), such a practice allowed to finance the production of Czechoslovak films by revenues from foreign films. Thus, the producers in the role of film distributors economically survived.

The new guidelines from 1937 were extraordinarily strict when the state provided a guarantee for financing a film. The state could see all the accounting and financial records, the scenario, the staffing, the expected budget. The producer had to deposit the negative of a guaranteed film in a Czechoslovak studio.

The members of the Board were both representatives of the state and representatives of the film industry. As I have mentioned above, their official main goal, presented in government documents, literature (Havelka, 1936, p. 9) and guidelines was to improve the quality of Czechoslovak films. As I show later, it was not always the case. Actually, the decision-making process was full of conflicts between idealistic and conservative representatives of the state and pragmatic profit seeking representatives of the film business. Much more factors played an important role when the Board decided about the final sum of the support for individual films: personal tastes, personal connections, clientelist behavior, the current mood during meetings responding to the changing composition of present members etc.

Let us look at certain tendencies of the behavior of the members of the Board in thirties. A representative case is a typical non-controversial comedy *Mravnost nade vše* [Morality above all else, 1937]. It is highly valued at csfd.cz (82 %). It received without almost any problems

and arguments 70 000 CZK at 95th meeting on 4 January 1937 and other 70 000 CZK at 103rd meeting on 11 March 1937. A short debate on 5 March 1937 at 102nd meeting brought a simple note that this film was better accepted than *Velbloud uchem jehly* [Camel throughout the Eye of a Needle, 1936]. One member was against granting the second tranche of 70 000 CZK (as the film was not of a sufficient quality), but others argued that the film brought a discovery of the talent of the future star of the Czechoslovak movie Adina Mandlová. The Board criticized exaggerated constructions in the studio. In thirties, as archive resources documents, all films of the similar character that represented for the Board a sufficiently high level of quality, as Morality above all else, received at least the basic subsidy. Majority of films fall within this non-controversial category and received either basic (70 or 80 thousand old CZK) or higher (140 thousand old CZK) support. But there were some films that were discussed very profoundly.

The film Na tý louce zelený [On the green meadow, 1936] was based on an existing operetta. Csfd.cz's users value the film at 63 %. At 67th meeting on 11 May 1936 a subsidy 80 000 CZK was promised, but real expenditure is missing in the records. At 76th meeting on 7 August 1936, there was an intensive debate that the film is trivial and should not receive a subsidy. The proponents of granting the subsidy argued, that the operetta is supported by the state as the theatres could not have paid the entertainment tax and required to preserve the consistency. But others meant that the Board should decide according to its own deliberation, not looking at decisions of other authorities. The decision was postponed. At 89th meeting on 16 November 1936, the decision making was based on new guidelines. The representatives of the Ministry of Finance and of Ministry of Education were still against the support, pointing to the fact that the film was commercially very successful. That is why only a basic level of the support, 70 000 CZK was suggested, but I did not see in the archive resources that the money was really released. At 90th meeting on 23 November 1936, there was again a lively debate. The representative of the Ministry of Education did not agree with sending the support and required submission of records about the financial situation of the film, even though it was not a common requirement. The result of the whole process remains unknown, but the film On the green meadow was among the most controversial for the Film Advisory Board.

On the other hand, all the members of the Board agreed that films as *Tvoje srdce inkognito* [Your heart incognito, 1936] should not be supported at all. At 78th meeting on 28 August 1936 one member asked to forbid the production of such films. Such a demand was unprecedented. At 83th meeting on 5 October 1936, the film was said to be below the standard and naïve. At 89th meeting on 12 October 1936, the Board did not approve even the corrected

scenario. Kind of rarity is the statement of Karel Lamač, a famous director and actor, loudly announcing that he had nothing to do with this film (at 87th meeting on 3 November 1936).

Mateřství, Ave Maria, Děti veliké lásky [Maternity, Ave Maria, Children of a Great Love, 1936] are all the names for one film that was lively debated during the meetings of the Board, illustrating how its members went into detail. At 75th meeting on 2 July 1936, the members criticized certain elements of the scenario as unrealistic. The plot is about killing a kid by a scythe when hiding in a corn field. The members of the Board refused to believe it, although such a case really existed in Slovakia. The scene when a kid is hiding in a boot was condemned as an outrage. At 78th meeting on 28 August 1936, the producer Reiter demanded for Maternity a loan of 300 000 CZK. This escalated in a debate that proper guidelines had to be approved to unify the standards and rules for granting subsidies and other forms of the support. These guidelines really appeared after a few months. At 89th meeting on 16 November 1936, the members agreed that the film is artistically really of a good quality, nevertheless, it is not commercially successful. We can see that the films that were successful, like On the green meadow did not deserve the support but those who were considered to be a merit good (despite nonsenses in the screenplay) like Maternity obtained the support quite easily. The debate continued at the 90th meeting (p. 7) on 23 November 1936. The members decided about granting the second part of the subsidy (60 000 CZK) and providing a loan of 40 000 CZK. The film was again classified as ambitious, but the producers did not manage to shoot the film of appropriate technical parameters. Reiter did not receive a guarantee. Some members pointed to the fact that this could discourage other producers to come up with artistically ambitious projects in the future.

The film Zborov [1938] that reconstructed the battle of Czechoslovak legions during the Great War deserved the full support according to all members of the Board. At 119th meeting on 23 August 1937 (p. 7) everybody agreed that the film is in line with national interests and that it was necessary to oversee its quality by representatives of Ministry of Defense. The guarantee was granted while expecting that the film will not be commercially successful. They expected that the costs of 1 200 000 CZK and the subsidy of 140 000 CZK would bring the final loss of 150 000 CZK; if it were accessible to juveniles, the loss would be 100 000 CZK. This film was according to the Board clearly a merit good, in other words it was in line with the interest of the state.

Let us look at the following tables showing what kind of films received exceptional and, on the other hand, no financial support. There is both Czech and English name, the name of the director, typology of a film and weather it received any award (AW). (G) is present when a film was granted a state guarantee for its financing.

1025	M (D1-/ AW)				
1935	Maryša (Rovenský, national classic, AW)				
1936	Jizdni hlidka - The Mounted Patrol (Binovec, war drama about legionaries, AW)				
	Vojnarka (G) (Borský, national classic)				
1937	Poručík Alexander Rjepkin - Lieutenant Alexander Rjepkin (Binovec, war drama				
	about legionaries, AW)				
	Filosofská historie - A Philosophical Story (G) (Vávra, national classic, AW)				
	Harmonika - The Accordion (G) (Brom, social drama from the Great Depression,				
	AW)				
	Láska a lidé - Love and People (Vančura, Kubásek, unusual drama with artistic				
	ambitions, AW)				
	Batalion - Battalion (G) (Cikán, social drama about alcoholism, AW)				
	Rozvod paní Evy - Eva's Divorce (Sviták, drama about unfaithfulness)				
	Srdce na kolejích (Semafor) - Heart on Rails (G) (Sviták, romantic and naïve				
	melodrama)				
	Svět patří nám (G) - The World Belongs to Us (Frič, anti-Nazi comedy with Jan				
	Werich and Jiří Voskovec, AW)				
	Panenství – Virginity (Vávra, drama, AW)				
1938	Cech panen kutnohorských - The Guild of the Kutná Hora Virgins (Vávra,				
	historical comedy raising national consciousness, AW)				
	Svět kde se žebrá - The World Where One Goes Begging (Cikán, comedy)				
	Pán a sluha - The Lord and his Butler (Schorsch, comedy)				
1939	Kristian (Frič, romantic comedy, AW)				
	Dívka v modrém – Girl In Blue (Vávra, romantic comedy, AW)				
	Eva tropí hlouposti - Eva Fools Around (Frič, comedy)				
	Ohnivé léto - Fiery Summer (Čáp, Krška, poetic romance, AW)				
	Svátek věřitelů - Creditors' Day (Hašler, comedy)				
	Humoreska - Humoresque (Vávra, drama, AW)				
	Veselá bída - Merry Poverty (Cikán, musical comedy)				
	Table 2. The evention of even dingly high subsidies (above 160,000 CZV nominally)				

Table 2: The overview of exceedingly high subsidies (above 160,000 CZK nominally)

1935	Koho jsem včera líbal - Who Did I Kiss Yesterday? (film material lost, Svoboda,	
	romantic comedy, bad technical and artistic quality)	

1936 Tvoje srdce incognito - Your Heart Incognito (Innerman, romantic c					
	technical and artistic quality)				
1937	Klatovští dragouni - The Dragoons of Klatovy (Špelina, romantic comedy)				
	Matčina zpověď - A Mother's Confession (Špelina, melodrama from a Slovakian				
	village)				
	Poslíček lásky - Messenger of Love (Cikán, romantic comedy)				
	Vdovička spadlá s nebe - Widow from the Sky (Slavínský, romantic comedy)				
	Ze všech jediná - The One and Only (Binovec, romantic comedy)				
	Žena na rozcestí - Woman at the Crossroads (Kmínek, melodrama)				
	<i>Žena pod křížem</i> - Woman below the Cross (Slavínský, melodrama)				
1938	Manželka něco tuší - The Wife Smells a Rat (film material lost, Špelina, romantic				
	comedy)				
	Svatební cesta - Honeymoon Journey (Slavínský, romantic comedy)				
1939	?				

Table 3: The overview of films with no support (for 1939, only data about granted supports are available in archive resources, no information about who did not receive anything)

Based on a qualitative thematic analysis (Hendl 2016, p. 264) of synopses, it can be said that the state supported three categories of films: 1. Adaptations of works of national classics; 2. War dramas with a legionary (and anti-Habsburg Empire) motives; and 3. Social dramas. In 1938, three comedies got support over 160 thousand CZK nominally. *Cech panen kutnohorských* [The Guild of the Kutná Hora Virgins, 1938] includes the theme of national awareness as well. Important, serious national themes also appeared in other films, but according to the archive funds, for example, the film Zborov (otherwise a typical candidate for the highest support), got only 80 thousand CZK nominally and accepted the state guarantee.

In 1939, there is a clear institutional break. With the establishment of the Protectorate in March 1939, the film institutions had started to change. However, the Film Advisory Board issued the new guidelines for granting the state financial aid in October 1939. Therefore, and also because of inertia, films from 1939 were included in the period of the first republic (i.e., to the first group of the data used in OLS models), although almost all were made during the Protectorate. The year 1939 meant for the film industry mainly the Aryanization, the first unification of organizations of the film industry into the Film Union for Bohemia and Moravia and the establishment of censorship at the office of the Reichsprotektor, instead at the Ministry

of the Interior. The German element gradually established by the appointment of so-called confidants on the key positions.

It was impossible for the state to financially support films with themes celebrating Czech character and history or military bravery. From the titles and synopses of the films of 1939, it is clear that they have been situated at an indefinable time and are devoted to topics outside the political and war context. They show the Protectorate as if the war had never been there (this film policy was preserved up to 1945). And idyllic and romantic comedies (except for the drama *Humoreska* [Humoresque, 1939] with a social dimension, which premiered on 11 August 1939 and was awarded at the Venice Film Festival) were the ones that got exceptionally high support (over 160 000 CZK nominally). In 1939, however, the number of films that Czech filmmakers were allowed to make was still not reduced and 39 films were produced (later, during WW2, the maximum production was limited by German authorities).

The characteristics of unsupported films in the 1930s are obvious: they are often naïve, full of kitsch and red library motifs, with shallow screenplay and silly dialogs. The state did not support 8 romantic comedies and 3 melodramas. Users of csfd.cz usually comment that such films are something that is very difficult for today's viewer to watch. Even the technical and craft quality of these titles is not high – unsuccessful editing, mad script, stiff or exaggerated performances. Only the melodrama *Matčina zpověď* [Mother's Confession, 1937], which is a tragic love story set in the environment of a Slovakian village, is thematically excluded from this scheme, but the technical quality is, according to comments of csfd.cz users, low.

The rise in quality as a consequence of distributing state aid by the Board is inherently impossible to measure, therefore, it was not possible to check whether members of the Board fulfilled their task or not. Nevertheless, the proclamations of praiseworthy intention were extremely loud and visible among many resources. From the economic history perspective, one can evaluate whether those film that were supported more generously are nowadays more popular than those that received low or no support. It is necessary to say, that the first-republic films create an important part of Czech cultural heritage today. They are still very popular, remaining stable part of television programs. Frequently, many films are perceived to be produced during the first republic, but, actually, they are produced during the period of the Protectorate. There is no surprise that viewers tend to oversee the difference between the two periods. The propagandistic aim of the films from the Protectorate was paradoxically to maintain idyllic character of the first republic. Films had to allow viewers to forget that they live in the Protectorate suffering consequences of the WW2 (Doležalová, Moravcová, 2020, p. 18).

The Film Advisory Board also functioned during the Protectorate within Ministry of Industry, Trade and Business. Then, it was abolished and newly established in the summer 1942 under Bohemian-Moravian Film Union. It worked fully under German authorities and under new centralized authorities of Czech film industry (Havelka 1946, p. 9-18; Czesany Dvořáková 2011, p. 394). The Board approved new guidelines for the government support in 1939, 1941 and 1943. The new Body of Lectors was constituted which task was, not surprisingly, the care about the quality of Czech films.

The new guideline from 1939 increased the government support. 200 000 K was a subsidy, then 100 000 K was a premium and an amount up to 500 000 K was a special premium. The film was assessed by the Production Committee and the Financial Committee. An important change related to the fact that only 15 % of own funds (not 50 % as previously) were necessary. The state oversaw both the film-making and its financial conditions.

The guideline from 1941 increased again the amounts of the support. The producers could obtain the subsidy 200 000 K, above it a premium of 300 000 K or interest free loan up to 1 000 000 K. Above all it, the producer could receive a special premium up to 500 000 K. The minister of finance could provide a guarantee for the loan necessary to cover the rest of the costs while setting his own terms and conditions. The 1941 guideline stipulated the duties for the producers that obtained a loan that were like those previously applicable to the case of providing a guarantee. The loan started to be repaid when the producer already reached revenues of 120 % of the costs of a film. Then, from the revenues, 70 % went to the state as a repayment of the loan and 30 % went to the producer. An opportunity for the state to diversify the risk and to take money from extra-profit to finance loss elsewhere existed before the WW2 and it was kept. Not only the production but also the consequent exploitation was supervised. Cinemas had to report the revenues to the distributors (i.e. film rentals) and they consequently reported the numbers to Bohemian-Moravian Film Union.

The guideline in effect from 20 October 1943 stipulated also an indirect support of film-making: new institutions were established like archive, library and research. The competitions and granting state awards were introduced. The producer of a long feature film could receive an interest free loan up to 50 % of suggested costs (but they should not have exceeded 8 million K nominally). In addition, it could receive a premium up to 1 million K for an extraordinary film. The loan started to be repaid after revenues reached the level of 130 % (not 120 %) of costs. Then, the state got 60 % (not 70 % as previously) from revenues during five years from the premiere. When the loan could not be repaid, it was simply written off. Thus, this type of the loan could be called a generous support, almost a direct subsidy.

To summarize the development of the institutional framework, we can conclude that before the second world war the state tried to systematically support the film-makers. From 1935 it even started to differentiate the support and tried to promote those films that the members of the Film Advisory Board considered to be promising (officially they supported films with higher quality, at least as perceived by them). Still, the first republic was a period of free competition, although the market forces were limited by the policy of the state. On the other hand, the period of the Protectorate could not be perceived as a free market at all. The authorities (especially the Germans) decided about the number of films per year and approved the scenarios (Czesany Dvořáková 2011, p. 144). But the financial support was enormous (even if we look at real, inflation adjusted numbers, see Doležalová, Moravcová, 2020). That is fully in line with new economic regime introduced by German authorities: the centrally planned economy.

The boxplot⁴⁷ below describes the development of the distribution of the csfd.cz valuation. The valuation for films from the Protectorate is, on average, higher than for films from first Czechoslovak Republic. The general rise in the valuation might be related to much more factors than the regimes for granting subsidies and basic institutional framework. As the time went, film-makers became more and more experienced. Their ability to shoot films with proficiency needed for high rated film experience of viewers might have contributed to greater popularity of films from the Protectorate. This is the reason, why I run separate OLS for thirties and for the Protectorate and why I very carefully interpret the result for OLS for the whole period (1935-1945).

Pafort-Overduin et al. (2018) use so called POPSTAT index. This index is based on wide range of data about the cinema programs in different regions and for the whole life-cycle of a film. The distribution of POPSAT (Pafort-Overduin et al., 2018, s. 112-113) is different from distribution of csfd.cz valuation. It is due to the fact, that POPSTAT index reflects and does not "hide" the existence of blockbusters. On the other hand, the hypothesis about the normal distribution of the csfd.cz valuation was not possible to reject – csfd.cz does not contain any outliers like POPSTAT index.

⁴⁷ These plots display the distribution of a variable. The central box encloses the middle 50 percent of the data, i.e. it is bounded by the first and third quartiles. The "whiskers" extend from each end of the box for a range equal to 1.5 times the interquartile range (the difference between 75th and 25th percentiles). Observations outside that range are considered outliers and represented via dots. A line is drawn across the box at the median. A "x" sign is used to indicate the mean. Explanation was provided by the program Gretl.

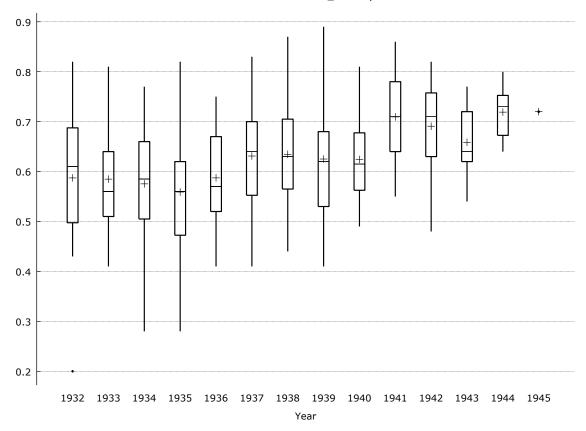


Figure 12: Distribution of the valuation of the users of the webpage csfd.cz from 1932 to 1945

The analysis of the profitability as done e.g. by Sedgwick and Pokorny (1999) is not feasible given the available data. Nevertheless, we can analyze the productivity of the factors of productions, albeit indirectly. We could ask whether higher real costs⁴⁸ are associated with higher value of the product (popularity) – in this case represented by the dummy about the rating of users of csfd.cz. There is an assumption that higher real costs were spent due to more labor and capital inputs.

To find any general relationship between budgets and modern popularity, I run a simple linear OLS regression. But that reveals no statistical relationship between the level of costs and the proxy for popularity. The data are extracted from years 1932-1939, where there is data about total costs for 58 films. I exclude one outlier – the film *Důvod k rozvodu* [Reason for the Divorce, 1937] which costed 4 million CZK nominally (i. e. more than 30 million 2016 CZK),

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⁴⁸ More about the development of real costs of film-making in Czesany Dvořáková, T., Doležalová, A., & Moravcová, H. (2020).

as the typical (and average) budget was less than 1 million CZK nominally. The relevant model (OLS when the dependent variable is csfd.cz valuation) is in the Appendix (model I).

For the period of the Protectorate (1940-1945), I also run a simple linear OLS regression, that again reveals no significant results as regards the level of costs and present popularity. I drop two films as outliers: unfinished *Kniže Václav* [Prince Wenceslas, 1942] with nominal costs of more than 20 million K (in stable 2016 prices more than 90 million CZK) and *Rozina sebranec* [Rozina the Foundling, 1945] with nominal costs of 18 million K, as typically the costs did not exceed 10 million K nominally. Moreover, Rozina sebranec was finished after the end of the war and nationalization⁴⁹. The details about the regression are in the Appendix (model II).

If we run OLS regression for the whole period, we can see that on 0.05 confidence level, that higher costs are associated with higher popularity, as measured by csfd.cz valuation. These results may be biased just because we included two institutionally different periods. From the boxplot, we can see that films from the period of the Protectorate are valued generally higher, than these from thirties. It might be given by the fact that, as the time went, the filmmakers mastered the art of story-telling and that the technical quality raised as well. On the other hand, the level of costs raised substantially even when we adjusted the figures for the inflation.

Records about inflation are from reliable resources. However, one may have concerns that official changes in price levels captured by the indices might underestimate the actual rise in prices in the whole economy, including black market. In other words, it is reasonable to expect that the overall change in prices in the economy was not reflected by price indices. That would mean that not so much scarce resources (as suggested by our numbers) were spent during the Protectorate in real terms. On the one hand, general change in the price level arose because of the changes in the money supply. But on the other hand, creating a film required sacrificing more other goods and services than in 30ies. And as the literature suggests, some components of film making became expensive just because they were not available in the war economy. E.g. Havelka, 1946 argues, that the substantial growth of costs emerged due to the increase in the rent for studio and that rent raised in order to adjust Protectorate prices to the German level. Also, he states that prices for material for construction, decoration, costumes and property grew up.

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⁴⁹ According to Lapour (2015, 71-77), the final costs amounted to 24.516.553,30 K.

These considerations complicate the discussion about the relevance of the OLS results. We simply do not know, to what extent we can attribute higher costs to the general increase in prices in the economy. We know that film-makers paid more for hiring people, purchasing material and renting studio. If the increase in costs was not connected only with the general increase in money supply, two possibilities emerge: 1) film-makers used more input to create a film in the Protectorate period; 2) inputs to create films were approx. the same as in thirties, but they were much more expensive due to general scarcity of resources in the war economy. Given the comments provided by Havelka (1946) and the evidence across archive resources, the mix of all three factors probably contributed to the rise in budgets. The film-makers could afford it just because of the generous support of the government (Doležalová, Moravcová, 2020).

Rozina sebranec and Kniže Václav were excluded from the sample as outliers, similarly as in case of OLS for the period of the Protectorate (1940-1945). The model does not suffer from the heteroscedasticity and also the residuals exhibit the normality. However, explanatory power of the model, as measured by R-squared, is extremely low, only 3 %. Nevertheless, a significant statistical result predicts that increase in costs by 1 million new CZK (that is less than 140 000 old CZK from interwar Czechoslovakia) results in increase of the csfd.cz valuation by 0.2 p.p.

Model 1, relationship of costs and popularity from 1932 to 1945: OLS, using observations 1-333 (n = 101)

Missing or incomplete observations dropped: 232

Dependent variable: Valuation CSFD

	Coefficient	t Std. Error		t-ratio	p-value	
const	0.650831	0.014	5534	44.72	< 0.0001	***
Costs real	2.11471e-09	1.0505	1e-09	2.013	0.0468	**
_						
Mean dependent va	r 0.67	3861	S.D. d	ependent var	0.0	91771
Sum squared resid	0.80	9077	S.E. o	f regression	0.0	90402
R-squared	0.03	9323	Adjus	ted R-squared	d 0.0	29619
F(1,99)	4.05	2303	P-valu	ie(F)	0.0	46826
Log-likelihood	100.	4498	Akaik	e criterion	-190	6.8996
Schwarz criterion	-191.	6694	Hanna	ın-Quinn	-194	4.7823

Table 4: Model 1



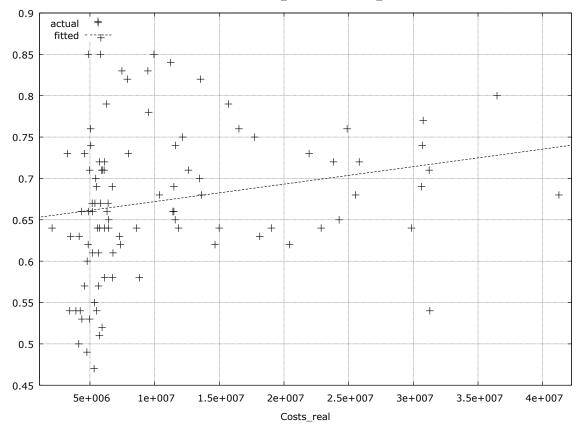


Figure 13: Model 1, the relationship of real costs and valuation of users of the csfd.cz webpage between 1932 and 1945

Following an assumption of historical film literature, I ask whether modern popularity of films from the period of the contingent system changed by introducing the more relaxed registration system. For assessing this, I evaluate whether there is any statistical difference between averages of the rating if we compare groups of films from 1932-1934 and from 1935-1939. During 1932-1934, there was a contingent system providing a flat support to almost all films. Then, authorities started to officially care about the quality of films and started to differentiate the subsidies according to their quality (as assessed by them). There is a general assumption of the literature, that the quality of films improved significantly after the introduction of the registration system. It relates to the fact that during 1932-1934 the distribution companies produced Czechoslovak films just to be able obtain a license to import foreign films that were far more profitable (Szczepanik 2009, p. 77; Klimeš 2016, p. 178). Those films were of a low quality and were called "contingent films".

We can test whether the change in popularity is significant comparing difference of csfd.cz valuation of films from the two regulatory systems. If we compare the difference in means of groups of films from 1932-1934 and 1935-1939 from the standpoint of csfd.cz users,

they perceive films from the period of the registration system as better. Average valuation of older films is 58,2 % and valuation of newer films is 61,5 %. But this difference is not statistically significant if we consider 0.99 confidence level⁵⁰. But we would reject the null hypothesis about equality of means if we work with 95% confidence level. Please note, that the box 1 is for the period of the contingent system, i.e. the earlier one. This result must be interpreted very carefully. On the one hand, low quality contingent films were not shot any more. But on the other hand, in the later period of the registration system, the filmmakers could just have become better because they got necessary experience how to make talkies during the earlier contingent period. Thus, the movement in the valuation of users of csfd.cz over time might not be associated solely with the change of the policy regimes.

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⁵⁰ Null hypothesis: Difference of means = 0
the
Sample 1 (contingent system):
n = 80, mean = 0.58215, s.d. = 0.11966
standard error of mean = 0.0133784
95% confidence interval for mean: 0.555521 to 0.608779

Sample 2 (registration system):
n = 161, mean = 0.61534, s.d. = 0.10855
standard error of mean = 0.00855494
95% confidence interval for mean: 0.598445 to 0.632235

Test statistic: t(239) = (0.58215 - 0.61534)/0.0153674 = -2.15977
Two-tailed p-value = 0.03179
(one-tailed = 0.01589)

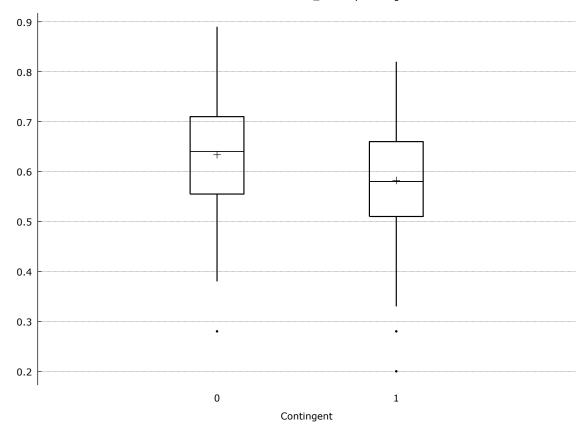


Figure 14: The distribution of the valuation of users of the web page csfd.cz showing they value later films from the registration system higher

To see whether those films that were supported more generously are more popular for modern viewers, I again run a simple linear OLS regression both for thirties and the Protectorate (excluding years 1932-1934 with flat support). If we measure the relationship of the real subsidies and the csfd.cz valuation, we could see statistically significant results. However, the model explains only around 11 % of the variability of the csfd.cz valuation. An increase in the subsidy of 1 million 2016 CZK (that is 130 560 old CZK) predicts the increase in the csfd.cz valuation by 8 p.p. The model does not contain heteroscedasticity and residuals are distributed normally.

Model 2, the relationship of real subsidies and csfd.cz valuation in thirties: OLS, using observations 1-253 (n = 136)

Missing or incomplete observations dropped: 117

Dependent variable: Valuation CSFD

	Coefficient	Std. Error	t-ratio	p-value	
const	0.545020	0.0190289	28.64	< 0.0001	***
Subsidy_r	8.08702e-08	1.90636e-08	4.242	< 0.0001	***

Mean dependent var	0.616985	S.D. dependent var	0.106669
Sum squared resid	1.354201	S.E. of regression	0.100528
R-squared	0.118396	Adjusted R-squared	0.111816
F(1, 134)	17.99560	P-value(F)	0.000041
Log-likelihood	120.4665	Akaike criterion	-236.9330
Schwarz criterion	-231.1077	Hannan-Quinn	-234.5658

Table 5: Model 2

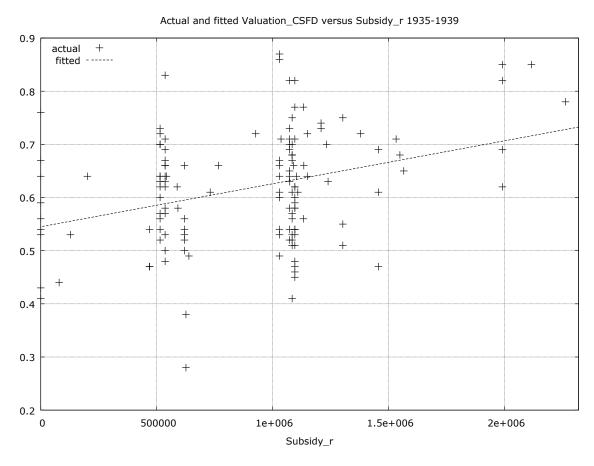


Figure 15: Model 2, the relationship of real subsidies and csfd.cz valuation from 1935 to 1939

From 1936 to 1939, the archive resources reveal which films obtained a guarantee for the bank loan. We can compare the difference in the means of the csfd.cz valuation between the two groups. As you can see, films that did not obtain a guarantee are valued higher. Nevertheless, the difference in the valuation is not statistically significant⁵¹. Thus, it seems that

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 $^{^{51}}$ Null hypothesis: Difference of means = 0

Sample 1: n = 23, mean = 0.60739, s.d. = 0.08577 standard error of mean = 0.0178843

popularity of both groups is basically the same and awarding the guarantee was not decisive for the long-run success of the film.

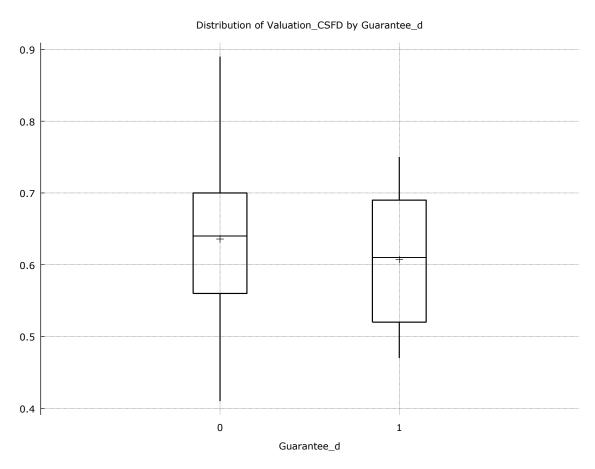


Figure 16: The distribution of the valuation from the csfd.cz webpage according to whether a film obtained a guarantee (1936-1939)

For years 1940-1945 I run a separate simple linear OLS regression for real subsidies and popularity. I excluded again the film *Kníže Václav* [Prince Wenceslas, 1942] as it received more than 3.5 million K nominally that is more than 15 million 2016 CZK (the second highest

95% confidence interval for mean: 0.5703 to 0.64448

Sample 2:

n = 96, mean = 0.63583, s.d. = 0.10871
standard error of mean = 0.0110952
95% confidence interval for mean: 0.613803 to 0.657857

Test statistic: t(117) = (0.60739 - 0.63583)/0.0243251 = -1.16916
Two-tailed p-value = 0.2447
(one-tailed = 0.1224)

subsidy in 1942 was 1 million K nominally). Nevertheless, no statistical relationship exists between the two variables. The model is in the Appendix (model III).

Then, I run also an OLS regression for the whole period 1935-1945. The results may suffer from the same bias as described earlier for the case of costs. But they seem satisfactory because the residuals do not exhibit heteroscedasticity and they are normally distributed. *Kníže Václav* [Prince Wenceslas, 1942] with its extraordinary support which was three times higher than the second highest subsidy granted to a film in the sample was again excluded as outlier. An increase in the subsidy of 1 million 2016 CZK (that is 130 560 old CZK) predicts the increase in the csfd.cz valuation by 3 p.p.

Model 3, relation of subsidies and csfd.cz valuation 1932-1945: OLS, using observations 1-334 (n = 168)

Missing or incomplete observations dropped: 166 Dependent variable: Valuation CSFD

const Subsidy_r	Coefficient 0.590756 2.94924e-08	Std. Er 0.0113 5.99445	221	<i>t-ratio</i> 52.18 4.920	<i>p-value</i> <0.0001 <0.0001	*** ***
Mean dependent var Sum squared resid R-squared F(1, 166) Log-likelihood Schwarz criterion	1.61 0.12 24.2	2024 2918 7262 0596 8755	S.E. o Adjus P-val Akail	dependent var of regression sted R-squared ue(F) ke criterion an-Quinn	0.0 0.1 2.0 -299	05198 98572 22004 07e-06 9.7511 7.2154
Table 6: Model 3	-293.	3031	Hallil	an-Quilli	-29	1.2134



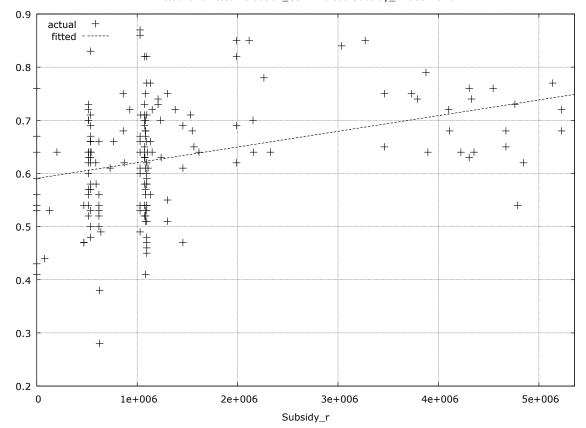


Figure 17: Model 3, relationship of real subsidies and valuation of users of the webpage csfd.cz from 1935-1945

To sum up the results of the econometric analysis of the level of costs and popularity of a film for modern audience represented by the proxy variable, neither in thirties nor during the Protectorate exist any statistical relationship between the two. The OLS for the whole period (1935-1945) might suffer for bias caused by insufficient information about the reliability of indices (non)reflecting the unofficial war inflation. But from the statistical point of view, a stable positive relationship between costs and popularity between 1932 and 1945 exists. Moreover, the same could be said about the relationship of subsidies and long-lasting popularity for the period 1935-1945.

Therefore it appears, seemingly, that with higher real budgets and with higher real subsidies, the film-makers created films that are rated higher by csfd.cz users. There is a positive and statistically significant relationship between the level of subsidies and the popularity of films for modern audience in years 1935-1939 (but not for the war period if considered separately). The users of the web page csfd.cz consider the films from the period of the registration system (1935-1939) better than those from the contingent system (1932-1934) and this may be perceived as a statistically significant result. This is in line with the existing

narrative in the historical literature. I also compared whether films which financing was secured by the state guarantee are more popular and it seems they are not.

One can easily imagine that much more factors were more important for the long-lasting popularity of a film than the level of costs and level of subsidies. The analysis does not involve the role of stars, or promotion of films connected with follow-up products like songs on gramophones etc. The interpretation of certain econometric results is complicated by the fact that there is a movement in the valuation of users of the web page csfd.cz that rates films from later period higher than films from the beginnings of talkies. Moreover, we probably miss reliable numbers that would enable deflating nominal prices from the Protectorate and thus receive real prices that are truly non-biased.

It might be the case for OLS showing how the variability of real costs explains the variability of popularity of films both in thirties and forties together. Although there is a significant result on 0.05 confidence level showing a positive relationship, the result can be biased because we cannot be for 100 % sure about the reliability of official inflation figures. It might be just a coincidence that users of the webpage csfd.cz value films from the Protectorate higher and costs are elevated just because of inflated money supply of devalued Protectorate Koruna.

The OLS regression for thirties showing how the variability of subsidies explains the variability of popularity of films reveals that the Film Advisory Board provided higher support to those films that were more successful for users of the csfd.cz. If we admit that modern popularity is reasonably close to actual performance of films in the history⁵², this result contrasted with the current research of Teti et al. (2014), claiming that the Italian state supported those films that did not attract the Italian audience so much.

Even though the attempt to improve the level of quality of the film was officially and loudly presented, practice appeared to be more prosaic. It was given by the fact, that the members of the Board, representatives of the industry and the state pragmatically supported almost every project with the exception of those when they expected undoubtedly bad and naïve films. Still, they manage to distribute subsidies in such a way that we can conclude that higher subsidy is related with higher valuation of today's audience.

⁵² The correlation coefficient between the csfd.cz valuation and number of weeks for which films were screened in Prague premier cinemas is 33 % for thirties.

Conclusion

The three chapters of the dissertation thesis provide insights into economic history of cultural policy of Czechoslovakia. The state was very active in this field and provided incentives that reshaped the institutions (rules of the game) for economic agents in creative industries. Be it the treatment of the rights of authors to their works or the financial support and protection against foreign competition for film-makers.

The thesis brings evidence that economic history of Czechoslovakian cultural policy and creative industries could be explained by economic principles introduced by new institutional economics. Be it the principle of transaction costs and their crucial role in shaping the character of economic relationships and the intensity of monopolization and centralization of the economy, or the principle of diffused interest and rent-seeking process defined by the theory of public choice. Elaborating the concept of public goods in relation to transaction costs explains not only generally, why economic agents engaged in umbrella organizations that enforced their interest, but also the existence of a very special institution: authors rights and CMOs.

Authors' rights (or copyright), as a modern institutional and legal framework, provide to authors and to their representatives, CMOs, exclusive rights to control using creative works. There is a worldwide network of legally binding measures so that they are able to collect royalties from a great number of users and, with help of the state, enforce compliance with the law. Due to the character of creative works as intangible assets that cannot be simply possessed and exchanged and due to the fact, that creative works usually spread only with negligible costs, the enforcing role of the legal rules is crucial. Without the authors' rights system, the users would be free to use any work any time for free.

The theoretic contribution of the first chapter has its implication also for the film industry. The correction of the three methodological errors in economics of authors' rights shows that not every intellectual creation needs the legal protection. Some works are delivered to the final consumers on a medium that is very easily marketable, with no free rider problem which the providers of public goods usually face. And it was also the case for films during the period of first Czechoslovak Republic and the Protectorate. That is the reason why the film production companies did not call for the help to fight the infringement of the authors' rights but rather for direct financial and indirect protectionist support. If one leaves the standard theory that a work can be spread with minimum marginal costs and that the role of authors' rights is

to make from an author a monopolist, it opens the opportunity to study the effects of various rules on various markets.

Economic theory is not capable to account for the immense complexity and international scope of the system of copyright and authors' rights. From the methodological reasons, that are fully understandable, its conclusions are ambiguous and sometimes, they go against each other. So that they are not a proper clue how to shape different policies. Therefore, the development of authors' rights is determined by the international meetings and treaties, the activity of lobby, by institutional and legal framework and last, but not least, by technological progress. Moreover, the complexity of rules for authors, users and consumers of works causes substantial costs for those, who want to understand it and use it in their business or in their economic analysis. Due to oversimplification necessary for formal economic models, practitioners may perceive them just as bare theoretical exercise with no connection to the reality of authors' rights. That is why economists usually do not contribute to the practical cultural policy.

The second chapter reveals, that the new Authors' Rights Act was introduced into the legal framework of Czechoslovakia in twenties and thirties of the 20th century predominantly due to the influence of particular interest groups. They were able to benefit from two underlying assumptions. First, the new Act was necessary in order to adjust the law to the Berne Convention (a minimum set of rights for authors, a part of the Saint-Germain peace treaty signed by Czechoslovakia after the Great War). Second, the policymakers inclined to accept solutions that overcame the extent of the Berne Convection, as they perceived stronger state interventions to be an ideal means to reach social justice, one of the priorities of policymakers. The cooperation of the state with interest groups was openly presented. The interest groups executed their influence through a number of personalities that usually played an important role during the legislative process. These personalities interconnected many platforms: universities, organizations supporting authors' interests, ministries. Moreover, they worked as attorneys, published their contributions in newspapers and in legal literature, debated during common meetings, worked for advisory Boards providing professional opinion for courts to authors' rights cases. They represented Czechoslovakia at international diplomatic meetings on copyright as well. To sum up, the state not only let the interest groups to participate, but it also warmly welcomed their activity.

The contribution of the last chapter is to show how the Czechoslovak state influenced creative industries, and how they developed, in two case studies. First case study reveals how volatile art markets were. It analyzes the Prague market for music, drama and fine arts, and the Czechoslovak film industry in thirties. Music and film industry were relatively more volatile

than fine arts and theatre. Moreover, the risk inherent in creative industries was variable over time. The development of creative industries proves the unpredictability and uncertainty of the demand for art. It helps explain, why the businessmen strived for the aid of the government.

The contribution of the second case study is the quantification of the relationship of subsidies for particular films and their popularity nowadays. Using valuation of the users of the web page csfd.cz as a proxy for the popularity delivers the result significant on the 0.01 confidence level – higher the subsidy, higher the popularity. It might be related to the tendency of the Film Advisory Board to cultivate the film culture. This was an official goal. However, the minutes from its meetings reveal rather conservative strategy: The films that were really bad and naïve were not supported at all. The standard film of an average quality received basic level of the support. And only films of exceptional artistic ambitions or films, that contained a strong nationalist topic, received exceptional support. Both extremes were rather rare. Therefore, almost all film-makers that did not produce a film of a very poor quality could have relied on the financial help of the state.

The case of introduction of the new rules for authors and state policy toward film-makers proves how close the state and the representatives of interest groups were to each other. These examples from the economic history show that the state was ready to help those that were able to present their own interests as the interest of the state. While studying many historical resources I noticed nothing like a fear of the possible conflict of interests. On the contrary, the interest groups started to be integral part of the government bodies. That was a vicious cycle. The more cooperation between the state and the interest groups existed, the more powers over creative industries the state had. Organization representing the interest groups needed to control what the government would do with their business. Therefore, they wanted their people to become the members of the state apparatus. Thus, the interest of the state and interest of the lobby started to be, literally, identical.

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Models

Model I, no relation between real costs and popularity in 30ies (csfd.cz): OLS, using observations 1-252 (n = 57)

Missing or incomplete observations dropped: 195 Dependent variable: Valuation_CSFD

	Coefficient	Coefficient Std. Error		t-ratio	p-value	
const	0.584691	0.584691 0.0462029		12.65	< 0.0001	***
Costs_real	1.27297e-08	7.6278	3e-09	1.669	0.1008	
Mean dependent va	r 0.65	8772	S.D. d	lependent var	0.0	98272
Sum squared resid	0.51	4748	S.E. of regression		0.096742	
R-squared	0.04	8197	Adjus	ted R-squared	0.0	30892
F(1, 55)	2.78	5072	P-valu	ie(F)	0.1	00830
Log-likelihood	53.2	7366	Akaik	e criterion	-10°	2.5473
Schwarz criterion	-98.4	6122	Hannan-Quinn		-100	0.9593
Table 7: Model I				-		



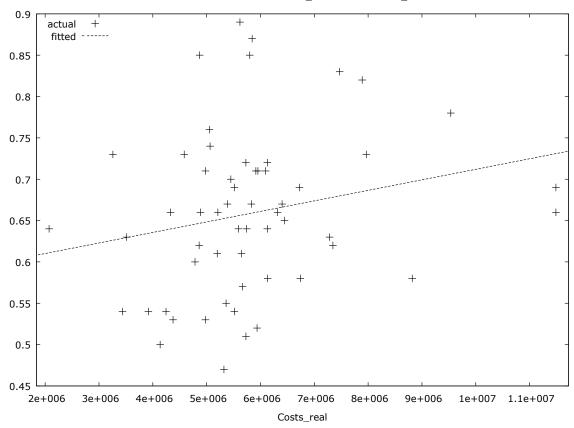


Figure 18: Model I, no relation between real costs and popularity in 30ies (csfd.cz)

Model II, no relation of real costs and popularity (csfd.cz) in 1940-1945: OLS, using observations 1-80 (n = 43)

Missing or incomplete observations dropped: 37 Dependent variable: Valuation_CSFD

const Costs_real	Coefficient 0.676591 9.85091e-010	Std. Erre 0.02591 1.32865e	15 26	atio 5.11 7414	<i>p-value</i> <0.0001 0.4627	***
Mean dependent va	ar 0.69	3488	S.D. depend	dent var	0.0	80412
Sum squared resid	0.26	7984	S.E. of regr	ession	0.0	80847
R-squared	0.01	3230 A	Adjusted R	-squared	-0.0	10838
F(1,41)	0.54	9703 I	P-value(F)	_	0.4	62665
Log-likelihood	48.1	6327 A	Akaike crit	erion	-92.	32653
Schwarz criterion	-88.8	0413 I	Hannan-Qu	inn	-91.	02758
Table 8: Model II						

Actual and fitted Valuation_CSFD versus Costs_real

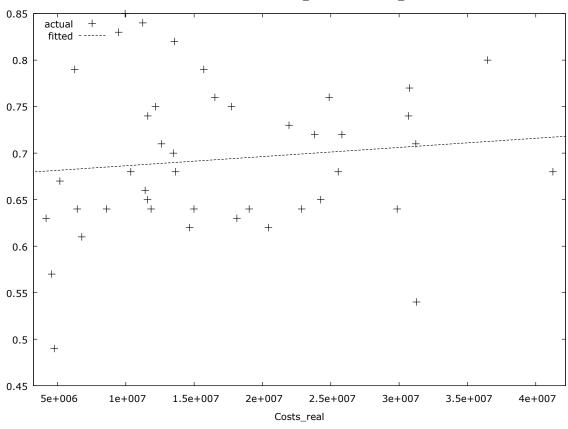


Figure 19: Model II, no relation of real costs and popularity (csfd.cz) in 1940-1945

Model III, no relation of real subsidies and popularity during the Protectorate (csfd.cz): OLS, using observations 1-81 (n = 32)

Missing	or incomplete	e observations	dropped: 49
Der	endent varial	hle Valuation	CSFD

const Subsidy_r	Coefficient 0.679994 4.47326e-09	0.03	Error 54853 66e-09	<i>t-ratio</i> 19.16 0.4799	<i>p-value</i> <0.0001 0.6348	***
Mean dependent var	0.69	5937	S.D. d	lependent var	0.0	69693
Sum squared resid	0.14	9425	S.E. o	f regression	0.0	70575
R-squared	0.00	7619	Adjus	ted R-squared	-0.0	25460
F(1,30)	0.23	0332	P-valı	ıe(F)	0.6	34759
Log-likelihood	40.4	6115	Akaik	e criterion	-76.	92230
Schwarz criterion	-73.9	9083	Hanna	ın-Quinn	-75.	95060
Table 9: Model III						

Actual and fitted Valuation_CSFD versus Subsidy_r 0.85 actual fitted 0.8 0.75 0.7 0.65 0.6 0.55 0.5 1e+006 1.5e+006 2e+006 2.5e+006 3e+006 3.5e+006 4e+006 4.5e+006 5e+006 Subsidy_r

Figure 20: Model III, no relation of real subsidies and popularity during the Protectorate

Responses to opponents

I would like to thank cordially to all opponents for their valuable comments and brilliant insights. I believe that thanks to their expertise I could have clarified and improved many aspects of text.

<u>Valentina Fava, Ph.D. (Academy of Sciences of the Czech Republic, Institute of Contemporary History)</u>

The choice of measuring film popularity based on the opinions expressed by modern viewers on an internet fan platform (Czechoslovak Film Database) is audacious from an historical point of view and might need further explanation.

The measure of the popularity of films that originates in the valuation of the users of the cszd,cz webpage deserves an appropriate interpretation. The statistical evidence that films with higher subsidies are valued higher by modern viewers suggests that what was valuable for the members of the Film Advisory Board is valuable today. Both variables are based on the subjective valuation (the level of subsidies was determined by a voting procedure). It is worthy to mention, that in the paper Doležalová, Moravcová (2020), we found out that higher subsidy was related to longer period for which a film was screened in Prague premiere cinemas and we observed a positive statistically significant relationship between the two. The correlation coefficient between the weeks and the cszd.cz valuation is 33 %. This implies that what was popular during first Czechoslovak Republic is considerably popular today, at least at certain dimensions. This is explained in the thesis on p. 101.

As in many economic historical studies with a quantitative focus, the contextualization of interwar Czechoslovakia in its social and political aspects might be more detailed and supported by a broader reference to historical literature. However, in this case, the thesis appears rather balanced.

I incorporated the social-economic context into the explanation of the behavior of different business actors. The Czechoslovak interwar economic order was characterized as a capitalism with increasing role of the state as a response to the Great Depression. The extent of interventionism was far more important in thirties than in twenties. Explaining the behavior of interest groups of authors and filmmakers is complete only after understanding the orientation of the society and the ways how it organized itself in economic relationships. The changes are present in all chapters (authors' rights in first Czechoslovak Republic, performance of creative industries, films and their costs and subsidies). All areas of economic activity were driven by strong cooperation of trade-unions, organizations representing industrial and financial sectors and the state that legally supported the process of monopolization and strengthened the role of the syndicates. (Průcha I, 2004, p. 281)

Relatively to the historical case studies, I would suggest the author to integrate the bibliography and literature review with some extra publication on the political and social history of the First Republic to allow the reader to better contextualize some of the author's conclusions and assumptions and be better received by social and political historians.

Thanks to this suggestion I have added references to the basic literature about general economic development and crucial socioeconomic characteristics of interwar economy as elaborated by Kárník (2017, 2018, 2018) – about continuous high unemployment in the prolonged crisis, Teichová (2008) – about the importance of international cartels and attempts to monopolize the markets, and Faltus, Průcha (2006) – about "nostrifíkace" and land reform in the environment of deflationary monetary policy and power of banks that controlled important part of the economy. The intensity with which the state started to regulate the economy and codified the existence of cartels is in Průcha et. al. (I, 2004). In the thesis, the p. 11.

Professor Peter Miskell, Henley Business School, University of Reading

Chapter 1

My general observation here is that it is a very bold claim to identify 'mistakes' in the economic literature that you will 'correct'. It seems to be that you are building on existing economic concepts and 'refining' them, rather than correcting or replacing what has gone before. The challenge I would lay down to the author is to specify what empirical observations the newly refined theory explains that the existing theory could not.

Extending the existing economic concepts by the aspects like market and non-market revenue and by the explanation of the profit maximizing at different markets with different media explains why the empirical analyses provide mixed results about the incentivizing role of copyright. I believe that authors' rights have different impact on different creators operating on different markets, depending on the mix of media through which they spread their work. Such a mix is specific to each author. According to my view, considering individual choices for optimization on markets with "work + medium" explains why empirical studies so far did not bring proof that copyright is a crucial incentive to create. It seems that it might be a decisive incentive for some authors and a very poor incentive for the others. Appropriate changes were inserted on page 18.

In relation to the first 'methodological mistake', I think you are right to emphasise that works do not distribute themselves, and that 'work + medium' pairs should be considered. But doesn't this apply to other public goods too (street lights require power supply, cables, posts, lamps, not to mention streets). Does the fact that authors' works require a complex distribution system to be of public benefit really mean that they cannot be considered to share the properties of public goods?

I believe that the issue of underproduction of public goods originates in the character of a way how it is distributed to those that enjoy utility from the existence of a good. In my opinion, the way how the good is delivered (in other words – a medium) is connected to the problem of nonrivalry and non-excludability. The case of streetlight might be an excellent example: "power supply, cables, posts, lamps" are in the framework of my papers just the input, factors of production. On the contrary, the case of light that is spread on publicly available street, that is relatively costly to close and guard and impossible to deplete, is a classic example of the public good. In other words, public street is like a medium that makes from the light the public good. In this framework, the light on a private garden (other example when light is like a club good) is on a medium (garden), which one can easily prevent others to use. (However, it is not depletable and rival in consumption.) To sum up, works should be considered to share the properties of public good only if they are spread with media with public good properties. The distribution system with excludable and rival media decreases the level with which we perceive a work to be a public good. I added the explanation in the footnote 17.

I liked your 'example A' to illustrate the multiple revenue streams for the 'Bugatti Step'. But is it safe to assume that revenues from theatrical performance of the play (Don Juan & Comp) are naturally protected. If other theatre companies decided to perform this play in the absence of any copyright protection, then presumably revenues from this source would be threatened too? I take your general point that marginal costs will be closer to zero in some markets than others, but I'm not sure this undermines the core theoretical idea.

The case of the Liberated Theatre with unique performers Jiří Voskovec and Jan Werich is really specific. For the audience, they were the only accepted original with no close substitutes. That made from this medium an excludable and rival good, which was easily marketable. According to Kárník (III, 2018, p. 332), even during the Great Depression, the Liberated Theatre did not suffer problems caused by low attendance. Added to footnote 19.

The issue of the shape of the function of marginal costs and its relevance for the question of ability to recover costs of creation is really interesting. As far as I know, the production of a

private good is typically accompanied by the property of increasing marginal costs for producing any additional unit of a rival and excludable medium. That contrasts with case of public good with zero marginal costs for providing access to any additional consumer. Due to the assumption of raising marginal costs that equal to marginal revenue in an optimum, I perceived such a point as a proof that authors are able to earn profit that helps recover the costs of creation in case of easily marketable goods even on the competitive market (of course, there must be such a demand that allow them to set the price that would cover the total average cost per medium). Nevertheless, the higher monopoly power the author has, the higher price above marginal costs the author can set. For an author, monopolistic competition is more realistic than the purely theoretic model of perfect competition due to differentiated product.

However, media like club good (excludable but not rival, case of natural monopoly) should be considered as well. Here, there is no necessity to fear about the revenue of authors suffering consequences of the tendency on a competitive market that marginal costs (close to zero) equal to marginal revenues (on a competitive market, it would be the price). There is no need to protect a natural monopoly firm by copyright – the price it charges to maximize the profit (where marginal costs equal to marginal revenue) is above the level of marginal costs and naturally, above the level of average total costs. In an optimum, marginal costs are below average total costs and profit is the difference between the price and average total costs multiplied by units sold.

At this point, I would like to stress that the decision about the creation takes place ex ante and author recoup the costs of creation consequently on different markets on different media. The costs of creation are sunk and do not influence the consequent optimization decisions. Average total cost per medium does not entail cost of creation. What I wanted to show is that authors can earn revenue when they choose a favorable mix of media markets for spreading the work and some media production entails the property of increasing marginal costs, especially easily marketable rival and excludable good. That revenue covers the costs for media in the first step and consequently, when the demand is sufficiently high, the cost of creation more or less in line with the expectation of the creator. Clarification was added to the respective parts of the text (p. 31).

Regarding the second 'mistake', again, I think you are right to highlight that authors stand to benefit from nonmarket as well as market transactions. However, I'm not sure this undermines the idea that copyright enables authors to extract a revenue from their work that exceeds marginal costs. Does it really matter whether this revenue is extracted via direct sales

to consumers (market transactions) or via the royalties collected by performance rights societies?

According to my opinion, the difference between voluntary market transactions and non-voluntary transactions based on arbitrarily given fees is crucial. I believe that whilst voluntary market transactions contribute to economic efficiency (as the parties are better off after the conclusion of the transaction otherwise it would not be done), system of arbitrary royalties inherently hinders economic efficiency. Due to information asymmetry about subjective costs and benefits, the collective management organizations cannot set and redistribute royalties exactly to offset the externalities caused be the creative content. Thus, I perceive the income from royalties as an extra category, that is out of market structures. Existence of nonmarket structure had to be added to the other role of copyright – making from an artist a monopolist on the markets where authors freely interact with consumers.

I thought your point about the 'rate of marketability' was well made. This seems to me almost like a measure of how closely a work resembles a public good in any given economic context (the closer the rate is to zero, the more closely it resembles a public good). Doesn't the fundamental point still hold that enforcement of property rights has the effect of driving this rate upwards?

With no doubt, it is exactly so. The high quality of institutional environment involving the protection of property rights, no matter whether to tangible or intangible property is, as was many times proved (e.g. Acemoglu, 2013), connected with economic prosperity. The institutional environment entails also informal rules and their respecting by the economic agents. Thus, the trust in the system is raised and optimism in expectations about the future revenues and return on investment might drive not only creative activity up.

Chapter 2

My first observation about this chapter regards your choice of terminology to describe your research objective. You frame the research in terms of a hypothesis that you set out to confirm or reject. Yet the question at hand is whether 'domestic and foreign interest groups contributed significantly to the establishment and strengthening of the system of authors' rights'. This is surely a matter of subjective judgement, rather than a testable hypothesis. The methodology you employ in the chapter is entirely appropriate for the question at hand, but it does not allow to categorically confirm or reject a hypothesis. I would suggest that you set out the objectives of the chapter in terms that are more consistent with the methodology you employ.

I agree that, from the technical point of view, the result of the research did not bring exact proving or disapproving a testable hypothesis. Nevertheless, I perceive the results convincing and objective in terms of historical methodology. I have corrected the text in terms of the suggestions.

I thought you showed quite convincingly that various interest groups played an important role in helping to shape legislation. I would have liked to hear more about what (or whom) these groups were arguing against. Presumably the point here is that for many countries (including Czechoslovakia) adopting the Berne Convention would cost more in terms of payments for foreign rights than it would generate in receipts. Thus the advocates of authors' rights were pushing for a policy that was essentially not in the country's economic interests. The question, therefore, was how they could make this case when the odds were seemingly stacked against them. The chapter explores this very well, but the context could have been outlined much more clearly I thought.

If we look at the context of the whole society, it is evident, that almost all types of economic activities were represented on a voluntary basis by an umbrella organization that should have enforced the common interest of participants. It is evident for twenties, like for firms in a branch (Kárník I, 2017, p. 427) or for workers of an industry in trade unions (Kárník I, 2017, p. 518). E.g., from 1925, the unemployment benefits were distributed exclusively by trade unions, that increased their importance dramatically. The role of organizations and concentration in economic life of Czechoslovakia was stronger with the response of the government to the Great Depression (Kárník II, 2018, p. 82). Many firms and cooperatives were directly connected to political parties, like the agrarian complex (Kárník II, 2018, p. 292).

Why those that were forced to pay royalties to OSA did not organized themselves to prevent enacting new rules? Those, whose opposition was present in historical resources, was the organization of innkeepers. No action against authors' rights was found for the case of film-makers and cinemas or book publishers or music labels (with the potential to pay abroad relatively more). Nevertheless, organizations for their representation existed. The explanation lies in the theory of diffused interest. The users that paid relatively small amounts (relatively to all their costs) were not motivated to spend transaction costs for defining and enforcing their common attitude. On the other hand, the authors had at stake potentially important part of their future life revenue stream. Increment transaction cost for their rent seeking activity had the potential to bring substantial rise in their future wealth. The benefits for authors in the form of stream of payments from foreign countries were concentrated in contrast with diffused costs

that had to be paid by Czechoslovak users to foreigners. Moreover, film-makers were both in the role of payers for the rights and the recipients of royalties (Knap 1945, p. 41-45). They used protected works, but on the other hand, the film was protected as well. All other users like music and literature publishers already paid for the uses in line with the old law. What was new in the act from 1926, was the role of OSA that started to collect money instead of authors themselves from the wide range of business as inns, restaurants, cafés and small cultural events producers like village balls.

The very same text was added on p. 62, chapter 2.3.5 Criticism and its impact on the content of the Authors' Rights Act.

A minor point: I wasn't sure what was gained from the table on p. 50. I thought you were trying to illustrate the commonality between the different lobby groups, but there doesn't seem to be any overlap in membership between the two groups you present here?

I agree that only director of OSA, Jan Balling is present in both lists. I wanted to illustrate how the members of the two bodies were connected also with other cultural institutions. Some of them were in other Advisory Boards and were present on events that were important for shaping or application the new authors' rights act.

Chapter 3

Regarding the first case study, you have collected some interesting data here but I'm not sure what it really tells us about volatility in each of these sectors. There is, of course, quite a literature on uncertainty in the creative industries (e.g. Caves, 2000). However, this is not captured by counting the number of plays, songs or films released (or the numbers of theatres or cinemas). The uncertainly is derived from the fact that in any given period the popularity of these cultural works is extremely unevenly distributed. A few will be 'hits', most will not. It is extremely difficult to predict ex ante which will be which. While the data you have collected could help to answer some other questions, it really doesn't add to our understanding of uncertainty in these markets.

I agree that the data I presented does not tell anything about the kind of uncertainty that the creative business faced. It has been already pointed out by some authors that the creators tried to cope with the uncertainty by creating a portfolio where some titles were connected with higher artistic ambitions and others were created with features that decreased uncertainty about future popularity (Kárník III, 2018, p. 343) – but still, the success remained unpredictable ex ante.

The uncertainty I present here is the uncertainty of the creative business connected with the general economic conditions. No matter why that was so, the markets were volatile and that is why I indirectly infer that also revenues were unpredictable and volatile. It is related to the argumentation of creative industries – in the historical resources, I did not encounter the plea for the uncertainty about performance of individual pieces. But what is well visible is uncertainty as regards uncertain times. Culture is sometimes perceived as a luxury good. After the beginning of the Great Depression and decrease in the volume of economic activity, the demand for cultural good could have decreased. However, I do not have data about the shift in the revenue in different branches (except for film, the cinema attendance closely followed the trends in GDP changes). The best proxy I could have found was the number of presented works and events, that represents the result of interaction of supply and demand. The art markets were volatile, but I do not specify due to which factors (one can consider the crisis, interventions of state authorities, important but not captured institutional changes or creating of new capacities). I tried to add as much as contextualization as possible in the chapter 3.1. Economic Performance of Creative Industries in Interwar Czechoslovakia.

I was much more excited about your second case study, and I thought this was an interesting study. However, I still have reservations about your measure of film popularity — which appears to be based on fan ratings from a modern day website. This is an interesting metric, but it is not a measure of contemporary film popularity. Also, as you admit, it does not at all reflect the actual distribution of film popularity which is typically highly skewed with just a few hits and a long right tail. Your empirical findings, therefore should be described in a way that reflects this. It seems to me that you have found that subsidies helped support the production of films that would be perceived to be of lasting artistic merit, rather than the production of films that were popular.

The interpretation is adjusted in the proposed way. Actually, in Doležalová and Moravcová (2020) we found a positive statistical relationship between subsidies and the number of weeks for which a film was screened in Prague premier cinemas. What was interesting is that the correlation coefficient between the number of weeks and the csfd.cz valuation was + 33 %. Therefore, I perceive the popularity of our ascendants surprisingly close to modern viewers.

If you had wanted to create a metric to capture film popularity you could have made use of John Sedgwick's POPSTAT index. You do refer to this, but it was not clear to me why you chose not to employ this methodology.

Creating POPSTAT would require more data than I was able to find out. The resources did not reveal the individual prices and capacities to create appropriate weights. Moreover, POPSTAT is usually constructed for a wider sample of cinemas. In one respect POPSTAT and the measure of utility we used in Doležalová, Moravcová (2020) is very similar. POPSTAT is created as a relative measure, as an index that enables comparison, as it is usually expressed as a measure related to a given reference point (e.g. median). Relativization of csfd.cz valuation to a median in a given year was unnecessary, because the rating of different films is not dependent on the year of creation *per se*. But we did the relativization in case of transformation the duration of screening in Prague premiere cinemas in Doležalová, Moravcová (2020). The actual number of weeks were divided by the median of a given year. Thus, we received data about the attendance which were comparable across different years and that accounted for what was a common performance in a given year.

Finally, a minor point: the table on p. 87 is based on a dataset of 236 observations, but almost half of these are excluded. Why is this?

This is a technical reason, the dataset included also films from 1932-134 for the contingent system with the flat support of 100,000 CZK nominally. Therefore, they were not included and the model works just with the variability of subsidies from 1935 to 1939.

Doc. Ing. Martin Kvizda Ph.D., Masaryk University

...Given that in the next part of the text the author focuses on state support for filmmaking, I would expect her to pay equal attention to the theoretical basis of subsidy policy and internal market protection policy with all costs and consequences. However, this is completely missing in the text.

In the dissertation thesis, there is lot of attention devoted to the theory of authors' rights – contrary to the theory explaining the existence and impact of subsidies and protection of domestic market for cultural goods. I have corrected the text by adding appropriate theoretical background (p.66).

... At the same time, the author sets the main, overarching goal "an analysis of the cultural policy of Czechoslovakia from the economic history perspective" (p. 7). The mission conceived in this way is very interesting and beneficial from the point of view of the history and methodology of economic policy, at the same time it is also very broad and difficult to grasp within one dissertation. This created a key pitfall of the whole dissertation: the three objectives

listed above are fundamentally different and require a slightly different methodology for their analysis. As a result, the work has a somewhat unbalanced structure. The author also does not clearly explain in the introduction to the whole text why she chose the goals formulated in this way and what the relationship is between them. In this context, I also do not consider the title of the work to be appropriately chosen.

I am aware of the fact that the three parts of the dissertation are of a different nature as it consists of two different papers that were already published and the third part is devoted to two case studies that illustrates the performance of creative industries and the interaction of the state and film-makers (also the third part is thematically closely related to other published paper, Doležalová, Moravcová, 2020). I admit that the topics I cover are limited by the scope of the dissertation and does not represent the whole and detailed economic history of cultural policy of Czechoslovakia before 1945. However, I believe that the choice of case studies in chapter 3 and the history of authors rights are both representative cases that are highly significant. If we want to study how the state intervene into the creative industries before 1945, I perceive the choice of authors' rights as a first topic we should study as a basis because it was related to all creative industries. The cultural economics (Towse, 2000, p. 112) starts the debate how the state usually supports creative industries by pointing to two ways – by defining and protecting authors' rights and by distributing subsidies. That is why I naturally turned my attention to another topic, financial and protectionist support of the film industry, which archive resources I have studied. As it was already pointed out, similarly deep analysis of other branches of creative industries would be beyond the scope of one dissertation.

Although the analysis of the relationship of the state and creative industries is not complete and exhaustive, I believe that chosen topics are representative. Moreover, they are interconnected by many theoretical concepts. Not only they are examples of the Czechoslovak cultural policy, but also, they contribute to the debate about importance of the management and optimization of transaction costs in economy. It is not the coincidence that all economic processes the dissertation analyses were accompanied by the huge wave of unifying into greater economic organizations. I develop the role of transaction costs in line with the concept of Coase (1937) and why it is common to all studied processes in the text. From the public choice perspective, all chapters are contributions to the proper understanding of the rent seeking process. I believe that I introduced into the text the changes that clarify, that the chosen topic and the form of analysis contribute to economic history of cultural policy of Czechoslovakia and explain how the theoretic concept of the public good theory and institutional economics generally applied in practice.

Nevertheless, even here I have a few reservations: (i) The period 1928 - 1936 is chosen for the first study, which is a relatively short time series for quantitative analysis; in addition, the time period includes years affected by the economic crisis, which may distort the data somewhat.

I must admit that the choice of years was pragmatically given by the data available in statistical yearbooks. Of course, studying the development of the volatility before and during the Great Depression would be much more useful. But given the goal of that case study – which was evaluation of the degree of uncertainty of the livelihood for creators as a source of argumentation of interest groups striving for government aid – I believe that even the period 1928-1936 could provide an important input to the discussion.

The period for the second study was defined by the author from 1932 to 1945, while state support for culture probably developed considerably differently and with different goals during the independent First Republic than during the Protectorate. I consider a detailed explanation of the choice of these periods and the way of working with data comprising two relatively disparate economic policy periods.

As already proved by Czesany Dvořáková (2011), the discontinuity in cultural sphere and in the film-industry was not the prevailing phenomenon that described what happened after the inception of the Protectorate. Also, Doležalová and Moravcová (2020, p. 8) pointed out to the fact that there was the Czechoslovak management that controlled the industry which was more and more monopolized and centralized. However, that process was the long-term goal what the film-industry wanted to achieve years before the German element came into Czech lands.

Therefore, I separated the analysis for the period of the contingent system (1932-1934), registration system (1935-1939) and war period (1940-1945). And only for OLS regression which aim was to find a statistical relationship between the costs and subsidies, expressed in real stable prices, I run the regression for the long run (1932-1945, resp. 1935-1945 for the case of subsidies). I believe that I have expressed all limitations of the explanatory power of the models in the text (e.g. at p. 100-101).

The author should focus on the precise formulation of the objective of her dissertation and on explanation of the methodological approach used. The author should clearly explain how the case studies contained in Chapter 3 follow the previous part of the work, how they

relate to the development of the concept and application of copyright and how they contribute to the fulfillment of the aim of the dissertation. The conclusion of the presented work is not entirely consistent, the author gradually responds to the three separate goals set out in the introduction, but I lack a unifying conclusion that would, among other things, explain the chosen methodology and structure of the work and provide a comprehensive explanation.

I believe that I have inserted into the text many changes that explain all issues raised in the report (e. g. pages 7, 10, 11, 66-69). Even though all three chapters are different, as they are result of three different papers or projects, I have explained how closely they are interconnected and which is their underlying topic – state interventions to creative industries and why, by who, for who and with which intention and with what impact it was practiced in economic history of Czechoslovakia before 1945.

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