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Editorial

Editorial

RADIM VALEČÍK

Dear readers,

This year's second issue of what is now the fourteenth volume of the journal ACTA VŠFS is being published at a time of reflection over the twenty years since our university was founded. This entire period has been marked by an effort for dynamic growth – the school has sent thousands of local and international graduates into practical life, it has earned a significant degree of respect in the system of Czech education, and many of its pedagogues enjoy renown as leading specialists in their areas of expertise – business and political leadership in particular, as well as science and research. This has meant, among other things, a constant emphasis on developing the potential of the school as a research university, which we understand as a necessary prerequisite for the continuous improvement of instruction as well as the sine qua non for the active participation of our specialists in analyzing pertinent theoretical issues reflecting current trends in social development, which in one form or another place new demands on their theoretical description and practical application. It is also clear that expanding international collaboration in this area has become a requirement for the success of these research activities.

This journal has always played, and continues to play, a crucial role in this endeavor. As may be seen from its highly topical content, it offers material from almost all continents, material that is relevant to both its authors and its topics. We compiled it with two particular goals in mind:

- To demonstrate that if quality research methods are implemented, the results of analyses of standard topics can be beneficial for the development of general theory, even in cases when they are performed under highly diverse territorial, social, cultural/historical conditions. In our case this meant various aspects of the activity on stock markets.
- To give an impetus for development of basic theoretical frameworks of economic theory by taking into account the fact of the very deep transformations of the contemporary global economic system that deeply influence the acquisition, retention, and application of human capital. This is also associated with the question of the influence of consumption on the global economic potential both of individual countries and the globalized world.

Our purpose in the future is to more greatly integrate both specific issues and as early as our next issue to publish articles from those continents and large regions not yet reached by the current issue.

This time as well we follow as our main theme the development of financial markets and the role of the public sector, whereas we are operating from the fact that when addressing

problems connected with the role of the state in the economy, it is more suitable to use tools based on voluntarily executed contracts than on tools associated with forced and compulsory redistribution.

The first article we are publishing *Economics of Productive Consumption as an Offshoot of Main Currents of Economic Theory*, by authors Radim Valenčík and Petr Wawrosz, we prepared with this purpose in mind and far in advance, taking pains for it to demonstrate that even a very young university is capable of offering something new, original, and prospective. Before we undertook to write this article, we prepared four monographs, followed by a fifth during its development, in which we focused on the wider context of the given issues.¹ We understand economics of productive consumption as a theory which functions within a focused system to develop complex theoretical tools that can help express the economic effects of consumption associated with the acquisition, retention, and application of human capability (his human capital). Its importance is becoming ever more urgent at a time of substantial growth in the role of an industry of services focused on the acquisition, retention, and application of human capital. This particularly applies to the areas of education and health care, where the roles of financial markets and public redistribution clash with and complement each other, which is one of the main directions in which our university profiles.

In the second article *Board Gender Diversity and Dividend Policy in Nigerian Listed Firms* by Sunday Kajola, Jayeola Olabisi, Adedapo Soyemi, and Peter Olayiwola of Nigeria, the authors address the use of modern statistical models for evaluating the influence of the contributions of women in managing bodies of selected Nigerian companies of consumer industry, anchored in the seven-year period from 2010–2016 from the perspective of dividend policies. According to the article's authors, such an influence truly exists given that women in these positions contribute to relevant monitoring activities more than their male counterparts. This study, among other things, documents in model fashion the methodologically significant fact that a suitable theoretical grasp of practical problems of a certain part of the developing world, marked among other features by a low level of education, and is compelling for the theoretical and subsequent practical solution of similar problems in other territories where the conditions are markedly different. The inclusion of the article in this issue is also a reflection of our effort to introduce global topics into our journal.

The third article *A Study of Family Business in China* by Junzi Zhou of Zhejiang Financial College in China, our close partner in the university scene, addresses a topic that our university also examines intensively. It offers findings from a country in which family businesses have a significant share in commerce. On the basis of an analysis of the status quo, the article describes the advantages and disadvantages of family businesses, as well as the opportunities and challenges in their development. From a methodological perspective this analysis is important when examining the creation, stability, and expansion, and if applicable the multiplication of creative cross-generational teams,

¹ This was a monograph by the authorial team of R. Valenčík et al. issued by the VŠFS Publishing House; the full text in the Czech language is available here: https://www.vsfs.cz/prilohy/konference/lk_2019_ekonomie_produkтивni_spotreby.pdf

in which our university sees one of the main resources for enhancing the innovation potential of a country.

The fourth article *Development of Share Price in Direct Relation to the Entry of the New Investor in the Management of Business Corporation* by the author team of Eva Daniela Cvik, Radka MacGregor Pelikánová, and Otakar Schlossberger, addresses a traditional topic that has been analyzed in our university since its inception. It addresses the legislation of tools that can be used to protect the interests and rights of small shareholders. At present this legislation is very insufficient in our country. The reason is that the contractual price of shares is at present determined not only on the basis of supply and demand, but also on the basis of the economic situation within commercial corporations, i.e. internal relationships in the given commercial corporation. The use of these parameters for valuating a company may also have negative consequences for its individual partners (in terms of possession of shares and their prices). The main goal of the article is to evaluate how this fact can influence the price of shares in direct relation to the buying up of shares on the part of a majority shareholder, including the fluctuations and influencing of their price. The article subsequently responds as well to long-term experience that our university has with use of such research subjects and recommendations for legislation and the very functioning of financial markets in practice.

In the column "Ad Fontes" (to the sources), we have included a study *On the Origin of the Laffer Curve* by Petr Mach that describes the process of creation of this theoretical construction from its first use in discussions to its popularization, expansion, and the role it plays in discussions about the level of taxation. This study has been completed with the use of attractive documents and with great sensitivity for pedagogical application of experience from a very beneficial phase of development of economic theory. What is also distinctive is the methodological reflection of the given issues, which shows what role it has for the development of the theory of its interaction with practice.

And lastly – we have rounded out this issue with two reviews as well. The first is devoted to a publication about the history and current status of monetary policy in the Czech Republic, the second on the history and perspectives of the international monetary system.

Doc. Radim Valenčík, CSc.

Executive Editor

Vážení čtenáři,

druhé letošní číslo již čtrnáctého svazku časopisu ACTA VŠFS vychází v době, kdy si připomínáme dvacetiletí vzniku naší vysoké školy. Celé toto období se vyznačovalo úsilím o dynamický rozvoj – škola vyslala do praktického života tisíce tuzemských i zahraničních absolventů, vybudovala si značný respekt v systému českého vysokého školství, mnozí z jejich pedagogů se těší renomé vynikajících odborníků jak na poli odborné praxe, zejména podnikového a politického managementu, tak i vědy a výzkumu. Znamenalo to mimo jiné i neustálý důraz na rozvíjení badatelského potenciálu školy, který chápeme jako nutný předpoklad jednak neustálého zkvalitňování výuky a jednak jako *conditio sine qua non* aktivní účasti našich odborníků na zkoumání aktuálních teoretických problematik, reflektujících současné trendy společenského vývoje, tak či onak vyžadující nové požadavky na jejich teoretický popis i praktickou aplikaci. Samozřejmým předpokladem úspěšnosti těchto výzkumných aktivit školy se stala i rozvíjející se mezinárodní spolupráce v této oblasti.

Významnou roli v tomto úsilí sehrál a sehrává i tento časopis. Jak je patrné již z jeho aktuálního obsahu, přináší materiály téměř ze všech světadílů, což se týká jejich autorů i témat. Při jeho sestavení jsme si kladli zejména dva následující cíle:

- Ukázat, že pokud jsou použity kvalitní výzkumné metody, mohou být výsledky analýzy standardních témat přínosné pro rozvoj obecné teorie i v případě, že jsou provedené ve velmi odlišných teritoriálních, společenských a kulturně historických podmínkách. V našem případě šlo zejména o různé aspekty dění na akciových trzích.
- Dát podnět k rozvoji základních teoretických východisek ekonomické teorie jako zohlednění faktu velmi hlubokých proměn současného globálního ekonomického systému, které hluboce ovlivňují nabývání, uchování a uplatnění lidského kapitálu. S tím souvisí i otázka vlivu spotřeby na ekonomický potenciál jak jednotlivých zemí, tak i globálního světa.

Naším záměrem do budoucna je obě uvedené specifické problematiky více propojit a již v dalším čísle uveřejnit články z těch světadílů a velkých regionů, na které se v tomto čísle nedostalo.

I tentokrát sledujeme jako hlavní témata vývoj finančních trhů a roli veřejného sektoru, přičemž vycházíme z toho, že při řešení problémů, které jsou spojené s úlohou státu v ekonomice, je vhodnější využívat nástroje založené na dobrovolně uzavíraných kontraktech než nástroje spojené s vynucenou a nucenou redistribucí.

První článek, který uveřejňujeme, *Ekonomie produktivní spotřeby jako přesah hlavního proudu ekonomické teorie* autorů Radima Valenčíka a Petra Wawrosze, jsme proto připravovali s velkým předstihem a dali si záležet na tom, aby ukázal, že i velmi mladá univerzita je schopna přijít s něčím novým, původním a perspektivním. Než jsme se odhodlali k napsání článku, připravili jsme čtyři monografie a během jeho zpracování i pátou, ve kterých jsme se zabývali i širším kontextem dané problematiky.² Ekonomii

² Jedná se o monografie autorského týmu R. Valenčík a kol. vydané v nakladatelství VŠFS, plný text v českém jazyce dostupný zde: https://www.vsfs.cz/prilohy/konference/lk_2019_ekonomie_produkktivni_spotreby.pdf

produktivní spotřeby chápeme jako teorii, která v rámci uceleného systému rozpracovává komplex teoretických nástrojů, kterými lze vyjádřit ekonomické efekty spotřeby spojené nabýváním, uchováním a uplatněním schopností člověka (jeho lidského kapitálu). Její význam se stává stále naléhavějším v době, kdy velmi podstatně roste role odvětví těch služeb, která jsou na nabývání, uchování a uplatnění lidského kapitálu zaměřena. Jde zejména o oblast vzdělání a zdravotní péče, kde se střetávají a vzájemně doplňují role finančních trhů i veřejné redistribuce, což je jedním z hlavních směrů, v nichž se naše univerzita profiluje.

V druhém článku, *Genderová diverzita ve správních radách a politika vyplácení dividend vybraných nigerijských firem* autorů Sundaye Kajoly, Jayeola Olabisi, Adedapa Soyemi a Petera Olayiwola z Nigérie se jeho autoři zabývají využitím moderních statistických modelů k vyhodnocení vlivu podílu žen v řídicích orgánech vybraných nigerijských firem spotřebního průmyslu kótovaných v sedmiletém období 2010–2016 z hlediska dividendové politiky. Podle autorů článku takový vliv skutečně existuje vzhledem k tomu, že se ženy na těchto pozicích podílejí na relevantních monitorovacích činnostech více, než jejich mužské protějšky. Příspěvek kromě jiného názorně dokumentuje metodologicky významnou skutečnost, že vhodné teoretické uchopení praktického problému v určité části rozvojového světa, vyznačující se mimo jiné nízkou úrovní vzdělanosti, je podnětné při teoretickém a návazně praktickém řešení obdobných problémů i ve vzdálených teritoriích, kde jsou podmínky značně odlišné. Zařazení článku do tohoto čísla je tak i odrazem snahy uvádět v našem časopisu i globální témata.

Třetí článek, *Studie rodinného podnikání v Číně* autora Junzi Zhou z Zhejiang Financial College v Číně, našeho blízkého partnera v univerzitním světě, se věnuje tématu, kterým se intenzivně zabývá i naše škola. Přináší poznatky ze země, v níž značný podíl na podnikání mají rodinné podniky. Na základě analýzy statu quo článek popisuje výhody a nevýhody rodinného podnikání, analyzuje příležitosti a výzvy v jeho rozvoji. Z metodologického hlediska je tato analýza významná při zkoumání vzniku, stability a rozšiřování, případně množení tvůrčích mezigeneračních týmů, v nichž naše univerzita vidí jeden z hlavních zdrojů posilování inovačního potenciálu země.

Čtvrtý článek, *Vývoj ceny akcie v přímé souvislosti se vstupem nového investora do vedení obchodní korporace* autorského týmu Eva Daniela Cvik, Radka MacGregor Pelikánová, Otakar Schlossberger se věnuje tradičnímu tématu rozpracovávanému na naší univerzitě od počátku jejího vzniku. Zabývá se totiž právní úpravou nástrojů, které lze využít k ochraně zájmů a práv drobných akcionářů. Tato legislativa je v současné době v naší zemi velmi nedostatečná. Smluvní cena podílů je totiž v současné době stanovena nejen na základě nabídky a poptávky, ale také na základě ekonomické situace v rámci obchodní korporace, tedy vnitřních poměrů v dané obchodní korporaci. Využití těchto parametrů pro oceňování podniku může mít pro jejich jednotlivé společníky (z hlediska držby akcií a jejich ceny) i negativní důsledky. Hlavním cílem článku je vyhodnocení toho, jak tato skutečnost může ovlivnit ceny akcií v přímé souvislosti na realizované výkupy akcií ze strany majoritního akcionáře, včetně kolísání a ovlivňování jejich ceny. Článek pak reaguje i na dlouholeté zkušenosti, které má naše univerzita s využitím svých výzkumných námětů a doporučení pro legislativní úpravy i samotnou praxi fungování finančních trhů.

Do rubriky „*Ad Fontes*“ (K pramenům) jsme zařadili příspěvek *O původu Lafferovy křivky* Petra Macha, který popisuje proces vzniku této teoretické konstrukce od jejího prvního použití v diskusi až po její popularizaci, rozšíření a roli, kterou plní v diskusích o míře zdanění. Příspěvek je zpracován s použitím atraktivních dokumentů a s velkým citem pro pedagogické uplatnění zkušenosti z velmi přínosné etapy rozvoje ekonomické teorie. Nezanedbatelná je i metodologická reflexe dané problematiky, která ukazuje, jakou roli má pro rozvoj teorie její interakce s praxí.

A nakonec – toto číslo časopisu jsme doplnili i dvěma recenzemi. První je věnována publikaci o historii a současnosti monetární politiky v České republice, druhá historii a perspektivám mezinárodního měnového systému.

Doc. Radim Valenčík, CSc.

Výkonný redaktor

Economics of Productive Consumption as an Offshoot of Main Currents of Economic Theory¹

Ekonomie produktivní spotřeby jako přesah hlavního proudu ekonomické teorie

RADIM VALENČÍK
PETR WAWROSZ

Abstract

This article presents economics of productive consumption (EPC) as a relatively new and forward-looking trend in economic theory that reacts to the modern expansion in services associated with the acquisition, retention, and application of human capital. This article explains the substance of EPC, including the question of how and in what way it goes beyond contemporary neoclassical economic paradigms. It demonstrates that EPC seeks to find the general principles of human behavior, and yet also draws on current conditions. For this reason it compares the approaches used in EPC with those of classical and neoclassical economics, providing a view of how EPC is associated with other offshoots of neoclassical economics and why EPC is growing in the contemporary era.

Keywords

economics of productive consumption, utility, interest, capital contract, transferred price, productive services sector

JEL Codes

B21, D11

Abstrakt

Článek představuje ekonomii produktivní spotřeby (EPC) jako relativně nový a perspektivní směr ekonomické teorie, který reaguje na soudobý rozmach služeb spojených s nabýváním, uchováním a uplatněním lidského kapitálu. Článek vysvětluje podstatu EPC včetně otázky, v čem a jak přesahuje soudobé neoklasické ekonomické paradigma. Ukazuje, že EPC usiluje o nalezení obecných zákonitostí lidského jednání, zároveň však vychází z aktuálních podmínek. Srovnává proto postupy užívané EPC s postupy klasické i neoklasické ekonomie, podává přehled, jak EPC souvisí s dalšími přesahy neoklasické ekonomie i proč se EPC rozvíjí v současné době.

Klíčová slova

ekonomie produktivní spotřeby, užitek, úrok, human capital contract, přenesená cena, sektor produktivních služeb

¹ This paper has been prepared within the project Growth of the role of the productive services industry: Theory and practice No. 7427/2018/02 (University of Finance and Administration).

1 Introduction

Economic theory (and its trends) as a rule is based on real economic processes and phenomena present at the time the given theory was formulated. It attempts to describe these processes and phenomena, to explain them and discover their causes, effects, and respective links to other phenomena. From this perspective it can be stated that economic theory is dependent on history (Hunt and Lautzenheiser 2015). At the same time, however, solid economic theory attempts to find general principles of human behavior that transcend a given time period. Throughout this search, the given theory is confronted with already existing attempts at explanation that it expands and in some cases supersedes or replaces with other alternatives. From this perspective, this constitutes a logically recognizable shift in theory. For this reason we focus on the individual stages of the evolution of economic theory in order to show why it is relevant in the present time to discuss a substantial change to the economic paradigm in our approach to contemporary problems.

The objective of this article is to present economics of productive consumption as part of economic theory that seeks to find general principles of human behavior. At the same time it overturns the existing economic paradigm in the form of neoclassical economics and applies to other trends in economic thought that develop this paradigm further or seek to go beyond it or expand it. This article describes the reasons why economics of productive consumption is currently growing and what specific historical factors have given rise to this development, or rather how these factors influence human behavior.

The text of this article is structured as follows: the first and second sections briefly characterize classical or rather neoclassical economics and its offshoots. Its purpose is to categorize economics of productive consumption, or rather to show that the processes used by economics of productive consumption are similar to the processes of other economic theories, yet offer better explanations of the important phenomena brought by current developments. The third section focuses on economics of productive consumption itself as a significant shift of fundamental economic paradigms, or rather as an offshoot of the main currents of contemporary economic theory in its primary direction. In the author's opinion, the modern economy is seeing an increase in the importance of productive services, namely services contributing to the acquisition, retention, and application of human capital, which is resulting in substantial changes to the entire economic system. From this perspective, economics of productive consumption is a methodological basis for identifying and predicting these changes and conceptualizing complex reforms focused on support of the economic basis of development of productive services.

The primary differences between economics of productive consumption and neoclassical economics are as follows: According to neoclassical economics, the consumer is oriented on maximizing his utility in the sense of a subjective experience and consumption has effects only in the form of a subjectively perceived experience, whereas according to economics of productive consumption the consumption is productive in the sense that it brings significant income effects, the mechanism of subjectively perceived experience is solely decisive, consumers (more specifically, the economic subject) maximizes the current value of his future income over a long-term timeframe in accordance with his life strategy in the given social conditions.

2 Classical economics and its offshoots

Classical political economics has been evolving since roughly the 1770s to the 1870s. It is associated with such names as Adam Smith (1723–1790), who is considered the founder of economics as a science, David Ricardo (1772–1823), Jean Baptista Say (1767–1832), John Stuart Mill (1806–1832), and others. Proponents of classical economics saw economics as the study of the creation and distribution of wealth – they sought to determine the sources of the wealth of society and how this wealth is distributed among the individual members of society (for more details, see O’Brien, 2011). They were intrigued by the general issues that they were examining at the specific moment in time – the period of the industrial revolution, all manner of social changes that were reflected e.g. in the form of the French bourgeois revolution, the Napoleonic Wars, colonial conquest, and other events. Division of labor and specialization are included in general sources of wealth (A. Smith: “*An Inquiry into the Nature and Causes of the Wealth of Nations*” – Smith 2019), whereas specialization takes place on the basis of the principle of comparative advantage (D. Ricardo: “*On the Principles of Political Economy and Taxation*” – Ricardo 2010). Representatives of classical economics presumed that the laws acting as part of a market mechanism in conditions when individuals pursue their own interests and the market has a competitive character ensure the efficient use of economic resources as well as the harmony of private and public interests. Some proponents of classical economics, such as D. Ricardo (Ricardo 2010) at the very least indirectly formulated the law of diminishing returns. Through a theory of classes derived from ownership of individual factors of production he sought his own audience – the class of owners of capital. This represents the economic sector that was established at the time as dominant, i.e. industry. He perceives consumption in the case of owners of labor as reproduction of its own labor power, in the case of capitalists as investment into expansion of production, whereas it begins to become aware also of the importance of technological progress. He understands production as a process of repeated reproduction, a process of expansion and technical improvement.

Proponents of economic theories that go beyond classical economics may be said to include e.g. Thomas Robert Malthus (1765–1834) and Karl Marx (1818–1883).

While Malthus is often (e.g. Sojka 2010) classified among classical economics, his opinions are typically said to deviate from classical economics. Malthus sought to substantiate his theories using all manner of statistics drawn from the data of the time in which he lived. To whatever extent, therefore, that he endeavored to formulate a general theory, he was by necessity a product of his time. Nonetheless his theory in one sense is general, or rather timeless – in his essays Malthus warned of the natural limits on economic processes (Macfarlane 2014).

Marx (Sperber 2013, Harvey 2017) developed and refined the labor theory of value from classical economics into his own theory of surplus value. The main purpose of his theory of surplus value was to demonstrate scientifically that the worker class in capitalism was being plundered and to convincingly justify the necessity for social revolution leading to the replacement of capitalism by communism. Here Marx contradicted certain of his own ideas about the transition from one mode of production to the other (Marx 1957–1959). And yet neither his theory of surplus value nor his theory of reproduction were ever substantiated

scientifically or empirically. The majority of persons have multiple opportunities to apply their capabilities and their gain does not diminish below their opportunity costs. More beneficial was Marx's analysis of conflicts between what he called means of production (the relationship of man to nature and the degree to which man annexes nature by appropriating Nature's products to satisfy human wants) and relations of production (relations to natural resources and raw materials, relationships between people arising on the basis of their activity during production, exchange, distribution, and consumption). While contemporary economic theory does not utilize the given terms, institutional economics for example (Groenewegen, Spithoven, van den Berg 2010) notes that the existing structure of institutions (in Marxist terminology, relations of production) need not correspond to the given phase of technological development (in Marxist terminology means of production). Nonetheless the idea of the concept of development of society as a natural historical process (the self-creation of man and self-creation of society is derived from the process of recreation of nature by man through the means of his incorporation to society) is implicitly contained in a series of contemporary approaches. In the concept of the law of economics of time Marx identifies with the basic themes of economics of productive consumption (Marx 1974).

3 Neoclassical economics and its offshoots

Neoclassical economics has been developing since the 1870s and continues to be perceived at least in the field of microeconomics as the dominant trend of economic theories (for details see e.g. Henry 2012, Morgan 2015). Historicky je spojená se jmény jako Hermann Gossen (1810–1858), Leon Walras (1834–1910), Vilfredo Pareto (1848–1923), William Jevons (1855–1882), Francis Edgeworth (1845–1924), Alfred Marshall (1842–1924), John Clark (1847–1938), Arthur Pigou (1877–1959), Irving Fisher (1867–1947), Gustav Cassel (1866–1945), John Hicks (1904–1989) and other. In its microeconomic components it focuses on examining the principle of individual subjects, namely households and companies. It can be characterized as a theory of decision-making in conditions of scarcity, which seeks to find a response to the questions of how best to use precious resources both in terms of their production and in terms of their allocation (utilization), in order that increasing the production of one good may not be achieved otherwise than at the cost of reducing the production of another consumption good, or rather to increase the benefit to one consumer otherwise than at the cost of reducing the benefit to another consumer. Economic theory continues to seek a timeless answer to general economic problems in the form of the questions of what to produce, how to produce, and for whom to produce. Here Sojka (2010) indicates that in the neoclassical concept time is historically disappearing from economic analysis as ownership relations and the entire institutional organization of society are also fading into the background.

The basic characteristics of neoclassical economics are (Sojka 2010):

- The concept of the consumer as a rational subject who maximizes his benefit (derived from his preference).
- The concept of an economic process as a single act that begins with production and ends with consumption (the reproduction perspective is being abandoned).

- On explanation of human behavior from the perspective of selecting alternatives.
- Rejection of the classical model of exchange, replacing the concept of exchange in its dual determinacy as the result of marginal costs (in the form of marginal rates of product transformation) in the production of individual consumption goods with marginal utility (marginal rate of substitution in consumption) in the production of consumption goods.

The main motivation for replacing classical economics with neoclassical was the significant increase in the quantity of resources available to owners of labor power, i.e. consumers. Consumption has ceased to be the mere reproduction of labor power but is becoming an area characterized by a choice of various alternatives in consumption according to the individual preferences of the consumers and in accordance with their wage-earning capabilities. Classical economics did not address these issues, because at the time the importance of decision-making among consumption alternatives was marginal. In other words, neoclassical economics began to emerge at a time when employees (owners of labor) were receiving such high income that decisions regarding its utilization when obtaining consumption goods became one of the most important phenomena in economics (Valenčík et al. 2014). From this perspective, neoclassical economics is a product of its time, which nonetheless as intimated above seeks to find general economic laws and principles applicable to ahistorical time. Neoclassical theories had to react to social developments of the time in the form of the theory of imperfect competition, externalities, and other reasons for state intervention. After World War II a synthesis was gradually achieved predominantly of microeconomic neoclassical theories and macroeconomic Keynesian theory in the so-called neoclassical synthesis that now serves as the basis for economic theory. The proponents of this synthesis include Paul Samuelson (1915–2009), Franco Modigliani (1918–2003), James Tobin (1918–2002), Robert Solow (1924), and others. From the 1970s neoclassical synthesis has been enriched by other elements associated with contemporary developments, e.g. in the form of information asymmetry, the heterogeneous nature of work, price and wage inflexibility, etc.

A number of economic theories and approaches may be identified as offshoots of neoclassical economics, some of which anticipate the theoretical origins of economics of productive consumption. Here we briefly describe the most significant.

Innovation theory: innovation theory is considered to have been founded by Joseph Schumpeter (1883–1950). He operated from the perspective of the entrepreneur who seeks new qualitatively distinct solutions (innovations) and thus seeks to achieve a profit. Schumpeter then generally defined capitalism as a social democratic system based on a dynamic created by individual entrepreneurs (Sojka 2010). This concept corresponds to the time in which Schumpeter was active, and likewise Schumpeter's concerns about the self-destruction of capitalism as a result of the creation of large societies, the separation of ownership and management of companies are a product of his time. Schumpeter's approach (featured, for example, in *"Theory of Economic Development"*; Schumpeter 1981) generally emphasizes the positive meaning of "temporary" monopoly based on innovations compared to other forms of monopolies. He contributed to explaining the dynamics of the industrial revolution. He also managed to answer the question of why the economic position of the owner of labor power improves when he showed that

the expansion of innovation waves is a factor influencing the increased value of work in the competitive environment. Innovation theory also overturns the ideas of “gloomy economists” (Malthus et al., later economists associated with the Club of Rome) on the impossibility of ongoing economic growth. Schumpeter demonstrated the importance of the innovation potential of a society, which for the most part is dependent on productive services enabling the acquisition, retention, and application of human capital.

Institutional economics: Institutional economics can be differentiated into “old” institutional economics, which existed particularly in the USA from the end of the 19th century until around the start of World War II, and new institutional economics, which has been evolving since the 1960s, with its significant expansion occurring from the 1990s. The basic errors of neoclassical economics according to the new institutional economics (Groenewegen, Spithoven, Berg 2010) include the fact that neoclassical economics ignores (or does not devote sufficient attention to) transaction and information costs, issues of ownership rights, the influence of institutions and time, and the role of ideas and ideology. New institutional economics also does not agree with the principle of unlimited rationality and the absence of uncertainty in economic decision-making. In keeping with the learnings of experimental psychology (Loomes 1999, Bardsley et al. 2010) new institutional economics arrives at the conclusion that people do not have a clearly defined structure of preferences when solving problems, and therefore cannot even make decisions on the basis of any clearly given structure. It is thus more useful to consider behavior as based on the given context (from the given cultural and institutional environment) (Hodgson 2007). In brief, institutional economics can be characterized as: “institutions and time are important for economic decision-making”. Calling attention to the importance of the cultural and institutional environment in the context of identifying a number of problems associated with a model of decision-making based on maximum utility is also one of the important motivators for developing economics of productive consumption as the primary offshoot of today’s main current of economic theory. If we consider the targeted aspect of behavior of households to be their orientation toward maximum current value of future income, then it is clear that the investment of current income for the purpose of maximizing future income will take place differently under different cultural and institutional conditions. At the same time, the differences will primarily be distinguished by the various strategies of households for long-term earning orientations of households in different historical periods and different communities, thus secondarily by how these strategies are reflected in the utility of individual persons in the form of experiences or perceived experiences. As we will later see, the discovery of the role of invidious or conspicuous consumption by T. Veblen from the perspective of the institutionally conditioned relationship between investment into development of the capabilities of the person and his social status is also beneficial. This is one of the areas in which the theory of cooperative games offers a valuable theoretical apparatus.

Welfare economics: Welfare economics represents the part of economic theory focused on the effects of the entire economic process and its parts on the welfare of an individual or group of people. What is welfare? Is it possible to measure welfare? Does the perception of welfare differ for different people? What economic tools lead to maximizing or at least increasing welfare? Welfare economics attempts to answer all of these questions (for more details, see Johansson, 1991). Welfare economics devoted significant attention to

imperfect market structures, market failures, and the question of how to resolve these failures as well as large wealth and income disparities. Its conclusions are debatable – e.g. increased equality need not always take place at the cost of efficiency. Actual practice has also shown the impossibility of constructing “social indifference curves” and finding some optimal point at the edge of utility possibilities. Economics of productive consumption offers a solution that does not lead to a dilemma between equality and efficiency. The solution (in connection with institutional economics) is to refine the financial market and such a structure of exchange and redistribution mechanisms that in the areas of development, retention, and utilization of human capital would enable the most complete utilization of existing investment opportunities, on the basis of which the income of the debtor (one who acquires, retains, or better uses human capital) as well as the creditor who uses his investment resources for this purpose.

Game theory: Game theory is based on the frameworks of neoclassical economics, even though its emphasis on the thorough use of mathematical means in a substantial way shifts the definition of certain of its basic terms, including the term “preference”, which is fundamentally associated with neoclassical economics. Game theory points to the problems of defining it. It first devotes its attention (as part of non-cooperative games) on a description of human behavior, which cannot be confined to the frameworks of optimizing the behavior of the individual, but where the existence of other subjects must be considered who behave in accordance with their preferences. It offers a very intricate mathematical apparatus for this purpose. It then, in connection with the theory of cooperative games, raises the question of what produces or defines the distribution of the surplus created by cooperation (exchange, public choice, the role of an arbitrator acknowledged by the cooperating parties, etc.), so that the inordinate complexity of these issues and the usefulness of mathematical means in their resolution may be revealed. In terms of economics of productive consumption, game theory is important as we demonstrated above and will continue to demonstrate in analysis of contracts focused on investment into the acquisition, retention, and application of human capital. In connection with the multi-point spread of the Nash bargaining problem, the use of non-cooperative games also offers analysis of differing consequences of investment into development of human capabilities and social position (which can also be perceived as the differentiation of investment into human capital and investment into social capital).

Keynesian macroeconomics and the supply-side theory: Keynesian macroeconomics and its counterpart based on various trends from liberal positions significantly influenced the practice of the economic regulation of states. Supply-side theory calls attention to one of the very important aspects associated with economics of productive consumption. Keynesian macroeconomics, which emerged as a reaction to the Great Depression in the 1930s (Sojka 2010), attempts to find tools for regulation and stimulus of economic growth such as to mitigate economic cycles, or rather so as to prevent devastating crises based on the chain reactions of a depressed economy resulting in spontaneous reduction of income due to negative expectations leading to increased saving. The key concept of this theory is the expenditure multiplier, which can be used to invoke the opposite chain reaction based on repeated conversion of income into expenditures and expenditures into income. This process results in stimulating aggregate demand, which with its size should better approximate potential product. Contemporary Keynesian approaches take

into account influences that limit the effectiveness of the expenditure multiplier and seek to create complex models that would be a foundation for a prognosis of economic development and for its regulation using the tools available to the government and the central bank. To differentiate household consumption and the investments of companies, Keynesian macroeconomics remain fully within the framework of neoclassical economics. Supply-side theory (Canto, Joines, Laffer 2010) calls attention to problems that arise through overuse of demand stimulation of the economy, particularly associated with support of balancing trends to the detriment of innovation adaptation of the economy to changes of what are ultimately natural limits on its growth. In relation to this it takes into account the role of technological progress, education, the role of institutions, and appeals to the importance of low tax burdens. The theory in general emphasizes that economic growth is possible only on the basis of the economic activities of people, in particular business entrepreneurs, and that if barriers are created to these activities, growth will not be achieved. Supply-side theory thus endeavors to remove these barriers, whereas it presumes that this elimination will result in an increased number of factors of production – namely labor and capital, investments and savings, which will lead to increased production. Even supply-side theory is a product of its time – its origins are in response to the problems that market economies faced in the 1970s and that Keynesian, or rather neo-Keynesian economics was not capable of addressing. Use of the tools of Keynesian stimulus begin to fail for the very reason that an economy cannot be ramped up against a barrier that balanced growth itself creates. On a global scale it will be very important which economies will be capable of reacting to the changed situation and of creating space for economic growth on an entirely new basis.

Public choice theory: This theory spread in the period following World War II as a reaction to the growth of state interventions and the importance of the government in market economies. In general it examines (Butler 2012) processes of collective decision-making, i.e. decision-making as practiced by or to the benefit of a group. The subject of public choice theory is the manner in which this collective decision-making is carried out. Mostly this decision-making applies to methods of allocation (distribution) of resources (pensions, wealth) in society. The theory points to a series of failures resulting in public choice, i.e. it emphasizes the limited options to replace underdevelopment in the market with tools of public choice. The theory offers a perspective both of general causes of inefficiency (in public choice, people are not deciding about their own money, the decision depends on the method of decision-making, sometimes even on the order of voting), as well as its specific manifestations (bureaucracy, interest groups, the battle for the moderate voter, the political cycle, information asymmetry of decision makers, etc.). A critical view of the possibilities for public choice was important from the perspective of economics of productive consumption in order to overcome certain illusions associated with options for resolving social problems in the form of redistribution on the basis of public choice. Public choice theory played an important role also in the fact that it opened a path to the broader application of game theory when resolving economic questions associated with the distribution of collective wealth.

Neo-Ricardan and reproduction economics: Neo-Ricardan and reproduction economics (e.g. Sraffa 1975) attempted through several modifications and several waves to return a reproduction perspective to economic theory (i.e. a perspective based on constant

repetition of production and utilization of the result of production in the next production action act, which neoclassical economics abandons, or rather sacrifices to what constitutes the essence of its approach. The reproduction schemata could not be returned to the main current of economic theory particularly because no trends managed to incorporate Schumpeter's innovation theory into them. We can refer to the article by J. Von Neumann, *A Model of General Economic Equilibrium* (1945–1946), in connection with attempts to restore the reproduction concept to economics, in which he formulates the idea of a theoretical concept where all consumption goods are reduced to intermediate consumption goods. The article was based on the author's lecture at Princeton in 1932. It represents one of the most frequently cited articles, and yet to this day not all of the ideas the author incorporated into it have been sufficiently extracted (Napoleoni 1968). While J. Von Neumann along with O. Morgenstern (1944 pp. 617–632) axiomatized the neoclassical theory of utility in the appendix of the famous book that gave rise to the creation of game theory based on his own theory of preferences, J. Von Neumann gives priority in the article to expressing universal economic balance through the production power of consumption goods in the topological space he proposes, whereby he ultimately quite closely approximates the economics of productive consumption we will discuss further.

Human capital theory: this theory (e.g. Becker 1993) attempts to overcome the obsolete concept of three factors of production (labor, land, capital) that emerged during the ancient periods of classical economics. It takes into account that human capital is created through investment "in people", just as capital is created through investments in land, its transformation, its conversion to a tool, and technology. Human capital theory sprang from the earth of neoclassical economics and did not manage to come to terms with its fundamental prerequisite (and limitation), namely that consumption ends with utility. It devoted attention in only a partial manner to the retroactive influence of certain forms of consumption (or rather what appears to neoclassical economics as consumption) on production. Becker's ideas on the role of "imagination capital" (Becker 1997) were significant, detailing the method of intertemporal choice.

Behavioral economics: Behavioral economics is part of economic theory which has been evolving since approx. the beginning of the 1970s. It focuses (Dharami 2017) on the impacts of social, cognitive, and emotional factors on economic decision-making by individuals and institutions. Whereas standard economics focuses on consequences and exterior circumstances of human behavior under the assumption of rationality, behavioral economics examines the systematic methods of human decision-making and their influence on human behavior under the assumption of limited rationality, pointing out errors in human thinking. It further focuses on issues of social norms and how these norms influence human behavior. The key theses of behavioral economics include the notion that only part of our behavior can be explained rationally. Often human behavior is based on emotions and other factors. Human preferences are dependent on context. People sometimes have the tendency to prioritize the current state, even when it doesn't benefit them in many respects. The selection of variants depends on the method in which it is presented (whether positively or negatively). Individual variants are compared not in terms of absolute value but relative to endogenous reference points. Preference also depends, among other things, on the preferences of other subjects; people take into account values such as reciprocity or fairness.

4 Period conditions of the development of economics of productive consumption

Just as with classical and neoclassical economics, the creation of economics of productive consumption is a product of its time. Objective demand for economics of productive consumption arise at a time when:

- Processes of spreading innovation waves and the technological advancement of the economy capable of carrying out innovation are on such a level that they offer essentially unlimited options for the use of accumulated human capital as the factor of production that contributes the most to economic growth and concurrently defines the form it takes.
- Development of an institutional system has reached a stage where the state is capable of technically, technologically, and organizationally supporting the practical execution of Human Capital Contracts (HCC). The state in particular helps secure transfer of part of income from those who in the past consumed some productive service and as a result of this consumption experienced increased income to those who provided the productive service. Practically, the given transfer can be carried out when paying taxes. With its activities the state can also contribute to ensuring that those who received the productive service do not avoid paying the relevant share, etc.
- On one hand this leads to ever greater economic disparity and subsequently to social segregation (including the emergence of excluded enclaves), the manifestation of which is the limiting of equality of opportunities to apply capabilities as a result of wealth and income barriers. On the other hand, technologies, methods of organizing labor, etc. concurrently offer the option to open paths to an economy making full use of investment opportunities in the acquisition, retention, and application of human capital, to a society in which the free development of each is a condition of the development of all.
- Households have sufficient resources to resolve immediate problems, so they can devote the saved time to a long-term strategy of lifelong development and application of the capabilities of their members as the basic and most important source of future income. This at the same time consists of a strategy connected with the enhancement of cross-generational cohesiveness, a strategy that is based on use of productive services as a resource for developing, retaining, and applying human capabilities.

The productive services sector (we recall that this consists of services whose objective is the acquisition, retention, and application of human and social capital of persons to whom a certain service, such as education, is provided) can become the decisive sector of the economy. Just as industry became this type of sector after the industrial revolution and likewise the sector of those services not immediately associated with the acquisition, retention, and application of human and social capital in developed countries after World War II. The production of the sector of productive services can lead to a sharp and long-term increase in the productivity of labor of those employed in other sectors. In other words, the sector of productive services offers services allowing the productivity of human activity to be increased. This will also harbor a focal point of innovation. The sector can further grow the spectrum of human needs in a substantial way. At the same time these

will consist of needs that are met on an ever growing scale by this production of the educational sector. The ever greater share will play a role in the need for self-realization, personal development, etc.; the productive services sector will contribute to their fulfillment.

5 The idea of economics of production consumption in current theoretical literature

The idea of seeing consumption as a productive (partially productive, predominantly productive, or completely productive with exceptions) phenomenon is so attractive that it has been appearing independently with numerous authors from various parts of the world, yet with a very close interpretation. One of the main proponents of cultivating this idea is Steger (2002), who gave the impetus for this in his article "*Productive consumption, the intertemporal consumption trade-off and growth*". In his concept of productive consumption enables the satisfaction of current needs and at the same time increases the productive potential of work. He emphasizes that the view of intertemporal choice thereby substantially changes. He places productive consumption into immediate connection with growth of the supply of human capital and on this basis creates simple macroeconomic growth models.

One of the most natural contributions to defining and analyzing productive consumption is the article "*Inclusive growth through creation of human and social capital*" (Dinda 2014), which partially builds on the above article by Steger, yet relies on other sources as well, some of which also reference issues of productive consumption. In the area of productive consumption, he draws a distinction between human and social capital. He sees social capital as a prerequisite for human application, yet does not identify the phenomenon we describe as investment into social position, where the option to obtain or apply human capital by one subject takes place to the detriment of another subject. It can be considered highly motivating that he presents productive consumption as associated with eliminating the inclusion of asset differences incurred and with the creation of equal opportunity for social advancement. In this sense, he interprets the positive role of social capital as well. He takes into account in detail the role of education and health care. He uses simple, primarily microeconomic models to express his ideas. He focuses on the issues in question in subsequent and previous essays as well, such as Dinda et al. (2000).

Psárská (2019) uses the theoretical basis of productive consumption for analyzing behavior of households in Slovakia. He takes into account deviations from fully rational behavior and seeks to explain their causes in terms of behavioral economics. From a methodological perspective this consists of a beneficial approach, because the "higher level of rationality" that is incorporated into the theoretical basis of economics of productive consumption is presented in direct confrontation with the actual behavior of people. Psárská gathered and analyzed extensive empirical material related to the actual behavior of households and used the theory of productive consumption to formulate certain recommendations for the area of various VAT rates.

It is worth noting certain other approaches to the use of the idea of productive character of consumption. Zwick (2013) shifts the issues of productive consumption into the position of philosophical essays of social visions associated with overcoming conflicts between labor and capital. His essay is inspiring, and yet rather remote from real economic processes. Suen, W., Mo, P. H. (1994) in their older study present an interesting idea based on the fact that every act of consumption has (as previously mentioned) two types of effects – utility and income effects. Taking into account the income effect, they construct a “shadow price” and attempt specific analyzes that are not entirely convincing. This is partially due to the fact that what we perceive as utility is also manifested in the human psyche by expected income. Ichiroh, D. (2010) interprets productive consumption from the perspective of population growth dynamics and with the use of a suitable mathematical model demonstrates that there is a very close correlation between productive aspects of consumption and population growth in less developed countries. Households compare future returns from growth in the numbers of members of households to options for investing in human capital for the purpose of acquiring and retaining capabilities, however relatively rationally. For similar findings see Yerznkyan et al. 2017).

Learnings obtained from study of essays that address issues of productive consumption or reference issues of productive consumption can be summarized briefly as follows:

- While the concept of “productive consumption” is relatively frequented, used in various contexts and various parts of the world, its content is interpreted very similarly and the idea of the importance of productive aspects of consumption both from the theoretical and the practical perspective is gradually growing.
- During an analysis of the duality of utility and income effects, we cannot lose sight of the fact that expected income effects are reflected directly in generating subjectively experienced utility, i.e. when examining the role of productive consumption we cannot get by with a simple supplementation of a neoclassical approach.
- Decision-making on the basis of productive aspects of consumption is associated with a higher level of rationality and the models that are based on the productive effects of consumption are a very suitable supplement (reflection) of phenomena identified by behavioral economics.
- One of the most significant roles when constituting the theory of productive consumption as a significant offshoot of the existing main current of economic theory is the exact differentiation of investing into development of capabilities and if applicable the prerequisites for its application, which does not come at the cost of the others, and investment into social capital, which is focused on limiting equal opportunities derived from asset and income disparities; theoretical tools used thus far are not sufficient for analyzing phenomena in this area.
- This is associated with the fact that, on the contemporary level of theoretical analysis of issues of productive (particularly income) effects of consumption, it is important to develop proprietary methods for the economics of productive consumption without which this area of research will not mature into the form of a relatively independent and forward-looking theory.

6 The essence of economics of production consumption

The essence of economics of production consumption can be expressed as follows: this theory (presented e.g. in Valenčík et al. 2014 and subsequent monographs) rejects one of the key prerequisites of neoclassical economics, that the consumer maximizes his utility in accordance with his preferences. Economics of productive consumption considers the mechanisms of preference based on subjectively perceived experience not to be goal-setting but decisive, from this perspective focused on a long-term strategy of use of current income for the acquisition and use of assets allowing for them to increase the current value of future income.

So that we may explain economics of productive consumption, let us first recall how neoclassical economics perceives utility:

1. Originally and predominantly as a subjective phenomenon of the perceived experience type (experience, pleasure and passion, etc.).
2. Sometimes and rather later as an expression of preference without its character or form being specified.

In one or the other interpretation, a presumption is made of the final and exogenous character of the utility in relation to the economic system. The finality of the utility is reflected in the fact that neoclassical economics presumes rational decision-making related to maximum utility, while the utility itself does not have feedback to economic processes. The exogenous character of the utility means that the method of functioning of the economic system has no influence on the creation of utility. If the theory presumes the final character of utility, then it must also presume that consumption serves solely for satisfying utility and has no productive character – people do not obtain any factor of production through consumption, e.g. in the form of human or social capital, that can be estimated and that serves as a source of future income. And yet if we look at the current real economic system, then in it the role is evidently and demonstrably growing of productive aspects of consumption, which cannot be abstracted from and cannot be considered an immaterial residual effect. This consumption (in the form of consumption of educational services, creation of social contacts, whereas this creation can also take place via conspicuous or club consumption, etc.) is concurrently both what evokes the utility (as a subjectively perceived phenomenon) and what leads to acquisition of human or social capital, which as a factor of production is an entry to production and therefore a source of future income. From the perspective of the exogeneity of the utility: if the theory presumes an exogenous character of the utility, it must presume that the relations or mechanisms in which the human economic subjects (bargaining people) are found and which economic theory discusses play no role when creating their subjectively perceived experience. Reality, however, is exactly the opposite: the relations and mechanisms by which a system is organized are an important factor in the creation of human preferences and therefore of utility.

The above corresponds with the issues surrounding interest. Neoclassical theory (for details see Sojka 2010) explains interest as the result of the joint action of two causes: willingness and opportunity. Willingness is based on the fact that people prioritize current

consumption. If they abdicate it, they will feel a loss of utility. In order for them to be willing to abdicate current consumption, they must expect satisfaction in the form of higher future consumption. At the same time each person has an individual level of satisfaction – is willing to abdicate current income and consumption only if the future income, and therefore also consumption, is n times greater (where the value of n is greater than 1). Willingness therefore may be designated as a subjective cause determining interest – it defines the smallest amount a person is willing to accept in order to abdicate current income and consumption. Opportunity is an objective cause determining interest. This consists of an opportunity for investors to invest today's pension into production methods bringing higher future pension. The ratio between expected future pension and today's (invested) pension determines the maximum interest rate the investor is willing to pay. The problem consists of the explanation of prioritizing current consumption over future consumption as a result of human impatience. Impatience, however, is not the sole factor of our psyche related to the future. We can, for example, look forward to something. This factor has the entirely opposite effect and leads to prioritizing future consumption. From the perspective of the debtor, therefore, interest is not a reward for patience, or rather satisfaction for abdicating current consumption. It is also a means by which people can achieve at least part of the future consumption. We further stress that the neoclassical explanation of interest also presumes thorough separation between consumption and investment – money or other resources may be used either for current consumption or future consumption. Nothing exists between them; it is not presumed that current consumption could serve as a source of future income, that is, that it could have a productive character. Nonetheless, in a series of cases, consumption is a source not only of current utility, but influences future income as well. Let us take a look at two illustrative examples:

1. A girl buys a purse, she is pleased with it, but partly due to the fact that with it she acts on her surroundings, opens a path to success, improved image, social position, etc.
2. A household acquires a backyard grill, members of the household are pleased with it, of course in part because they look forward to inviting visitors over and subconsciously value the utility from the social contact they will thus acquire.

Of course, the opposite dependency also applies: resources people use for investment, achieving future income, bring them utility in the present as well. A typical example may include resources expended for an training course, but even all manner of investment instruments such as stocks or gold. Future income is not the only thing of interest to people here. Current pleasure, joy, excitement, etc. has its influence as well. In the strategic orientation of a household and its members on maximizing current value of current income from creating and managing assets composed of non-human and human capital, as well as in the subjective estimation of the benefit of these assets, an important role is played by social context, social custom, traditions, etc.

From the above it can be concluded that economics of productive consumption, unlike the standard concept of neoclassical economics, presumes that consumption of a series of consumption goods does not suffice solely for satisfying current needs or achieving current utility but has a productive character and is a source of future income. We emphasize that economics of productive consumption is based on neoclassical

economics; its goal is not to create a different, completely alternative theory. Economics of productive consumption develop the prerequisite of neoclassical economics (for details see e.g. Friedman 1957, Becker 1997), that for comparison of current and future utilities people must have available the commensurate imagination capital – they must be capable of imaging future utility. At the same time, they must have the capacity itself to compare utility.

Economics of productive consumption emphasizes that people in their actions make the previously experienced present and relate their behavior to the future. People do not seek out solely current utility, but consider what relationship their current behavior will have in relation to their future. Of course, different people have differing abilities to relate their current behavior to the future and to make the past present in their current behavior. If someone has this ability to but a small extent, they will more frequently make all the different mistakes and errors that behavioral economics warns of. From this perspective the following generalization may be made: the more and more fully a person manages to make present what has been previously experienced into their current life and the more a person manages to relate their activities and current life to the future, the more complete (and free of mistakes) his life will be.

Economics of productive consumption acknowledges that a large part of human behavior is related to the future (more or less remotely). In his actions a person acts on (influences, transforms) the outer world in order to meet his needs and thereby achieve utility. At the same time he uses certain objects, performs certain activities, ends up in certain situations, while drawing from his previous experiences. By way of illustration: a fisherman uses a fishing net (an object) for catching fish (an activity), whereas he collaborates or on the contrary competes with other fishermen (situation) based on previous experiences when catching fish in order to satisfy his need (hunger). The need for which the person is expending effort of course influences his valuation and experience of the objects, activities, and situations that are associated with this need. The objects, activities, and situations themselves become needs (the person wishes to own a net, to fish, to collaborate or compete with other fishermen). These needs retroactively act on the original need (here the need that is hunger). In reality, given the complexity of human life and the fact that in his actions the person makes present what has already been experienced, it is actually difficult to determine which need was the original one. Moreover, both a certain resource and a certain activity and situation as a rule serve to satisfy a larger number of needs. This therefore results in a synthesis of experiences from satisfying a series of needs. The product of this synthesis is the creation of other needs that once again are based on previous experience and that act upon other needs.

7 Summary and discussion

The fact that people in their behavior do not endeavor solely for maximization of current utility, but also take into account how their current consumption influences their future returns, is a general principle of human behavior. In this respect, economics of productive consumption logically builds upon and surpasses neoclassical economics. At the same

time it relates to other theories seeking to go beyond this economic approach. We shall now show how:

- With its approach, economics of productive consumption takes certain inspirations and learnings of behavioral economics that show that the human psyche was created in a certain environment, its functioning has a certain momentum, and that there exist significant deviations from factual decision-making of individuals and groups of individuals from optimal decision-making. Economics of productive consumption acknowledges such phenomena as transfer of experiences from final satisfaction of a need to resources, activities, and conditions (situations) that can lead to the satisfaction of a need. The phenomenon of transfer of experiences on one hand increases the intensity of motivation leading to fulfillment of long-term strategy, streamlines choice, but can at the same time lead to several types of human psychological failure. The resources, activities, and situations may become a goal in and of themselves, they can lead a person away from his long-term goals and thereby lead to all manner of problems of human behavior.
- Economics of productive consumption reevaluates and reworks the concept of welfare economics by replacing the boundaries of achievable utility that is the subject of welfare economics with the boundaries of achievable future income (or the current value of achievable future income). Economics of productive consumption shows through the boundary of future income that under certain conditions, the optimum can be achieved, where equality (interpreted as equal possibility to use investment opportunities according to the level of their yield) is concurrently Pareto efficient, i.e. it meets the requirement of collective rationality. The prerequisite listed here is of course the refinement of the capital market, particularly in the field of investment in development and retention of human capital. On this basis the economics of productive consumption proposes complex reforms in the area of social investment and social insurance, which are essential for the industry of productive services to have a real economic base for its expansion as a dominant industry.
- Economics of productive consumption proposes a mechanism of price transfer as a method for subjects who do not have either sufficient capabilities or sufficient resources to develop their capabilities. The essence of this mechanism consists of subject A (e.g. a university), who is developing its activities, retaining human capital and contributing to the application of this capital to subject B, obtaining from subject B part of his income (which is the result and manifestation of the given investment). At the same time, a minimum boundary may be set from which the payment, payment period, and other parameters may result. The mechanism of transferred price generally interests providers of consumption goods associated with the development of human and social capital (as well as the provider of productive services) for the success of their clients – providers are rewarded only if their clients are successful. The area of contracts between the provider of productive services (services that are the result of development, retention, and application of human and social capital of the one to whom the service is provided), the customer of the provider, and any other applicable subjects, is called the human capital contract (Palacios Lleras 2007). Individual contracts falling into the category of HCC can be analyzed by cooperative game theory, whereas economics of productive consumption may contribute to the development of the given theory.

- Economics of productive consumption takes advantage of the concept of Schumpeter's theory of innovation for describing changes associated with constituting the industry of productive services as a dominant economic industry. Economics of productive consumption points to the analogy that the constitution of the industry of productive services shares with the industrial sector at the time of the industrial revolution. It further demonstrates that investment in human and social capital can be a source of constant innovation and thereby enable unlimited growth. In this sense economics of productive consumption returns to the reproduction concept of economics, where consumption (including consumption of individuals and households of an investment character) is perceived as one of the methods of accumulation and retention of human capital that retroactively acts on the economy as the most dynamic factor of production.
- Economics of productive consumption overcomes certain limitation of the Keynesian distinction of consumption of households and investments of companies, shows real trends in the development of consumption and investment of households both in the direction of productive consumption and of course in the direction of investment into social position, where a number of subjects use resources for obtaining a certain standing (position) and defending it. The position in question is associated with various advantages that other subjects do not have, which leads to income and asset disparity. Economics of productive consumption further points to risks of overuse of the multiplier effect for stimulus of economic growth. These risks consist for example in the fact that they do not give space for a much fuller application of human and social capital as a factor of production increasing the intensity and revolutionary quality of innovation.
- Economics of productive consumption is inspired by institutional economics and public choice theory in the area of identifying the role of the state when reducing transaction costs and eliminating other problems with contracts of the price transfer type and when limiting the influence of investment into social position. Economics of productive consumption further indicates that if development of human capabilities results from the sector of productive services, this development will influence the structure of formal and informal institutions and lead to easier development of inclusive political and economic institutions. It can also assume at least a partial resolution of certain problems identified by public choice (e.g. limitation of bureaucracy and interest groups).

At first glance it may seem that the replacement of maximum utility with maximization of current value of future returns, or the claim that utility serves as a resource for decision-making and not as a goal, are not substantial changes. Replacement of maximization of utility with maximization of current value of future returns is utility as a subjective quantity in the non-economic sphere replaced by a quantity which lies in the economic sphere. The change of the role of utility from goal-setting to decisive makes the description of our decision-making even more real. If something is beneficial to a person as a resource of his future income, the human psyche can manage to appreciate this in the form of subjective positive experiences that influence our decision-making. If we don't acknowledge that a number of consumed goods have a productive character, influence our future returns, and that people (at least some) are aware of this fact, economic theory will describe human behavior in a different way than this behavior truly takes place. Moreover, a choice

represented in this way by economic theory will be much less “economic” and much less realistic than the choice that people actual make. The objection is not sustained that economic theory cannot include all aspects of human behavior. The aspect of future return from current consumption can easily be incorporated into human behavior without the theory becoming complicated or too complex.

We would further state that if economic theory does not consider that consumption has a productive character, it will overlook the influence of real economy in the development of experience mechanism. At first glance, economic theory should not have to address this influence; it does not seem to be the subject of economic inquiry. Nonetheless, economic theory should be able to acknowledge not only the influence of the experiential mechanism on the economic behavior of people, but also the influence of economic reality on the development of the experiential mechanism, because this influence is substantially determined by the subsequent action of the experiential mechanism on the economic behavior of people. As we demonstrate above, the experiential mechanism of a person causes experiences generated during immediate satisfaction of needs to have a tendency to transfer to intermediary links (objects, activities, and situations that produce the satisfaction of the need). Standard economic approaches do not consider this fact. From this perspective the experiential mechanism is more flexible and “smarter” than it is presented in economic theory.

One of the most problematic areas of economics of productive consumption has proven to be differentiation between investment into development of capabilities (acquisition of human capital) and investing in social position (use of own human capital to the detriment of application of human capital by another person, which can grow into various forms of economic and social segregation, act against vertical mobility in society, or against creation of equitable conditions for social advancement independent of initial wealth. If we interpret investing into the development of capabilities and into social position, we can demonstrate a range of differences between both forms of investing, and at the same time we can show that in many cases one of the forms of this investment will transition into the other and that they are difficult to differentiate. This is partially due to the fact that it is a very significant theoretical problem. The use of the apparatus of cooperative games presents as a prospective path to resolving it, specifically the multi-point solution to Nash’s (S, d) bargaining problem. Meanwhile, the cooperative role has two interpretations:

- Either the execution of a Human Capital Contract (HCC), which allows one subject to take advantage of investment opportunities associated with the development or retention of capabilities with the use of the resources of another subject.
- Or the refinement of the institutional environment in order that such contracts could be executed and thereby the investment opportunities associated with development and retention of the capabilities of the individual subjects could be fully utilized.

In comparison, there is the option of investment into social position. If in a subset of cooperative improvement within a set S is determined by a point of disagreement d , then the alternative positional investment may be expressed as point p . The cooperative improvement is derived from point d , not from point p . In this way we obtain the basic concept for differentiating investment into development of capabilities and investment

into social position. It is the basis for a number of not insignificant models of non-cooperational and cooperational games with relevant interpretations.

8 Conclusion

The current level of development of science and technology ever more enables a reduction of the time necessary for satisfying basic life needs, or reducing the number of resources for these needs. The resources freed up and the resources which we would be unable to take advantage of without technical progress can be used for development of human capabilities, for expansion of human and social capital. The sector of “productive services” plays a significant role in the process of development, retention, and application of this capital. The offer of this sector comprises those who provide the given service. This can consist of all manner of educational organizations, organizations operating in health care, spas, recreation, etc. Demand consists of the customers of the given sector. If as a result of the services the sector offers them, its customers have higher income, or can secure this income for a longer period, and a space is created here for the compensation for the services provided to be paid in the form of a share of the income that the customer has obtained thanks to the service. Economic theory (e.g. Palacilo Lleras 2007) here refers to the “human capital contract”, or transferred price, where the customer of the sector of productive services, upon achieving a commensurate income, pays the provider of the given service (e.g. educational institution) an established percentage of that income (which can be reduced by an amount necessary to secure basic needs).

The development of the sector of productive services is associated with the development of part of economic theory – “economics of productive consumption”. This indicates certain limitations that affect the contemporary mainstream trend in economic theory: neoclassical economics. Its assumptions, that people maximize utility, whereas this maximization has no influence on other human behavior (“final utility”), or that the issue of utility is not determined or does not correspond to human activities (i.e. exogeneity of utility), does not match reality. Here reality is quite the opposite – human behavior does not end with the satisfaction of a certain need (in other words, maximization of utility). A number of needs have a productive character, by whose consumption people contribute to obtaining and retaining their future income. Utility, therefore, is not the final quantity. In the same way, it is not an exogenous quantity: the relations and mechanisms by which a system is organized are an important factor in the creation of human preferences and therefore of utility.

Economics of productive consumption emphasizes that a large part of human behavior is related to the future (more or less remotely). It presents utility as a means for decision-making. Via utility, people value individual needs as well as objects (resources), activities, and situations by which the given needs are satisfied, returns that will be derived in the future from current consumption. As a more realistic description of human behavior, the economics of productive consumption presents the theory according to which people endeavor in their actions to use current income such as to maximize current value of future income. Meanwhile they use current income for the purchase of goods whose

consumption demonstratively lacks a productive character, goods whose consumption has at least a productive character and can serve as a source of future income, and the procurement of investment resources (resources whose primary goal is to achieve future income). In other words, according to the economics of productive consumption people act in the creation and operation of their assets (their asset portfolio), which is composed of tangible and financial assets, from human and non-human capital, such as to maximize the current value of future income. Economics of productive consumption acknowledges the fact that individual people have the ability to relate our current behavior to all manner of future returns. And yet to presume that they do not have them at all, or that people in their decision-making do not take future returns into consideration, or that they take them into consideration only when making decisions about whether to save and how to invest, is not realistic.

Likewise, individual people have a different timeframe in which they seek to maximize the current value of future income. Undervaluation or overvaluation of the given timeframe, not including future returns for current behavior, later manifest as the "errors" of human behavior that serve as the focus of behavioral economics. Economics of productive consumption closely corresponds to this. Similar correspondence can be seen in other trends of economic theory that are based on neoclassical economics but seek to go beyond it. Economics of productive consumption, compared to other approaches working to develop economics as a science, is a relatively young and minor theory. And yet it can be assumed that its importance will grow, in the same way that the importance of productive services and the activities associated with them will grow. Here practice requires the development of a theory that can reflect what is actually happening.

Acknowledgments

This paper has been prepared within the project Growth of the role of the productive services industry: Theory and practice No. 7427/2018/02 (University of Finance and Administration).

References

- BARDSLEY, N. et al.** (2010) *Experimental Economics. Rethinking the Rules*. Princeton: Princeton University Press.
- BECKER, G.** (1993) *Human Capital: a theoretical and empirical analysis with special reference to education*. 3rd edition. Chicago: The University of Chicago Press.
- BECKER, G.** (1997) *Teorie preferencí*. Praha: Grada.
- O'BRIEN** (2011) *The Classical Economists Revisited*. Princeton: Princeton University Press.
- BUTLER, E.** (2012) *Public choice – a primer*. London: Institute for Economic Affairs.
- CANTO, V., D. JOINES and A. LAFFER** (1982) *Foundations of Supply-Side Economics – Theory and Evidence*. New York: Academic Press.
- DHAMI, S.** (2017) *The Foundations of Behavioral Economic Analysis*. Oxford: Oxford University Press.

- DINDA, S.** (2014) Inclusive growth through creation of human and social capital. *International Journal of Social Economics*. Bradford. Vol. 41, no. 10, pp. 878–895.
- DINDA, S. et al.** (2000) Social capital in the creation of human capital and economic growth: A productive consumption approach. *Journal of Socio-Economics*. Vol. 37, no. 5, pp. 2020–2033.
- GROENEWEGEN, J., A. SPITHOVEN and A. VAN DEN BERG** (2010) *Institutional Economics: an Introduction*. London: Palgrave Macmillan.
- HARVEY, D.** (2017) *Marx, Capital, and the Madness of Economic Reason*. Oxford: Oxford University Press.
- HESSLER, H., R. VALENČÍK a P. WAWROSZ** (2010) *Mikroekonomie středně pokročilý kurs*. Praha: Vysoká škola finanční a správní.
- HENRY, J. F.** (2012) *The Making of Neoclassical Economics*. London: Routledge.
- HODGSON, G. M.** (ed.) 2007. *The Evolution of Economic Institutions: a Critical Reader*. Cheltenham (UK): Edward Elgar.
- HUNT, E. K. and M. LAUTZENHEISER** (2015) *History of Economic Thought: A Critical Perspective*. 3rd edition. London: Routledge.
- FRIEDMAN, M.** (1957) *A theory of the consumption function*. Princeton: Princeton University Press.
- ICHIROH, D.** (2010) Productive consumption and population dynamics in an endogenous growth model: Demographic trends and human development aid in developing economies. *Journal of Economic Dynamics and Control*. Amsterdam. Vol. 34, no. 4, p. 696.
- JOHANSSON, P.** (1991) *Intro to Modern Welfare Economics*. Cambridge (UK): Cambridge University Press.
- LOOMES, G.** (1999) Some lessons from past experiments and some challenges for the future. *Economic Journal*. 109(2):35–45.
- MABSOUT, R.** (2018) Late Neoclassical Economics. The Restoration of Theoretical Humanism in Contemporary Economic Theory. *Erasmus Journal for Philosophy and Economics*. 11(1):107–116.
- MACFARLANE, A.** (2011) *Thomas Malthus and the Making of the Modern World*. Seattle: Amazon Digital Service, L.L.C.
- MORGAN, J.** (ed.) (2015) *What is neoclassical economics? Debating the origin, meaning and significance*. London: Routledge.
- NAPOLEONI, C.** (1961/1968) *Ekonomické myšlení dvacátého století*. Praha: Academia.
- NEUMANN, J.** (1945–1946) A Model of General Economic Equilibrium. *The Review of Economic Studies*. 13(1):1–9.
- NEUMANN, J. and O. MORGERNSTERN** (1953) *Theory of Games and Economic Behavior*. Princeton: Princeton university Press.
- PALACIOS LLERAS, M.** (2007) *Investing in Human Capital: A Capital Markets Approach To Student Funding*. Cambridge: Cambridge University Press.
- PSÁRSKA, M.** (2019) *Determinants of real decision making on productive components of consumption under the current economic conditions of the Slovak Republic*. České Budějovice: Institute of Technology and Business.

- RICARDO, D.** (1817/2010) *On the Principles of Political Economy and Taxation*. Carmel (Indiana, USA): Liberty Fund, Inc.
- SCHUMPETER, J. A.** (1934/1981) *Theory of economic development*. London: Routledge.
- SOJKA, M.** (2010) *Dějiny ekonomických učen*. Praha: Havlíček Brain Team.
- SMITH, A.** (1776/2019) *An Inquiry into the Nature and Causes of the Wealth of Nations*. New York: BookRix.
- SRAFFA, P.** (1975) *Production of Commodities by Means of Commodities: Prelude to a Critique of Economic Theory*. Cambridge (UK): Cambridge University Press.
- STEGER, T. M.** (2002) Productive consumption, the intertemporal consumption trade-off and growth. *Journal of Economic Dynamics & Control*. Amsterdam. Vol. 26, no. 6, pp. 1053–1068.
- SUEN, W. and P. H. MO** (1994) Simple analytics of productive consumption. *The Journal of Political Economy*. Chicago. Vol. 102, no. 2, p. 372.
- VALENČÍK, R.** a kol. (2014) *Perspektivy a financování odvětví produktivních služeb*. Praha: VŠFS.
- YERZNYAN, B., L. GASSNER and A. KARA** (2017) Culture, institutions, and economic performance. *Montenegrin Journal of Economics*. Vol. 13, no 2, pp. 71–80.
- ZWICK, D.** (2013) Utopias of ethical economy: A response to Adam Arvidsson. *Ephemera*. Leicester. Vol. 13, no. 2, pp. 393–405.

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***Board Gender Diversity and Dividend Policy
in Nigerian Listed Firms***
***Genderová diverzita ve správních radách
a politika vyplácení dividend vybraných
nigerijských firem***

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Abstract

This paper assessed the effect of proportion of female directors in corporate boards on dividend policy of 19 Nigerian listed consumer goods and industrial companies for the seven-year period, 2010–2016. Using Random Effects Generalised Least Squares (REGLS) model as estimation technique, the result indicated a positive and significant association between the number of women in corporate boardrooms and dividend policy. The outcome is consistent with the view that female directors are more involved in monitoring activities than their male counterpart in boardrooms. The finding also provides empirical evidence in support of outcome hypothesis where dividend payment is related to the corporate governance regime that is in place in an organisation.

Keywords

agency, corporate governance, dividend, gender diversity, Nigeria, outcome hypothesis, substitution hypothesis

JEL Codes

D21, G02

Abstrakt

Příspěvek hodnotí vliv podílu žen v řídicích orgánech z hlediska dividendové politiky 19 nigerijských firem spotřebního průmyslu kótovaných v sedmiletém období 2010–2016. Využití modelu Random Effects Generalized Least Squares (REGLS) jako metody odhadu naznačilo pozitivní a významný vztah mezi počtem žen v představenstvech firem a dividendovou politikou. Výsledek je v souladu s hypotézou, že ženské ředitelky se více podílejí na monitorovacích činnostech než jejich mužské protějšky v představenstvech. Toto zjištění poskytuje rovněž empirické důkazy na podporu hypotézy, že výplata dividend souvisí s režimem správy a řízení společnosti, který je v organizaci zaveden.

Klíčová slova

agentura, správa a řízení společnosti, dividenda, genderová rozmanitost, Nigérie, hypotéza výsledku, hypotéza substituce

1 Introduction

Dividend policy studies have continued to receive greater attention from academics, investors, policy makers and the general public due to two major reasons. Firstly, dividend policy decision is an important function of corporate financial managers and the financial policy direction of companies is affected by their actions or inactions. Secondly, proponents of agency theory (Jensen and Meckling, 1976 and Jensen, 1985) argue that dividend is a tool employed by corporate board to reduce the agency conflict between the management and owners in a corporate organisation.

Prior empirical studies on dividend policy decision focused on dividend policy and financial performance; determinants of dividend policy and influence of corporate governance attributes on dividend. In various studies, substantial empirical evidences supported a direct relationship between dividend policy and profitability (Ehikioya, 2015, Ngo & Tuan, 2016 and Abata, Tijani & Oranyelu). Variables such as profitability (Marfo-Yiadom and Agyei, 2011), liquidity (Hosain, 2016), leverage and company size (Awad, 2015) are important predictors of dividend policy in both developed and developing economies. Regarding corporate governance mechanisms and dividend policy, some factors such as good reporting quality (Jiraporn, Kim, & Kim 2011), independent board and long tenured board (Sharma, 2011) and board size (Uwuigbe, Olusanmi and Iyoha, 2015) have been found to influence positively payment of dividends.

Recent academic studies on corporate governance (such as Rose, 2007, Adams and Ferreira, 2009, Nielsen and Huse, 2010 and Pucheta-Martinez and Bel-Oms, 2015), have documented that board gender diversity may influence the supervision and control of activities of corporate boards.

As significant as the role of women in corporate board is, it is unfortunate to note that most of the dividend policy studies, especially in the developing economy, such as Nigeria, did not explore the influence of gender diversity on dividend payment. In Nigeria for instance, gender diversity studies are not taken seriously perhaps due to the fact that membership of corporate boards based on gender (male versus female) is not made mandatory in the various codes of corporate governance issued till date. This is despite convincing discussion of gender diversity in accounting literature as an important aspect of corporate board composition. Surprisingly too, most of the studies conducted in the developed economies produced mixed or unclear results (Carter et al., 2010 and Dowling & Aribi, 2013 and Pucheta-Martinez & Bel-Oms, 2015).

The primary objective of the present work is to empirically examine the influence of gender diversity in corporate boards on dividend policy of firms in the Nigerian business environment. The knowledge gap which currently exists in this type of study in Nigeria and other developing countries is expected to be bridged by this study.

2 Literature review

Theoretical framework

Agency theory

The theory was initially propounded by Berle and Means (1932) cited in Wagana and Nzulwa (2016) but later modified by Jensen and Meckling (1976). It suggests that as a result of separation of ownership and control, management of an organisation (agents) may behave in such a manner which is likely to be detrimental to the interest of the owners (principal) of the business. This may be in form of investing in projects that will cause reduction in the shareholders' value (negative NPV projects) but which will profit them as managers or deliberately increasing their personal entitlements despite the fact that the business is not showing improvement in its financials. The agency theory stresses that managers may prefer dividend policy that pays lower dividends. This is because paying high dividend will reduce the amount of cash that will be available to them to play with or for personal consumption.

Curtailling the improper actions of managers and protection of the owners of businesses require concrete actions from within and outside of the organization. That is the reason why various corporate governance mechanisms are put in place by corporate entities, government regulatory institutions and agencies. One of such regulations is establishment of corporate board of directors by public limited liability companies in Nigeria. The corporate board of an entity, as part of its functions, oversees and monitors the activities of the management, in such a way that only things that will improve the fortunes of the business are expected to be pursued and sanctioned by the board.

The agency theory asserts that membership and characteristic of the board have a major say in determining the success or otherwise of the corporate governance mechanisms put in place. It suggests that a board that is diverse tends to increase its independence and by extension controls and monitors the activities of management efficiently and effectively.

Regarding corporate dividend policy decision and corporate governance mechanisms (of which gender diversity is among), the agency theory provides two different perspectives –outcome and substitution hypotheses (Sawick, 2009, Jiraporn et al., 2011 and Elmagrhi, Ntim, Crossley, Malagila, Fosu & Vu, 2018).

The payment of dividend can be related to corporate governance mechanism in place in an organisation, according to outcome hypothesis (La-Porta et al., 2000). In this case, organisations that are poorly governed face a situation where managers there pay little or no dividend to shareholders because of their personal aggrandizements (Chen & Steiner, 1999, and Al-Taleb, 2012). On the other hand, in organisations that are well-governed, managers usually act in a manner that will increase the shareholders' value thereby paying high dividend. The direction of linkage between corporate governance mechanism and dividend payment according to this hypothesis is positive.

The substitution hypothesis opines that dividend payment is a surrogate for quality of corporate governance. Poorly governed firms tend to pay larger dividends in order to

maintain excellent reputation with owners (La Porta et al., 2000) and mitigate potential conflict with owners (Sawicki, 2009). An indirect association between corporate governance mechanism and dividend policy is expected.

Empirical studies

Bolbol (2012) investigated the influence of board characteristics on dividend policy of 50 Malaysian construction firms during the 2010 financial year. Seven corporate governance features including gender diversity were tested against dividend payment. Result of the regression analysis, among others, revealed that board gender had negative but insignificant relationship with dividend payment. The result further indicated that managerial ownership had positive but insignificant relationship with dividend payment while CEO duality had inverse association with amount of dividend paid.

Pucheta-Martinez and Bel-Oms (2015) studied the effect of gender diversity on dividend policy of companies listed in Spain. Result revealed that the proportion of female directors and shares held by female directors, are directly associated with dividend pay-out. It further revealed a negative effect of percentage of institutional women directors on dividend policy and that of executive women directors produced no effect.

Chen, Leung and Goergen (2017) investigated whether female directors on boards of 1,691 S&P 1500 companies in the USA influence high payment of dividends over the period of study, 1997–2011. Using various multivariate econometric specifications, finding indicated a direct association of gender composition on dividend payments.

Benjamin and Otiso (2017) assessed the effect of gender and age of directors on policy of dividend adopted by 49 Kenyan firms during 2007–2013. Regression results showed that gender diversity was the most important factor that affected dividend policy as it had a positive relationship with dividend policy.

Nguyen (2017) studied the effect of female directors on firm performance and dividend pay-out policy of 647 Vietnamese listed companies for the period covering 2010–2015. By applying fixed and random effects methods of analysis, the result produced negative association between women directors and performance, but insignificant relationship with dividend policy.

Saeed and Sameer (2017) investigated the influence of gender diversity on dividend policy of three countries – India, China and Russia during the financial year, 2007–2014. Finding revealed an inverse effect of gender diversity on payment of dividend in the countries studied.

Al-Amarneh, Yaseen and Iskandrani (2017) explored the effect of board gender diversity on dividend policy of 13 banks in Jordan. The period covered by the study was from 2005–2014. With the adoption of simple pooled Ordinary Least Squares (OLS) as analysis technique, result suggested a strong positive association between female directors and dividend payment.

Elmagrhi et al. (2018) assessed the influence of board attributes on the level of dividend policy of United Kingdom's small and medium-sized companies. Fixed effects, lagged

effects and 2-stage least squares were adopted as data analytical tools. Result suggested that female directors in boardroom had an inverse association with dividend policy.

Muhammad (2018) assessed the influence of board gender diversity and ownership concentration on dividend policy of 387 companies in Indonesia for 2014–2016. The study used generalized least squares as estimation technique and result revealed a direct association between board gender diversity and dividend policy.

3 Methodology

The study adopted an ex-post facto research design. This is in form of historical published data obtained and utilized in order to establish the link between women in corporate boardrooms and dividend policy of listed companies in Nigeria. Secondary data obtained from published annual audited accounts of the selected companies were employed for the study. These accounts were available in the websites of the selected firms and Nigerian Stock Exchange Fact Book for various years.

The study population consists of fifty-one (51) listed firms in consumer and industrial sectors of the Nigerian Stock Exchange as at 31st December, 2018. By adopting purposeful sampling technique, nineteen (19) firms with complete data set required for the study were sampled for the period 2010–2016. The list of the sample firms (comprising 11 listed consumer goods and 8 listed industrial goods firms) is provided in Appendix 1.

Dividend pay-out policy, the dependent variable, describes the policy being used by a firm to determine the proportion of the profit to be made available to shareholders as dividend and the portion to be ploughed back for the business to be utilized in future for investment purpose. Following the studies of Jiraporn et al. (2011), Esqueda (2016) and Elmagrhi et al. (2018), the study adopts dividend per share (*DPS*) as a surrogate for dividend policy. The *DPS* is computed as the ratio of dividend paid to the total number of equity shares.

Board gender diversity is the only independent variable. Two different measurements were used to determine this variable. Firstly, (*WOMp*) is the percentage of female directors in the boardroom (Bolbol, 2012, Saheed et al., 2016, Nguyen, 2017 and Elmagrhi et al., 2018). Secondly, in line with Dao, Brown and Hsu (2015), *WOMa*, the absolute number of female directors in the boardroom is used as a measurement of board diversity.

Some variables were employed in the study as control variables because of the fact that some other factors that were not captured by the study have the tendency to influence the dependent variable (dividend pay-out policy). Firm size (*FSZ*), board size (*BSZ*) and profitability (*PRF*) were utilized as control variables. Firm size was included because some prior empirical studies showed that firm size affected dividend payment positively (Pucherta-Martinez & Bel-Oms, 2015 and Al-Najjar & Kilincarslan, 2016) *FSZ* is measured as logarithm of total asset. Board size is an important corporate governance mechanism because decisions concerning dividend pay-out policy are taken collectively by the entire

board members (comprising both male and female). *BSZ* is computed by finding the log of the total board membership per year (Nguyen, 2017, Kajola, Agbatogun & Adewumi, 2017 and Elmagrhi et al., 2018). Profitability is also controlled because some prior studies provided empirical evidence that profitability influenced dividend payment positively and significantly (Kajola, Adewumi & Babatolu, 2015, Kajola, Desu & Agbanike, 2015, Ben-Nasr, 2015 and Muhammad, 2018). Also, only companies that are profitable are required by law (Nigerian Companies and Allied Matters Act, 2004), institutional and professional regulations to pay dividend. Theoretically, higher profits should translate to higher dividend payment to shareholders. Profitability is computed as profit after tax divided by total asset per year.

Hypothesis

The hypothesis of the study in its null form is as follows:

Ho: There is no significant relationship between board gender diversity and dividend policy.

Model specification and data analytical technique

Panel data methodology was adopted due to the panel character of the data. Panel data simultaneously combine cross-section and time series data. Specifically, the models of the study are as stated in equations 3.1a and 3.1b:

$$\text{Model 1: } DPS_{it} = \beta_0 + \beta_1 WOMp_{it} + \beta_2 FSZ_{it} + \beta_3 BSZ_{it} + \beta_4 PRF_{it} + e_{it} \dots \dots \dots \quad (3.1a)$$

$$\text{Model 2: } DPS_{it} = \beta_0 + \beta_1 WOMa_{it} + \beta_2 FSZ_{it} + \beta_3 BSZ_{it} + \beta_4 PRF_{it} + e_{it} \dots \dots \dots \quad (3.1b)$$

Where,

- DPS* = Dividend pay-out
- WOMp* = Proportion of female directors to total board membership
- WOMa* = Absolute number of female directors on board
- FSZ* = Size of the firm
- BSZ* = Board size
- PRF* = Profitability
- e* = Error term

Consistent with some prior studies (see Nhuyen, 2017 and Muhammad, 2018) multivariate regression approach including Fixed effects and Random effects GLS models were initially adopted to test the association between gender diversity and dividend policy decision. Hausman (1978) specification test was later employed to determine which of the two models should be used to make unbiased inference.

4 Results and discussion

Descriptive statistics

The result of descriptive statistics results are depicted in Table 1 under 3 panels, A, B and C. Panel A reports on the whole sample; B presents results when there was no female director in the boardroom in each of the years of study and C shows when at least a woman director was represented on corporate board in at least a year during the period of study.

From Table 1, the average value of dividend payment in panel A (whole sample) is 28.2% and profitability is 12.3%. However, the mean dividend value when there was at least a woman director is in boardroom (Panel C) is 35.4% and average profitability is 15.5%. When no female director was on board as shown in Panel B, the average dividend payment is 24.8%, while profitability is 10.9%. Thus, there could be a relationship (to be tested later) that the financial performance and dividend payment are higher when female directors are represented in the boardrooms than when none was in the boardroom.

Table 1: Summary of descriptive statistics

Variable	A		B		C	
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
<i>DPS</i>	0.282	0.429	0.248	0.457	0.354	0.356
<i>WOMp</i>	0.068	0.079	0.000	0.000	0.099	0.078
<i>WOMa</i>	0.444	0.499	0.000	0.000	0.684	0.480
<i>FSZ</i>	9.670	0.770	0.101	0.635	9.475	0.751
<i>BSZ</i>	0.922	0.154	1.004	0.106	0.884	0.158
<i>PRF</i>	0.123	0.087	0.109	0.090	0.155	0.074
Cross-section	19.000		6.000		13.000	
Observations	133.000		42.000		91.000	

Source: Results from the study (2018)

Correlation

Correlation matrix which shows the association between the variables is presented in Table 2. From Table 2, board gender diversity (*WOMp* and *WOMa*) has at 1% level a direct and significant association with dividend policy (*DPS*). This indicates clearly importance of female presence in boardrooms as this has a positive influence on dividend payment by Nigerian firms. Two of the control variables (*FSZ* and *PRF*) have positive and significant association with dividend policy, while the third control variable, *BSZ* has a positive but insignificant association with dividend policy.

Table 2: Correlation matrix

	DPS	WOMp	WOMa	FSZ	BSZ	PRF
<i>DPS</i>	1.000					
<i>WOMp</i>	0.283*** (0.001)	1.000				
<i>WOMa</i>	0.242*** (0.004)	0.824*** (0.000)	1.000			
<i>FSZ</i>	0.206** (0.017)	0.406*** (0.000)	-0.271*** (0.002)	1.000		
<i>BSZ</i>	0.119 (0.173)	0.571*** (0.000)	-0.241*** (0.005)	0.716*** (0.000)	1.000	
<i>PRF</i>	0.271*** (0.002)	-0.072 (0.409)	-0.105 (0.228)	0.161* (0.065)	0.028 (0.745)	1.000

***, **, and * represent 1%, 5% and 10% levels of significance, respectively

Source: Results from the study (2018)

Collinearity test

Test for the presence of multicollinearity between the explanatory variables was conducted with Variance Inflation Factor (*VIF*) approach. Table 3 shows the multicollinearity test result. Gujarati (2003), Rumsey (2007), Gujarati and Porter (2009) and Wooldridge (2009) argue that *VIF* of any explanatory variable above 10 shows multicollinearity problem between it and any other explanatory variables. The *VIF* of the variables ranges from 1.048 to 2.598 and with average value of 1.674, hence no problem of multicollinearity among the explanatory/control variables.

Table 3: Result of multicollinearity test

Variable	VIF	1/VIF
<i>WOMp</i>	1.491	0.671
<i>WOMa</i>	1.090	0.917
<i>FSZ</i>	2.141	0.467
<i>BSZ</i>	2.598	0.385
<i>PRF</i>	1.048	0.954
Average	1.674	0.679

Source: Results from the study (2018)

Regression

Three econometric specifications-pooled OLS, Fixed effects least squares and Random effects GLS were carried out. However, the OLS was used as a robustness check. Tables 4 and 5 indicate that the Hausman specification test result supports Random effects GLS in arriving at unbiased inferences for each of the two models ($p > 0.05$). The F-statistic

values for the Random effects models are significant at 1% level in the two board gender diversity models. It depicts that the model as a whole is fit. Durbin-Watson values of 2.540 and 2.506 for models 1 and 2 respectively are within the acceptable threshold of 1 to 3 (Gujarati, 2003, Asaeed, 2005, Gujarati & Porter, 2009 and Wooldridge, 2009) hence the models have no serial autocorrelation issues.

From Table 4, using the Random effects GLS result, board gender diversity (proxy by percentage of female directors in the boardrooms) has a direct relationship with dividend policy (represented by dividend per share) at 10% level.

Table 4: Regression Results (WOMp as independent variable)

Variable	Fixed Effects	Random Effects
	Model 1 DPS	Model 1 DPS
Constant	0.688 (0.493)	0.705 (0.482)
WOMp	2.205** (0.030)	1.977* (0.051)
FSZ	-0.842 (0.402)	-0.970 (0.334)
BSZ	0.968 (0.335)	1.046 (0.298)
		0.954
PRF	0.787 (0.433)	0.659 (0.511)
R ²	0.394	0.374
Adjusted R ²	0.231	0.248
F-stat	2.417***	2.981***
Prob (F-stat)	0.001	0.000
Durbin-Watson	2.540	2.490
Hausman Chi-square	2.788	
Hausman Prob	0.594	
Observations	133	133

***, **, and * represent 1%, 5% and 10% levels of significance, respectively

Source: Results from the study (2018)

When the absolute number of female directors on corporate boards is used as a variable of gender diversity, as shown in Table 5, gender diversity has a direct association with dividend policy at 5% level. The outcome shows that firms having women representation on corporate boards positively influence dividend payment. This suggests that with female directors on corporate boards, dividend is effectively used as a monitoring device and thereby mitigating agency problem to the barest level.

The study's finding is consistent with prior studies of Jurkus et al. (2011), Al-Rohahleh (2017), Al-Amarneh et al. (2017) and Muhammad (2018) and provides evidence in support of Outcome Hypothesis of Agency theory. It is however contrary to the findings of Nguyen (2017), Saeed and Sameer (2017) and Elmagrhi et al. (2018), which produced negative relationship between the two variables in their various studies. Thus, the null hypothesis is rejected.

All the three control variables on the other hand produced insignificant relationship with dividend policy.

Table 5: Regression Results (WOMa as independent variable)

Variable	Fixed Effects	Random Effects
	Model 1 DPS	Model 1 DPS
Constant	0.837 (0.405)	1.006 (0.317)
WOMp	2.774*** (0.007)	2.462** (0.015)
FSZ	-0.890 (0.375)	-1.149 (0.253)
BSZ	0.265 (0.792)	0.445 (0.658)
PRF	0.768 (0.444)	0.657 (0.513)
R ²	0.410	0.385
Adjusted R ²	0.251	0.262
F-stat	2.576***	3.132***
Prob (F-stat)	0.000	0.000
Durbin-Watson	2.558	2.506
Hausman Chi-square	4.227	
Hausman Prob	0.376	
Observations	133	133

****, **, and * represent 1%, 5% and 10% levels of significance, respectively

Source: Results from the study (2018)

Robustness check

In order to further validate the result based on Random effects GLS technique, an additional alternative econometric test, pooled OLS regression, which was considered to be a good analytical tool by some prior researchers (see Bolbol, 2012, Benjamin and Otiso, 2017 and Al-Amarneh, 2017) for this type of study, was conducted. The result is presented in Table 6.

From Table 6, board gender diversity has a positive and significant relationship with dividend policy in the two models. This provides additional evidence that gender diverse board has a significant influence on dividend pay-out of companies in Nigeria. The null hypothesis is also rejected. However, contrary to the regression result based on Random effects GLS technique, two control variables, firm size (in model 2) and profitability (models 1 and 2) have positive relationship with dividend policy.

Table 6: Regression result (pooled OLS)

Variable	Model 1 DPS	Model 1 DPS
Constant	-2.431** (0.016)	-2.402** (0.018)
WOMp	2.439** (0.016)	
WOMa		2.713*** (0.008)
FSZ	1.443 (0.151)	1.832* (0.078)
BSZ	0.960 (0.339)	0.078 (0.938)
PRF	3.069*** (0.003)	3.114*** (0.002)
R ²	0.141	0.150
Adjusted R ²	0.114	0.123
F-stat	5.241***	5.634***
Prob (F-stat)	0.001	0.000
Durbin-Watson	1.643	1.660
Observations	133	133

***, **, and * represent 1%, 5% and 10% levels of significance, respectively

Source: Results from the study (2018)

5 Conclusion and recommendations

The study investigated the influence of gender diversity in corporate boards on dividend policy of 19 quoted consumer goods and industrial firms in Nigeria covering 2010–2016. The finding using Random effects GLS technique indicated a positive and significant relationship between gender diversity and dividend pay-out policy. This outcome showed that women on corporate boards tend to involve deeply in monitoring of the management than their male colleagues. It also implied that women on board used payment of dividend as a means of controlling the managers and thereby mitigating agency conflicts that may occur between owners and management. This is consistent with theoretical belief of Agency theory.

It is recommended that shareholders (owners) of corporations should seek to promote board gender diversity by putting more female directors in the boardrooms. The regulatory agencies (Securities and Exchange Commission and Financial Reporting Council of Nigeria) and other policy makers are advised to amend the various corporate governance, particularly the one issued in 2011 and other sectorial codes, by mandating corporate organisations to reserve a specific proportion (not less than one-third) of their board membership solely for women, as this will be of immense benefits to the shareholders, board of directors, creditors and other stakeholders.

This study is limited to 19 firms in two sectors (out of 11) of the Nigerian economy and study time frame of 7 years. For a more robust result, other sectors such as, conglomerate, financial services, oil and gas and others should be comprehensively studied too with more sample size. Further, in order to grow the empirical literature of corporate governance, similar study can be replicated in other climes, especially developing and emerging countries.

References

- ABATA, M. A., J. O. TIJANI and J. O. ORANYELU** (2016) Dividend Policy and Corporate Performance in Nigerian Listed Firms: An Empirical Re-examination of Evidence. *LASU Journal of Accounting and Finance*. Vol. 2, No.1, pp. 126–149.
- ADAMS, R. B. and D. FERREIRA** (2009) Women in the Boardroom and their Impact of Governance and Performance. *Journal of Financial Economics*. Vol. 94, No. 2, pp. 291–309.
- ADAMS, R. B. and V. RAGUNATHAN** (2015) *Lehman Sisters (FIRN Research Paper)*. Available online via <https://doi.org/10.2139/ssrn.2380036> (Access: December 14, 2018).
- AL-AMARNEH, A., H. YASEEN and M. ISKANDRANI** (2017) Board Gender Diversity and Dividend Policy: Case of Jordanian Commercial Banks. *Corporate Board Role, Duties & Composition*. Vol. 13, No. 3, pp. 33–41.
- AL-RAHAHLEH, A. S.** (2017) Corporate Governance Quality, Board Gender Diversity and Corporate Dividend Policy: Evidence from Jordan. *Australasian Accounting, Business and Finance Journal*. Vol. 11, No. 2, pp. 86–104.
- AL-NAIJAR, B. and E. KILINCARSLAN** (2016) The Effect of Ownership Structure on Dividend Policy: Evidence from Turkey. *Corporate Governance: The International Journal of Business in Society*. Vol. 16, No. 1, pp. 135–161.
- AL-TALEB, G.** (2012) Measurement of Impact Agency Costs Level of Firms on Dividend and Leverage Policy: An Empirical Study. *Interdisciplinary Journal of Contemporary Research in Business*. Vol. 3, No. 10, pp. 234–243.
- ASAEED, K.** (2005) The Association between Firm-specific Characteristics and Disclosure: The Case of Saudi Arabia. *The Journal of American Academy of Business*. Vol. 7, No. 1, pp. 310–321.
- AWAD, B.** (2015) Determinants of Dividend Policy in Kuwait Stock Exchange. *International Journal of Business and Management Review*. Vol. 3, No. 7, pp. 72–78.
- BENJAMIN, O. M. and K. N. OTISO** (2017) Influence of Gender Diversity on Dividend Policy in Kenya. *Journal of Culture, Society and Development*. Vol. 34, pp. 15–20.

- BEN-NASR, H.** (2015) Government Ownership and Dividend Policy: Evidence from Newly Privatized Firms. *Journal of Business Finance & Accounting*. Vol. 42, No. 5, pp. 665–704.
- BOLBOL, I. I. H.** (2012) *Board Characteristics and Dividend Payout of Malaysian Companies*. Unpublished MSc Thesis, Universiti Utara, Malaysia.
- BYOUN, S., K. CHANG and Y. S. KIM** (2016) Does Corporate Board Diversity affect Corporate Payout Policy. *Asia Pacific Journal of Financial Studies*. Vol. 45, No. 1, pp. 48–101.
- CARTER, D. A., F. D'SOUZA, B. J. SIMKINS and W. G. SIMPSON** (2010) The Gender and Ethnic Diversity of US Boards and Board Committees and Financial Performance. *Corporate Governance: An International Review*. Vol. 18, No. 5, pp. 396–414.
- CHEN, J., W. S. LEUNG and M. GOERGEN** (2017) The Impact of Board Gender Composition on Dividend Payouts. *Journal of Corporate Finance*. Vol. 43, pp. 86–105.
- CHEN, C. R. and T. L. STEINER** (1999) Managerial Ownership and Agency Conflicts: A Nonlinear Simultaneous Equation Analysis of Managerial Ownership, Risk Taking, Debt Policy and Dividend Policy. *Financial Review*. Vol. 34, No. 1, pp. 119–136.
- COMPANIES AND ALLIED MATTERS Act CAP. C20** Laws of the Federation of Nigeria, 2004.
- DAO, M., V. L. BROWN and H. HSU** (2015) *Does Sex Matter? Director Gender and Board Policies*. Proceedings of the Ohio meeting of American Accounting Association.
- DJAN, G. O., S. ZEHOU and J. BAWUAH** (2017) Board Gender Diversity and Dividend Policy in SMEs: Moderating Role of Capital Structure in Emerging Market. *Journal of Research in Business, Economics and Management*. Vol. 9, No. 2, pp. 1667–1676.
- DOWLING, M. and Z. A. ARIBI** (2013) Female Directors and UK Company Acquisitiveness. *International Review of Financial Analysis*. Vol. 29, pp. 79–86.
- EHIKIOYA, B. I.** (2015) An Empirical Investigation of the Impact of Dividend Policy on the Performance of Firms in Developing Countries: Evidence from Listed Firms in Nigeria. *International Journal of Finance and Accounting*. Vol. 4, No. 5, pp. 245–252.
- ELMAGRHI, M. H., C. G. NTIM, R. M. CROSSLEY, J. MALAGILA, S. FOSU and T. V. VU** (2018) *Corporate Governance and Dividend Pay-out Policy in UK Listed SMEs: The Effects of Corporate Board Characteristics*. Working Paper, Southampton Business School, University of Southampton, UK.
- ESQUEDA, O. A.** (2016) Signaling, Corporate Governance and the Equilibrium Dividend Policy. *Quarterly Review of Economics and Finance*. Vol. 59, pp. 186–199.
- GUJARATI, D. N.** (2003) *Basic Econometrics*. New York: McGraw-Hill/Irwin.
- GUJARATI, D. N. and D. C. PORTER** (2009). *Basic Econometrics*. New York: McGraw-Hill/Irwin.
- HAUSMAN, J. A.** (1978) Specification Tests in Econometrics. *Econometrica*. Vol. 46, No. 6, pp. 1215–1271.
- HOSAIN, M. Z.** (2016) Determinants of the Dividend Payout Policy: A Study on Listed Private Commercial Banks of Dhaka Stock Exchange Limited in Bangladesh. *IOSR Journal of Economics and Finance*. Vol. 7, No. 5, pp. 1–10.
- JENSEN, M.** (1986) Agency Costs of Free Cash Flow, Corporate Finance and Takeovers. *American Economic Review*. Vol. 76, No. 2, pp. 323–329.
- JENSEN, M. C. and W. H. MECKLING** (1976) Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*. Vol. 3, No. 4, pp. 305–360.

- JIRAPORN, P., J. C. KIM and Y. S. KIM** (2011) Dividend Pay-outs and Corporate Governance Quality: An Empirical Investigation. *Financial Review*. Vol. 46, No. 2, pp. 251–279.
- JURKUS, A. F., J. C. PARK and L. S. WOODARD** (2011) Women in Top Management and Agency Costs. *Journal of Business Research*. Vol. 64, No. 2, pp. 180–186.
- KAJOLA, S. O., A. A. ADEWUMI and A. T. BABATOLU** (2015) Managerial Share Ownership and Dividend Pay-out Policy in Nigerian Listed Non-financial Firms. *Asian Academic Research Journal of Social Sciences and Humanities*. Vol. 2, No. 2, pp. 137–155.
- KAJOLA, S. O., T. O. AGBATOGUN and A. A. ADEWUMI** (2017) Outside Directors and Firm Performance: Evidence from Nigerian Listed Firms. *West African Journal of Business and Management*. Vol. 6, No. 3, pp. 36–41.
- KAJOLA, S. O., A. A. DESU and T. AGBANIKE** (2015) Factors Influencing Dividend Payout Policy Decision of Nigerian Listed Firms. *International Journal of Economics, Commerce and Management*. Vol. 3, 6, pp. 539–557.
- LA-PORTA, R., F. LOPEZ-DE-SILANES and R. W. VISHNY** (2000) Agency Problems and Dividend Policies Around the World. *Journal of Finance*. Vol. 55, No. 1, pp. 1–33.
- MARFO-YIADOM, F. and S. K. AGYEI** (2011) Determinants of Dividend Policy of Banks in Ghana. *International Research Journal of Finance and Economics*. Vol. 61, pp. 99–108.
- MUHAMMAD, H. K.** (2018) Female Representation in the Board of Directors, Ownership Concentration and Dividend Policy: Evidence of Indonesia. *International Journal of Economics, Business and Management Research*. Vol. 2, No. 2, pp. 466–475.
- NGUYEN, T. C. T.** (2017) The Impact of Female Board of Directors on Firm Performance and Dividend Payout Policies: Evidence from Vietnam. *International Research Journal of Finance and Economics*. Vol. 164, 56–67.
- NGO, G. and T. TUAN** (2016) Financial Performance, Dividend Payment and Firm Value: An Exploratory Research on Vietnam Listed Firms in the Food and Drink Industry. *VNU Journal of Science, Economics and Business*. Vol. 32, No. 2, pp. 47–57.
- NIELSEN, S. and M. HUSE** (2010) The Contribution of Women on Boards of Directors: Going Beyond the Surface. *Corporate Governance: An International Review*. Vol. 18, No. 2, pp. 136–148.
- NIGERIAN STOCK EXCHANGE** (2010–2016) *Fact Book*, Lagos.
- PALVIA, A., E., E. VAHAMAA and S. VAHAMAA** (2014) Are Female CEOs and Chairwomen more Conservative and Risk Averse? Evidence from the banking industry during the financial crisis. *Journal of Business Ethics*. Vol. 13, No. 3, pp. 577–594.
- PUCHETA-MARTINEZ, M. C. and I. BEL-OMS** (2015) *The Board of Directors and Dividend Policy: The Effect of Gender Diversity*. Available online at: <https://academic.oup.com> (Access on December 14, 2018).
- ROSE, C.** (2007) Does Female Board Representation Influence Firm Performance? The Danish Evidence. *Corporate Governance: An International Review*. Vol. 15, No. 2, pp. 404–413.
- RUMSEY, D.** (2007) *Intermediate Statistics for Dummies*. Indianapolis: Wiley Publishing Inc.
- SAEED, A. and M. SAMEER** (2017) Impact of Board Gender Diversity on Dividend Payments: Evidence from Some Emerging Economies. *International Business Review*. Vol. 26, No. 6, pp. 1100–1113.

SAWICKI, J. (2009) Corporate Governance and Dividend Policy in Southeast Asia Pre- and Post-Crisis. *European Journal of Finance*. Vol. 15, No. 2, pp. 211–230.

SECURITIES AND EXCHANGE COMMISSION (2011) *Code of Corporate Governance for Public Companies in Nigeria*.

SHARMA, V. (2011) Independent Directors and the Propensity to pay Dividends. *Journal of Corporate Finance*. Vol. 17, No. 4, pp. 1001–1015.

UWUIGBE, U., O. OLUSANMI and F. IYOHA (2015) The Effects of Corporate Governance Mechanisms on Firms Dividend Payout Policy in Nigeria. *Journal of Accounting and Auditing: Research and Practice*. Vol. (2015), pp. 1–11.

WAGANA, D. M. and J. D. NZULWA (2016) Corporate Governance, Board Gender Diversity and Corporate Performance: A Critical Review of Literature. *European Scientific Journal*. Vol. 12, No. 7, pp. 221–233.

WOOLDRIDGE, J. M. (2009) *Introductory Econometrics: A Modern Approach*, 4th Edition, Cambridge: USA Cengage Learning.

Appendix 1: Sampled Firms

S/N	Name of firm	Sector
1	Nigerian Breweries Plc	Consumer goods
2	Guinness Nigeria Plc	Consumer goods
3	7up Bottling Company Plc	Consumer goods
4	Dangote Sugar Refinery Plc	Consumer goods
5	Flour Mills of Nigeria Plc	Consumer goods
6	Honeywell Flour Mills Plc	Consumer goods
7	UTC Nigeria Plc	Consumer goods
8	Cadbury Nigeria Plc	Consumer goods
9	Nigeria Enamelware Plc	Consumer goods
10	Vitafoam Nigeria Plc	Consumer goods
11	PZ Cussons Nigeria Plc	Consumer goods
12	Berger Paints Plc	Industrial goods
13	CAP Plc	Industrial goods
14	DN Meyer Plc	Industrial goods
15	IPWA Plc	Industrial goods
16	Lafarge Africa Plc	Industrial goods
17	Beta Glass Plc	Industrial goods
18	Avon Crown Caps and Containers Nig. Plc	Industrial goods
19	Nigerian Ropes Plc	Industrial goods

Statement of no conflict of interest

I hereby certify that this paper has not been sent to another publication outlet either in Nigeria or any other part of the world.

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9th May, 2019

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A Study of Family Business in China

Studie rodinného podnikání v Číně

JUNZI ZHOU

Abstract

A considerable proportion of private enterprises in China are family enterprises. Private enterprises represented by family enterprises play an important role in China's national economy. Family business is a group of enterprises that cannot be ignored in China's economic development. It has made irreplaceable contributions in the prosperity of the market, attracting employment, creating tax revenue and so on. Based on the analysis of status quo and characteristics of Chinese family enterprises, this paper teases out the advantages and disadvantages of family business, analyzes the opportunities and challenges in development of family business. Last but not least, considering those findings above, this paper puts forward relevant proposals for the sustainable development of Chinese family business.

Keywords

family business, status quo, characteristics, succession model

JEL Codes

L22, L26

Abstrakt

Značná část soukromých podniků v Číně jsou rodinné podniky. Důležitou roli v národním hospodářství Číny hrají soukromé podniky zastoupené rodinnými podniky. Rodinný podnik je skupina podniků, které nelze v ekonomickém rozvoji Číny ignorovat. To učinilo nenahraditelný příspěvek v prosperitě trhu, přilákání zaměstnání, vytváření daňových příjmů a tak dále. Na základě analýzy statusu quo a charakteristik čínských rodinných podniků, tento článek popisuje výhody a nevýhody rodinného podnikání, analyzuje příležitosti a výzvy v rozvoji rodinného podnikání. V neposlední řadě, s ohledem na výše uvedená zjištění, tento dokument předkládá relevantní návrhy udržitelného rozvoje čínského rodinného podniku.

Klíčová slova

family business, status quo, charakteristika, model nástupnictví

1 Introduction

Since China's reform and opening up, Chinese family enterprises have undergone fast growth, from less to more, from small to large, from weak to strong, experiencing an extraordinary 40 years. Family business has become an important force in China's economic development, expressing a strong momentum of development, but also facing

many puzzles and problems. Currently, China's economy is in a critical period of succession and transformation from the old impetus to the new. Family enterprises face difficulties of intergenerational inheritance. They are faced with both challenges within and without the enterprise: within, it is institutionalization and standardization of management; without are opportunities and challenges from outside. In this context, the discussion of survival and development of Chinese family enterprises has become a common concern of the theoretical and practical circles.

As for the research on the development of family enterprises in China, the existing literature mainly explores from three aspects:

(1) Discussing the social and cultural characteristics, family trust and blood inheritance of Chinese ethnic enterprises within the sociological framework. Chen Ling (1998) attributed the family network to the typical interpersonal relationship of particularism in the way of interaction of different cultural information. Gan Dean et al. (2005) attributed the prosperity of Chinese family enterprises to the unique "family" cultural role in Chinese society. Chu Xiaoping (2002) studied the employment mechanism of Chinese family enterprises under the influence of the characteristics of interpersonal relationship in the unique culture of Chinese society. Dou Junsheng et al. (2014) argued that the framework of social emotional wealth (SEW) has gradually become the perspective of explaining the unique situation and characteristics of family business in recent years.

(2) Discussing the human resource structure, management system and decision-making choice of Chinese Ethnic enterprises within the framework of management. Zhang Changli et al. (2003) analyzed the management mode of Chinese family enterprises, believing that family management restricts the exertion of the organizational function of modern enterprises. Ma Libo (2002) discussed the rationality and management efficiency of Chinese family business organization. She believed that the combination of two powers not only increased the transaction costs in advance, but also reduced the scientific decision-making. Gong Jian et al. (2016) explored the relationship between family control involvement and strategic convergence, and believed that family firms will show a variety of strategic choices along with differences in governance structure and behavior.

(3) Discussing governance structure, relationship between ownership and management control rights, and foreign cooperation of Chinese national enterprises within the framework of economics. Yu Li et al. (2003) drew lessons from Gersick et al. (1997), and put forward a three-ring model of family business governance structure, which is an independent and cross-cutting governance system composed of ownership, family and board of directors. Wang Zhiming et al. (2004) pointed out that the conflict between altruism and self-interest is an important factor affecting the growth of family business. We should ensure the sustainable growth of family business by promoting the change of corporate governance structure. He Xiaogang et al. (2016) found that compared with non-family firms, family-controlled firms tend to be more conservative, and thus have a lower scope of joint ventures or joint operations with other firms, and the motivation to strengthen joint ventures or joint operations is also lower.

As a part of the comparative research project with Czech Family Business in Prague University of Financial Management, this paper will focus on four questions: what is the current situation of Chinese family business development; what are the advantages and disadvantages; what are the opportunities and challenges at present; and how to

achieve further development. Therefore, on the basis of combing the current situation and characteristics of Chinese family enterprises, combining with the practical experience of Chinese family enterprises and the specific problems faced in reality, this paper will analyze the advantages and disadvantages of Chinese family enterprises, paying special attention to the internal and external environment and analyze the opportunities and challenges faced by the development of Chinese family enterprises. This paper puts forward relevant suggestions suitable for the development of Chinese family enterprises, which can provide some reference for the sustainable and healthy development of Chinese family enterprises with practical guiding.

The research content of family business is very extensive. This paper mainly uses literature analysis method and situation tracking method. On the basis of extensive collection and analysis of relevant literature and theoretical research on the development of Chinese family enterprises, this paper refines and analyses the survival and development of Chinese family enterprises and related problems, and makes follow-up judgment and analysis according to the current situation, aiming at obtaining beneficial enlightenment for optimizing the inheritance path and practical operation of Chinese family enterprises.

2 Development Actuality

2.1 Status Quo

(1) Huge Quantity with Concentrated Regional Distribution. As the main part of private enterprises, family enterprises take up an absolute proportion in Chinese private enterprise market. By the end of 2017, there were more than 27 million private enterprises in China. According to China Family Wealth & Succession Planning in 2018, the proportion of Chinese family enterprises in private enterprises is over 80%. It is estimated that there are more than 20 million family enterprises in China, mainly concentrated in Zhejiang, Guangdong, Fujian, Jiangsu and other coastal areas. Especially in Zhejiang Province, where the private economy is the most developed in China, the proportion of family enterprises is even higher.

(2) Small Size with Low Industry Level. After years of growth, the development scale of Chinese family businesses has shown a gradually expanding trend, and a large number of well-known big listed family enterprises at home and abroad have emerged. However, generally speaking, family enterprises in China are generally small in size, and most of them still belong to small and medium-sized enterprises, usually engaging in low-level industries. They rely on low-cost development mode, located in the low-end manufacturing links of the value chain, and mainly concentrate in the area of low-tech content, low value-added, and labor-intensive products.

(3) A Significant Role in Promoting Economic and Social Development. Family enterprises in China are important carriers for tax creation, employment creation and export promotion. It is embodied in the private economy sector. From the perspective of tax creation, in 2017, the private economy dominated by family enterprises accounted for more than 60% of national GDP and contributed more than 50% of the tax revenue. From the perspective of employment creation, according to the statistics of the All-China Federation of Industry and Commerce, in 2017, the private economy accounted for more

than 80% of urban employment in China, while the contribution rate of new employment exceeded 90%. From the perspective of export promotion, in 2017, private enterprises represented by family enterprises exported 7.13 trillion yuan, accounting for 46.5% of China's total export value, ranking first among different export entities, surpassing state-owned enterprises and foreign-funded enterprises.

2.2 Characteristics

(1) Unified Structure of Ownership and Management Rights. Family enterprises in China tend to concentrate their ownership and management rights on family members, which consist of consanguinity, kinship and marriage, while professional managers outside the family do not get deeply involved. As the enterprise and family are integrated, investors and managers (i.e., ownership and management rights) are realized in one.

(2) Profound Patriarchal Governance Model. Under the background of Chinese traditional culture, Chinese family enterprises basically implement the centralized management mode of patriarchal system. Enterprise leaders, actually "patriarchs", manage enterprises with a certain degree of arbitrariness, and show strong characteristics of parental control in the management process. "Patriarchs" as leaders of the enterprise mainly depend on personal experience and personal wisdom to manage the enterprise, and always have a high reputation and prestige.

(3) Mainstream Succession Model of "inherited his father's". From the perspective of Chinese family enterprises which have completed intergenerational inheritance, "inherited his father's" is the mainstream model. Loyalty and enterprise property security are important factors for Chinese family enterprises to consider the suitability of successors. In China's social environment, the most appropriate model of inheritance is "inherited his father's". Currently, the development of professional managers in China is not perfect, and strong professional ethics for managers has not yet formed. There is a fear of great credit risk in choosing non-family members to manage enterprises. Under the succession model of "inherited his father's", the successor's loyalty is generally higher, the property security of family business is also higher, and the credit cost is lower.

3 Advantages and Disadvantages for Development

3.1 Advantages

(1) High Degree of Loyalty. In Chinese family enterprises, because of the natural blood relationship between family members, most of important positions in the enterprises are in the family. Family members have a strong sense of identity and trust with each other, and have a high degree of loyalty to the enterprise. On one hand, these relationships help to reduce the constraints and improve the flexibility of business operations. On the other, because personal interests are closely related to business interests, family members pay close attention to business operation and development, which will fully mobilize the enthusiasm of family members in business operations.

(2) Strong Cohesion. In Chinese family enterprises, family members communicate with each other more. They share risks and profit, pursuing the common interests of enterprises, with strong cohesion and centripetal force. When enterprises encounter difficulties, family members will work together to help enterprises tide over them. Especially in the early stage of entrepreneurship development of private enterprises, due to the limitations of capital, technology and human resources, it is necessary to rely on blood, relatives and marriage to start and develop together, and to give full play to the special cohesion of family members to help enterprises start quickly in a relatively short period of time.

(3) Great Autonomy. Family enterprises in China have greater autonomy and decision-making power, which makes the business decision-making process simple and easy. Enterprise leaders can adjust quickly according to changes in the external environment, and flexibly respond to market risks and challenges. For example, family enterprises can independently decide the content, quantity and mode of production of their products according to the actual needs of market, and flexibly formulate and change the prices, channels and modes of sales in the sales chain. On one hand, it is benefit for family enterprises to gain time advantage in the fierce competition. On the other, fast decision-making can quickly seize business opportunities and avoid decision-making procrastination.

(4) Low Operation Cost. Due to the unified management and leadership, family business has highly effective advantage of cost control, which are mainly manifested in management cost and supervision cost. In terms of the management cost, family members usually work in harmony based on their blood relationship with low cost of grinding and coordination. At the same time, family members also manage themselves, which greatly reduces the internal management cost of enterprises. In terms of supervision cost, the structure of two-power integration not only reduces the time cost of information transmission, but also helps to solve the problems encountered in the development of enterprises quickly and greatly reduce the possibility of loss.

3.2 Disadvantages

(1) Strong Exclusivity. Family enterprises in China are strongly excluding non-family employees, non-family technologies and non-family management experiences. Family business often appoints relatives. It is difficult to treat non-family employees and family members equally in terms of promotion, salary increase and trust. In the traditional concept of Chinese people, there is a direct correlation between property and management rights. The imperfect professional managers market at the external level and the strong protective psychology of family members on property ownership of family enterprises at the internal level have jointly determined the high difficulty to separate ownership and management rights, and have also brought obstacles to the in-depth introduction of non-family talents, advanced technologies and management experiences.

(2) Lack of Democracy and Science-based Decisions. Over-centralization of the rights of Chinese family enterprises, arbitrary business leaders, and subjective decision-making by family core personnel depending on personal experience, all lead to the lack of democracy and science-based decisions. With the continuous growth of family enterprises and the increasingly fierce international competition, enterprises are facing more

and more complex decision-making. It is difficult to achieve scientific and reasonable decision-making by relying solely on the personal ability of business leaders, causing huge losses to enterprises.

(3) Limited Incentive Mechanism. Compared with other enterprise groups, Chinese family enterprises are not as well protected by some policies as state-owned enterprises, nor are they as perfect as foreign-funded enterprises. Their incentives are relatively simple and their incentive mechanisms are quite limited. Usually, family business can attract a group of high-quality talents with its unique charm, but after meeting the economic needs of employees, it is impossible to establish effective incentive mechanism to mobilize the enthusiasm of employees and to truly meet the spiritual needs of employees.

(4) High Cost of Financing. Family enterprises in China are short of financing channels and have high financing costs. There are serious fund-bottleneck problem. Most of the funds needed in the development of family enterprises come from the accumulation of their own capital and the reinvestment of their original shareholders. On one hand, due to the closure of property rights, Chinese family enterprises restrict outside-family investment. On the other, because of their own economic interests, banks often do not provide services for family businesses, limit the amount of loans and discriminate them in varying degrees.

4 Current Situation

4.1 Opportunities

(1) Returning Second Generation Faces Demand for Innovations. Driven by the new round of scientific revolution and industrial transformation, the world is entering an unprecedented era of innovation-intensive and industrial revitalization. The atmosphere of “mass entrepreneurship and innovation” in China is very strong. Family enterprises in China attach great importance to the education of the second generation. Most of the second generation have advantages in cultural level and language ability. With the upgrade of knowledge level of the second generation, it gradually enters into advanced fields such as high-tech industry and modern service industry. There is a high demand for returning to family enterprises with innovation and entrepreneurship. Family business will become a new force in high-tech industry.

(2) Open Platform Layout Dividend Release. The layout of open platforms such as the Belt & Road, Free Trade Zone and Cross-border E-commerce Comprehensive Pilot Area have provided a rare historical opportunity for the transformation and upgrading of Chinese family businesses. With a number of large open platforms giving full play to the advantages of pilot policy, Chinese family enterprises will gradually release their development vitality and form new growth points that can support sustainable economic development.

(3) Environment Optimization by Government Policies. At present, the Central Party and the State Council in China attach great importance to the development of small and medium-sized enterprises and private enterprises, which are positively reflected in the policy orientation and the formulation of laws and regulations. For example, the newly revised Law of the People’s Republic of China on the Promotion of Small and Medium-sized

Enterprises, which has been implemented in 2018, is based on the actual situation of small and medium-sized enterprises in China, and is committed to solve problems of heavy burden and financing difficulties. At the seminar on private enterprises at the end of 2018, General Secretary Xi Jinping clearly put forward six policy measures to vigorously support the development and growth of private enterprises.

4.2 Challenges

(1) Short-term Succession Pressure. At present, the first generation of family entrepreneurs who started their businesses after China's reform and opening up has gradually entered the retirement age, and their working energy, knowledge structure and market sensitivity have also begun to deteriorate. The first generation of family entrepreneurs is facing the problem of succession. In the next 5–10 years, the inheritance of Chinese family business will go to a peak. With the increasing pressure of inter-generational inheritance, enterprises are facing smooth transition challenges in enterprise inheritance mode, entrepreneurship and relationship network continuation. There are also noteworthy problems such as reluctance of incumbents to give way, low willingness of successors or inadequate conditions.

(2) Complicated Optimization of Hierarchy. With the progress of time and the expansion of enterprise scale, the organizational forms of Chinese family enterprises need to be constantly adjusted, including optimizing the corporate governance structure and strengthening the construction of team. In this process, the task of optimizing the governance of Chinese family enterprises is very heavy, including changing the traditional patriarchal arbitrary decision-making ideas, breaking through the talent selection mechanism based on blood relationship, promoting the expansion of investment subjects from singleness to pluralism, and speeding up the professional reform of management rights.

(3) Urgency on Cultivating the Core-competitiveness. The traditional competitive advantage of Chinese family enterprises is gradually weakening, while the new competitive advantage will still be in the cultivation stage. With the development of global economy and constraints of essential resources, the competitiveness and development space relying on low-cost development mode are becoming more and more limited. Family enterprises need to adjust to the development direction of low energy consumption, low pollution and high added value. They need to improve their position in the global value chain and industrial chain and enhance their ability to participate in international competition.

5 Proposals

(1) Reform the Property Rights System from One to Multiple

Family enterprises in China should actively change the single property right structure, construct a scientific and rational property right structure and property right hierarchy, reduce dependence on individuals or families, reduce enterprise decision-making and operational risks, and reduce the cost of failure. On one hand, it is necessary to clarify

property rights and promote the separation of common property rights and private property rights step by step. On the other, it is necessary to introduce external funds to form a diversified capital structure, which provides the necessary impetus for the reform of property rights system.

(2) Focus on the Training of Successors

For family enterprises, whether they can train qualified successors is a question of survival of enterprises. Family business managers should pay attention to maintaining a smooth transition, pay attention to the training of successors, and put them on the agenda as soon as possible. The priority is to select talented family members, train them to be successors with operational and managerial abilities to meet the needs of enterprises, and assume the responsibility of corporate governance.

(3) Implement the System of Professional Managers

Implementation of professional manager system is one of the requirements of modern enterprise management. At the government level, we should gradually cultivate and improve the professional manager market, and provide more choices for family enterprises in talent selection. At the enterprise level, the talent selection of family enterprises should not be limited to family members, but should absorb foreign talents, introduce advanced management experience and improve the management level of family enterprises. Enterprises can build professional managers' plans with incentive effect, which can provide guarantee for talents to work securely and continuously.

(4) Actively Broaden Financing Channels

Financing channel of China's family business is single, restricting the size and strength of enterprises. In the future, family enterprises should actively broaden the financing channels of enterprises, encourage family enterprises to choose equity and bond financing, and provide sufficient and stable source of funds for the development of enterprise scale. On one hand, non-family investors are encouraged to invest in family enterprises to realize the diversification of equity. On the other, through bank financing or bond issuance to raise funds, so that family enterprises can maintain sufficient funds.

(5) Promote the Internationalization of Enterprises

With the deepening of globalization, Chinese family enterprises are facing not only domestic market competition, but also international market competition. Family enterprises should actively promote the pace of internationalization and take the initiative to go out and strengthen international cooperation, including the introduction of international talents, the introduction and assimilation of foreign advanced technology, and cooperation and development, so as to enhance their ability to participate in international competition.

6 Conclusion

With the intensification of global competition and the acceleration of China's economic restructuring, private enterprises in China, mainly the family enterprises, are facing severe challenges of transformation and upgrading. The theme of this paper is the current situation and future development of Chinese family enterprises. This paper also strives to systematically analyze the development of Chinese family enterprises from multiple dimensions and levels. This paper analyses the basic status quo of the scale, regional distribution, industrial distribution and social contribution of Chinese family enterprises;

reveals the outstanding characteristics of ownership structure, governance structure and intergenerational inheritance; it is combined with practical experience of Chinese family enterprises, analyses the advantages of loyalty, cohesion, autonomy, operation cost, as well as exclusiveness, scientific decision-making, incentive mechanism and financing. By focusing on the internal and external environment, this paper considers that the development of family enterprises in China is facing opportunities of second-generation regression and innovation, open platform dividend, policy environment optimization, intergenerational inheritance pressure, governance structure optimization, core competitiveness cultivation and other challenges. Finally, it puts forward some suggestions to promote Chinese family businesses from the aspects of property rights system, talent selection, financing channels and international operation.

References

- CHEN LING** (1998) Information Characteristics, Transaction Costs and Family Organization. *Economics Research Journal*. Vol. 7, pp. 27–33.
- CHU XIAOPING** (2002) Professional Manager and the Growth of Family Business. *Management World*. Vol. 4, pp. 100–108.
- DOU JUNSHENG et al.** (2014) Theoretical Origin and Application Frontier of Socioemotional Wealth Framework: A Family Firm Perspective. *Foreign Economics & Management*. Vol. 12, pp. 64–80.
- GAN DEAN et al.** (2005) SEMP Theory on the Sustainable Development in Family Business. *Science Research Management*. Vol. 10, pp. 19–27.
- GONG JIAN et al.** (2016) Strategic Conformity in Family Business: Empirical Evidence from Listed Chinese Corporates. *Management World*. Vol. 11, pp. 110–124.
- HE XIAOGANG et al.** (2016) Family Control and Firm Cooperation: An Empirical Study of Chinese Listed Company. *Quarterly Journal of Management*. Vol. 3, pp. 32–59.
- MA LIBO** (2002) Rationality of Chinese Family Business Organization and Evaluation of Its Management Efficiency. *Journal of Dongbei University of Finance and Economics*. Vol. 2, pp. 55–58.
- WANG ZHIMING et al.** (2004) The Growth of Family Business and the Evolution of Governance Structure. *Finance and Economics*. Vol. 5, pp. 1–5.
- YU LI et al.** (2003) Three-ring Model of Family Business Governance Structure. *Economic Management Journal*. Vol. 2, pp. 4–11.
- ZHANG CHANGLI et al.** (2003) A Preliminary Study on the Management Model of Chinese Family Business. *Academic Journal of Suzhou University*. Vol. 1, pp. 23–26.

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Development of Share Price in Direct Relation to the Entry of the New Investor in the Management of Business Corporation

Vývoj ceny akcie v přímé souvislosti se vstupem nového investora do vedení obchodní korporace

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Abstract

The existing legal framework laid down by Act No. 90/2012 Sb., the Companies and Cooperatives Act aka Business Corporations Act, provides minority shareholders with tools that may be used to protect their rights and interests; in practice, however, the use of such tools is insufficient. The issue of a nocontractual consensus regarding selling or buying shares in business corporations is not expressly regulated by the BCA and is wholly dependent on the terms agreed on by the parties. In line with the principle of freedom of contracts, the parties enjoy a considerable amount of discretion as they may agree about anything that is not contrary to the Act. The lack of express legal regulations in re share purchases causes considerable problems in practice. The share purchase price is dependent not only on demand and supply, but also on the financial standing of the respective company, including its internal situation. These aspects may be both positive and negative for the shareholders as regards their shares and the share price. In most cases, share purchases are related to an attempt by the dominant party to take over the business management of the company (a shareholder company in this paper). Therefore, this paper tries to assess what impact this may have on the share price in relation to share purchases by majority shareholders, including share price fluctuations and the impact on the share price of the company.

Keywords

share, Shareholder Company, book value, contractual share price, minority shareholder, Companies and Cooperatives Act, equity capital

JEL codes

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¹ This contribution was prepared by Radka MacGregor Pelikánová within the framework of the academic-scientific project of the Metropolitan University Prague "Public administration, law disciplines and industrial property 68-03", financed by the support for the Long-term and conceptual development of the organization in 2019.

Abstrakt

Podle současné právní úpravy v podobě zákona č. 90/2012 Sb., o obchodních korporacích, jsou dány minoritním akcionářům nástroje, které lze využít k ochraně jejich zájmů a práv, avšak z pohledu praxe je uplatnění těchto nástrojů nedostatečné. Problematika týkající se smluvního konsenzu, jehož předmětem je nákup, či prodej obchodních podílů v rámci obchodních korporací, není tímto právním předpisem výslovně upravena a vše záleží pouze na sjednání podmínek mezi zúčastněnými stranami. K zúčastněným smluvním stranám konsenzu je tento právní předpis benevolentnější, a to na základě uplatňované zásady smluvní volnosti, kdy tato zásada ponechává smluvním stranám možnost si sjednat cokoliv, co není v rozporu se zákonem. Absence právní úpravy smluvního převodu podílů v rámci obchodních korporací způsobuje v praxi nemalou problematiku. Smluvní cena podílů je stanovena nejen na základě nabídky a poptávky, ale také na základě ekonomické situace v rámci obchodní korporace, včetně vnitřních poměrů v dané obchodní korporaci. Tyto proměnné mohou pro jednotlivé společníky znamenat, z hlediska držby akcií a jejich ceny, jak negativní, tak pozitivní důsledky. Vzhledem k tomu, že ve většině případů souvisí s převodem obchodního podílu v obchodní korporaci, snaha dominující smluvní strany ovládnout obchodní vedení dané obchodní korporace (pro účely tohoto článku v akciové společnosti), je hlavním cílem tohoto článku zhodnotit, jak tato skutečnost může ovlivnit ceny akcií v přímé souvislosti na realizované výkupy akcií, které jsou realizovány ze strany majoritního akcionáře, včetně kolísání a ovlivňování ceny akcií ve sledované obchodní korporaci.

Klíčová slova

akcie, akciová společnost, účetní cena akcie, smluvní cena akcie, minoritní akcionář, zákon o obchodních korporacích, vlastní kapitál

1 Introduction

The first legal regulation of companies was laid down in Act No. 513/1991 Sb., the Commercial Code, which is no longer in force. The Commercial Code defined the rights and obligations of both the majority and minority shareholders and the related possession of shares. The meeting of minds related to share purchases was not expressly regulated by the Commercial Code and was wholly dependent on the terms agreed on by the parties. The requirements for valid contracts to be complied with by the parties were defined by Act No. 40/1964 Sb, the Civil Code (this law is not in force any longer as it has been replaced by Act No. 89/2012 Sb., the Civil Code – hereinafter the “New Civil Code”). A number of laws were adopted as part of the last recodification of the Czech civil law including the New Civil Code or Act No. 90/2012 Sb., the Companies and Cooperatives Act aka Business Corporation Act (“BCA” or “Act”) (Cvik Eva D., MacGregor Pelikánová R., 2016). The parties are afforded a considerable degree of discretion by the New Civil Code in line with the principle of the freedom of contracts endorsed and formulated in its introductory provisions. This principle allows the parties to include virtually any terms in share purchase agreements that are not in violation of the law. The lack of legal regulations regarding minority share purchases causes considerable problems in practice. As there is no statutory regulation of such share purchases, the shares are often purchased under

different terms and for different prices reflecting the supply and demand or the financial standing of the respective company. Share purchases are often done by shareholders to acquire a majority share in the company and participate in the business management of the company (the majority shareholders have access to cash-flow, self-dealing) and the future development of the company. Such facts may have a direct impact on the market share value as well as the contractual share price. In light of these assumptions, this paper aims to analyze whether there is a direct link between changes in the share price and changes in the shareholding structure. A company where shares were purchased by a majority shareholder in order to be able to participate in the business management of the company and its future development was monitored for an extended period of time. By analyzing share values, the authors seek to establish whether there is a direct link between the changes in the share price and changes in the shareholding structure.

2 Sources and methods

The methods are conditioned by the availability of Czech and foreign literature, electronic sources, media sources and the possibility to acquire information about the legal and economic situation in the Czech Republic where the companies operate. The theoretical part of the paper is descriptive and is based on internet sources. The data gathered is then classified and general conclusions are formulated. Induction and abstraction are used to classify the background materials. A time series analysis (linear trend functions) has been used to conduct an economic analysis of the share values and to show the rate of average share price growth. Extrapolation of the time series has been used to predict the book value of shares. Classical economic theory postulates a dependence of the share price on the amount of equity capital, and therefore models accounting for such dependence have been developed. The data on book share prices is used to create such models. The ordinary least squares method (OLS) has been used to make estimates in compliance with all specifications and stochastic assumptions, which has been verified by statistical and econometric methods. The econometrics software Gretl has been used to make all estimates and verifications. This paper presents a case study analyzing one shareholder company.

3 Theoretical background

A shareholder company is a company in which the capital is divided into a number of shares. Section 1(1) of the Act classifies it as a limited company, together with a limited liability company. The characteristics of a shareholder company include the lack of any liability of shareholders for the debts of the company, virtually unlimited transferability of shares and the professional management of the company, which is required by the Act to act in compliance with the business judgment rule. Companies and cooperatives are regulated by the Companies and Cooperatives Act which replaced, in part, the repealed Commercial Code. In addition, a general regulation of legal entities is provided for by the New Civil Code. Shareholder companies are regulated by Sections 243–551 of the Act.

Shareholder companies are also subject to the general regulation of companies as set out in Sections 1–94 of the Act, as well as the regulation of corporations in Sections 118–418 of the New Civil Code and the regulation of securities in Sections 514–544 of the Civil Code; Act No. 591/1992 Sb., on securities, as amended, was also repealed together with the Commercial Code as from 1 January 2014. The rights of shareholders are embedded in the shares; the rights include, but are not limited to, the right to participate in the management of the shareholder company, the right to attend the general meeting, to vote at such a meeting, as well as to make motions and cross-motions, the right to ask for explanations; the right to share in the profits, and the right to request, under statutory conditions, that an ordinary or extraordinary general meeting be convened. The basic obligations of shareholders, or subscribers, include, but are not limited to, the obligation to pay the issue price by the deadline set in the Articles of Association, but not later than within one year after the incorporation or decision to increase the registered capital. A failure to do so may result in an expulsion of the shareholder. Subject to compliance with the statutory requirements (Section 375 et seq. of the Act) minority shareholders (10% and less) are under a duty to transfer their participating securities to majority shareholders (90% and more). When a company is controlled by a majority shareholder with a share of over 90%, minority shareholders in fact have no chance to exert any influence on their investment and cannot participate in the decision making at the general meeting or otherwise and thus become mere investors. The reason behind shareholder protection is to prevent a situation where anyone is at an advantage. In general terms, the Act makes reference to shareholder protection in Section 244(1), which prescribes equal treatment of shareholders. Section 244(2) then reads: *“legal acts to put, without good cause, any shareholder at an advantage to the detriment of the company or other shareholders, are treated as non-existent unless the Act provides for otherwise or unless it would be to the detriment of third parties relying on such conduct in good faith.”* Another reason mentioned by J. Lasák (2011) is the fact that minority shareholders do not directly participate in the management of the company and the information that is publicly accessible, such as financial statements, does not provide sufficient information.

4 Protection of the rights of minority shareholders and their risks

Section 56a(1) of the Commercial Code used to prohibit the abuse of a majority as well as a minority share in a company; Paragraph 2 stipulated that *“any conduct with a view of putting any shareholder at a disadvantage is prohibited.”* The Act does not contain such an express provision but provides for rights for the protection of both minority and majority shareholders. Minority shareholders are protected with respect to the majority ones as each group has different interests; by definition, majority shareholders will try to maximize their participation in the company to the detriment of the minority shareholders. The Act protects the shareholders, both with respect to other shareholders as well as in re the company management. Therefore, some provisions aim to protect all basic rights of shareholders, while others protect special rights enjoyed by some shareholders only depending on the class of shares, or rights protecting a certain group of shareholders defined by their position, i.e. minority shareholders due to their disadvantageous position.

Minority shareholders, by definition, cannot control the company even if acting in concert with other shareholders. Section 365(1) of the Act includes a definition of a “qualified shareholder”. For companies with registered capital exceeding CZK 100,000,000, qualified shareholders are such shareholders that hold shares the total nominal value of which amounts to 3% of the registered capital; such shareholders enjoy special rights defined by the Act. For companies with registered capital inferior to or equaling CZK 100,000,000, qualified shareholders are such shareholders that hold shares the total nominal value or number of which amounts to 5% of the registered capital (Paragraph 2). For companies with registered capital exceeding CZK 500,000,000, qualified shareholders are such shareholders that hold shares the total nominal value or number of which amounts to 1% of the registered capital (Paragraph 3). Paragraph 4 of the said provision further stipulates that the Articles of Association cannot restrict the rights of minority shareholders defined by the Act; however, such rights may be extended. Hirschman, A.O. (1970, p. 3) states that, if the distributable profit is reduced by extracting *private benefits of control*, minority shareholders are forced to take steps to preserve their wealth. According to him, there are three possible responses of minority shareholders: 1) loyalty, 2) voice, and 3) exit.

Hirschman believes that the most frequent response of minority shareholders is loyalty. He argues that minority shareholders will rely on the fact that majority shareholders will not behave in an opportunistic way to their detriment, because minority shareholders could then respond by voice or exit. F. H. Easterbrook and R. D. Fischel (1996, p. 11) states that minority shareholders are often passive because they can use diversification to protect themselves against non-systematic risk by investing in other companies. According to P.L. Davies (2003, p. 424), the voice response includes the remedies available to the minority shareholders for their protection: 1) *ex-ante* approval of self-dealing transactions 2) disciplinary measures, which mostly have *ex-ante* motivational reasons. Such disciplinary measures include directors’ liability, majority shareholder liability and voidability of self-dealing transactions. M. Sýkora (2013) argues that “*these remedies involve some fixed costs (e.g. legal expenses), and therefore minority shareholders use them when they are upset or when they cannot extract the money from the company (low liquidity and consumption of private benefits of control as a systemic risk).*” According to F. H. Easterbrook and R. D. Fischel (1996) exit, i.e. withdrawal from the company, is the response of last resort. They argue that exit is effective in highly liquid markets (i.e. regulated markets), but is not always possible in private companies; therefore, modern company law attempts to simulate the liquidity either by contract or by regulation through the mandatory buy-out (cf. M. A. Eisenber 2005, p. 437).

According to F. S. Kahn (2000, p. 505), transparency must be added to the elements used to protect minority shareholders. Transparency is a traditional tool for overcoming asymmetry in company law. M. Sýkora (2013) argues that if minority shareholders “*do not learn about freeriding on the company’s assets, they cannot have their voice heard, and their exit opportunities are limited to a degree. On the contrary, if such shareholders have enough information available, they 1) can discount their investment ex-ante on the basis of actual distributed profits; 2) can easily make a decision when to sue the governing body or the majority shareholder (in case of low-liquidity companies), and 3) can opt for exit from the company (in case of sufficient liquidity).*” To sum up, in a highly transparent and liquid company there will be no self-dealing as minor shareholders would otherwise opt for an

exit response. As companies are not 100% transparent in practice, self-dealing must be regulated, or restricted, as far as possible, by law, thus protecting minority shareholders. Protection of minority shareholders correlates with equity financing.

5 Protection of the rights of majority shareholders and their risks

Minority shareholders must be protected because of their weaker position. On the other hand, majority shareholders must be protected against “being bullied” by minority shareholders whose interest in the company is inferior to that of majority shareholders; in practice, however, they may abuse their rights and thus burden the company. Shareholders may request that a general meeting be convened as well as request information from the company. They may also deliberately challenge the decisions adopted by the majority, thus delaying important economic decisions. In fact, companies may get overwhelmed by requests by as many as a thousand shareholders, which also involves a financial burden for the company. By doing so minority shareholders may overweigh their financial contribution, and thus become a burden for the company. The bullying by minority shareholders need not have the form of exercising their statutory rights; other specific situations exist which make the life of the company difficult. Such situations include increasing the registered capital. Reasons for increasing the registered capital include, but are not limited to, being awarded a profitable contract which, however, requires an investment to be made. Where the registered capital is increased, the existing shareholders of the company enjoy a priority right, and owe a related duty to make a contribution to the registered capital; this is to ensure that the shares of the existing shareholders in the company remain proportionally unchanged. If any of the shareholders does not wish to contribute to the registered capital, the general meeting may decide that the contribution may instead be made by another shareholder, or by a third party. This would, however, lower the share of the minority shareholder who does not wish to make the contribution to increase the registered capital. Some authors argue that a decision from the general meeting that the contribution will instead be made by another shareholder (whose share in the company increases as a result) qualifies as a decision amending the memorandum of association and the rights and obligations of a minority shareholder (whose share in the company is decreased); therefore, they argue that such a decision must be adopted by all shareholders unanimously. In such situations, the majority shareholders may be blackmailed by the minority ones. For instance, they may both accept the conditions proposed by the minority shareholders, and thus, for example, pay a ridiculously high price for the shares, or they may lose the contract, subsidy or acquisition. M. Novotná (2016) believes that such an interpretation is too broad. The statutory protection of minority shareholders is sufficient in that they enjoy a priority right to make a contribution when the registered capital is increased. However, the majority shareholder cannot be punished at the same time by making it possible for the minority shareholder to block any decision to increase the registered capital. There is a general duty of loyalty owed by shareholders to the company; however, it will take a number of years before an interpretation of such a duty related to voting at the general meeting is to be arrived at. M. Novotná (2016) further argues that bullying by minority shareholders is further supported by the procedural laws

as proceedings to challenge decisions of the general meeting are not regulated by the Civil Code, but rather by the Special Proceedings Act. The law prohibits the court from issuing a decision on an action to challenge a decision of a general meeting before three months have passed since it was filed. It is difficult to understand that the law requires courts to postpone their decision until three months have passed in issues which need to be decided rather urgently. M. Novotná (2016) proposes two solutions: either the bullying by minority shareholders will be prevented by law, which will regulate the number of votes required to approve a new duty to make a contribution by another shareholder or a third party after any of the shareholders has failed to exercise the priority right to make such a contribution, or the case law will need to interpret the Act emphasizing the duty of loyalty. The main tool available to majority shareholders to protect them against an economic impact of the presence of minority shareholders in the company is their squeeze-out, as described below.

6 The Majority shareholder

BCA defines the principal (main) shareholder in Art. 375. For the purposes of the squeeze-out, the main, aka majority, shareholder is defined in the letter a) as the owner of shares with a nominal value representing at least 90% of the capital of the company for which were issued shares with voting rights and b) also owns shares providing 90% participation in the voting rights in the company. These two conditions must be met cumulatively. Then the majority shareholder is entitled to file the application to convene the general meeting. This provision is based upon Art. 183i (1) of the abolished Commercial Code, defining the main shareholder.

Regarding the first condition, a), the following should be emphasized. The provision of Art. 375 BCA refers to the definition of participant securities which is newly regulated in Art. 245 BCA and which arises from Art. 183a (1) of the abolished Commercial Code. Pursuant to this definition, participant securities are securities issued by the company which are linked to the participation on the capital or on voting or securities with the right to acquire such securities (e.g. priority or exchange bonds). J. Hejda (2013, p. 299) underlines that it is necessary to keep in mind that the Act uses the term “participant securities” and this means not only shares. Securities are regulated by the BCA in Art. 286 et foll. For the satisfaction of the condition of the ownership of shares in a nominal value of 90% of the capital, the ownership of priority shares is not decisive, because priority shares are issued without voting rights. The Act newly states that these shares must be shares with voting rights and that it is not enough to own participant securities. According to J. Lasáka a kol.,(2011, p. 226), it is questionable, whether, for the purposes of this provision, it is possible to consider as the main shareholder a person who does not have such shares but who exercises such shareholder rights (e.g. a person who has in possession such part in the form of provisional securities). This extensive interpretation will probably be inadmissible, because the legislature requires that, if the shareholder wants to squeeze out other shareholders, then such a shareholder has to own shares which were not only issued but as well paid for, i.e. the legislature requires that the shareholder is a truly “full” shareholder. In such a case, Art. 256 (4) would not apply and shares not paid for

would be excluded from the threshold calculation provided by Art. 375. At the same time, it can happen that the shares of the main shareholder will be paid for but not yet issued (so called not issued shares pursuant to Art. 256 (3)). The fact that the company breaches its duty and does not issue shares for the (main) shareholder, despite the fact that the emission price aka issued price for these shares has been paid, does not harm the shareholder. For this very reason, for the calculation of the 90% part on the capital, it is necessary to include not only the issued shares but as well shares not issued in the sense of Art. 256 (3). J. Hejda (2013, p. 299) adds that the condition of the volume of voting rights is determined based on the total number of voting rights and without considering the possible suspension of the exercise of this right, based on Art. 426 BCA. The voting rights linked to the priority shares are considered as well, but shares have to be issued with voting rights. Ordinary shares are always issued with voting rights and the ad hoc possibility about the incapability to exercise voting rights pursuant to Art. 426 or based on other facts is not relevant. Regarding priority shares, the wording of bylaws is critical. If the bylaws state, based on Art. 278 (2), that priority shares are issued with voting rights, then such shares are included in the calculation of the nominal value of the shares with voting rights. If priority shares are issued without voting rights, then they are not included in the calculation, and this even if it occurs that these voting rights temporarily arises. However, the shareholder can apply his voting right pursuant to Art. 382. A different situation occurs if the company does not follow the recodification based on Art. 777 (4) and (5). Probably, in such a situation, it will apply further Art. 159 (3) Commercial Code on the emitted (issued) priority shares with the rule that priority shares basically incorporate as well voting rights, unless the bylaws have excluded voting rights for the priority shares. J. Lasák (2014, p. 1702) proposes that it will be crucial how the opinion concerning whether certain types of shares can be issued without voting rights will be settled.

If such shares will be issued, then it will again depend upon the bylaws about how the bylaws will set the "default" rule. One can be assume that an approach akin to the case of priority shares should be taken. Hence, for example, if type "B" shares will be issued without voting rights and this right will arise only in a concrete situation for a temporary period, then such nominal value will not be included in the calculation of the 90% threshold. According to the opinion of J. Lasáka (2014, s. 1702), it is advisable to explicitly state in the bylaws about whether each of the different types of shares has been issued with or without voting rights (similarly, as stated by Art. 278 (2)). Pursuant to Art. 257 et foll., it is possible to issue piece shares. Pursuant to the opinion of J. Lasáka (2014, p. 1702), in such a case Art. 257 (4) will be fully applicable. It excludes any provisions of the BCA regarding the nominal value of shares. One such case is covered by letter a). Logically, the first sentence of Art. 257 (3) is applicable, it targets the same goal and the participation on the capital is determined by the number of shares. Hence, the main shareholder has to own at least 90% of the shares without a nominal value.

Regarding the second condition b) the following applies. Similar opinions and conclusions are presented as in the case of the first condition a). The point is the possession of shares with 90% voting rights. In practice, it can often happen that the shareholder will own shares with a nominal value of 90% of the capital with voting rights being less than 90% of all voting rights. The satisfaction of the threshold test will be, in a situation such as this, closely observed by the minority shareholders and, in the case of a dispute, courts may

justly interpret these provisions in favor of the minority shareholders. For this reason, it is necessary to closely check whether the list of the shareholders present at the general meeting includes correct information about the nominal value of shares and voting rights. Each piece share will have the same voting right unless the bylaws allow for the issuance of shares with different weights of voting. Piece shares have no nominal value, but they have an accounting value. If each piece share has one vote, then the participation in voting rights of the company is the same as if these shares have the same nominal value – the number of shares is identical with the number of votes. If, based on the bylaws, piece shares have differing weights of votes, then both criteria split, as in the case of several types of shares with differently set voting rights. J. Lasák (2014, p. 1702) indicates that, for the purpose of the calculation of the criteria of the main shareholder, excluded are the voting rights with which the main shareholder disposes only based on an agreement about the exercise of voting. The reason for that is the Act which requires that the main shareholder owns shares with a 90% participation in voting rights. As a consequence of the immobilization of securities, the shareholder should be known even for shares on the owner, i.e. shares indicating the name of their owner. Hence, the problem regarding the establishment of the ownership of paper shares of the owner, following the BCA, should be eliminated. The squeeze out applies to all of the participant securities which are owned by a minority shareholder. It entails especially these securities: preliminary securities if issued by the bylaws with the unpaid share and unpaid shares and this even if they are not yet issued securities. There is no reason why a shareholder owning them should not be squeezed out. Further it entails not issued shares, exchanged and priority bonds with the right to be exchanged for issued shares, rights on priority subscription, option bonds which the company is allowed to issue for the application of the priority right on the subscription of shares, independently transferable rights for subscription of shares and priority or exchange bonds.

7 Characteristics of the analysed business corporation

The analyzed business corporation has the legal form of a shareholder company and its capital is CZK 101 000 000. This company is allowed to conduct business activities in the field of car repairs, accounting advisors, bookkeeping, maintaining tax records and butchery. The main business activity is agriculture production, including production of unprocessed agricultural products, their processing and sale. The buyout of minority shares before 1st January 2014 was regulated by the Commercial Code and, after 1st January, 2014, it became regulated by the New Civil Code and BCA. Before 1st January 2012, the company had a board of directors consisting of seven members. The company was represented by the Chairman of the Board of Directors or by the executive director or by someone having the power of attorney granted by the Chairman of the Board of Directors. The company operated on the surface of 1500 hectares and is the beneficiary of a subsidy in the amount of CZK 11 000 000 annually.

The company has issued the following shares in the indicated nominal values

- 2,870 name registered shares in the nominal value of CZK 1 000
- 1,493 name registered shares in the nominal value of CZK 10 000
- 1,664 name registered shares in the nominal value of CZK 50 000

The bylaws of the company allow the transfer of shares only with the approval of the Board of Directors. The company had issued shares only in the name of their owners, i.e. shareholders, of which there were 511 in 2012. A very important shareholder was a corporation, with a holding of 7.6% of the shares. In addition, the Board of Directors and Supervisory Board had, in total, 22% of the shares i.e. 10 people being either members of the Board of Directors or Supervisory Board owned 22% of the shares of the company. The remaining shares were split among many small shareholders. The company had paid dividends only twice – in 2001 and 2012 and the amount was between CZK 5 and CZK 1000 for each share. Regarding the ownership of shares, the situation was pretty stable until the end of 2011. Further, until the end of 2011, the management of the company did not invest in the company and so the company had outdated machinery and did not use all of its available land. Nevertheless, the company took credits. All this prompted the reaction of the above mentioned shareholder, i.e. the business corporation with 7.6% of the shares. Namely, this minority shareholder of the company became an investor and entered, in 2011, in the capital market with a determination to buy out minority shares. This 'business corporation – investor' sent out an offer to purchase any shares to other shareholders in 2011. Based on that, minority shareholders entered into a contractual consensus by which the investor acquired, within 3 months, 8% of the shares for 20% of their nominal value. Thereafter, the investor embraced the strategy to individually and personally deal with minority shareholders and consequently acquired shares for a price of 25% of their nominal value, i.e.:

Name registered shares in the nominal value of CZK 1 000 were purchased for CZK 250,
Name registered shares in the nominal value of CZK 10 000 were purchased for CZK 2 500,
Name registered shares in the nominal value of CZK 50 000 were purchased for CZK 12 500.

During the buyout of minority shares, the investor took advantage of the fact that, during recent years the company had not paid any dividends. Other shareholders did not immediately catch on to the buyout activities of the investor as a threat, and thus they did not react until after two months had passed, i.e. only after a period of two months did they themselves begin to buy out minority shares. The information about the buyout spread among the shareholders and they started to speculate in re the price. During 2016 and 2017, they waited and speculated, and the completed transfer of minority shares occurred basically only in the case of the particular pressing financial needs of the selling shareholders. In 2016 and 2017, the buyout price was 50% of the nominal value of shares. Hence, the contractual value of a share increased by 25%.

Name registered shares in the nominal value of CZK 1 000 were purchased for CZK 500,
Name registered shares in the nominal value of CZK 10 000 were purchased for CZK 5 000,
Name registered shares in the nominal value of CZK 50 000 were purchased for CZK 25 000.

In 2014, the investor achieved a majority participation 'position' in the company and this fact resulted in positive effects on the modernization and renewal of fundamental agricultural technical equipment. One can predict that, in the future, there will take place continuing modernization and renewal of assets. In addition, in 2015, a further 17 hectares of land was purchased by the company. As well, the use of tangible and intangible resources, including human resources, became more effective and efficient. The choice of new business strategies, new business concepts and better decision making had a positive economic impact for the company. The multitude of shareholders had been the

major cause for the lack of focused opinions for the future development of the company and the general drive had been for a passive, rather than aggressive, attitude. This resulted in an increase of indebtedness and a loss of profitability. In contrast to that, currently the company has higher expenses which are related to the new business strategy, embraces new business concepts and effectively and efficiently uses tangible and intangible resources, including human resources.

8 Performed analyses of the share price

The goal of the share price analysis is to assess the speed in the growth of the average price of a share during the observed time period during which the contractual transfers of shares to the majority shareholder took place. The entry data for the calculation of the growth speed of an average share was collected from the balance sheet of the company for the observed period, from the annual reports of the company and from a search in the company files. It needs to be emphasized that the interpretation of the results of the model, which is indicated below, is theoretical. The model, in the given moment, and based on the entry data, shows always the relationship between only two variables (accounting share price aka accounting share value and capital). Hence, all results are to be interpreted under the condition that the other parameters are constant, i.e. not changeable, which means that the method interprets the separated influences at the given moment, while others remain the same.

The calculation of the entry value for the calculation of the average growth speed:

Price of one share = own capital / $1,000 \times 2,870 + 10,000 \times 1,493 + 50,000 \times 1,664$

Accounting price of a share with a nominal value CZK 1,000 = share price x 1,000

Accounting price of a share with a nominal value CZK 10,000 = share price x 10,000

Accounting price of a share with a nominal value CZK 50,000 = share price x 50,000

Table Nr. 1 – Overview of average contractual prices for the buyouts during 2005–2016

Year	Total value of shares with a nominal value CZK 1 000 (2 870 pieces)	Average contractual price of share buyout (price for one share)	Total value of shares with a nominal value CZK 10 000 (1 493 shares)	Average contractual value of share buyout (price for one share)	Total value of shares with a nominal value CZK 50 000 (1 664 pieces)	Average contractual value of share buyout (price for one share)
2005	2 870 000	280	14 930 000	2 300	83 200 000	11 000
2006	2 870 000	280	14 930 000	2 300	83 200 000	11 000
2007	2 870 000	245	14 930 000	2 200	83 200 000	10 200
2008	2 870 000	230	14 930 000	2 050	83 200 000	10 200

² The average price of shares was calculated based on collected data about the company: the contractual price for the given year / number of transactions.

Year	Total value of shares with a nominal value CZK 1 000 (2 870 pieces)	Average contractual price of share buyout (price for one share)	Total value of shares with a nominal value CZK 10 000 (1 493 shares)	Average contractual value of share buyout (price for one share)	Total value of shares with a nominal value CZK 50 000 (1 664 pieces)	Average contractual value of share buyout (price for one share)
2009	2 870 000	225	14 930 000	1 935	83 200 000	10 100
2010	2 870 000	220	14 930 000	1 935	83 200 000	10 100
2011	2 870 000	200	14 930 000	2 000	83 200 000	10 000
2012	2 870 000	250	14 930 000	2 500	83 200 000	12 500
2013	2 870 000	300	14 930 000	2 800	83 200 000	12 800
2014	2 870 000	420	14 930 000	3 100	83 200 000	14 000
2015	2 870 000	500	14 930 000	5 000	83 200 000	25 000
2016	2 870 000	500	14 930 000	5 000	83 200 000	25 000

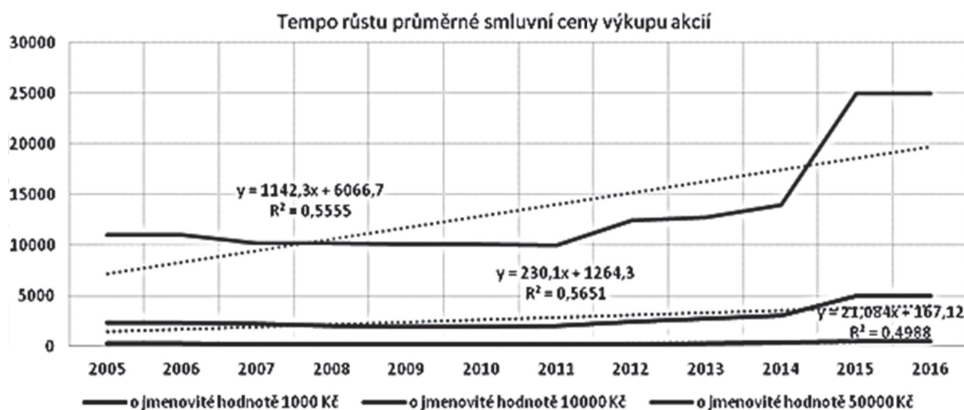
Source: Own processing by authors

Table Nr. 2 – Overview of accounting share price during 2005–2016

Year	Capital	Accounting price of shares with a nominal value of CZK 1 000 (2 870 shares)	Accounting price of shares with a nominal value of CZK 10 000 (1 493 shares)	Accounting price of shares with a nominal value of CZK 50 000 (1 664 shares)
2005	104 094 000	1 030	10 300	51 500
2006	104 487 000	1 034	10 340	51 700
2007	106 950 000	1 058	10 580	52 945
2008	106 938 000	1 058	10 580	52 939
2009	102 017 000	1 010	10 100	50 503
2010	102 519 000	1 010	10 100	50 504
2011	104 617 000	1 035	10 358	51 790
2012	104 122 000	1 030	10 309	51 545
2013	106 591 000	1 055	10 553	52 767
2014	114 533 000	1 134	11 341	56 709
2015	114 195 000	1 130	11 306	56 532
2016	115 397 000	1 142	11 425	57 127

Source: Own processing by authors

Figure Nr. 1 – Growth speed of the average contractual price for share buyout



Source: Own processing by authors

For this graph, the linear function (value R^2) reflects by 55% the realization of contractual share prices. Thus, the selected function is satisfactory. Based on the data from the above graph, it is possible to state that, during the observed period two noticeable shocks in the evolution of the share price occurred, both occurred in 2011 and 2014. This observation is best exemplified by the development of the contractual price for shares with a nominal value of CZK 50 000. Until 2011, the average value of shares had been decreasing. Then, the growth of the contractual share price occurred, doubtless due to the entry of the investor (at that time a minority shareholder of the company, i.e. the previously indicated business corporation, with but a minority participation in the company) in the capital market. The motivation of this new investor was to acquire a majority participation in the company. Therefore, this investor had offered a higher contractual price for purchasing shares. A further rapid jump in the contractual share price is noticeable in 2014, by which time the investor had changed from being a minority shareholder to being a majority shareholder of the company. As a matter of fact, in 2014, there occurred an obvious growth of the contractual price of shares with a nominal value of CZK 50 000. The strong drive of the investor to purchase particularly these shares was based on the willingness of the investor to acquire the majority of issued shares as quickly as possible. Naturally, the investor was interested as well (although not so significantly) in purchasing shares with a nominal value of CZK 1 000 and CZK 10 000. This trend can be documented by a rather high statistical importance, inasmuch as the determination co-efficient reaches, in all cases, at least 50%, i.e. the trend evolution of prices of all shares is clearly demonstrated by the given functions.

Average contractual price had changes in the time (per year) as follows:

- a share with a nominal value of CZK 50 000 – the contractual price of a share with this nominal value had changed during the time (in one year) by CZK 1,142.30;
- a share with a nominal value of CZK 10 000 – the contractual price of a share with this nominal value had changed during the time (in one year) by CZK 230.10;
- a share with a nominal value of CZK 1 000 – the contractual price of a share with this nominal value had changed during the time (in one year) by CZK 21.08.

Since the investor, in relation to the acquisition of the majority participation, had by this time changed the business strategy and business management, the changes in contractual share prices can be assumed for 2018. **Based on the data graphically presented, it is possible to determine the future value of the observed phenomenon, i.e. of the contractual share price in 2018.**

Determination of the contractual share price for 2018

the future contractual price in 2018 for a share with a nominal value of CZK 50 000:

$$y = 1,142.3 \times 14 + 6,066.7$$

$$y = \text{CZK } 22,058$$

Hence, there is an assumption that the contractual price of a share with a nominal value of CZK 50 000 will increase by CZK 1,142.30 as compared to 2017

the future contractual price in 2018 for a share with a nominal value of CZK 10 000:

$$y = 230.1 \times 14 + 1,264.3$$

$$y = \text{CZK } 4,485.7$$

Hence, there is an assumption that the contractual price of a share with a nominal value of CZK 10 000 will increase by CZK 230.1 as compared to 2017

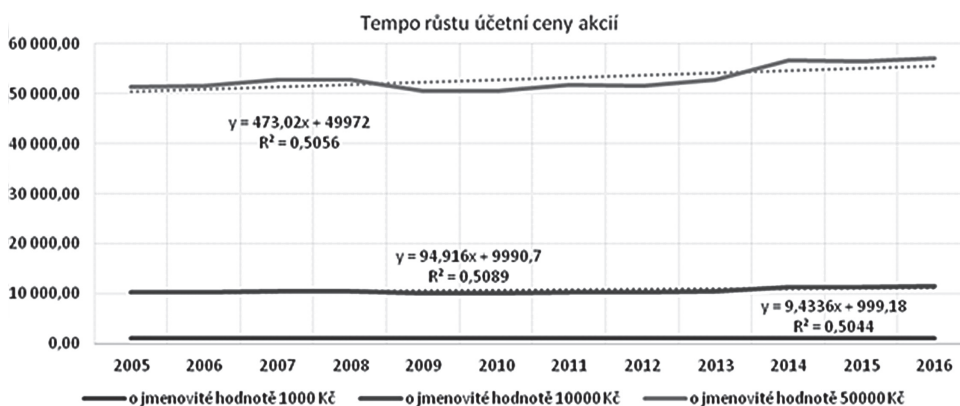
the future contractual price in 2018 for a share with a nominal value of CZK 1 000:

$$y = 21.08 \times 14 + 167.12$$

$$y = \text{CZK } 441,212$$

Hence, there is an assumption that the contractual price of a share with a nominal value of CZK 1 000 will increase by CZK 21.08 as compared to 2017

Figure Nr. 2 – Growth speed of share prices



Source: Own processing by authors

The above graph shows that both the contractual share price and the accounting share price have been growing. However, the contractual share price has grown much faster than the accounting share price. In this case, it is possible to assume that there is a relationship between the accounting share price and capital. The accounting share price grows with the value of capital. For the growth of the accounting share price it is thus necessary to increase the value of the capital in the long term and this should be the top priority of any company. Similar to the growth of the contractual price of shares, the biggest growth

occurred with respect to shares with a nominal value of CZK 50 000. **Based on the data graphically presented, it is possible to show the changes of the accounting share values over time (a year), as follows:**

a share with a nominal value of CZK 50,000 – the accounting share price has changed during the time (year) by CZK 473.02;

a share with a nominal value of CZK 10,000 – the accounting share price has changed during the time (year) by CZK 94.91;

a share with a nominal value of CZK 1,000 – the accounting share price has changed during the time (year) by CZK 9.43.

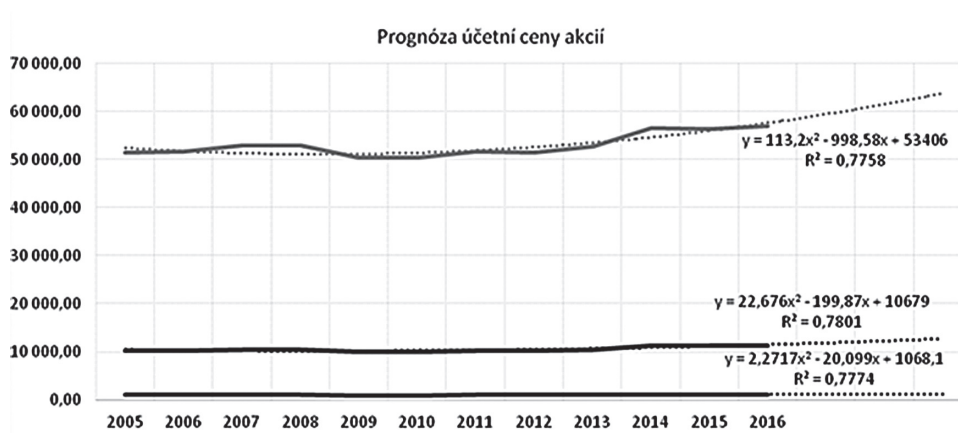
In a comparison of the contractual share price and the accounting share price, the following conclusions are to be presented:

the contractual price for a share with a nominal value of CZK 50 000 has grown by CZK 2.414 faster than the accounting share price (1,142/473.02)

the contractual price of a share with a nominal value of CZK 10 000 has grown by CZK 2.424 faster than the accounting share price (230.1/94.916)

the contractual price for a share with a nominal value of CZK 1,000 has grown by CZK 2.23 faster than the accounting share price (21.084/9.433)

Figure Nr. 3 – Stock price forecast



Source: Own processing by authors

For the prognosis forecasting, see Figure Nr. 3, the extrapolation of time lines was used. From the graphically presented data, it is possible to determine the future value of the observed phenomenon. Namely, the future real value of a share for future years can be determined based on an appropriate positive prognostic horizon for 2019. In contrast to Figure Nr. 2 and Nr. 3, a polynome of 2nd grade, i.e. quadrate trend function was used, and this in the interest of an even higher statistical significance, which is demonstrated by values of R² exceeding 77%.

Based on the graphically presented data, it is possible to determine the future value of the observed phenomenon, i.e. of the accounting share price for 2018.

Determination of the accounting share price for 2018:

the future accounting share price for 2018 if a nominal value of CZK 50,000:

$$y = 113.2 \times 14^2 - 998.58 \times 14 + 53,406$$

$$y = \text{CZK } 61,613.08$$

Hence, there is an assumption that the accounting price for shares with a nominal value of CZK 50 000 will increase, as compared to 2017, by CZK 2,057.82. Hence, the accounting price for shares with a nominal value of CZK 50 000 has an increasing trend.

the future accounting share price for 2018 if the nominal value of CZK 10,000:

$$y = 22.676 \times 14^2 - 199.87 \times 14 + 10,679$$

$$y = \text{CZK } 12,325.316$$

Hence, there is an assumption that the accounting price for shares with a nominal value of CZK 10 000 will increase, as compared to 2017, by CZK 412.382. Hence, the accounting price for shares with a nominal value of CZK 10 000 has an increasing trend.

the future accounting share price for 2018 if the nominal value of CZK 1,000:

$$y = 2.2717 \times 14^2 - 20.999 \times 14 + 1,068.1$$

$$y = \text{CZK } 1,219.3672$$

Hence, there is an assumption that the accounting price for shares with a nominal value of CZK 1 000 will decrease, as compared to 2016, by CZK 193.6628. Hence, the accounting price for shares with a nominal value of CZK 1 000 has a decreasing trend.

Models for the dependence of the share price on the development of the capital

As indicated above, pursuant to the economic theory of classic direction, it can be expected that there is a certain relationship between the price for one share and the capital. For this reason, it was further examined exactly this form of the relationship existence, and this while using an econometric approach within the framework of regress models. For the concept of models of the existence of the relationship between the share price and the development of the capital, there was used the data about the accounting share price. All models were specified as ordinary, in the general expression:

$$Y_i = \beta_0 + \beta_i X_i + u_i$$

where: Y_i explained phenomenon
 $\beta_0 - \beta_i$ forecast parameters
 X_i explaining phenomenon
 u_i stochastic part of the model

For the forecast parameters, there was used an ordinary method of the smallest, aka least squares (OLS), while all specific and stochastic assumptions were observed, and this in the form:

the model is linear in parameters;

X_i values are no-random and fixed;

X_i is not limited by perfect multi- co-linearity;

the zero central value of stochastic element $E(u_i/X_i) = 0$;

exogeneity $E[u_i | X_i] = E[u_i] = 0$;

homoscedasticity $var(u_i/X_i) = E(u_i - E(u_i/X_i))^2 = E(u_i^2/X_i) = \sigma^2$;

serie dependence between random elements and periods

$cov(u_i, u_j/X_i, X_j) = E\{[u_i - E(u_i)]/X_i\} \{[u_j - E(u_j)]/X_j\} = E\{u_i/X_i\} \{u_j/X_j\} = 0$ pro i různé od j ;

random element has a normal split $u_i \sim N(0; \sigma^2)$;

are observed specific assumptions.

The observance was verified by verification processes of a statistical and econometric nature. All forecasts and verifications were performed in the framework of econometric SW Gretl, while the value of the capital was adjusted (expressed in million CZK).

Table Nr. 3 – Model 1: OLS – observation period 2005–2016, dependent variable (for shares with a nominal value of CZK 1 000)

	<i>Co-efficient</i>	<i>Error</i>	<i>t-participation</i>	<i>p-value</i>	
Const	-1923	290,866	-6,6113	<0,0001	*** ³
VK – own capital	20,7748	2,7107	7,6640	<0,0001	***

Source: Own processing by authors

Table Nr. 3 indicates the direction and intensity of the influence of the value of capital on the share price, and this including the verification of the statistical cogency of estimated parameters which demonstrate the utility of the achieved data from economic analysis.

Based on the entry data, the main goal was to figure out:

whether the value of a share with a nominal value of CZK 1 000 depends on the value of the capital;

whether the value of a share with a nominal value of CZK 1 000 increases along with the value of the capital in the observed company.

Achieved regress function:

$$y = 20.7748x - 1,923$$

where $y...$ accounting price of a share with a nominal value of CZK 1 000 (in CZK)

$x...$ value of capital (in million CZK)

The above equation indicates how the value of a share with a nominal value CZK 1 000 will change in the case of a change in the capital by one unit under the condition *ceteris paribus* ("c.p."). If the capital changes (increases) by CZK 1 million, then the share value increases by CZK 20.77 Kč (c.p.). The value of a share with a nominal value of 1 000 grows together with the value of the capital in the observed company.

3 *Graphic determination of statistic significance – number of stars indicated the importance of the estimated parameters, i.e. the reliability of the generalization of the selected data collection with respect to fundamental collection (in the given case, the probability of the influence of the capital on the share value is more than 95%).*

Table Nr. 4 – Model 2: OLS – observation period 2006–2016, dependent variable (for shares with a nominal value of CZK 1 000)

	<i>Co-efficient</i>	<i>Error</i>	<i>t-participation</i>	<i>p-value</i>	
Const	-2 293,21	298,964	-7,6705	<0,0001	****4
VK – own capital	15,2586	3,85783	3,9552	0,0042	***
VK_1	9,01238	4,48204	2,0108	0,0792	*

Source: Own processing by authors

Table Nr. 4 shows the processing by methods of the OLS. The statistical significance of the obtained results was rather good. While preparing this table, the model was made more dynamic by the delayed variable in the form of the capital from the prior year. Based on the used entry data, the main goal was to figure out:

how the value of a share with a nominal value of CZK 1 000 will change during the ordinary period in relation to the increase of the capital;

whether the value of a share is dependent upon the delay value of capital, i.e. if in the context of the dependency of both phenomena occur impetus processes;

by how much the value of share with a nominal value of CZK 1 000 changes if the capital has increased in the previous year.

Achieved regress function:

$$y_t = 15.2586x_t + 0.01238x_{t-1} - 2,293.21;$$

where y_t ... the accounting value of a share with a nominal value of CZK 1 000 during an ordinary period (in CZK)

x_t ... value of capital during an ordinary period (in million CZK)

x_{t-1} ... value of capital in the previous period (in million CZK)

15.2586 – indicates how the price of a share with a nominal value of CZK 1 000 will change if the capital increases during the ordinary time by one unit (c.p.)

9.01238 – indicates how the price of a share with a nominal value of CZK 1 000 will change if the value of capital changes in the previous period (c.p.)

Based on the above indicated, it is possible to present the following conclusions. If the capital increases during the ordinary period by CZK 1 million, then the value of a share with a nominal value of CZK 1 000 will increase by CZK 15 (c.p.). If the value of the capital increases in the previous year by CZK 1 million, then the value of a share with a nominal value of CZK 1 000 will increase by CZK 9 (c.p.).

4 *Graphic determination of statistic significance – number of stars indicated the importance of the estimated parameters, i.e. the reliability of the generalization of the selected data collection with respect to fundamental collection (in the given case, the probability of the influence of the capital on the share value is more than 95% and the probability of the influence of capital from previous period above 90%).*

Table Nr. 5 – Model 3: OLS – observation period 2005–2016 – dependent variables (for shares with a nominal value of CZK 10 000)

	<i>Co-efficient</i>	<i>Error</i>	<i>t-participation</i>	<i>p-value</i>	
Const	-18 654,7	4 384,47	-4,2555	0,0017	***5
VK – own capital	199,754	41,8442	4,774	0,0008	***

Source: Own processing by authors

Table Nr. 5 shows the processing by methods of the OLS. The statistical significance of the obtained results is rather good, i.e. conclusions are statistically conclusive. Based on the used entry data, the main goal was to figure out:

whether the value of a share with a nominal value of CZK 10 000 depends on the value of the capital;

whether the value of a share with a nominal value of CZK 10 000 increases along with the value of capital in the observed company.

Achieved regress function:

$$y = 199.754x - 18,654.7$$

where y... accounting price of a share with a nominal value of CZK 10 000 (in CZK)

x... value of capital (in million CZK)

The above indicated equation shows how the value of a share with a nominal value of CZK 10 000 changes in the case of a capital change by one unit (c.p.). If the capital changes by CZK 1 million, then the share value increases by CZK 199.75 Kč (c.p.). Hence, the value of a share with a nominal value of CZK 10 000 increases along with value of capital in the observed company.

Table Nr. 6 – Model 4: OLS-observation period 2006–2016 – dependent variables (for shares with a nominal value of CZK 10 000)

	<i>Co-efficient</i>	<i>Error</i>	<i>t-participation</i>	<i>p-value</i>	
Const	-24 311,8	3 540,03	-6,868	0,0001	***8
VK – own capital	94,4935	45,6805	2,069	0,0724	**
VK_1	159,277	53,0718	3,001	0,0170	**

Sourcej: Own processing by authors

5 Graphic determination of statistic significance – number of stars indicated the importance of the estimated parameters, i.e. the reliability of the generalization of the selected data collection with respect to fundamental collection (in the given case, the probability of the influence of the capital on the share value is more than 95% and the probability of the influence of capital from previous period above 90%).

6 Graphic determination of statistical significance – number of stars indicate the importance of the method used.

Table Nr. 6 shows estimation via a dynamic model, i.e. a model covering also the delayed influence of capital. Based on the entry data used, the main goal was to figure out: how the value of a share with a nominal value of CZK 10 000 will change during the ordinary period in relation to the increase of the capital; whether in the context of the dependency of both phenomena occur impetus processes; by how much the value of share with a nominal value of CZK 10 000 changes if the capital has increased in the previous year.

Achieved regress function:

$$y_t = 94.4935x_t + 159.277x_{t-1} - 24,311.8$$

where y_t ... accounting price of a share with a nominal value of CZK 10 000 during an ordinary period (in CZK)

x_t ... value of capital during the ordinary period (in million CZK)

x_{t-1} ... value of capital during the previous period (in million CZK)

94.4935 – indicates how the price of a share with a nominal value of CZK 10 000 changes if the capital increases during the ordinary time by one unit (c.p.)

159.277 – indicates, how the price of a share with a nominal value of CZK 10 000 changes if the capital changes during the previous period (c.p.)

Based on the above indicated, it is possible to present the following conclusions. If the capital increases during the ordinary period by CZK 1 million, then the value of a share with a nominal value of CZK 10 000 will increase by CZK 94.4935 c.p.). If the value of capital increases by CZK 1 million during the previous period, then the value of a share with a nominal value increases by CZK 159,277 (c.p.).

Table Nr. 7 – Model 5: OLS – observation period 2005–2016 – dependent variables (for a share with a nominal value of CZK 50 000)

	<i>Co-efficient</i>	<i>Error</i>	<i>t-participation</i>	<i>p-value</i>	
Const	-88 772,2	25 815,9	-3,4387	0,0063	***7
VK – own capital	953,909	246,648	3,8675	0,0031	***

Source: Own processing by authors

Table Nr. 7 shows the estimation by the model of the dependence of the price of a share with a nominal value of CZK 50 000 on the capital. Based on the used entry, the main goal was to figure out:

whether the value of a share with a nominal value of CZK 50 000 depends upon the value of the capital;

whether the value of a share with a nominal value of CZK 50 000 increases along with the value of capital of the observed company.

7 *Graphic determination of statistical significance – number of stars indicated the importance of the estimated parameters, i.e. the reliability of the generalization of the selected data collection with respect to fundamental collection (in the given case, the probability of the influence of the capital on the share value is more than 95%).*

Achieved regress function:

$$y = 953.909x - 88,772.2$$

where $y...$ accounting price of a share with a nominal value of CZK 50 000 (in CZK)
 $x...$ value of capital (in million CZK)

The above indicated equation indicates how the value of the share with a nominal value of CZK 50 000 will change in the case of a change of capital by one unit (c.p.). If the capital changes by CZK 1 million, then the value of the share increases by CZK 953.909 (c.p.). The value of a share with a nominal value of CZK 50 000 increases, along with the value of the capital of the observed company.

Table Nr. 8 – Model 6: OLS – observation period 2006–2016 – dependent variables (for a share with a nominal value of CZK 50 000)

	<i>Co-efficient</i>	<i>Error</i>	<i>t-participation</i>	<i>p-value</i>	
Const	-122 302	13 891,4	-8,8042	<0,0001	***8
VK – own capital	307,948	221,556	1,3899	0,2020	
VK_1	966,746	268,999	3,5939	0,0070	***

Source: Own processing by authors

Table Nr. 8 has been prepared by the use of the OLS method in the SW Gretl environment. In the preparation of this table, there was added the dependence on the capital from the previous year. Based on the entry data used, the main goal was to figure out: how the value of a share with a nominal value of CZK 50 000 will change during the ordinary period in relation to the increase of the capital; whether in the context of the dependency of both phenomena occur impetus processes; by how much the value of a share with a nominal value of CZK 50 000 changes if the capital has increased in the previous year.

Achieved regress function:

$$y_t = 307.948x_t + 966.749x_{t-1} - 122,302$$

where $y_t...$ accounting price of a share with a nominal value of CZK 50 000 during an ordinary period (in CZK)

$x_t...$ value of capital during the ordinary period (in million CZK)

$x_{t-1}...$ value of capital during the previous period (in million CZK)

307,948 – indicates how the price of a share with a nominal value of CZK 50 000 changes if the capital increases by one unit (c.p.)

966,746 – indicates how the price of a share with a nominal value of CZK 50 000 changes if the value of capital changes in the previous period (c.p.)

8 *Graphic determination of statistical significance – number of stars indicated the importance of the estimated parameters, i.e. the reliability of the generalization of the selected data collection with respect to fundamental collection (in the given case, the probability of the influence of the delayed capital on the share value is more than 95%, the influence of capital during the ordinary period is statistically significant with the probability under 90%).*

Based on the above, one can conclude the following. If the capital increases by CZK 1 million during the ordinary period, then the value of a share with a nominal value of CZK 50 000 increases by CZK 307.948 (c.p.). The given influence has been proved-out in a statistically significant manner, what was probably caused by a short time line of entry data, but considering other achieved results, there can be expected an improvement of the data foundation. Further, it can be stated that, if the value of capital increases in the previous year by CZK 1 million, then the value of a share with a nominal value of CZK 50 000 increases by CZK 966.746 (c.p.). Here, the statistical significance is noticeable and this is proven by a conclusive effect of the previous period from the perspective of own capital. Based on the above indicated calculations, it can be stated that, if the company wants to increase the accounting price of a share with any nominal value, it is necessary to increase as well the capital in a long time manner. Even the faster the capital grows, so much faster will grow the price of particularly, those shares with the highest nominal value. Further, it is noticeable that a long term building of the value of a company brings a multiplication effect on the value of a share of any type in the company. If only the calculation is considered, and it is assumed that all other variables can change over time, then the amount of capital would not change (it consists only of values brought by shareholders into the company). However, the capital consists not only of these brought values but as well by results from the operation of the company itself. Hence, it can be theoretically suggested that, in the case of an increase of the capital, the accounting share price will grow also.

9 Final summary

The performed analyses imply that the change of the contractual and accounting share price has a direct relationship to changes of the ownership structure of the given company. Abrupt changes occurred in 2011 and 2014. The change of contractual share prices is best documented for shares with a nominal value of CZK 50 000. Until 2011, the average value of shares had been decreasing. The first abrupt growth of the contractual share price was notably caused by the entry of the new investor (by then it was just one of the minority shareholders of the given company) in the capital market. The second abrupt growth of the contractual share price occurred in 2014, when this investor obtained the majority participation, i.e. changed from being one of the minority shareholders to the status of the majority shareholder. Other minority shareholders became aware about the "preciousness" of their shares and so pushed for an increase in the contractual share price. Regarding shares with a nominal value of CZK 50 000, the contractual share price has changes in the time (by year) by CZK 1,142.3. Regarding shares with a nominal value of CZK 10 000, the contractual price has changes in the time (by year) by CZK 230.1. Regarding shares with a nominal value of CZK 1 000, the contractual share price has changes in the time (by year) by CZK 21.08. Since the investor has achieved the majority participation, he has changed the business strategy and management of the company and thus the change of the contractual share price can be expected for the future. Since the investor has already obtained the majority, it was possible to expect, based on performed calculations that the contractual share price will go down in 2017. Indeed, in 2017, the contractual price for a share with a nominal value of 50 000 decreased by CZK 4,083.4 compared to 2016. The contractual price for a share with a nominal value of CZK 10 000 decreased by

CZK 744.4 compared to 2016. The contractual price for a share with a nominal value of CZK 1 000 decreased by CZK 58.78 compared to 2016. In contrast, an increase in a contractual share price can be expected for 2018. The contractual price for shares with a nominal value of CZK 50 000 will increase by CZK 1,142.30 as opposed to 2017. The contractual price for shares with a nominal value of CZK 10 000 will increase by CZK 230.1 as opposed to 2017. The contractual price for shares with a nominal value of CZK 1 000 will increase by CZK 21.08 as opposed to 2017. This increase in the contractual share price can be related to the reinforcement of the position of the company on the market and its economic development due to the changes of the business strategy and management. Similar to the increase in the contractual share price, the accounting share price will grow. However, the growth of the contractual share price will be many times faster than the growth of the accounting share price. In this case, it can be expected that there is a relationship between the accounting share value and capital. The accounting share price grows with capital. Hence, for the growth of the accounting share price, it is necessary to keep increasing the capital in the long term and this should be the basic priority of the company. The growth of the capital has a direct relationship to the prosperity of the observed company and the majority shareholder wanted to achieve that by a change of the business strategy and management. In sum, it can be stated that there is a relationship between the economic situation of the company (the desire to achieve the majority participation by the investor, the change of business strategy and management of the observed company) and the contractual value and accounting price of a share. Contractual and accounting share prices are directly influenced by the economic situation of the observed company.

10 Conclusion

This paper identifies the existence of the relationship between the economic situation in a company (the desire to achieve the majority participation by the investor, the change of business strategy and management of the observed company) and the contractual value and accounting price of a share. The oscillation and influence of the share price has a direct relationship to the buyout of shares of the minority shareholders. The main motive for the buyout of these shares is the desire to achieve the majority participation. The reason is that the investor wanted to become the majority shareholder and thus to control the company and enforce new business strategies and management, i.e. to change the prior business strategy and management of the company. Often, this drive does not match up with the will of other minority shareholders who have to decide about 'to sell or not to sell' their shares. The reasons for selling off minority shares are diverse, i.e. minority shareholders have diverse motives for selling their shares. In the case of efforts to sell the minority participation to the main investor with the highest profit and at the same to get as quickly as possible out of the company, often it happens that the transactions are done under price. Neither Act No. 89/2012 Coll., Civil Code nor Act No. 90/2012 Coll., Business Corporation Act regulates the contractual transaction of shares. Therefore, for the protection of their rights, minority shareholders should take their own initiative for increasing their awareness and information about contractual transactions in companies, and about the information duty, by including them e.g. in foundation documents, such as articles of association and bylaws.

References

- CVIK, E. D. and R. MacGREGOR PELIKÁNOVÁ** (2016) A comparative study of the legal liability of executives in LLC in the Czech Republic and some other EU member states. In: *Scientific Papers of the University of Pardubice*, [on-line]. Series D, 1/2016, pp. 54–65. Available at: <http://www.upce.cz/fes/veda-vyzkum/fakultni-casopisy/scipap/posledni-obsah.pdf> [Access: October 10, 2018].
- DAVIES, P. L.** (2013) Gower and Davies's Principles of Modern Company Law. Seventh Edition. London: Sweet&Maxwell, 2003, p. 424. In: SÝKORA, M.: *Ochrana menšinových společníků před vnitřním obchodováním: co se stane, až zmizí § 196a odst. 3 ObchZ?* Available at: <http://www.prf.cuni.cz/res/dwe-files/1404046207.pdf> [Access: May 4, 2016].
- EASTERBROOK, F. H. and R. D. FISCHER** (2013) The Economic Structure of Corporate Law. Boston: Harvard University Press, 1996, p. 11. In: SÝKORA, M.: *Ochrana menšinových společníků před vnitřním obchodováním: co se stane, až zmizí § 196a odst. 3 ObchZ?* Available at: <http://www.prf.cuni.cz/res/dwe-files/1404046207.pdf> [Access: May 4, 2016].
- EISENBERG, M. A.** (2013) Corporations and Other Business Organizations. New York: Foundation Press, 2005, pp. 437 and next. In: SÝKORA, M.: *Ochrana menšinových společníků před vnitřním obchodováním: co se stane, až zmizí § 196a odst. 3 ObchZ?* Available at: <http://www.prf.cuni.cz/res/dwe-files/1404046207.pdf> [Access: May 4, 2016].
- HEJDA, J. a kol.** (2013) *Zákon o obchodních korporacích: výklad jednotlivých ustanovení včetně návaznosti na české a evropské předpisy*. 1. vydání. Praha: Linde.
- HIRSCHMAN, A. O.** (2013) Exit, Voice and Loyalty: Responses. In: SÝKORA, M.: *Ochrana menšinových společníků před vnitřním obchodováním: co se stane, až zmizí § 196a odst. 3 ObchZ?* Available at: <http://www.prf.cuni.cz/res/dwe-files/1404046207.pdf> [Access: May 4, 2016].
- KAHN, F. S.** (2013) Fiduciary Duty, Limited Liability, and the Law of Delaware: Transparency and Accountability-Rethinking Corporate Fiduciary Law's Relevance to Corporate Disclosure, *Georgia Law Review*, roč. 2000, č. 34, str. 505. In: SÝKORA, M.: *Ochrana menšinových společníků před vnitřním obchodováním: co se stane, až zmizí § 196a odst. 3 ObchZ?* Available at: <http://www.prf.cuni.cz/res/dwe-files/1404046207.pdf> [Access: May 4, 2016].
- LASÁK, J. a B. HAVEL** (2011) *Kompendium korporačního práva*. Vyd. 1. Praha: C. H. Beck.
- LASÁK, J. a kol.** (2014) *Zákon o obchodních korporacích: komentář. II. díl*. 1. vyd., Praha: Wolters Kluwer.
- NOVOTNÁ, M.** (2016) *Majoritní společníci, plačte*. Available at: <http://euro.e15.cz/archiv/majoritni-spolecnici-placte-1095252> [Access: August 8, 2016].
- SÝKORA, M.** (2013) *Ochrana menšinových společníků před vnitřním obchodováním: co se stane, až zmizí § 196a odst. 3 ObchZ?* Available from: <http://www.prf.cuni.cz/res/dwe-files/1404046207.pdf> [Access: May 4, 2016].
- CZECH REPUBLIC.** Act No. 90/2012 Coll., On Commercial Companies and Cooperatives (Act on Business Corporations). In: *Úplná znění předpisů*. 2018. Sagit, ÚZ č. 1273.
- CZECH REPUBLIC.** Act No. 513/1991 Coll., Commercial Code. In: *Úplná znění předpisů*. 2018. Sagit, ÚZ č. 1275.
- CZECH REPUBLIC.** Act No. 89/2012 Coll., Civil Code. In: *Zákony pro lidi*. [on-line]. Available at: <https://www.zakonyprolidi.cz/cs/1991-513/zneni-20130701> [Access: October 10, 2018].

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On the Origin of the Laffer Curve

O původu Lafferovy křivky

PETR MACH

Abstract

In 1974 Arthur Laffer sketched his famous curve on a restaurant napkin. Jude Wanniski gave the curve Laffer's name and popularized it in 1978. Nowadays the Laffer curve is part of most economics textbooks and essential argument in tax debates. In this paper we present less known citations on the relation between the tax rate and the tax revenue of Milton Friedman, John Maynard Keynes, and Adam Smith who uttered the idea lying behind the Laffer curve long time before Arthur Laffer.

Keywords

Laffer curve, taxation, history of economic thought

JEL Codes

B0, H20

Abstrakt

V roce 1974 načrtl Arthur Laffer svou slavnou křivku na ubrousku restaurace. Jude Wanniski jí dal jméno Lafferova křivka a popularizoval ji v roce 1978. V současnosti je Lafferova křivka součástí většiny ekonomických učebnic a základním argumentem v daňových debatách. V článku uvádíme méně známé citace Milтона Friedmana, Johna Maynarda Keynesa a Adama Smithe o vztahu mezi daňovou sazbou a daňovými příjmy, které obsahují myšlenku Lafferovy křivky dlouho před Arthurem Lafferem.

Klíčová slova

Lafferova křivka, zdanění, historie ekonomického myšlení

Professor Arthur Laffer is a living legend. He gave name to one of the best-known curves in economics, and had done so not by writing a scientific article but by sketching a simple graph on a napkin at a restaurant dinner. The curve shows a concave relation between the tax rate and the tax revenues, which is now present in most economics textbooks.

In this article we present the historical background of the genesis of the Laffer Curve and we remind thoughts of great economists – Milton Friedman, John Maynard Keynes, and Adam Smith – who uttered the very idea lying behind the Laffer curve long time before Arthur Laffer.

1 Introduction

In 1974 the professor of economics at the University of Chicago Arthur B. Laffer sketched a curve describing a relationship between the tax rate and the tax revenue on a napkin at a dinner in the Two Continents restaurant in Washington, D.C. The dinner was attended by the host Dick Cheney from President Gerald Ford administration, the economist Arthur Laffer, Ms. Grace-Marie Arnett (now Turner), a press secretary, and Jude Wanniski, the journalist at the Wall Street Journal. (Wanniski, 2005)

Four years after this diner Jude Wanniski coined the term “Laffer Curve” as he presented the napkin graph under the title “Laffer Curve” in an essay in 1978 where he also described the story with the dinner. (Wanniski, 1978)

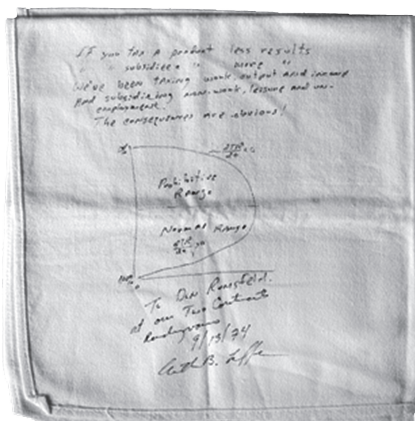
Laffer later admitted: “I supposedly grabbed my napkin and a pen and sketched a curve on the napkin illustrating the trade-off between tax rates and tax revenues. Wanniski named the trade-off “The Laffer Curve.” I personally do not remember the details of that evening, but Wanniski’s version could well be true.” (Laffer, 2014)

2 What napkin

The curve became part of the American history because not only it contributed to the economic science, but it also prompted a radical change in the American politics as it provided a strong argument in favour of low taxes. It started the “supply side revolution” and helped Ronald Reagan win the presidential election and consequently defeat the Soviet Union in the Cold War.

After Wanniski’s death in 2005 his wife donated a napkin with Laffer’s notes to The National Museum of American History.

Fig. 1: A napkin with Arthur Laffer’s sketch



Source: http://americanhistory.si.edu/collections/search/object/nmah_1439217

The museum napkin bears this description:

In 1974 economist Art Laffer sketched a new direction for the Republican Party on this napkin. Displeased with President Gerald Ford's decision to raise taxes to control inflation, four men got together at a Washington, DC restaurant to think about alternatives. Laffer was joined by journalist Jude Wanniski and politicians Dick Cheney and Don Rumsfeld. Laffer argued that lowering taxes would increase economic activity. Wanniski popularized the theory, and politicians Don Rumsfeld and Dick Cheney carried it out.

The cloth napkin was taken as a souvenir by Jude Wanniski. The napkin reads "If you tax a product less results/If you subsidize a product more results./We've been taxing work, output and income and subsidizing non-work, leisure and un-/employment./The consequences are obvious! with an image of the laffer curve in the middle. The bottom of the napkin reads To Don Rumsfeld/at our Two Continents/Rendezvous/ 9/13/74/Art B. Laffer."

In October 2017 the editor of the New York Times newspaper Binyamin Appelbaum wrote an article questioning the authenticity of the napkin and his description. According to Laffer himself that napkin "was made few years later at the request of Wanniski who wanted a keepsake of the famous moment." (Appelbaum, 2017) The original napkin was a paper one, not a cloth, according to Ms. Turner, another participant at the dinner. Furthermore, according to Wanniski the dinner took place 4th December and not 13th of September and Donald Rumsfeld was not present because he was suddenly called to President Ford. (Wanniski, 2005)

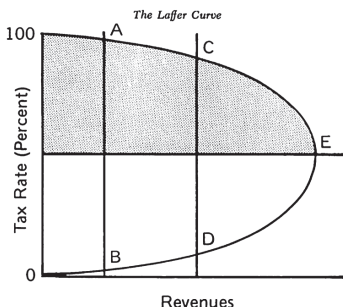
Whatever was the original napkin, the curve was given a name and popularised four years after the dinner took place by Jude Wanniski in his article "Taxes, revenues, and the Laffer curve" (Wanniski, 1978)

3 Basics of the Laffer curve

Wanniski quotes Laffer, "There are always two tax rates that yield the same revenues," an expression which clearly defines the curve and its parabolic shape.

In his book he also presented the famous graph:

Fig. 2: Laffer curve as presented by Wanniski in 1978



Source: Wanniski, 1978a, p. 4

(Note that contrary to Fig. 2 it is common nowadays to put the tax rate on the horizontal axis and the revenues on the vertical axis.)

After this publication many versions of the definition of the Laffer curve have sprung up in economics articles and textbooks.

A comprehensive presentation of the Laffer curve by the author himself came only 40 years after the famous dinner:

“The basic idea behind the relationship between tax rates and tax revenues is that changes in tax rates have two effects on revenues: the arithmetic effect and the economic effect. The arithmetic effect is simply that if tax rates are lowered, tax revenues (per dollar of tax base) will be lowered by the amount of the decrease in the rate. The reverse is true for an increase in tax rates. The economic effect, however, recognizes the positive impact that lower tax rates have on work, output, and employment – and thereby the tax base – by providing incentives to increase these activities. Raising tax rates has the opposite economic effect by penalizing participation in the taxed activities. The arithmetic effect always works in the opposite direction from the economic effect. Therefore, when the economic and the arithmetic effects of tax-rate changes are combined, the consequences of the change in tax rates on total tax revenues are no longer quite so obvious.” (Laffer, 2014)

4 Laffer curve before Laffer

Wanniski remarks that *“all [Laffer] did was depict the law of diminishing returns as it applied to tax policy, but it caused a sensation once I named it after [him] and publicized it in my 1978 book.”* (Wanniski, 2005)

Laffer himself admits that various economists before him have come with the idea. (Laffer, 2004) He cites two thinkers – Ibn Khaldun, a 14th Century Persian philosopher, and J. M. Keynes.

Ibn Khaldun’s citation presented by Laffer is the following one: *“It should be known that at the beginning of the dynasty, taxation yields a large revenue from small assessments. At the end of the dynasty, taxation yields a small revenue from large assessments.”* (Laffer, 2014)

And John Maynard Keynes wrote it, according to Laffer, with *“incredible clarity”*: *“Nor should the argument seem strange that taxation may be so high as to defeat its object, and that, given sufficient time to gather the fruits, a reduction of taxation will run a better chance than an increase of balancing the budget. For to take the opposite view today is to resemble a manufacturer who, running at a loss, decides to raise his price, and when his declining sales increase the loss, wrapping himself in the rectitude of plain arithmetic, decides that prudence requires him to raise the price still more – and who, when at last his account is balanced with nought on both sides, is still found righteously declaring that it would have been the act of a gambler to reduce the price when you were already making a loss.”* (Laffer, 2014, Keynes, 1933)

5 What about yet another Keynes, Friedman, and Smith?

There are however less known much clearer descriptions of the principle embodied in the Laffer curve stated by other famous authors who are mentioned neither by Laffer nor by others.

In 1953, twenty-one years before the famous napkin dinner Milton Friedman wrote: *"As for any other tax, there is some rate of tax that will give the maximum yield, depending on the conditions of demand and supply for the product taxed...[if]the supply is perfectly elastic...the maximum yield is at a point on the demand curve of unitary elasticity."* (Friedman, 1953, p. 256–7)

Friedman wrote this in his *Discussion of the Inflationary Gap* arguing mainly about the "inflation tax", a tax imposed on money holders through inflation. His remark however deals with taxation in general. It is interesting that this remark has never been cited in connection with the Laffer curve, although the article itself is often cited in articles on monetary issues. It is also interesting that Friedman mentions the principle as if it was an absolutely obvious and well-known thing.

Laffer cites Keynes (Laffer, 2004) saying, that Keynes' remark was of "incredible clarity". Keynes' words were from 1933 and in fact they were not as clear as Keynes' words from as early as 1924, half a century before the dinner:

"Just as a toll can be levied on the use of roads or turnover tax on business transactions, so also on the use of money. The higher the toll and the tax, the less traffic on the roads, and the less business transacted, so also the less money carried. But some traffic is so indispensable, some business so profitable, some money-payments so convenient, that only a very high levy will stop completely all traffic, all business, all payments. A government has to remember, however, that even if a tax is not prohibitive it may be unprofitable, and that a medium, rather than an extreme, imposition will yield the greatest gain." (Keynes, 1924, p. 49)

But as usual, if we want to find a clear description of an economic principle, it is sufficient to open once again the *Wealth of Nations* by Adam Smith published in 1776, two centuries before the dinner took place:

"High taxes, sometimes by diminishing the consumption of the taxed commodities, and sometimes by encouraging smuggling, frequently afford a smaller revenue to government than what might be drawn from more moderate taxes. When the diminution of revenue is the effect of the diminution of consumption there can be but one remedy, and that is the lowering of the tax" (Smith, 1776, 1924).

6 Conclusion

We should not forget that before Laffer many economists had described the basic principle of taxation – the one that there are diminishing returns of taxation – including Milton Friedman, John Maynard Keynes and Adam Smith. Arthur Laffer and Jude Wanniski nevertheless made this principle famous and presented a graph of it – and for this they deserve credit.

When forty years after the famous sketch Arthur Laffer was asked about its legacy, he said: *"I think today everyone agrees with the premise that when you tax something you get less of it, and when you tax something less, you get more of it."* (Moore, 2014) This might not have happened if there was no napkin at a dinner.

References

- APPELBAUM, B.** (2017) This is not Arthur Laffer's Famous Napkin. *New York Times*
<https://www.nytimes.com/2017/10/13/us/politics/arthur-laffer-napkin-tax-curve.html>
- KEYNES, J. M.** (1924) *A Tract on Monetary Reform*. London: Macmillan 1924,
<https://delong.typepad.com/keynes-1923-a-tract-on-monetary-reform.pdf>
- KEYNES, J. M.** (1933) Essay: The Means to Prosperity, Chapter I, The nature of the problem, p. 7. *The Collected Writings of John Maynard Keynes*, London: Macmillan 1933,
<https://gutenberg.ca/ebooks/keynes-means/keynes-means-00-h.html>
- LAFFER, A.** (2014) The Laffer Curve: Past, Present, and Future. *Heritage Report*. June 2014,
<http://www.heritage.org/taxes/report/the-laffer-curve-past-present-and-future>
- MOORE, S.** (2014) The Laffer Curve turns 40: the legacy of a controversial idea,
https://www.washingtonpost.com/opinions/the-laffer-curve-at-40-still-looks-good/2014/12/26/4c549207-6691-25935-d-11e4-a702-fa31ff4ae98e_story.html?utm_term=.dd803f9eddae
- SMITH, A.** (1925) *An Inquiry into the nature and Causes of the Wealth of Nations*. London: G. Bell and Sons. Ltd., p 417.
- WANNISKI, J.** (1978) Taxes, revenues, and the Laffer curve. *The Public Interest*. 50, pp. 3–16, <https://www.nationalaffairs.com/storage/app/uploads/public/58e1a4/c54/58e1a4c549207669125935.pdf>
- WANNISKI, J.** (1978) *The Way The World Works. How Economies Fail and Succeed*. Basic Books. New York: 1978, <https://archive.org/stream/wayworldworks00jude>
- WANNISKI, J.** (2005) *How it Happened*, <http://www.polyconomics.com/memos/mm-050614.htm>

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*The Czech Currency – A Well Described Past,
an Unclearly Outlined Future*
*Česká měna – dobře popsaná minulost,
nejistý obrys budoucnosti*

MOJMÍR HELÍSEK

TOMŠÍK VLADIMÍR et al. 100 years of the koruna. Monetary policy, institutions, money.
Aleš Čeněk Publisher, Pilsen: 2019. 354 pp.¹

The one hundredth anniversary of the existence of the Czechoslovak (and subsequently the Czech) state and its currency is undoubtedly a suitable occasion for the publication of a work on the development of the currency in question. The reviewed publication provides a thorough and comprehensive description of the development of the currency in three chapters: 1) the history of the monetary policy, 2) the institutional organisation of the central bank and 3) the emitted paper currency. The book refers to a number of historical documents and expert works and each of the three chapters is followed by a long list of used literature. The reviewed book is predominantly descriptive by nature (which is especially the case in the third chapter) and it only deals marginally with any evaluating judgements. As such, this is also true of the character of this review.

The first chapter deals with the *History of monetary policy*. The first step towards the establishment of the independent Czechoslovak currency involved the realisation of a so-called currency separation at the beginning of March 1919. This separation involved the stamping of the Austro-Hungarian banknotes which were in circulation within the territory of the new Czechoslovak state (this pertained to banknotes of higher denominations, specifically from 10 korunas and upwards). The currency reform took place at the same time. Put simply, this involved the retention of half the submitted banknotes and current accounts and their replacement with state bonds (they were subsequently used to pay capital levy and capital increase levy that occurred during the war). The purpose of this reform was to drain any excess purchasing power and to economically punish the wartime affluent. The hyperinflation which occurred in several surrounding countries was also prevented thanks to this monetary reform.

The currency separation, currency reform and monetary policy of this time were formulated by the first Czechoslovak Minister of Finance, Alois Rašín. This involved

¹ In Czech: TOMŠÍK, Vladimír a kol. 100 let česko-slovenské koruny. Měnová politika, instituce, peníze. Nakl. A. Čeněk, Plzeň: 2018. 346 stran.

a deflationary policy with the objective of returning price level to their pre-war size and ensuring that the koruna's exchange rate appreciated. This was achieved from 1921, albeit at the price of a drop in exports and production. The so-called stabilisation policy, which was implemented by the next Minister of Finance and the subsequent governor of the *National Bank of Czechoslovakia* (see below), Karel Engliš, commenced from 1925. Engliš was also against reinstating the gold standard. This was based on his fear of an increase in the price of gold and the renewal of deflation. Despite this, however, the gold standard was paradoxically reinstated at the least opportune time, i.e. at the end of 1929 just before the onset of the Great Depression. Deflation returned despite the fact that the koruna was devalued twice (in 1934 and 1936). The significant revival of the economy only occurred with the growth in expenditure on armaments. The interpretation objectively points to the fact that the monetary policy of the day, which ultimately contributed to the recession and unemployment, was influenced by an admiration for gold which was common in the world at that time.²

The continuation of the independent Czechoslovak monetary policy was complicated after the Second World War. Currency reform consisting of the withdrawal of the legal tender in circulation (every citizen subsequently only received only 500 new Czechoslovak korunas) and the creation of so-called blocked deposits, which on the one hand were subject to capital levy and capital increase levy and on the other hand were released to the citizenry and companies on the basis of official proceedings, commenced in the autumn of 1945. As such, the central bank was unable to influence the amount of money in the economy. The amount of money in the economy grew, but the amount of production (products and services) grew much more slowly. As such, further currency reform commenced at the beginning of June 1953. As part of this reform, the citizens' old currency was replaced with new currency at a ratio of 5:1 and at an amount of 300 old korunas per person or 5000 old korunas in the case of deposits. The replacement of any other money took place at a less advantageous exchange rate, specifically up to 50:1.

The monetary policy which was undertaken by the *State Bank of Czechoslovakia* (see below) in the period of the socialist economy did not adopt a traditional approach as had been the case in pre-war Czechoslovakia. The emission of money was subordinate to the fulfilment of the central state plan for the development of the national economy. This gradually led to an excess of savings among the citizenry in relation to the amount of goods on offer and to so-called suppressed inflation.³ The interpretation contains a detailed description of the provision of loans and other bank activities at that time, including the artificial (i.e. outside the market) designation of the exchange rate and the trade in foreign exchange (the coefficient so-called Internal Reproduction Price Adjustment, "foreign exchange promises" and so on).

2 *Gustav Cassel stated in his famous book The Downfall of the Gold Standard (1936): "People were brought up to believe that the stock of gold could give their country's currency special value [...] In this way, people were fooled into believing that the welfare of the nation depended on the percentage of its currency which was covered by gold" (Nakl. L. Mazáč, Prague: 1936, p. 21).*

3 *The term "suppressed inflation" has been incorrectly conflated with "hidden inflation" here (pg. 35).*

The period of so-called economic transformation, i.e. the transition from a centrally managed economy with predominant state ownership to a market economy, took place from the beginning of 1991. The principles of this transition were: 1) privatisation; 2) price liberalisation; 3) the liberalisation of external economic relations (foreign trade, the movement of capital). All of this was accompanied by a restrictive monetary and fiscal policy with the objective of slowing down inflation. The monetary policy quickly transitioned from the use of lending limits set for commercial banks by the central bank and the ceilings on loan rates to standard tools such as the open market operations. The central bank began to apply a monetarist type of monetary policy in the form of monetary aggregate targeting. The exchange rate of the koruna was devalued by more than 100% during the course of 1990 (in relation to the USD; the resulting exchange rate was 28 korunas to 1 USD).

The breakup of the federal state at the beginning of 1993 also led to the establishment of the *Czech National Bank* (CNB; see below). The independent Czech currency was established soon thereafter, initially by stamping the circulating federal banknotes and then by replacing them with new Czech currency at a ratio of 1:1 several months later. Here, we would add something which is not contained in the book, namely that, unlike the stamping of banknotes which occurred during the establishment of Czechoslovakia in 1919, this did not involve any currency reform in 1993, but merely currency separation. Tension began to grow between the three principles of monetary policy, namely a stable foreign exchange, low inflation and the free inflow of foreign capital (the so-called monetary policy trilemma), from the mid-1990s. The authors of the reviewed book have further supplemented this trilemma with the so-called *Tošovský dilemma*: “On the one hand, high [interest] rates are necessary to ensure low inflation, but on the other they attract sizeable capital inflows” (p. 53). These (and other) causes led to speculative pressures on the depreciation of the exchange rate which led to the abandonment of the stable exchange rate at the end of May 1997 and its replacement with a managed float regime. The book uses the terms “currency shock” (page 56) or “exchange rate turbulence” (page 58), but not the term “currency crisis”.⁴

From the end of 1997, the CNB moved to inflation targeting with the two-week repo rate as its main tool. This approach continues today. The 2014–2017 period, when interventions of the exchange rate on the foreign exchange market was used, was an interesting stage in the development of the CNB’s monetary policy. This involved a non-standard tool which saw the purchase of foreign exchange reserves at the amount of 76 billion euro, which increased the money supply by more than 2 trillion koruna. The goal was to prevent deflation.

After the explanation of how the CNB’s monetary policy works, there is a subchapter which explains why the Czech Republic has not yet to adopt the euro. Let us recall (something which is not stated in the book) that the Czech government already set a “working deadline” of the beginning of 2010 for the introduction of the euro back in 2005. This deadline was

4 The term “Czech currency crisis” (or “mini-crisis”) is, however, ordinary in the literature (the overview, for example, in Helísek, M. *Měnové krize. Empirie a teorie [Currency crises. Empiricism and Theory]*. Prague: 2004, pp. 137–146).

cancelled one year later. A joint statement sent to the government at the end of every year by the Ministry of Finance and the Central Bank contains a recommendation not to enter the ERM II exchange rate system and not to set a deadline for the introduction of the euro. What is the justification for this statement? The book repeats the arguments set out in this statement. In the case of participation in the ERM II, this involves fears of so-called “currency turbulence” (which is another phrase for a “currency crisis”). In the opinion of the author of this review, these fears are unjustified.⁵ A further argument involves the insufficient alignment of the Czech economy with the economy of the euro area. Once this alignment reached a high level, however, (especially in comparison with similar countries which have already introduced the euro such as Slovakia and Slovenia – note M. H.) the predominant argument changed to inadequacies on the part of the euro area. This specifically involves the “European debt crisis” and the “new institutional obligations”.

There is no room in this review to debate these arguments and as such we will merely list several challenges for consideration. Why do we talk about a “European” debt crisis: which part of the euro area has truly been affected by this? How did this debt crisis of several euro area countries end up? Is it possible to make membership in the currency union only conditional upon the benefits of this membership and to reject the costs? Is it possible to reject membership with the justification that “the conditions have changed” (Was it realistic to expect that the conditions would not have changed from 2004?)? Is it wise to reject the risks and solidarity which we may also one day need? Where do we fit into a two-speed Europe? The book also points to the fact that the final decision on the introduction of the euro is a political matter. The rejection of the euro by the majority of Czech political parties is based on the opinions of Czech voters,⁶ which have been expressed using numbers and graphs set out in the book. The book does not, however, set out the same numbers and graphs with regard to the opinions of Czech enterprises about adopting the euro. There, the interest in the adoption of the euro is unequivocal, regardless of whether this involves small, large, exporting or importing enterprises.⁷

The last section of the first chapter concerns itself with financial stability and macroprudential policy. Financial stability, i.e. the stability of the banking system, has been monitored by the CNB since 2004. In 2006, the supervision of all financial institutions was focused in the CNB. The CNB warned of a commencing bubble in the real estate market in good time, in mid-2007, which led to cautious behaviour on the part of the banks. The impact of the global financial crisis which began in the USA in the autumn of 2007 was therefore mild in the Czech Republic. The macroprudential policy which the CNB began to apply in 2014 means the limitation of system risks, i.e. the prevention of instability in the financial system as a whole. This has especially been realised by means of the requirements for capital reserves in the banks which serve as a “buffer” throughout the

5 HELISEK, M. *Exchange Rate Mechanism II and the risk of currency crisis – empiricism and theory. Journal of International Studies*. Vol. 12, 2019, No.1, pp. 297–312.

6 However, the opinions of Czech voters are based on the programs of the political parties. The phenomenon of “hysteresis” has thus passed from the national economy (job markets) to political decision-making.

7 CEEC Research. *Study on the Czech Engineering Industry. November 2017: for the euro: big companies 78%, small and medium-sized companies 66%. Furthermore: the survey from Hospodářské noviny [Economic newspaper] (28.2.2019): “The euro is rejected by only one in ten business representatives”.*

course of the “financial cycle”. It is complicated to coordinate this macroprudential policy with the monetary policy (these policies may have contradictory effects).

The second chapter describes *Key events in the history of the bank of issue*. This involves a thorough description of this history from the establishment of independent Czechoslovakia in 1918 through to the present, i.e. 2018. The first step towards the creation of an separate Czechoslovak central bank was the transformation of the Prague branch of the *Austro-Hungarian Bank into the Banking Office of the Ministry of Finance* in 1919. It is a little-known fact that this led to the rejection of the *Austro-Hungarian Bank's* plans to create a monetary union within the countries of the former Austro-Hungary. There were several chairmen at the head of the *Banking Office*, but the most significant personality from among them was the first Czechoslovak Minister of Finance, Alois Rašín. *The National Bank of Czechoslovakia* commenced its activities on 1st April 1926 as a joint stock company with a dominant state holding in its share capital. Its first governor was Vilém Pospíšil (a supporter of Rašín's opinions). He was later replaced (in the period from 1934 to 1939) by Karel Engliš, one of the most significant Czechoslovak economists who favoured the position of neoclassical economics.

During the Nazi occupation of the Czech lands, the National bank was renamed the *National Bank of Bohemia and Moravia* and it functioned under the supervision of the *Deutsche Reichsbank*. The bank's governor in this period was Ladislav František Dvořák, who succeeded under extremely difficult conditions in maintaining the existence of the independent bank of issue and prevented it from being transformed into a mere branch of the *Deutsche Reichsbank*. After the end of the Second World War, it was necessary to reinstate a uniform central bank by means of the merger of the *National Bank of Bohemia and Moravia* and the *Slovak National Bank* (which had been established in 1939 after the breakup of Czechoslovakia and the creation of the Slovak Republic⁸). This led to the reinstatement of the *National Bank of Czechoslovakia*, which was led by the keynesian-oriented economist, Jaroslav Nebesář, until 1950.

Soon after the February Putsch of 1948, proposals for the transformation of this bank into a state bank along the lines of the banking practices used in the former Soviet Union (state bank Gosbanka) soon began to appear. This meant the transformation of the existing two-tier banking system, i.e. the central bank – the commercial banks (called the “operational banks” at that time) into a single institution (a so-called monobank). This gave rise to the *State Bank of Czechoslovakia*, which commenced its activities on 3rd July 1950 under the leadership of its director-general, Otakar Pohl (until 1969). This economist imposed the interests of the state's communist political leadership, but he did push through the reform of the banking system in the period of the so-called Prague Spring. He was replaced for a short period in the 1950s by the orthodox marxist, Jaroslav Kabeš.

Proposals for the reform of the banking system, specifically for the reinstatement of the two-tier bank system and the strengthening of the economic functions of loans and interest, appeared from the mid-1960s. The intended changes even included the creation of three issuing banks, specifically a federal, Czech and Slovak bank. These changes were rejected by the political

8 The book uses the provisional name the “Slovak State” for the “Slovak Republic”.

leadership of Czechoslovakia as part of the political developments from 1969 in the period of the so-called normalisation. The system of the federal monobank *State Bank of Czechoslovakia* (led by Svatopluk Potáč after 1970 and followed by Jan Stejskal in 1981) continued.

The development from the second half of the 1980s onwards headed in the direction of reforms which had been evoked by so-called perestroika. The contents of these reforms included raising the significance of banks and institutions in the socialist economy and a return to the tradition of two-tier banking (a central bank – commercial banks). These reforms were implemented by the new *State Bank of Czechoslovakia Act* which was adopted at the end of 1989. The change in the political system also led to a change in the central bank. A new law from 1992 enshrined the standard principles for the activities of the central bank in the market economy, such as the implementation of monetary policy and securing price stability, emissions activities and the coordination of the payment system and clearing between banks, all independently of the government. The separate *Czech National Bank* was also established along with the separate Czech Republic at the beginning of 1993, while the separate Czech currency was established five weeks later. At that time, the central bank was led by the governors Josef Tošovský, Zdeněk Tůma and Miroslav Singer.

Two subchapters at the end of this chapter are worthy of special attention. The first is called "*Fight for the CNB's independence at the run of the millennium*". Attempts at weakening the independence of the CNB have manifested themselves in three ways: 1) in an attempt to make the appointment of the governor of the CNB by the President of the Republic subject to the Prime Minister's countersignature, 2) in the efforts of some deputies to introduce a legal obligation for the CNB to consult its monetary policy (inflation target, regime of exchange rate) with the government and 3) in a proposal to have Parliament approve the CNB's operating and investment budget. All of these efforts have been rejected by the Constitutional Court of the Czech Republic. The subchapter on "*New challenges: macroprudential policy v. consumer protection supervision*" is also worthy of special attention. Macroprudential policy means taking care of financial stability. The increased attention paid to financial stability (put simply, this involves supervision of the prudent behaviour of commercial banks) is a consequence of the financial crisis of 2008–2013. The CNB has no problem with performing this role. Consumer protection, i.e. supervision of consumer loans and the expansion of financial literacy, on the other hand is a task which it has been forced to take up and which it would prefer to leave to another regulatory institution.

The third chapter entitled *Money of the issuing institution* accounts for the largest part of the reviewed publication (around half). This involves a very detailed description of the development of the paper money (banknotes, state notes, certificates) issued by the central bank from the establishment of Czechoslovakia through to the present (only marginal attention is paid to coins). The interpretation is devoted to all the circumstances pertaining to the creation of this money ranging from the artistic designs and the procedures during the selection of designs through to the graphic processing (including the names of the artists and graphic designers) and on to the technical parameters of the money. The book includes more than 300 pictures of Czechoslovak and Czech paper money.

This section of the book will be especially welcomed by collectors of paper money (this area of collection is known as *notaphily*). From this point of view, it is a pity that only minimum attention has been paid to the rarest Czechoslovak paper money, specifically the 5000 Czechoslovak korunas dating from 1919, of which only 36 pieces have been preserved and whose price in the collector's market is currently in the area of 2–3 million korunas. In general, however the money from the period of the First Czechoslovak Republic has been described in great detail, unlike the period of the Protectorate of Bohemia and Moravia which is deserving of greater attention. The most extensive interpretation in this chapter has been dedicated to the period of the so-called socialist republic when the ideological motifs of the banknotes were considered at great length by the leadership of the ruling Communist Party. The attentive reader will find entertaining commentaries from the political leaders there. One example involves the replacement a Czech tractor with a Soviet threshing machine (the 500 Czechoslovak korunas banknote dating from 1952, but in the end this banknote was not issued) or the portrait of Jan Žižka who, according to President of the Republic Antonín Zápotocký “he did not have a dignified character and looked more like a vagrant” (page 280; however, the portrait remained on the 25 Czechoslovak korunas banknote from 1958).

The chapter on the history of paper money ends with information on the contemplated preparation of a new set of Czech banknotes in a more modern form than the current banknotes. This form has been indicated by the commemorative 100 Czech korunas banknote of 2019 which was issued upon the occasion of the 100th anniversary of the independent currency. It is the subjective opinion of the author of this review that the artistic realisation of this banknote (the motifs and colour) has not been a complete success.

In conclusion, it is necessary to repeat that the reviewed book provides a high quality and detailed description of the historical development of the currency and monetary policy. Its authors are due well-deserved recognition for having done so. However, the opinion on the further development of the Czech currency within the context of the development of the euro area and the Czech economy gives rise to confusion. An alternative does exist, namely the first step towards accession into the euro area. This involves the “Danish scenario” where the Czech koruna would join the ERM II without a fixed date for the introduction of the euro.⁹

9 This so-called “technical entry” into the ERM II is discussed in the analysis *Česká republika a eurozóna (Sekce pro evropské záležitosti Úřadu vlády České republiky, listopad 2017 [The Czech Republic and the Euro Area, Section for European Affairs of the Office of the Government of the Czech Republic, November 2017].*

History and Perspectives of the International Monetary System

Historie a perspektivy mezinárodního měnového systému

VLADISLAV PAVLÁT

Petr Sedláček: *Mezinárodní měnový systém a globální finanční krize [The International Monetary System and the Global Financial Crisis]*. Professional Publishing, Prague, 2018. 231 pp.

In the contemporary globalizing world, the position of all small export-oriented countries is highly sensitive to all manner of events in the monetary domain. Manufacturers and exporters know all too well that they cannot get by simply producing goods, but must also sell them abroad in order to avoid losses due to frequent changes in exchange rates, increasing demands in export procedures, worsening payment conditions resulting even from economic fluctuations, and deteriorating competitiveness. The result is the current increase in risks, including monetary risks. The external economic, financial, and monetary relations of small export-oriented countries, which include the Czech Republic, are exposed every day to a range of pressures that must be addressed with a well thought-out selection of various tools of regulation.

The position of each country in the world economy is co-determined by the existing international monetary system. This system was exposed in the first decade of the 21st century to the grueling tests of the global economic and financial crisis, from which it recovered only with relative difficulty.

A recently published book by Petr Sedláček *The International Monetary System and the Global Financial Crisis* comes at the exact right time for numerous reasons. First, among the Czech economic literature covering the above topics, this is the first academically funded Czech book published since the outbreak of the global financial crisis that seeks to break down and methodically interpret basic changes in the international monetary system within the context of the consequences of this crisis. While countless various popularizing articles were published during the course of the ongoing crisis, and a number of papers in professional journals, they all focused for the most part only on individual topical questions without deeper analysis. Second, with its contents, scope, and method of explaining difficult problems, this book creates the prerequisites for employees of central authorities of state administration, employees of private institutions, and university students to become more familiar with the topic of monetary system reform (Introduction, p. 9).

The overall focus of the publication is poignantly expressed in its Introduction: "The goal of this book is to demonstrate the extent to which it has been possible to carry out proposed reforms to the current international monetary system as effective prevention against global financial crises." (p. 8)

In keeping with this stated objective, the book is divided into two sections. The commentary in the first section (International Monetary System) logically begins with a definition of the term “international monetary system” (Chapter 1) and continues by describing the historical development of this system (Chapter 2). The first section also contains an explanation of financial and currency crises and their impact on the gradual creation of an international monetary system (Chapter 3). Basic information about the international monetary system is concentrated in the first section of the book, along with information about the changes prompted by the global crisis that led to the need for significant reforms to the postwar system rooted in the Bretton Woods Agreements.

The second section of the book focuses on the reforms of the individual parts of the international monetary system. The problems of the seven components of the reform are each analyzed in turn: questions on the global administration and management of this system (Chapter 4), oversight and coordination of national policies (Chapter 5), exchange rates and exchange rates regimes (Chapter 6), global imbalances (Chapter 7), management of capital flows (Chapter 8), the global financial rescue network (Chapter 9), issues of international currencies (Chapter 10). The last part of this commentary summarizes the primary directions of the reform (Chapter 11). In each of these chapters, basic facts about the given circle of problems are summarized, including how the problem developed and the directions the reform has taken toward solutions. In this way the reader gradually becomes familiar with a number of unsolved questions that will need to be further explored and resolved in the future.

The Conclusion of this publication aptly summarizes in a few pages (pp. 208–211) facts about the main tendencies of the development of the international monetary system and the individual constituent elements of its ongoing reform analyzed in the individual chapters of the book.

Here experts will welcome the effort underlying the commentary in the entire book, namely the effort to characterize the ongoing reforms objectively while not ignoring their existing drawbacks, problems, and unsolved questions. The magic of this positive criticism consists partly in the fact that while the causes of the defects are identified, nonetheless the architects of unsuccessful measures are not lambasted, having made their decisions out of firm belief in their opinions.

Certain results of the reform thus far (substantiated by criticism of the negative impacts of the crisis) now resound very positively and hopefully, such as the dulling of the edge between implementing domestic policy and system stability and elevating global cooperation as a condition of system stability. Certain other moments of the reform communicate serious warnings for the future, such as a warning against the potential consequences of failing to grasp the need for more effective cooperation while managing capital flows and mitigating the risks arising from the dismal state of the balance of payments of numerous countries; indeed, many members of the International Monetary Fund (IMF) have yet to come to terms with this necessity. Another potential hazard is the continued dominance of the US dollar and the lack of foreign exchange reserves. One challenge for the future is to significantly enhance international coordination of regulatory measures: it is now time to come to terms with “overregulation” and simplify

the excessive complexity of the strict regulations introduced in an effort to prevent the outbreak of crisis and other disorders of the international monetary system.

It is possible that certain readers will not find a position in the book on certain new phenomena such as cryptocurrencies, a topic on which a relatively extensive body of literature is emerging. And yet the discussion of these topics continues and it is still far from decided as to whether or not cryptocurrencies will need to be regulated in some way for the sake of investor protection.

Among the strengths of the reviewed book, it is necessary to point out the breadth of its scope, as reflected in its cited literature. Despite its highly condensed content (a mere 200 or so pages), the publication cites 200 sources (international sources comprising the absolute majority; out of Czech authors, only the work of M. Helísek,¹ M. Mandel and V. Tomšík,² P. Sedláček;³ perhaps these could have included the book by E. Němeček, *Mezinárodní měnový systém – otázka konvertibility, stability a likvidity* [*The International Monetary System – A Question of Convertibility, Stability, and Liquidity*] (2000) or the book by O. Dědek, *Historie evropské měnové integrace – od národních měn k euru* [*The History of European Currency Integration – from National Currencies to the Euro*] (2008). About 40 works are drawn from International Monetary Fund documents and several dozen works by authors from the ranks of former IMF chairs (such as B. Bernanke) or current employees of this fund (published in the IMF Working Papers).

The intent of authors Petr Sedláček and Mojmír Helísek (author of Chapter 10.2 and co-author of Chapters 3.1 and 9.3) seems to be an effort to fit as much basic information as possible into a small space in compressed format; apparently they have acknowledged the unfortunate reality that the number of potential readers of a book often varies in indirect proportion to the number of its pages. In some places of the publication, the effort toward economical expression has yielded somewhat of an abbreviated “encyclopedic” style of writing.

Extremely responsible relationship to the terminology related to the subject matter ranks among the strengths of this publication. The publication is free of the excesses that tend to overrun some certain essays in which English terms are included without adequate Czech translations. This book contains 22 “boxes” featuring apt explanations of certain terms that are often misused (e.g. moral hazard, stigma, etc.). In some places the book warns points out contrasting definitions for certain important terms (see for example p. 11 – the term “international monetary system”).

The publication features the standard “accessories” of academic publications – it is not lacking in a list of abbreviations, a list of tables and boxes, a glossary (which could even

1 HELÍSEK, M (2004) *Měnové krize (empirie a teorie)* [*Currency Crises Empiricism and Theory*]. Professional Publishing.

2 MANDEL, M. a V. TOMŠÍK (2011) *Regulace bankovního sektoru z hlediska ekonomie* [*Regulation of the Banking Sector from the Economic Theory's Point of View*]. *Politická ekonomie* 1/2011.

3 SEDLÁČEK, P. (2008): *Mezinárodní měnový fond ve 21. století* [*International Monetary Fund in the 21st Century*]. C. H. Beck; a další publikace tohoto autora.

be broader) or an English summary. The book is the outcome of the long-term interest of its main author and his longtime employment in the Czech National Bank (in the EU and international organizations department). The sections of the text authored or co-authored by M. Helísek are based on the results of a research project supported by the Czech Science Foundation (the project *New sources of systemic risk in financial markets*, 2016–2018).

If it weren't for the problems in Czechia with financing academic publications and the new copyright law and its interpretation, I would recommend publishing the book in electronic format and posting it as training material for employees of central authorities as part of the digitization of state administration; it would be appropriate to post the English translation of the reviewed publication online as a college-level handbook for study on the webpages of interested Czech universities, following the model of certain American universities implementing modern forms of training.

The reading of the reviewed publication – in my opinion – brings all different categories of readers not only a great deal of new things, but also a guide to how very complicated questions can be explained clearly and understandably.