



Proceedings of the
15th International Scientific Conference:

European Forum of Entrepreneurship **2022**

“Coronavirus Pandemic Effects on the Economy in 2022:
A Challenge or New Opportunities?”

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NEWTON College
Prague, April 2022

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European Forum of Entrepreneurship 2022

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All submitted scientific papers are subject to a double-blind peer review process.

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ISBN 978-80-87325-58-2

Publisher: NEWTON College, a. s., Politických vězňů 10, 110 00 Praha 1, Czech Republic

Published on April 2022.

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Publication was not subject to language check.

General info about Proceedings of the 15th International Scientific Conference

European Forum of Entrepreneurship 2022 (24. 3. – 26. 3. 2022)

NEWTON University, Prague, Congress Centre

“Coronavirus Pandemic Effects on the Economy in 2022: A Challenge or New Opportunities”

Ongoing Coronavirus Pandemic affects world economies in previously unimaginative ways. However, thanks to new investment priorities, overall industrial transformation and the application of innovative business models, new economic opportunities have emerged. As the world carries on its vaccination efforts to combat COVID-19, will the economy continue its rebound and recovery in the upcoming year?

The aim of this year's conference is to create a space for open international discussion of domestic and foreign experts on the topic of economic development and growth in connection with the ongoing pandemic COVID-19 and its impact on the economy in 2022.

Socio-economic development of the Czech Republic and EU countries will be discussed in the context of new challenges and opportunities in the following sectors: Leadership – leadership and company culture, specifics of leadership in the global and Czech context, Management Innovations – latest trends and innovations in management, and Business Acceleration – Can a university accelerate business?

For more information please follow the website of the conference: <https://www.efp.cz/en/>

Conference Programme 2022

24. 3. – 26. 3. 2022, NEWTON University, Prague, Congress Centre

24. 3. 2022 NEWTON University, Prague

Arrival

25. 3. 2022 NEWTON University, Prague

09:00–10:00 **Registration**

10:00–10:15 **Welcome Speech**

Jiří Koleňák: *Vice-Chancellor for Strategy and Development*, NEWTON University

Anna Plechata Krausová: *Vice-Chancellor for International Relations*, NEWTON University

10:15–10:35 **Opening Keynote**

Jerome Dumetz: *Cross-cultural Management Consulting Professor: How Cross-Cultural Management Methods Can Help Understand Political Risk in Business*

10:35–11:30 **Czech Session I**

Lukáš Valeš: *Leadership in Politics and Public Administration*

Jiří Nesiba: *Development of “working-from-home economy” in municipal sector*

Viktória Parobeková: *Women in Management*

František Müller: *Efficiency in the home office – risks and opportunities*

Karel Lehmert: *The End of Covid Crisis – Lessons Learned and Time to Prepare for Future Events*

10:35–11:30 **English Session I**

Chris Chung-Jen Chien: *Righting the wrong: How paternalistic leadership transforms team conflict into team performance*

Jakub Wondreys: *Victims or Beneficiaries of the Pandemic? The Impact of Covid-19 on the Electoral Performance of the European Far-Right*

Alexandra Zhreb: *Access to the Czech ICT labor market for the Third Country Nationals before and during the COVID-19 Pandemic (difficulties, challenges and the new opportunities)*

Ludomír Šlahor: *Validation of the Markowitz's Investment Portfolio Theory Under Specific Capital Market Conditions*

11:30–12:30 **Lunch Break**

12:30–14:00 **Czech Session II**

Margareta Křížová: *University as a Acceleration Business Hub*

Roman Dont: *Leadership Development at University of Defence: Students' perspective*

František Francírek: *The Potential for Usability of Theses*

Zdeněk Mikulka: *Moral Decision-Making in Conditions of Social Isolation*

14:00–14:30 **Coffee break**

14:30–14:50 **Closing Keynote**

Michael Brophy: *President of Hilbert College: Educational Leadership*

14:50–15:15 **Czech Session III**

Katarína Maisnerová: *Civil execution in the post-covid period. Trap, revolution, or challenge?*

18:30 **Social Networking Reception**

12:30–14:00 **English Session II**

Sylvia Plottová: *Motives and Barriers to IPO Implementation in the CEE Region Conditions*

Petr Zimčík: *Space tourism in the midst of the Covid-19 epidemic*

14:50–15:15 **Networking**

26. 3. 2022 Illusion Art Museum Prague

10.00–10.30 **Closing Ceremony, Museum tour**

Prologue

Dear colleagues,

I am thrilled to be participating in this forum for the first time, in my role as the Vice-Chancellor for International Relations here at NEWTON University. This is a momentous occasion for me for many reasons, including the fact that we get to showcase the research taking place at our university at the moment to some of our new international partners, and to bring their insights to everyone here at NEWTON.

This year, our annual conference cannot but mention both the pandemic and the war in Ukraine. While we all hope that both are in their final moments, the pandemic continues to affect world economies, businesses and political institutions in previously unimaginative ways, although not always as much as might have been expected. And as we're getting out of a pandemic that brought the national state back to centre stage and undermined European cohesion, Putin's invasion of sovereign Ukraine continues and pushes us to think about and engage in international cooperation and solidarity again.

And to think that when I was studying for my bachelor's degree at the London School of Economics more than 10 years ago, we were reading Francis Fukuyama's *The End of History*!

So we are here today to create a space for reflection for local and international experts on a wide range of topics that share a common theme: how do we deal with new economic and political challenges in a post-pandemic world. And usually with a business-oriented twist.

The opening keynote, delivered by our very own Dr Jerome Dumetz, will bring us insights based on decades of experience in teaching and practising cross-cultural management. The risk management strategies that emerge from expertise in communication between different cultures are key in an increasingly volatile world.

The closing keynote of today's conference will be delivered by Dr Michael Brophy, President of Hilbert College in the US. His talk will focus on educational leadership. This is of course a central concern of all of us here today.

On a more uplifting note, I'd also like to welcome everyone attending the NEWTON Business Summit today; I especially hope that today's keynote lectures will stimulate your intellectual curiosity for all your future academic and professional endeavours.

Anna Plechata Krausova, Ph.D.
Vice-Chancellor for International Relations,
NEWTON University

Economic impacts of extremely low interest rates and their influence on the development of the world economy and human society

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* 1. Introduction

In economic terms, interest represents the price of money, or the price of financial capital. From the borrower's point of view, it is the price (cost) that the entity pays for lending it; from the lender's point of view, it is a monetary reward. That is, the interest rate represents the percentage increase in the amount borrowed over a certain period of time; or how many extra monetary units the borrower has to pay to the lender for lending a certain amount for a pre-agreed period of time (Mishkin, 2016).

The amount of interest is usually expressed by the interest rate, which represents the increase in the amount borrowed (capital) over a certain period of time, and is therefore the essence of the time value of money principle. And it follows that under "normal" circumstances (or in a functioning market economy and assuming the use of commodity or covered money), interest must be positive (or exceptionally zero). However, it must never be negative, which is based on the fact that no economic agent would ever lend gold or any other

(valuable) commodity on the condition that it would still have to pay (interest) itself.

However, it has now come to pass that, especially in the 'most economically developed countries of the world', extremely low interest rates have existed for many years, and in many countries even negative rates can be found. Moreover, this is not just an emergency or temporary and therefore short-term use, but a long-term, permanent situation. And this fact is very significant and high-risk (Urbánek, 2015) and is therefore also the reason why it is important to look at the issue in more detail.

2. Interest as a fundamental factor in the functionality of financial markets

It is demonstrable that virtually all forms of monetary regulation carried out by central banks are closely related to the interest rate factor, or that interest rates are crucial in them. The level of interest rates has a significant impact on the development of the value of individual (mainly financial) investment instruments and on the performance not

→

only of commercial banks and other financial institutions but also of all other economic agents in a given economy.

As long as national economies operated without major macroeconomic intervention and used commodity money (or, later, fiat currencies backed by gold), the amount of money in circulation was limited and interest rates were market-determined. And as stated in “The Classical Theory of Interest Rates” (ROSE and MARQUIS 2009), this was the “long-run equilibrium market interest rate”. And it was also significant that the purchasing power (or rates) of individual currencies was simply and transparently determined through conversion via commodity money or gold. Later, when, after the move away from the gold standard and especially after the abolition of the Bretton Woods monetary system, only completely unbacked “fiat currencies” began to be used worldwide, the situation began to change radically. Not only did central banks begin to gradually increase the money supply, but as a result of the elimination of gold as a single globally recognised valuation commodity, individual currencies began to trade directly with each other on the foreign exchange markets, the exchange rates of individual currencies began to be manipulated on purpose. And, as “The Loanable Funds Theory” (ROSE and MARQUIS 2009) demonstrates, the intended changes in exchange (especially foreign exchange) rates are most easily achieved through the purposeful setting of interest rates. Therefore, interest rates can generally be considered the most important instrument of monetary regulation (nowadays also often used to wage so-called “currency wars”).

However, excessively high interest rates (which would not be in line with current economic needs) are rather rare. This is because they hold back the economy from developing and hinder economic growth. Last but not least, it is also because rising interest rates devalue the vast majority of (already existing) mainly financial but also real investment instruments (REJNUŠ 2014) and at the same time make the situation more difficult for over-indebted

economic entities, regardless of whether they are households, firms or the state (including municipal or other public institutions). It follows that when it comes to the purposeful raising of interest rates by central banks, it is usually done only for the following reasons:

- Either in the event of too high inflation, to which an immediate response is needed,
- or in an attempt to strengthen the domestic currency or, where appropriate, to prevent it from falling.

In view of the above-mentioned negative effects, these measures are usually only temporary or as short-lived as possible.

However, cases of targeted interest rate cuts are much more frequent than targeted interest rate increases. This is because low interest rates increase consumer spending (even by indebted entities), encourage business investment and, last but not least, make it easier for the state, municipalities and all other institutions to manage. It follows that central banks seek to reduce interest rates on purpose, especially in these situations:

- when inflation is too low or when deflation is imminent,
- or when the economy is in decline and needs monetary support,
- to weaken the domestic currency or, where appropriate, to prevent it from appreciating,
- or, as the case may be, when waging currency wars.

It is clear that all of these different reasons are interrelated, which leads central banks, as a rule, not to be in a hurry to stop cutting interest rates on purpose, as opposed to raising them.

3. Analysis of the historical development of world interest rates and contemporary reasons leading to their extreme reduction

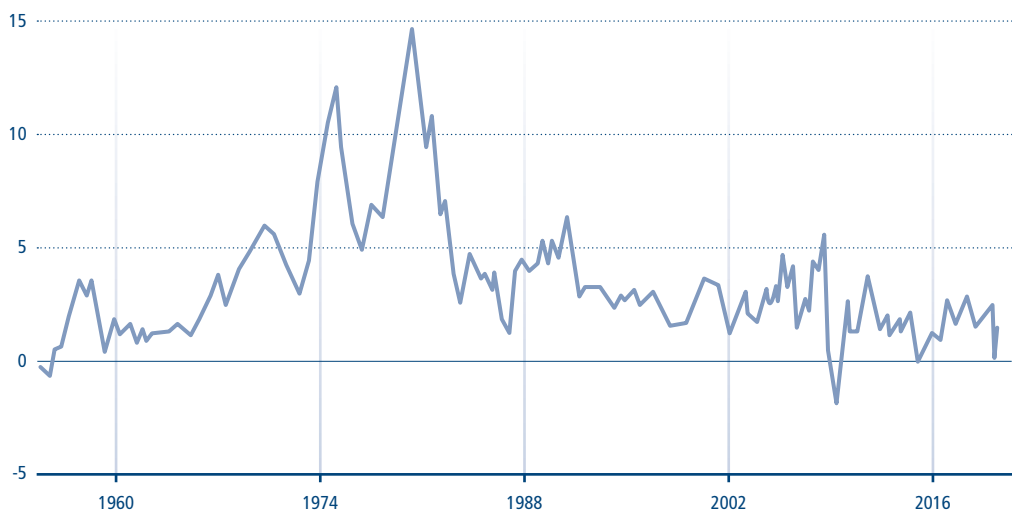
Influencing interest rates has always been one of the basic methods of monetary regulation used by central banks to fulfil their mission, i.e. to maintain price stability and a reasonable exchange rate

Figure 1 » Evolution of the United States Fed Funds Rate over the last 65 years [% p.a.]



Source: Federal Reserve Bank of St. Louis, (2022)

Figure 2 » Inflation in the US over the last 65 years [%]



Source: Trading economics, (2022)



of domestic currencies against foreign currencies. And as the various interest rate theories show, until recently only positive interest rates were ever considered, with negative rates generally considered impossible. In recent decades, however, central banks have been using ever lower, or in some cases even negative, interest rates, not just exceptionally, but on a long-term basis. This was not contemplated in the recent past, and any extreme reduction in interest rates to near zero or even negative levels was considered a high-risk crisis measure, applicable only for a strictly necessary period of time. However, this is no longer the case today and this type of monetary policy (and, strangely enough, this applies especially to the so-called ‘most economically advanced countries’) is becoming increasingly common and, above all, a long-term reality.

This, of course, raises a fundamental question: what is the right level of interest rates? And while it is easy to answer this question in general terms by saying: the “right” setting of central bank base interest rates should reflect the current economic situation, it is nevertheless important to determine what dimensions central bank interest rates should normally fall within? And since the US dollar (USD) has clearly been the dominant world currency from the end of the Second World War until the present day, it seems appropriate for this purpose to analyse the long-term (in this case, about fifty years) evolution of the main US central bank interest rate, which is the “United States Fed Funds Rate” — see Figure 1 below:

It is clear from the above figure that, historically, US interest rates have moved within a fairly wide range, always closely linked to current inflation, as shown in Figure 2 below:

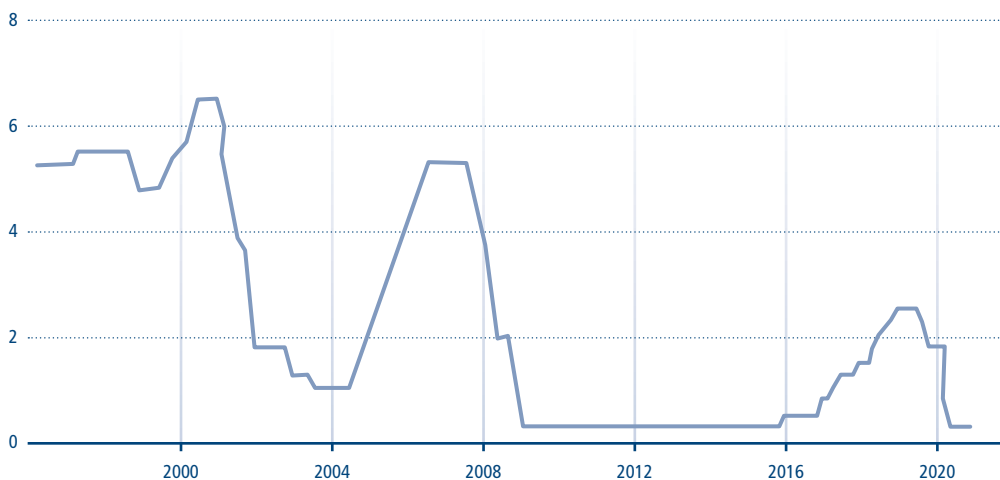
But now let us proceed to a more detailed analysis of the development of interest rates of the world’s most important central banks in the last 25 years, namely the USA — see Figure 3, and then the Eurozone, Japan, Great Britain and Switzerland — see Figure 4, which have five so-called major world currencies.

Figure 3 shows that since 2000 there have been three major events to which the US Federal Reserve has been forced to respond by sharply lowering its interest rates, which have fallen substantially over the last 25 years from a normal range of around 4–6% p.a. to today’s 0.25% p.a.

The significance of Figure 4 is illustrated by the fact that in the contemporary globalised world economy, individual national and so-called supranational economic systems are very closely intertwined with the US economy and thus all world currencies are closely interconnected. And since the US dollar is still the most important world currency, it is obvious that the monetary policy of the Fed (The Federal Reserve System) has a major impact on the monetary policy of other central banks, which also applies to the development of their (base) interest rates. However, it will be necessary to analyse in more detail the period of the last twenty years or so, during which the three significant worldwide declines in the level of interest rates already mentioned are evident, which have led to the current extreme situation of extremely low or even negative interest rates for most of the major central banks.

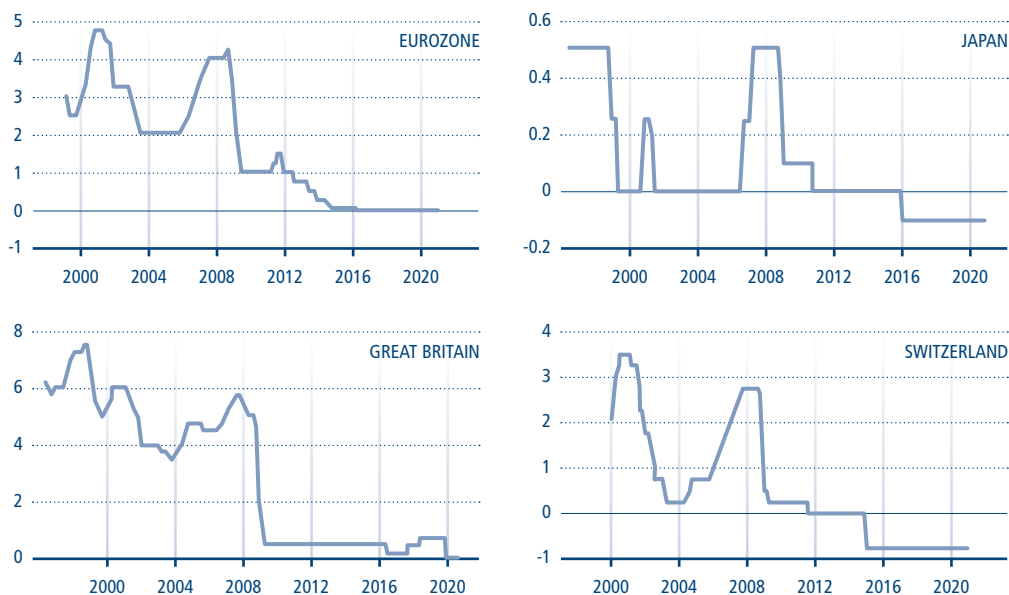
The first significant fall in interest rates took place in 2001, when, after about ten years of calm in the world economy and, consequently, after the long-term growth of the US stock markets in particular, the speculative bubble on the US NASDAQ burst, which was caused both by overconfidence in new technologies and by highly inflated investor expectations of profits for companies in this sector. The NASDAQ-Composite index, which had risen significantly before and even surpassed the 5000-point mark in March 2000, subsequently collapsed unexpectedly to below 1500 points. Although other stock market indices did not fall as much, it is nevertheless estimated that US stocks lost about USD 6 trillion in value (market capitalisation) during this period, with the threat of a serious economic crisis. This is why the US central bank (but also the central banks of other economically developed countries) began to cut their inter-

Figure 3 » Evolution of the United States Fed Funds Rate over the last 25 years [% p.a.]



Source: Trading economics, (2022)

Figure 4 » Eurozone, Japan, UK and Swiss prime interest rates over the last 25 years [% p.a.]



Source: Trading economics, (2022)

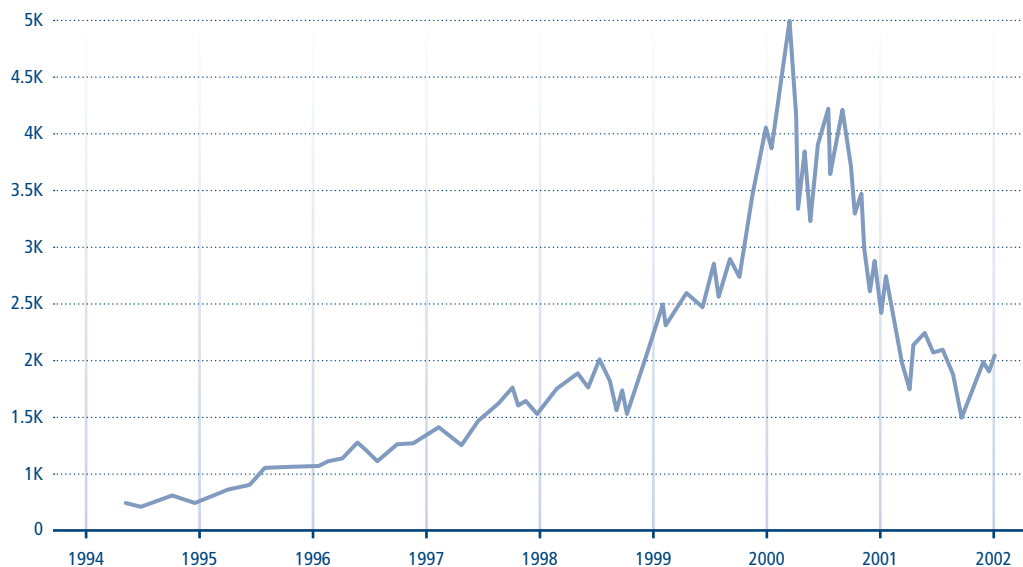


est rates sharply. The reasons for this sharp fall in the stock markets can also be seen in the fact that at that time there was an extremely rapid development of Internet trading, which allowed many new inexperienced investors to start trading on the stock exchange. This was compounded by extremely intensive targeted advertising, which gave rise to an extreme optimism that initially brought all market participants high returns on their investments. This subsequently developed into a huge buying frenzy that drove virtually all share prices (often even for almost worthless shares) to extraordinary heights. And then the other main factors were the so-called financial engineering that initiated the creation of new types of securitized bonds (Rejnush 2004), as well as various frauds – signifying the failure of regulation and supervision of the US capital market. The emergence, development and bursting of this speculative bubble are illustrated in the following Figure 5.

The second significant fall in interest rates oc-

curred at the end of 2008 and then in 2009. The underlying cause was the bursting of an even more significant equity speculative bubble, which, however, arose from problems in the mortgage market. Its root cause was the disproportionately high debt levels of US households in particular, which were caused, firstly, by the US Fed keeping interest rates very low in the economy for a relatively long period of time after the previous stock market crash and, secondly, by the fact that bank managements, in order to maximise their profits, allowed money to be lent out without scrutinising the ability of customers to repay their loans. This was particularly the case in real estate lending, where mortgages were granted even to those citizens for whom it was clear in advance that it would be very difficult or even impossible to repay the loan. This gave rise to many subprime mortgages in the US – known as ‘subprime mortgages’ – which later became a major problem for the US (and subsequently the world) economy. The situation became

Figure 5 » Evolution of the NASDAQ-Composite stock index from 1994 to 2002



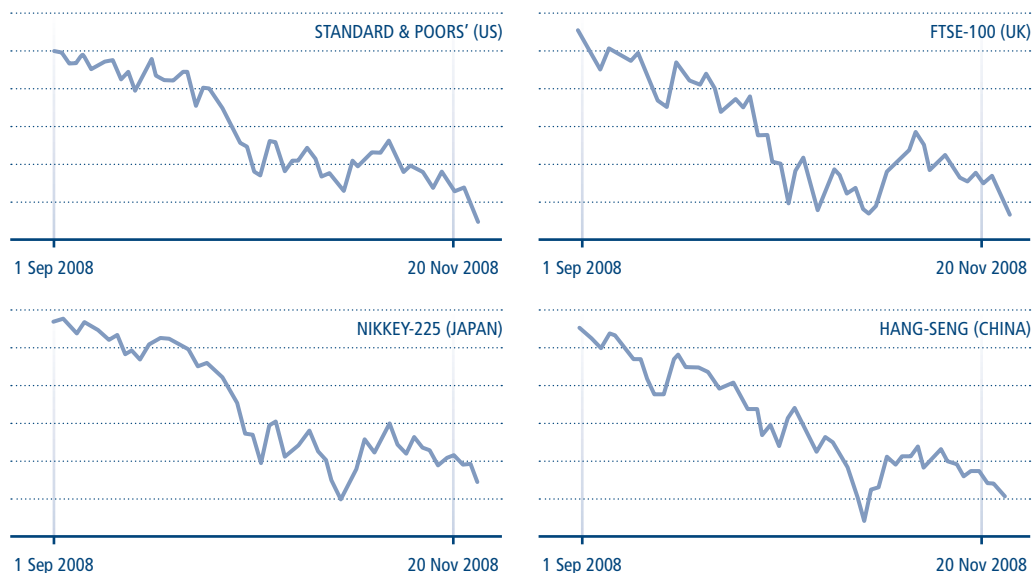
Source: Yahoo, (2022)

serious when, in 2004, the US Federal Reserve ended its policy of low interest rates and started to raise interest rates as a result of existing inflationary pressures (raising the base rate from an initial extremely low level of 1% p.a. very quickly to 5.25% p.a. in 2006). This was subsequently reflected (albeit with a time lag) in the rise in commercial bank interest rates and hence in mortgage rates. For the latter, both the interest rate on new mortgages and the size of repayments paid by existing borrowers (especially those who took out mortgages with only short-term fixation) increased. This resulted in the bursting of the real estate bubble in the summer of 2006, which manifested itself as follows:

- The interest in acquiring houses fell dramatically and, at the same time, the demand for mortgage loans fell significantly.
- The fall in demand for family houses led to a surplus of houses, which initiated a drastic fall in house prices.
- The economically weaker families were unable to meet the mortgage repayments prescribed (also in the context of the existing extremely high energy and fuel prices), which led to a sharp increase in the number of households losing their houses.
- As a result of the increasing number of defaulted (or only partially defaulted) mortgages, banks started to run into liquidity problems, which increased the riskiness of the securities they issued.
- Mutual distrust between banks developed, leading to a situation where they stopped lending to each other, and the interbank market began to collapse.
- As many other (non-bank) financial institutions were involved in the purchase of CDS, the crisis spread throughout the financial system.

The disturbances described above started first in the US, but as a result of the interconnectedness of the financial systems of the different countries

Figure 6 » Performance of the major stock indices of the US, UK, Japan and China from 1 September to 20 November 2008

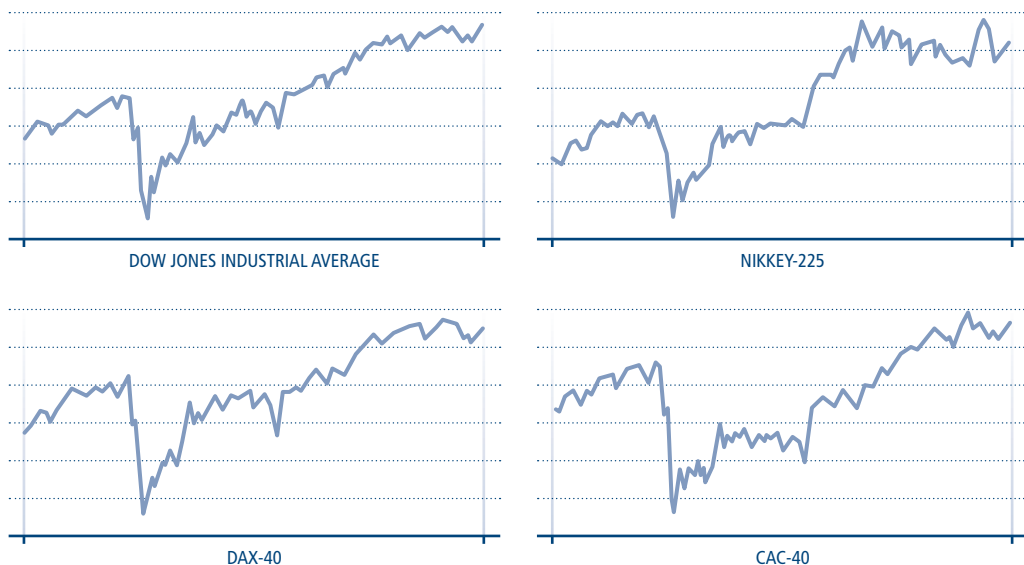


Source: Yahoo, (2022)





Figure 7 » Sharp decline in the Dow Jones Industrial Average, Nikkei-225, DAX-40 and CAC-40 global stock indices in March 2020



Source: Guidants, (2022)

and the investment of many foreign financial institutions in US securities, they spread very quickly around the world. Despite the fact that the US Federal Reserve, and subsequently the US Government and subsequently the central banks and governments of all the countries affected by the crisis began to implement very strong expansionary monetary and fiscal policies, they failed to prevent the mortgage crisis. In the second half of 2008, share prices on virtually all major world stock exchanges started to fall very sharply (see Figure 6 below) and many major banks, not only US banks, started to collapse (Rejnuš 2014). These were (if it was decided to save them) most often nationalized, with virtually all major central banks having to provide banks with needed liquidity due to the dysfunction of the interbank market. And in the wake of this, the outlook for the world economy began to deteriorate significantly, heading into recession.

The above developments have confirmed the

fact that the 2001 crisis has not yet been resolved, and that it has become a long-term chronic disease (which was de facto confirmed in the contemporary development of the world economy during the “coronavirus crisis”, which is the reason for the subsequent third decline in world central bank interest rates during the period under review). The third sharp cut in central bank interest rates in the last 25 years can also be considered very significant. This was due to the serious economic problems created by the emergence of a ‘global coronavirus pandemic’, to which national governments reacted by drastically curtailing economic activity (the so-called ‘lockdown’), to which stock market developments logically responded. This means that the ‘black swan’, or the cause that initiated this extremely sharp global decline in stock markets and subsequently caused a significant reduction in the functionality of the world economy, was not purely economic, but was primarily related to the health threat to the de facto entire world popu-

lation. The following figure demonstrates this very sharp fall in the stock markets of the US (DJIA), Japan (Nikkei-225), Germany (DAX-40) and France (CAC-40) stock indices, while the vast majority of other stock exchanges reacted similarly.

The following specific factors were characteristic of the situation:

1) The stock markets collapsed at a time when it was widely proclaimed officially that the global economic development was going well and would continue to do well in the future (while statistically, this was a long-term growth of stock markets and world GDP, lasting since 2008, or over 12 years). On the other hand, however, it was true that the actual state of the world economy was in a much worse state at this time. Indeed, the whole of the previous so-called 'successful economic period' had been built on very extreme indebtedness by national governments, businesses and households alike. It was also important that the so-called 'advanced economies' were the most heavily indebted. This was mainly due to the economic policies of their governments and central banks, which had long used unconventional crisis instruments of macroeconomic, usually mutually coordinated fiscal and monetary management, based on extreme indebtedness of governments, enterprises and households, without targeted cuts in interest rates (which in many cases reached negative levels). And despite the fact that they have thus achieved generally acceptable levels of economic growth in the medium term, this extreme macroeconomic expansion has significantly undermined the basic economic principles of a market economy, with some 'economists' justifying their extreme expansionary policy by saying that 'it is a new era and the old instruments of macroeconomic management must therefore be abandoned'. This has meant that: the world financial system has not 'healed' since the 2008 crisis, and the world economy has only functioned on the basis of further, increasingly extreme debt.

2) This fall in the stock markets did not come as a surprise, but was to be expected as a result of the gradually spreading coronavirus pandemic. This means that national governments and central banks could have prepared for it at least partly in advance.

The falls in stock prices on the world's stock exchanges were triggered by the initial discovery of the coronavirus outbreak in China by the Shanghai Stock Exchange, whose Shanghai Composite Stock Market Index had already fallen by 360 points (or about 12 %) during the second half of January 2020, only to almost offset this fall (as a result of the strict health precautions subsequently taken and the subsequent partial improvement in the health situation in China) quite quickly. However, this started a general global nervousness which, following the global spread of the pandemic disease, turned into a global investor panic, which culminated in the beginning of the second half of March, when this global stock plunge peaked. And, as the previous figure showed, all the stock indices shown in it fell between 30 and 40 per cent of their previous values, with other stock markets reacting similarly.

Following the general preparedness of governments and central banks, trillions more dollars were subsequently pumped into the economy, and interest rates, which had slowly begun to normalise before this crisis, have virtually fallen back significantly (in many cases into negative territory). In this way, despite the catastrophic economic results achieved during the first half of 2020, the governments of the so-called 'developed' countries in particular and their central banks managed to reverse the sharp fall in stock markets, which subsequently began to rise surprisingly sharply. The above figure shows that the US Federal Reserve (the Fed) has virtually abandoned any of its previous efforts to gradually raise its interest rates to standard levels, something that the European Central Bank (ECB) has not done, given the imminent bankruptcy of some Eurozone countries, and only addressed the whole situation by significantly



→ stepping up its bond purchases of the most vulnerable Eurozone countries (or QE), even though, unlike the US Fed, these were not only purchases of government bonds, but even of not always well rated corporate bonds.

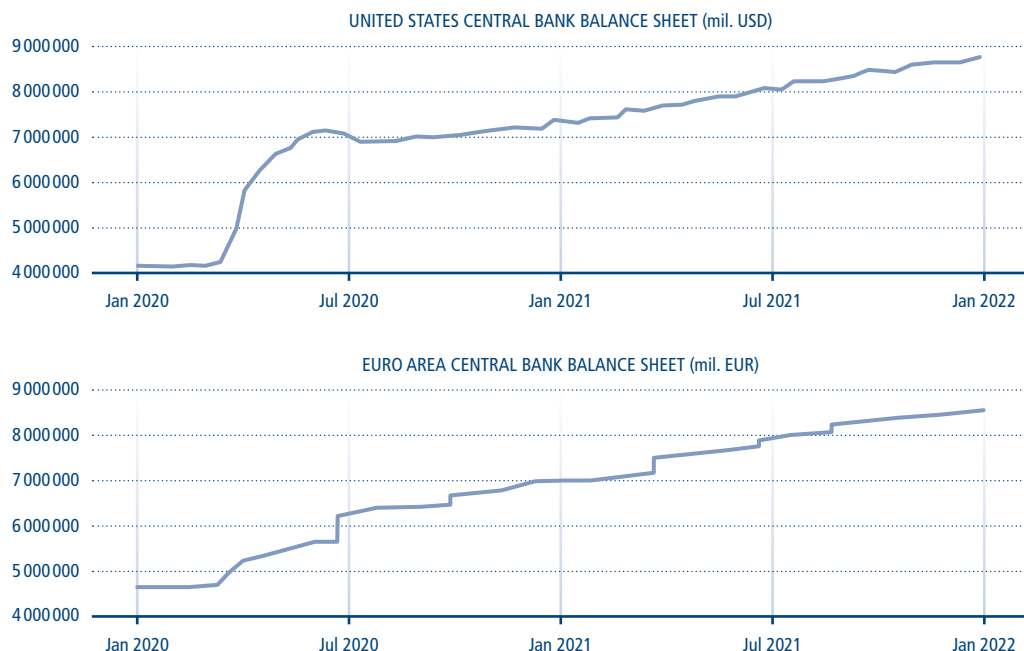
This fact is illustrated by the statistics on the growth of the US Fed's balance sheet, which increased its balance sheet by USD 4.5 trillion from January 2020 to the end of 2021 (from around USD 4 trillion to USD 8.5 trillion). And as for the ECB, it has increased its balance sheet by around EUR 4 trillion over these two years (from around EUR 4.6 trillion in 2011 to around EUR 8.6 trillion in 2021). EUR 4.6 trillion at the beginning of 2020 to EUR 8.6 trillion at the beginning of 2020. See Figure 8 below. And the vast majority of other central banks have done likewise.

On the basis of these crisis macroeconomic measures, implemented in a fairly coordinated manner by national governments and central banks or supranational economic communities, at the end of March 2020, the global financial market and the world economy were stabilised in the short term, but the long-standing unfavourable economic situation was by no means resolved. In fact, the problems of the world economy have only been compounded by the 'coronavirus crisis', and the existing problems have grown even worse.

So what is the significance of the 2020 coronavirus crisis for the global world economy and human society?

- It has demonstrated that the global economic crisis that erupted in 2008 has not yet been sat-

Figure 8 » The evolution of the US central bank (Fed) and European Central Bank (ECB) balance sheets over the period 2020 to 2021



Source: Trading economics, (2022)

isfactorily resolved and continues to persist, albeit somewhat covertly.

- It has given rise to inflation and, consequently, to the threat of possible deflation.
- It has undermined confidence in national governments, both in terms of people's distrust of compulsory vaccination and the real reasons for its imposition, and in the ability of the current leaders to govern countries properly.
- It has significantly worsened the existing economic relations in the world economy, disrupted global logistics and thus caused serious problems not only in production but also in transport.
- It has significantly deteriorated morale and increased distrust throughout human society.
- Furthermore, it has created a real and very likely precondition for another, even more devastating and not too distant global economic crisis.
- Last but not least, it has also significantly disrupted existing international relations and brought about the threat of major military conflicts, including the possibility of another world war.

As can be seen from the above figures, the Fed did manage this extraordinarily sharp extreme fall in the stock markets quite successfully, but since then it has kept its interest rates virtually at zero. And the European Central Bank, for example, has had virtually no other response at the time other than to increase the intensity of quantitative easing and to issue the very problematic so-called European bonds. And the other central banks of the so-called 'economically advanced countries' are in a similar position.

4. Analysis of the functional nature of mechanisms of targeted interest rate cuts

As regards the means of conducting the above-mentioned non-standard expansionary monetary policy based on targeted interest rate cuts, a number of interrelated instruments are used. In partic-

ular, these are the following types of monetary intervention:

- 1) Interest rate cuts announced by central banks;
- 2) Quantitative easing;
- 3) Extreme "money printing".

It can be shown that all these different sub-instruments work in the same direction to reduce the market interest rate in the financial system and thus in the economy.

4.1 Lowering of base interest rates announced by central banks

It is the purposeful lowering of interest rates by central banks themselves through the rates they themselves announce. Today, however, this is no longer "standard" monetary regulation, but rather the purposeful "extreme" compression of interest rates to zero or even negative values. And since commercial banks and, in turn, other economic agents must react to changes in central bank interest rates, and since all interest rates are interrelated, interest rates must necessarily fall throughout the economy.

4.2 Quantitative Easing

Quantitative easing is a policy of financing governments through central banks. However, since the laws of most countries do not allow direct financing of governments by central banks, it is circumvented in this way. The government gets parliament to approve a new issue of government (usually long-term) bonds, which are primarily bought by commercial banks but then resold to the central bank. The latter pays the commercial banks (thus de facto returning their money to them) and includes the purchased bonds in its balance sheet. Thus, there is in fact an "indirect" financing of the government by the central bank (Finmag 2016).

Furthermore, this instrument is specific in that the government saves interest, which, although formally paid until the maturity of the bonds in question to the central bank, which then transfers



→ it back to the state budget; on the other hand, the money spent by the government is inflationary. This is the difference with the traditional sale of government-issued bonds to external investors, who keep the interest, but because they buy the bonds with their own money, no new money enters the system and therefore does not cause inflation. The risk here, however, is that if the owners of government bonds decide (e.g. as a result of an event) to sell these bonds, and there is insufficient demand for them in the bond market, their prices would fall, thereby increasing their yields. So, if the central bank did not start buying them in time and in sufficient quantities, the market interest rate would start to rise).

There are, however, other important facts to note in relation to the implementation of quantitative easing. Firstly, that it may not only be purchases of government bonds, but possibly also of bank, municipal or corporate bonds. And it may not be just conventional bonds at all, but also various types of structured bonds. More recently, some central banks have even been buying shares (directly or indirectly), thereby partly influencing trading on the stock exchanges (this is 'quantitative easing in the broader sense'). Secondly, it is also very significant that if the interest rates on newly issued government bonds were to fall into negative territory, the reasons for pursuing a quantitative easing policy would become meaningless. It follows logically that the scope for using this form of monetary regulation is limited.

4.3 Extreme “money printing”

In this case, of course, it is not only about the classic printing of cash money, but primarily about the creation of deposit money. And these are not only created by central banks, but mainly by commercial banks (although they are limited by the currently set rules of banking regulation). And since an increase in the supply of money reduces its price (which is interest), it is clear that the intensity of the “printing” of money is another im-

portant factor reducing the level of the market interest rate.

5. Negative effects of extremely low or negative interest rates

Although it is often “purposely” stated that extremely low or even negative interest rates are good for the economy, this is not the case. They can only be beneficial in exceptional and short-term emergency use, when their use can prevent extreme economic losses. However, when used for longer periods, they are very negative, with a number of interrelated negative consequences, most notably:

1) Suppression of the market allocation of available cash resources to the most profitable investment projects: the point is that if companies do not have to pay interest on borrowed funds, by not bearing the interest costs they often invest in underperforming investment projects that can easily become loss-making, which can subsequently affect their creditors. And it is not just businesses, but all kinds of economic entities, including state or municipal institutions or non-profit organisations, which can quite easily promote economically disadvantageous projects and thus spend state or public money inappropriately.

2) Suppression of interest in saving or investing in debt instruments: if savings do not bear adequate interest, savers will stop depositing their money in commercial bank accounts and will not invest it in bonds. Instead, they will start buying different types of alternative (financial and real) investment assets.

3) The emergence of speculative bubbles in the stock markets: low or even negative interest rates (accompanied by a surplus of newly “printed” money) force investors to start investing primarily in equities in the financial markets. This, however, causes their prices to rise significantly, leading to the creation of risky speculative bubbles, the possible bursting of which could cause serious economic turmoil or even an economic crisis in the future. Indeed, an important economic factor driving in-

terest in equities (but also in various types of real investment instruments) is that investors substitute low or even negative interest (or the normal return normally earned on debt instruments) for the expected increase in market prices (or capital gains). And it is also undeniably a very interesting fact that shares or physical gold and silver are often purchased by central banks themselves.

4) Encouraging further indebtedness of all kinds of economic entities: the point is that households, businesses and public authorities alike are no longer concerned with the obligation to repay their debts when interest rates are extremely low or even negative. They merely roll over, or settle old debts with new loans and pay off maturing bonds with the money raised from newly issued bonds. This in turn causes:

- Over-indebtedness of households: many households are “tempted” by the fact that low-interest “debts do not hurt” and so they continue to go into debt without care.

- Restrictions on normal bankruptcies and the creation of “zombie” companies: Low interest costs allow survive even “bad” firms that would normally have gone bankrupt long ago. This increases the number of highly indebted “zombie firms”, whose bankruptcy comes later. And as their over-indebtedness increases, this has even greater consequences for their creditors.
- Increasing indebtedness of governments in the vast majority of countries.

interest rates, national governments are no longer striving for balanced government budgets. This is because gradually declining rates allow them to seamlessly run up more and more debt, so that their policies focus on their re-election rather than on rational economic management. (The debt-to-GDP ratios of the world’s major countries at the end of 2019 and the preliminary outlook for 2020 are illustrated in the following table 1.)

At the same time, however, it should be stressed that the above figures refer only to sovereign debt,

Table 1 » Debt ratios of countries with a GDP greater than \$200 billion that are more than 60% of their GDP

COUNTRIES			DEBT/GDP		
ROK			countries		
			Debt/GDP		
ROK			ROK		
2020			2020		
2019			2019		
Venezuela	350 %	233 %	Brazil	89 %	74 %
Japan	266 %	238 %	Egypt	88 %	84 %
Italy	156 %	135 %	Pakistan	87 %	86 %
Portugal	134 %	117 %	Austria	84 %	71 %
Singapore	131 %	126 %	South Africa	80 %	63 %
United States	128 %	107 %	India	74 %	74 %
Spain	120 %	96 %	Israel	71 %	59 %
Canada	118 %	87 %	Germany	70 %	60 %
France	116 %	98 %	Finland	69 %	60 %
Belgium	114 %	98 %	China	67 %	57 %
Argentina	102 %	90 %	Colombia	63 %	52 %
(Euro Area)	98 %	84 %	Malaysia	61 %	53 %
United Kingdom	95 %	83 %	Ireland	60 %	57 %

Source: Trading economics, (2021)



Table 2 » GDP Growth Rate of world economies whose GDP exceeds USD 1 trillion

STATE	GDP [billion USD]	Mezičtvrtletní vývoj HDP [v %]								
		IV/ 2019	I/ 2020	II/ 2020	III/ 2020	IV/ 2020	I/ 2021	II/ 2021	III/ 2021	IV/ 2021
United States	20937	1,9	-5,1	-31,2	33,8	4,5	6,3	6,7	2,3	6,9
China	14723	1,5	-10,5	11,6	3,4	2,6	0,3	1,3	0,7	1,6
(Euro Area)	13011	0,0	-3,5	-11,7	12,6	-0,4	-0,2	2,2	2,3	0,3
Japan	4975	-2,8	0,4	-7,9	5,3	1,8	-0,5	0,6	-0,7	1,3
Germany	3846	-0,1	-1,8	-10,0	9,0	0,7	-1,7	2,2	1,7	-0,3
United Kingdom	2708	0,0	-2,6	-19,4	17,6	1,5	-1,3	5,4	1,0	1,0
France	2630	-0,3	-5,7	-13,5	18,5	-1,1	0,1	1,3	3,1	0,7
India	2623	0,4	0,2	-25,3	24,1	8,6	0,4	-11,6	12,7	–
Italy	1886	-0,4	-5,6	-13,1	16,0	-1,8	0,2	2,7	2,6	0,6
Canada	1644	0,1	-2,0	-11,3	8,9	2,2	1,4	-0,8	1,3	1,6
South Korea	1631	1,3	-1,3	-3,2	2,2	1,1	1,7	0,8	0,3	1,1
Russia	1484	-0,5	-0,2	-4,5	2,8	0,7	0,7	3,2	-0,8	–
Brazil	1445	0,3	-2,3	-8,9	7,8	3,1	1,3	-0,4	-0,1	–
Australia	1331	0,4	-0,3	-6,8	3,4	3,2	1,9	0,8	-1,9	3,4
Spain	1281	0,4	-5,4	-17,7	16,8	0,2	-0,7	1,2	2,6	2,0
Mexico	1076	-1,3	-0,8	-17,8	14,8	2,9	1,0	1,2	-0,4	-0,1
Indonesia	1058	-1,7	-2,4	-4,2	5,1	-0,4	-0,9	3,3	1,6	1,1

Source: Trading economics, (2021)

and according to the International Monetary Fund, by the end of 2020 Total Debt (including Public Debt, Household Debt and Nonfinancial Corporate Debt) has already reached 256 per cent of GDP, with the largest increase in 50 years from 227 per cent to 256 per cent in 2020 (International Monetary Fund 2021).

This extremely critical contemporary global economic situation is confirmed by another important figure from the International Monetary Fund, which estimates that real world GDP (real GDP, annual percentage change) will fall by 3.1 per cent in 2020 (International Monetary Fund, October 2021). This is also confirmed, albeit indirectly, by Table 2 below, which illustrates the very problematic evolution of the gross domestic product (GDP) of the sixteen most important economies of the

world (plus the euro area), whose annual GDP exceeded USD 1 trillion in 2020.

5) Disabling the business cycle mechanism: Extremely low or even negative interest rates represent a significant interference with the business cycle mechanism, allowing the long-term survival of extremely indebted economic entities that should have gone bankrupt long ago. And if the economy is unable to cleanse itself of insolvent entities in a natural way, this means that the market principle of its functioning is not working and that there is a gradual transition to political management.

6) Negative effects on the activities of most financial institutions: extremely low or even negative interest rates also have negative effects on the activities of most financial institutions (Rejnus 2016):

- **Commercial banks:** normally, as part of their banking business, commercial banks borrow the necessary funds relatively cheaply from central banks and then lend them to their clients at a higher interest rate, generating a profit. However, when interest rates are extremely low, they have to lend money very cheaply to their clients. At the same time, their portfolios are gradually depleted of older, still sufficiently interest-bearing bonds, which all adds up to a negative impact on their finances. And if central banks' deposit interest rates are even negative, their bank reserves are also earning negative interest. And the fact that passing on negative rates to retail customers is virtually impossible is also a major problem. It follows, of course, that in these situations commercial banks have to achieve their returns in other ways: above all, through higher prices for the services they provide, the introduction of various fees and, last but not least, riskier banking or investment business.
 - **Pension companies or pension funds:** The mission of these financial institutions is to collect citizens' savings and then invest them in the least risky investment instruments in order to revalue them and pay them out later in retirement. And since government bonds are generally considered to be the safest financial investment instruments, they also tend to be under-represented in pension fund portfolios. It follows, then, that if interest rates on government bonds fall significantly, these institutions will be hit hard. If they buy them in times of extremely low or even negative interest rates, the yields on them will not even cover inflation, so that citizens' pension savings will begin to lose their real value. Therefore, it is also the case that if extremely low or even negative interest rates last for a longer period of time, the yields generated by the bonds held by pension funds will decrease as older, higher-interest-bearing government bonds mature. And this is a very serious problem that can only be solved by switching to other types of investments (e.g. equities) (if the current laws allow it). This is, however, very risky, as it can completely cripple the pension sector in the event of a stock market crash.
 - **Insurance and reinsurance companies:** Insurance institutions are de facto similar to pension funds. This is because they also hold a significant part of their assets in government bonds, which are an additional source of income. In the event of extremely low or even negative interest rates, this income will fall, which they must then pass on to their clients.
 - **Bond funds:** investment or unitised bond funds also have a similar problem, which must inevitably lead to their liquidation in the longer term. This stems from the fact that no investors will be willing to invest in loss-making bonds.
 - **Other types of financial institutions:** As regards the impact on other financial institutions, although it is not possible to define them precisely in aggregate, as their activities tend to be diverse and some of the negative economic impacts may be beneficial for some of them, even in the short term). However, even in these cases, it can be noted that any uncertainty about future developments in financial markets has a negative impact on the vast majority of financial institutions.
- 7) Changes in the characteristics of financial investment assets and liabilities that prevent their correct valuation: Negative interest rates are also characterised by the fact that they can change the characteristics of a number of investment assets and liabilities. Normally, investment assets should provide a return to their owners, while liabilities should represent a cost. However, if interest rates become negative, the situation changes radically, as some assets that are supposed to yield a return may start to cost their owners money, while, paradoxically, some liabilities may start to yield a return, which is, of course, confusing and seriously disrupts the functioning of both the financial system and, consequently, the economy as a whole. →

8) Widening inequality in income and asset size: Negative interest rates have mainly benefited large companies, whose interest costs have fallen, and especially hedge funds, which are able to make professional use of special investment techniques, including leveraged trades. And since hedge fund shareholders can de facto only be high-net-worth clients, it is clear that this results in a concentration of ownership of their personal assets (J.P. Morgan 2019; Bloomberg 2020).

9) Impossibility of effective monetary regulation: the point is that economies with a majority of extremely indebted economic agents are virtually monetarily unregulatable, since any further possible tightening of monetary policy (or increase in interest rates) will cause significant financial problems for all indebted agents. And if they are households or businesses (which, like governments, cannot indebted themselves unlimitedly), this leads to fiscal imbalances, which in turn force further increases in government debt.

10) Creating the conditions for currency wars: As evidenced, for example, by “The Loanable Funds Theory”, the purposeful lowering of interest rates weakens domestic currencies. And since individual currencies are no longer pegged to gold, each central bank must take care of its domestic currency itself, creating the conditions for currency wars (Faber 2015).

11) Creating the conditions for hyperinflation: all ways of pursuing strong expansionary policies, whether fiscal or monetary, tend to be accompanied by an influx of newly created money. And this is associated with the risk of rising inflation, which can eventually turn into hyperinflation with prolonged expansionary and, moreover, substandard macroeconomic policies. This fact is best explained by Fischer’s exchange equation:

$$M \cdot V = P \cdot T$$

where: M – the quantity of money in circulation;
 V – the velocity of circulation (turnover) of money;
 P – price level (price index); T – physical volume of transactions

This is not only a historically significant but also currently valid equation of Irving Fischer (Fischer 1922) related to the “Quantity Theory of Money”, according to which the money supply (money supply) has a direct effect on the price level. Its economic significance lies in the fact that it represents a basic macroeconomic model that defines a directly proportional relationship between changes in the growth of the quantity of money circulating in the economy and the growth of prices – or the inflation rate.

Starting from this equation, it is clear that equilibrium in the economy exists only if the quantity of money in circulation multiplied by the money turnover rate equals the price level multiplied by the physical volume of transactions, or the output of the real economy. This means that if the quantity of money in circulation is increasing as a result of real economic growth, the rate of inflation should not increase, since a higher output of the economy requires that it be properly serviced by increased money circulation. The quantity theory of money proclaims the view that the money supply has a direct effect on the price level, or that there is a direct proportionality between the growth in the quantity of money in the (real) economy and the growth in prices. This fact has been demonstrably confirmed in the so-called “long run”, which quite logically corresponds to the fact that “if the extreme instruments of expansionary macroeconomic policy of governments and central banks are used only in the short run, they can save an economy in trouble. But if they become long-term instruments of either fiscal or monetary expansion, they will lead to hyperinflation in the future”.

If the amount of money in the economy is increased without corresponding economic growth, the following extreme situations may arise:

- 1) either this money enters the real economy,
- 2) or it does not enter the real economy (at least temporarily).

ad 1) If the newly created money enters the real economy (e.g. in the form of government invest-

ment spending or in the form of government social support or otherwise), this will increase the demand for final consumption products. On the one hand, this will indeed boost the economy (in this case at the expense of increasing the national debt), but by spending it on goods and services that are quantity-constrained, it must necessarily have a proinflationary effect. What is significant in this case is that: ‘money can be “printed” at any time (and at virtually no cost), but goods must be produced’; and if the new money added to the circulation increases demand in the markets for goods and services, then, by keeping the supply of money the same at any given time, the price level must legitimately increase.

ad 2) However, if the newly created money is acquired by e.g. highly creditworthy individuals, who then invest it in financial investment instruments (mainly stocks and bonds), then what happens is that, although this newly created money increases their market prices (exchange rates), it does not temporarily enter the real economy (and causes a slowdown in the circulation of money in the above Fischer equation). And it is also important in this case that “if securities are bought or sold by their owner on the secondary market, only a financial transaction has taken place in which only the owner of the securities has changed, which has no effect on the real economy”.

For the sake of completeness, however, it should be pointed out that if the investment were not in financial but in real investment instruments, the situation would be different, since, for example, real estate, precious metals, diamonds or other types of real assets have to be produced (built, mined, etc.) and can therefore be regarded as products of production. This means, however, that their purchase supports their further production, or the real economy (new construction of real estate or mining of precious metals, diamonds, etc.). For these reasons, they must be separated from financial investment instruments.

6. Conclusions

A well-functioning economy is characterised by equilibrium, relatively stable and, above all, “positive” interest rates. It operates primarily on a market principle and does not require significant macroeconomic (or monetary or fiscal) intervention. Therefore, the current interest rate is also close to its equilibrium level. However, this is not the case for troubled economies. If they were not monetarily or fiscally supported, they would be at risk of an economic crisis. And, as already mentioned, both monetary and fiscal support for an economy is always associated with a reduction in interest rates. Consequently, it follows that extremely low or even negative interest rates clearly identify that the economy in question is in very serious trouble and that the central bank has exhausted all its standard expansionary monetary policy options and has resorted to non-standard means of supporting it. It follows that if the economic situation of a given country (or supranational economic community) were to deteriorate further, its central bank would have to reduce its interest rates further on purpose, no matter how negative they had already become. This is particularly problematic in supranational monetary unions with a single common currency. A particularly frightening example is currently the ‘eurozone’, where the European Central Bank (ECB) has to deal with significant mismatches between the level of its interest rates and the actual needs of individual national economies. And this is not according to the actual economic needs of the individual Member States, but only by some kind of compromise. Thus far, it has succeeded in rescuing individual troubled states and thus the “eurozone” project, but only at the expense of other, more prosperous economies (Karpiš 2015).

Negative interest rates do not so much threaten borrowers as those economic agents who have money (savings) or financial investment assets. This means that they threaten primarily responsible economic entities, regardless of whether they



are legal or natural persons. And they are, of course, defending themselves against this through gradually increasing amounts of cash held, despite the inflationary losses they are suffering.

This raises a very fundamental question: how can this catastrophic economic development ultimately end? Only catastrophically, of course. For it is clear that the last possible measure of the ruling elites is, first, to implement a monetary reform that will liquidate not only debts but also savings, and also to abolish cash money by a directive switch to deposit money (Vlachynsky 2017). And this would mean the loss of civil liberty for human society, and thus de facto the end of democracy.

The analysis further shows that the global deleveraging of human society using standard fiscal and especially monetary macroeconomic instruments is already practically impossible. The global indebtedness of states, corporations and nowadays even households is reaching such a level that it cannot be returned to a normal state by standard instruments of macroeconomic regulation (Urbánek 2015), and the contemporary coronavirus pandemic will accelerate this problem significantly. On the basis of these facts, it is therefore to be feared that there may soon be a moment when the standard and historically proven instruments of macroeconomic regulation will fail and it will be necessary to resort to the use of new instruments. This is even beginning to be proclaimed by the so-called “Modern Monetary Theory /MMT/”, according to which central banks should be obliged to supply governments with virtually unlimited amounts of money, with the only constraint being the so-called “attainment of full employment” (Ezrati, 2019). That this is an attempt to destabilize the world economy is quite obvious (Issing 2020), as it would not only cause uncontrolled hyperinflation, but would completely destroy the way the world economy is managed today and, as a result, the contemporary social order.

And why did this current state of affairs come about in the first place? Economics is a social science that evolved from philosophy. And therefore

it is also clear that the main reason that the contemporary system of functioning of human society is threatened is primarily man himself – or rather the decline of human morality. Above all, it is the extreme opening of the scissors between the “rich and the poor”, and this factor has already grown into a major global development trend, which can be characterised as an ever-increasing disparity between the size of people’s incomes (and consequently the value of the property they own) and their mutual struggle for power. In particular, this is manifested by the growing number of so-called ‘dollar millionaires’ or even ‘billionaires’ who often claim special privileges in human society. This would not be a problem if the differences in income between individuals were based solely on their merits and contributions to society, but in reality this is often done through covert law-breaking and corruption. In some countries, it is even linked to the abuse of state or economic functions, or even to the abuse of parliamentary immunity. And the worst part of all this is that all the values that are ‘monetized’ in this way are then transferred to the debts of the individual states, which means on the shoulders of ‘ordinary’ taxpayers. And there are a number of other reasons besides, such as the growth of bureaucracy – which is particularly typical of the European Union (Rejnus 2019), the rising costs of armaments and, more recently, the so-called “environmental” and “migration” costs.

And how will it all end? The analysis carried out confirms the seriousness of Marc Faber’s (2015) now historic statement that “The collapse of the current system is inevitable”.

Acknowledgment

This paper was supported by the project FP-J-20-6339 “Risks of contemporary development of the world economy and their influence on business subjects and their management”.

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→ Economic impacts of extremely low interest rates and their influence on the development of the world economy and human society

ABSTRACT

The article deals with the current development of the world financial system and the world economy in connection with the long-term use of non-standard instruments of monetary regulation, especially extremely low or even negative interest rates. The first part of the paper explains the function of interest rates and their importance in a market economy, as well as the reasons leading to the purposeful influence of their amount by the central banks of individual states or supranational economic communities. This is followed by an analysis of the historical development of interest rates and contemporary reasons leading to their current extreme reduction, as well as the functional nature of the individual regulatory methods used for this purpose. The next part is then devoted to the analysis of the consequences of extremely low or even negative interest rates and their impact on individual economic entities and the economy as a whole. Finally, the most significant risks of long-term use of negative interest rates are defined, including the tools used to reduce them purposefully, both for the future of the global world economy and, consequently, with regard to the future development of human society as a whole.

KEYWORDS

monetary regulation; central bank; interest rates; risk factors; quantitative easing; world economy

JEL CLASSIFICATION

E58; F3; G18; O11



Digital tax policies as an opportunity to reduce rent-seeking

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* 1. Introduction

Economic rent can be defined as an additional income stemming from a factor of production and is based on its pure ownership or any official administrative decision instead of creative business development activity motivated by the profit accumulation target.

The feasibility of rent-seeking in contemporary developed market economy conditions is considered as one of the so called government or state failures. To put it as it stands, rent-seeking is nothing else as a result of purposive lobbying and influencing the public bodies in favour of particular market agents and their individual profit to the detriment of overall efficiency.

2. Economic rent in the economic theory

The economic theory discusses the phenomenon of rent from the very beginning of classical economic thought emergence. The rent is a particular kind of income stemming from ownership and control of assets, i.e. production factors, that exceeds the proportionate compensation for the added value created on the base of these assets.

2.1. A brief inquiry into the history and current streams of economic thought

The classical economics, represented by David Ricardo, connected this phenomenon with rich noble families disposing of land ownership, being inherited without any special effort made by the upcoming generations. The additional income exceeding the revenues from the land production is called Ricardian land rent (Blaug, 1997). Later, John Maynard Keynes depicted rent owners as an investing class, as subjects capable of investing additional resources which is a possibility not accessible to everyone (Chambres and Dimson, 2013).

On the other hand, more recently, the ecological economists also perceive the economic rent and the efforts to gain it as a kind of undesirable non-productive investment. The ecological economics is focused on the question how to improve and redesign the economic system and the relations among the actors under the condition that the global resources are capable of being consumed continually in a rational and sustainable way, “so that society can flourish within planetary boundaries” (Stratford, 2020). An ecologically efficient economy should meet people’s needs and



→ support the human development with the lowest possible harm to the environment (O'Neil et al., 2018). From the ecological point of view, the action of the individual actors aimed at obtaining the rent extraction situation is a principal barrier to achieve aggregate economic growth. Apparently, we can clearly see on the example of recent energy policy developments in Europe that this approach is very demanding when it comes to investments in technological innovation and resource spending efficiency. The green transition in economy is not only about low carbon emissions but encompasses overall far-reaching shift towards natural and societal sustainability with reduced environmental risks and ecological scarcities. It is based on five key principles of public participation, social dialogue, informed consent, transparency, and accountability (UNEP, 2017).

2.2. The economic fundamentals of rent-seeking

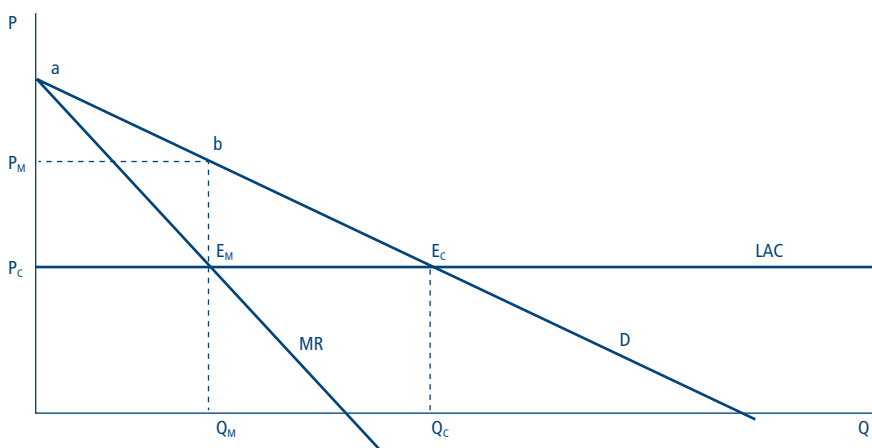
As we already mentioned above, rent-seeking is an activity of a market subject that bears voluntarily additional non-productive costs on purpose to ob-

tain an advantage ensuring the possibility to gain monopoly profit.

Rent-seeking is typically linked to the monopoly power supported by exclusive licenses awarded by governments, municipalities and other public entities. The monopoly power is often endorsed by the existence of asymmetric information, as is pointed out by Gravelle and Rees (2004). It happens when the monopoly supplier disposes of a wider information base in comparison to the regulator who is responsible for license distribution. This lack of awareness prevents the regulator to conduct welfare maximizing policy when attributing the licences to market agents. Another problem is caused by the timing lag in regard to accessible information, caused by the time needed for two stages of decision drafting: firstly, government bodies need to collect and analyse market development indicators, and secondly, the time needed to realise the whole decision making process including its implementation (Hořejší et al., 2018).

According to the Figure 1, the effort of the rent-seeking agent is intended to gain the monopoly profit, which means a shift from the market equilibrium E_c (represented by price P_c and product

Figure 1 » Rent-seeking



Source: Hořejší et al. (2018)

quantity Q_c responding to the situation of perfect competition) to the equilibrium E_M ensuring monopoly profit with higher product price and limited quantity. The triangle shaped by the two equilibria and the point b reflects the ‘deadweight’ effect. Moreover, the total societal costs of the existence of rent are higher than the ‘deadweight’ costs because we should count in also the costs incurred for the rent-seeking activity itself, and not the production. These rent-seeking costs are deducted from the monopoly profit.

From a comprehensive point of view, we may consider many different advantages as a source of rent: e.g., the reputation of trademark representing the business or company, its bargaining power towards state and other market agents, economies of scale, network effect, exclusive knowledge, or legally protected information such as trade secret. Large and transnational business corporations can exercise their rentier power. Any temporarily restrained income surplus induced by innovation can be understood as a rent in case it creates an obstacle to enter the sector for other agents who are not able to imitate such advantages. This constant situation leads to consolidation of great corporate players with monopoly power. The judicial disputes about intellectual property and business secret protection, caused by alleged violation of such protection, in fact represent a barrier for the extensive usage of innovations and therefore block the economic growth. The statutory protection of exclusive licences and secrets is therefore sometimes seen as an ineffective and costly obstacle (Bessen and Meurer, 2009).

2.3. Theoretical approaches to combating rent-seeking

Economists are in quest of multiple ways how to deal with the undesirable phenomenon of rent-seeking leading to rent extraction and how to limit its economic and social consequences. Many various methods how to solve this problem are discussed. The public choice theory proposes a rand-

omized decision mechanisms, e.g. sortition, in case of elections and voting as a process of creation of power in modern democracies (Lorkard, 2003).

Another theoretical approach perceives the skill of intermediation as a form of rent extraction (Farboodi et al., 2017). In particular, this research team from American universities elaborated a hypothetical model of market based on individual transactions (frictions) lacking any central trading point so the agents need to look for their individual counterpart within the limits of the overall population. The ability to reach the right intermediation is not possessed by all the agents but can be additionally acquired at corresponding costs. The skill of intermediation then allows those who possess it to extract rent to the detriment of those who do not.

3. Economic Rent in the Policy – the case of digital services and their taxation

When it comes to taxing the production of goods and provision of services, the traditional approach means simply to impose a tax where the production or provision is taking place. This is not possible always because the digital content is spread globally without any clear link to a specially determined place.

The quest for the right, just and effective approach to the digital and Internet services in tax policy has been in the centre of attention from the beginning of 21st century when the Internet began to influence heavily the socio-economic reality and the way how to provide services (Cockfield, 2001).

Nowadays, after the period of worldwide pandemic restrictions, we can see an extensive surge of digital businesses and their turnovers. The trends of remote working and digital communication that has already been clearly discernible since the beginning of the 21st century were only accelerated by the unprecedented and immediately applicable prohibitions of social and professional contacts of population induced by the rapid spread of coronavirus from the beginning of 2020.



→ It is important to stress that the consumption of digital services is non-rival and can be realized concurrently at multiple places without additional marginal costs. The variable costs of serving an additional customer is negligible (Richter, 2021).

There is a considerable motivation of public policy to transform the profits of digital giants such as Google and Facebook/Meta companies into public budget revenues. Nowadays, a substantial part of their profit realized in the EU internal market is not subject to taxation at all. In fact, some digital business models operating in the EU internal market are subject to a lower tax burden than other businesses from traditional sectors which gives rise to unequal treatment and distortion of competition (Alvarado, 2021). For example, digital payments and financial services are usually excluded from proposed digital taxation.

Taxable profits emerge only in cases with discernible business presence corresponding to the conditions permanent establishment referred to in Article 5 of OECD Model Tax Convention on Income and on Capital. How can we break their monopolistic power? However, it is not reasonable to eliminate entirely the existence of rents, because they act as a feature of innovation. Digital technology innovations are at the forefront of current EU strategic priorities for the future.

3.1 The multilateral response: the initiatives of the international organizations

The international community has begun to tackle the problem even before the digital profits started to surge due to lockdowns and general (in)voluntary digital life preference. The European Commission presented legislative proposal of new Council directive aimed at bringing some consistency in corporate taxation of businesses with “significant digital presence” on the internal market even if formally based overseas before the pandemic outbreak (European Commission, 2018).

Some few years before EU, the digital tax proposal was developed by OECD experts. It is the

first among fifteen suggested actions how to reduce base erosion and profit shifting in the domain of internationally affected income taxation (the so-called BEPS Project). Since 2015, OECD develops a comprehensive set of tools which are not all legally binding, but some require implementation into national tax legislation or are of a soft law nature such as recommendation of best practices or guidelines (OECD, 2015).

In 2021, OECD released a detailed and structured proposal how to modify current international taxation environment in order to reduce rent extraction of foreign digital companies (OECD, 2021). The project to fulfil the Action 1 is based on two pillars. The first pillar seeks to rewrite the existing income tax provisions with establishment of a new special purpose nexus rule permitting allocation of taxable profit amount to a Member State in case the foreign digital company derives at least 1 million euros in revenue from that market, while for smaller jurisdictions with GDP lower than 40 billion euros, the nexus will be set at lower threshold of 250 000 euros.

The second pillar is based on several principal rules:

- an Income Inclusion Rule (IIR), which imposes top-up tax on a parent entity in respect of the low taxed income of a constituent entity;
- an Undertaxed Payment Rule (UTPR), which denies deductions or requires an equivalent adjustment to the extent the low tax income of a constituent entity is not subject to tax under an IIR;
- a Subject to tax rule (STTR) that allows source jurisdictions to impose limited source taxation on certain related party payments subject to tax below a minimum rate. (OECD, 2021).

OECD also drafted a detailed implementation plan for swift and consistent application of the newly introduced rules. It includes the formulation and negotiation of Multilateral Convention that would render the original soft law guidance into formally binding parts of respective national legal orders. In the Czech Republic, the Conven-

tion will derive its legal force from Article 49 letter d) referring to treaties of a general economic nature. The full realization of the OECD plans remain today an ambitious project for the future.

The above mentioned EU directive proposal is in clear connection to the OECD initiative. In the domain of EU law, taxation is regulated by primary law as a branch requiring unanimity of all Member States represented in the EU Council, the final compromise needs to be acceptable for all of them without exceptions. This strict rule is among the causes of the missing outcome so far: the Member States' Ministers of Finance did not find enough mutual understanding about the contours of the European digital tax mechanism and it has not been approved so far.

Right now, the response of the EU and individual Member States to the economic crisis caused by the pandemic is very demanding as regards the public budgeting. The EU launched a very ambitious project called New Generation EU Fund and Recovery and Resolution Facility. Generous allocation for projects of recovery drafted at the national level will be covered by bonds issued for the very first time by the EU itself and in fact paid mutually by the Member States in the long run envisaged to 2058. There is a clear incentive for the EU to gain more budget financing, so new possibilities how to enhance the own resource side are discussed intensively not only nowadays, but constantly since the last economic crisis (Schatzenstaller, 2013). The digital tax paid at the expense of large transnational corporations seems to be a feasible option. Further plans of the EU to boost its own budgetary resources are connected to the building of environmentally sustainable economy and reduction of production and imports not fulfilling strict environmental standards (Holzer, 2021).

The issue of corporate profits seems to be related to direct income tax, but the EU directive proposal stems from legal basis enshrined in Article 113 of the Treaty on the Functioning of the European Union, regulating the competence to adopt provisions for the harmonisation of legisla-

tion concerning turnover taxes. This means that the European digital tax shall be akin to turnover taxes, however, it features also some aspect of direct income tax, so it is rather of a mixed or hybrid nature.

The European digital tax shall focus on particular categories of digital services:

- added value stems from online advertising
- added value stems from digital intermediation allowing for the interaction of users among them

These two features are intended to overcome the traditional connecting factors used in international double taxation treaties (the concept of permanent establishment in jurisdiction in particular Member State). The localization of the users of the digital services shall be determined by IP address of the applied device.

The proposal is therefore based on a limited scope of application and establishes the taxation duty only on a limited share of digital sectors – the companies with turnover larger than quite high threshold, i.e. worldwide revenue over 750 million euros and 50 million within EU internal market. The EU directive proposal also regulates the practical functioning of the new tax: a self-declaration electronic system and a mechanism of exchange of information and administrative cooperation between tax authorities of EU Member States. But all this has not yet been approved and put into operation, because the Member States ministers did not accept any compromise in the ECOFIN Council negotiations.

3.2 The unilateral response: the initiatives of sovereign states

Some EU Member States used the above described EU directive proposal as a source of inspiration, but were completely free to adapt the original draft to their particular condition more or less, without any binding nature of the not yet officially approved EU directive. As it apparent from Table 2, Member States inserted (or plan to so so) into na-



tional legislation the same threshold as was set on the level of the EU.

The division of selected EU Member States according to the phase of legislative process is depicted in Table 1.

One of the European countries which has not yet approved legislative proposal on digital tax is the Czech Republic and the same stands for Slovakia. Three central European countries, i.e. Austria, Hungary and Poland, implement a tax on digital online advertising services.

In Slovakia, the generally applicable notion of permanent establishment in Section 16, paragraph 2 of the Slovak Act on Income Tax was amended and particularized to also include the provision of services by the means of digital platforms. Slovakia became a prophet of Europe with this progressive legislation amendment. This means that all

the businesses residing in other jurisdictions and providing such digital services to Slovak customers are regarded as disposing of permanent establishment in Slovakia and therefore are taxed accordingly.

Whereas the former EU-15 Member States prefer a more general approach to the scope of application, the Central and Eastern European States are focused narrowly on selected forms of digital services, mostly digital advertising (Alvarado, 2021). It is preferable to establish a wide international solution to enhance the legitimate expectation of all agents, however, as the final consensus has not yet been reached, the unilateral action of particular governments seem to be the only feasible instrument to tackle the issue.

Table 1 » Digital tax legislation in selected European countries

State of affairs	Country
Proposal adopted	Austria, France, Hungary, Italy, Poland, Spain, United Kingdom, Turkey
Proposal in the legislative process	Czech Republic, Slovakia
Proposal under discussion	Latvia, Norway, Slovenia

Source: Kopecký (2021)

Table 2 » The existing digital taxes in EU Member States

Member States	Revenue Threshold	Tax rate	Adopted/Proposed
Austria	750 million EUR	5%	Implemented from 01/2020
Belgium	750 million EUR	3%	Proposed
Czech Republic	750 million EUR	5%	Proposed
France	750 million EUR	3%	Implemented from 01/2019
Hungary	100 million HUF	7,5%	Suspended to 12/2022
Italy	750 million EUR	3%	Implemented from 01/2020
Poland	750 million EUR	5%	Implemented from 07/2021
Spain	750 million EUR	3%	Implemented from 01/2021
United Kingdom	500 million GDP	2%	Implemented from 04/2020

Source: Alvarado (2021)

3.2 The potential risks that the policy should try to mitigate

It is indisputable that the biggest digital service providers on the world are based in the USA. As we lack universally accepted international compromise and shared common approach, there is a risk of unilateral trade policy retaliatory measures adopted by the USA against European countries having adopted tax related legislation unilaterally.

Another problematic feature is that the vast majority of digital taxes already proposed seems to be openly discriminative in regards of the size of the affected companies (their reported turnover) or the taxable business activity (e.g. only on-line advertising and not any other type of on-line service).

The selectivity of digital taxation leads to open and direct discrimination, i.e. taxation of only some selective companies and non-taxation of the others. The fact of non-taxations can be considered as a kind of subsidy from the government. In the EU legal framework formed by the primary law, i.e. the EU Treaties, there is a risk of the national legislation being contrary to primary law. In particular, Article 107 of the Treaty on the Functioning of the European Union regulates state aid granted to private businesses sets up several conditions under which any aid granted by a Member State or through State resources in any form is deemed incompatible with the internal market.

The incompatibility of any unilateral measure with the internal market is connected with possible distortion of market competition by favouring certain sectors or market agents to the extent that it could affect foreign trade between Member States. The interpretation of the notions used in Treaty provisions is developed in the case law of the Court of Justice of the European Union. Further explanation and guidance is provided by the European Commission in a comprehensive document bringing very detailed investigation into case-law and its reflection in application practice (European Commission, 2016).

As there is not yet established any international tax cooperation in this field, it is inevitable that any digital turnover tax has only territorial scope of application. This completely newly emerging branch of taxation lacks any international or EU harmonization. And this fact is a considerable limitation in comparison with direct income taxes where the cases of taxpayers with international background are logically covered by a system of bilateral treaties for the avoidance of double taxation. No such conventions covers any form of unilateral digital turnover tax. The undesirable situation of in fact double or multiple taxation in several countries is not impossible, because there is no valid legal instrument serving for its avoidance or for deduction of the digital tax paid in another country. We can take inspiration from the above mentioned EU directive proposal that provides for deduction of digital tax from the corporate income tax base.

Finally, a serious concern can be caused also by the statutory requirements of personal data protection which could be violated by the need to prove exact localization of digital services users from another countries. The approaches to data protection regulation differ significantly particularly between the democratic countries, the USA, and EU Member States, in what concerns the societal sources, legislative contents, judicial remedies and its overall scope of application (Moura Vicente and de Vasconcelos Casimiro, 2020).

4. Conclusion

Every regulation of economic freedoms needs to be proportionate and necessary regarding its legitimate objectives. The digital services tax has been introduced or proposed in many countries all over the world and Europe. No universally or at least partially international compromise has been reached so far. The unilateral policies of national governments should remain in force only *ad interim* until the OECD or EU approaches begin to be implemented consistently by all the Member States. →

Only a concerted action can serve as an effective tool to reduce the rent extraction on the field to digital companies profits taxation. To establish an effective tax policy, it is necessary to develop new methods of liaison between the place the services are provided, and the taxes are paid, corresponding in the economic added value creation. The Slovak amendment of the legislative provision describing the features of permanent establishment

in the digital environment can serve as a good example.

Acknowledgement

The contribution results from research elaborated at the Department of Demography, Faculty of Informatics and Statistics, Prague University of Economics and Business.

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Digital tax policies as an opportunity to reduce rent-seeking

ABSTRACT

The contribution analyzes the recent taxation policies and legislative proposals elaborated by sovereign states and international organizations regarding digital services and transnational corporations related with intangible assets. The method of the analysis is based on established mainstream microeconomic theory, in particular the concept of rent-seeking, linked with the public choice theory and contemporary ecological economics.

KEYWORDS

Rent-Seeking; International Taxation; Digital Services

JEL CLASSIFICATION

D42; D72; H25



Strategy Development: Doctrine of Pragmatism

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* 1. Introduction

The strategy represents the connection of the current state with the future state in the form of building the desired future reality. However, the expected future reality varies depending on the strategy creators, representing individual business entities entering into mutual cooperative and competitive ties. At the market level, the company should reflect in its strategy not only factors operating from internal conditions and trends of the macro-environment but also (and often especially) factors based on the behaviour of competitors and the implementation of their strategy.

Reasoning theory (according to Peirce, 1958) provides a valuable repertoire of tools useful in business applications to deal with the outlined conditions. While decision theory (according to Axelrod, 1984 and including reasoning theory) has a formalized approach, reasoning theory is not usually developed with similar care. The question of what facts to obtain is often addressed, while the solution of how to get them is pushed into the background. Paradoxically, however, the ability to work with the facts, their acquisition, evaluation and evaluation in the form of the final judgment is a critical factor in strategy creation.

The article's subject is a proposal for using facts in strategic business management. Within the doctrine of pragmatism (according to Peirce, 1958), the article answers some of the critical questions related to applying reasoning theory in strategic business management: (I) How to approach the creation of a set of facts about cooperating and competing subjects (and business environment factors) reasoning? (II) What requirements should the hypothesis meet, and what factors should be considered when accepting the hypothesis?

To answer the set questions, space is devoted to trichotomy of methods, deductive inferences, interpretive epistemology, abductive interpretation of facts, Peirce's theory of knowledge and reasoning. The article deals with the maxims of pragmatism, Fallibilism, theory of knowledge, formally-exact logic of abductive reasoning and related aspects usable for strategic business management.

2. Trichotomy Methods Based Methodology

The creation of strategy (in the traditional sense, eg according to Rothaermel, 2021) is a combination of work with facts and a formalized reasoning process. A reasonably accurate conclusion can be reached through reasoning from one or more spe-

cific data (Cenek, 2017). The researcher strives to understand the behaviour of others and use this knowledge for the benefit of the case. The reasoning thus grasped is based on the precise application of Abduction, induction and deduction, which hold their irreplaceable place in the trichotomy of methods.

The interest in understanding and anticipating human behaviour is closely linked to the original deduction. Even if used correctly, deductive reasoning does not tell us more than what is already known, and the reasoned conclusion contains nothing but what is already included in the premises. Induction than deduction produces more knowledge, not necessarily correct findings, or only some, and not complete conclusions. However, reliability is not the same as certainty, and induction opens up space for many sources of error. „Biases” result from inappropriate inference from inductive findings (Anderson et al., 2005, p. 56).

Incomplete knowledge from generalization can lead to bad decisions or inferences in the future. „Prejudices and biases regularly arise from inappropriate inferences from inductive knowledge. If we only notice, or attend to, risk decisions where harm results, then we will have incomplete knowledge leading to poor decisions, or inferences, in the future.” (Carson, Bain, 2008). Inductive reasoning accepts (or does not question the assumption) that facts exist independently from observation. The researcher can collect data without influencing it. The facts exist, and the only problem is finding the best verbal description.

Abduction involves interpretive epistemology, which insists that facts cannot be understood regardless of how the solver observes and understands them. Abduction emphasizes that when the solver perceives something, he also interprets it. It is not just a problem of finding the right word to describe. Although the solver may not be aware of this fact, he attaches importance to what he observes or researches. In Peirce's Abduction, Burks (1946, pp. 301–306) identified three systems of inferential reasoning linked to hypotheses. Abduc-

tion creates a hypothesis (based on the inductions of the obtained facts), induction tests it, and deduction makes it possible to solve the necessary consequences of these inferences if the premises are true.

In its role as a hypothesis-building tool, Abduction is the only logical operation in a chain that brings new ideas. Induction only determines the value of an idea, and deduction derives the necessary consequences of a validated hypothesis. Deriving backwards (analysing) becomes the basis for making predictions (syntheses). The interpretation of facts by abductions can provide a more complete and accurate understanding of reality (Peirce in Burks, 1946, p. 303).

The fundamental problem of (albeit instead rarely applied) abductive reasoning in scientific and strategic work is the tendency to interpret facts so that the current dominant hypotheses assimilate the derived consequences. However, such a procedure is not an abduction but merely testing new facts to fit into contemporary theory. Thus, a new hypothesis is not generated, and Abduction's critically creative nature is used.

Creating a hypothesis is crucial and the most challenging element of solving a strategic case. However, the precise hypotheses' composition is usually automated to marginalise in everyday practice. Building respect for “healthy scepticism” and thinking “differently” commonly replaces mechanized mining of “hard data” and especially its statistical processing (Grieve, Crego, Griffiths, 2007, pp. 572–583). The fact that statistics, by creating models, brings order to open reality and thus limits the ability to tell is no longer often mentioned as a “softening” factor of this data. Case construction and early decision making are just the side effects of induction that should be minimized. Investigators should be encouraged to be more aware of the importance of fact-based hypotheses to shed light on the situation and not to be consistent with previous cases on which facts are fitted, rather than a fact-based case.



→ 2.1 Peirce and His Theory of Knowledge

Charles Sander Peirce has published only a few articles in his lifetime, and de facto fulfils the marginal notion of a scientist full of ideas but no longer pays much attention to capturing and systematizing them. The most comprehensive set of works has been published in eight volumes of “Collected Papers” (Peirce, 1958) and consists of sketches and notes that lack dating and cannot be classified based on an explicitly provided scale.

Another complication of the study is the absent definition of terms or how the author works with, e.g., Abduction itself, often referred to as Retroduction. The author does not distinguish between them and does not provide the reader with an explanation of the possible substitutability of (otherwise by default) concepts. In addition to working with concepts, Peirce also changed his mind, making the work generally challenging to examine¹.

Peirce offers several options for working with a given concept and practically applying it. The proposed application of Abduction is the authors’ proposal, which was created by combining the study of Peirce’s work, methodological consultations, generalization of own practice in solving strategic cases and reflection of general contextual conditions about creating strategies in business management.

Peirce offers several options for working with a given concept and practically applying it. The proposed application of Abduction is the authors’ proposal, which was created by combining the study of Peirce’s work, methodological consultations, generalization of practice in solving strategic cases and reflection of general contextual conditions on creating strategies in business management. Peirce was based on the need to solve the problems that the world faces constantly. Whether reality exists objectively or not does not have to be answered. Peirce (1958) formulated “Fallibilism” as the core

of the scientific approach. One has to review one’s beliefs and scientific theories constantly. First, uncertain hypotheses and theories are accepted, which form the basis of subsequent experiments to verify them (in the case of rejection, however, the researcher is forced to acknowledge their invalidity). Thus, theories (or questions) are not a generalization of experiments (a typical approach for positivists) but a starting point for creating an investigation and finding answers.

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Thus, one does not know whether one is approaching the truth. Pragmatists do not even deal with this question (even if the truth is known, the solver does not like to see this fact – the necessary level of thinking is missing – thinking about thinking itself, which contains a whole set of thinking and something extra on meta-levels). On the other hand, approaching the truth is assumed within a “guessing instinct” (see below).

Popper (1997) took Peirce’s Fallibilism and understood it as a closer scientific practice in which theories are developed based on experience, but before they can be experimented with. Following Kant, the scientist prescribes nature, but on the condition that he be taught by experience.

Peirce was significantly influenced by Kant’s view that cognition greatly affects the subject of cognition and the tools he uses. However, reliable knowledge is not created by intuition (as with Descartes) or speculation. Peirce’s teaching is an opposing intuition and is based on experiments. The pragmatic maximum states that the concept of

¹ Six stages of opinion can be distinguished, and the approach built between 1883–1902 is used in particular.

an object is determined from the sum of the effects that the object(s) exert². Knowledge builds on previous knowledge, and within Abduction, there is creative activity according to human insight into the context of the world with the generation of hypotheses and rules needed for deduction (obvious truths – rationalism) and induction (experience – empiricism). Peirce's approach influenced and often directed such personalities as Bertrand Russell, the Karel as mentioned above Popper or Alfred Tarský (Peirce, Višňovský, Mihina, 1998). Alfred North Whitehead applies one of the abduction principles in his famous statement, "The mission of science is to seek the simplest explanations for complex facts" (Whitehead, 1920).

Popper (1997) states that factual statements are commonly available to the researcher, but the truth itself is not. Truth is the consent of the statement, and the fact means the truth of the statement, not the truth itself. However, such truth is just as necessary to improve knowledge. Popper is thus close to Heidegger's conception of truth, who understands truth as a light that makes it possible to distinguish between true and false (Heidegger, Beaufret, 1949). The parallel to Peircovy is clear: "It is evident, that unless man had had some inward light tending to make his guesses... much more often true than they would be by mere chance, the human race would long ago have been extirpated for its utter incapacity in the struggles for existence..." (Peirce, 2019, online).

2.2 Formally-exact Logic of Abductive Reasoning

Although the author's Abduction was considered suitable for use in economics from the outset, further significant development did not occur until the 20th century with the creation of the hypothetical-deductive model of Karel Popper. He adopted the hypothesis following Peirce as a riddle (Popper,

2002, p. 536). However, suppose the creation of a hypothesis is considered the result of a process. In that case, it is clear that it is a tried and tested hypothesis and modified by the following hypotheses. "Abduction guesses a new or outside idea to account in a plausible, instinctive, economical way for a surprising or highly complex phenomenon. That is its proximate aim." (Peirce in Peirce, Houser, 1998, pp. 90–112).

Abduction aims to obtain a new or external idea to solve a highly complex phenomenon. Discovering new truths is no substitute, and an uncertain hypothesis must have reasonable implications for informed practice to be testable and accelerate and examine its process economically. Abduction thus directly requires the economics of research. "What is good Abduction? What should an explanatory hypothesis be worthy to rank as a hypothesis? Of course, it must explain the facts. However, what other conditions ought it to fulfil to be good? ... Any hypothesis, therefore, may be admissible, in the absence of any special reasons to the contrary, provided it be capable of experimental verification, and only insofar as it is capable of such verification. This is approximately the doctrine of pragmatism." (Peirce in Peirce, 1958).

The deduction is not adaptable to new information and the introduction of new knowledge, and it is strategic work based on introducing new knowledge into reasoning. Certain premises can determine the conclusion. The solver does not work with given and specific facts, but he must come to the truth by incorporating new knowledge into reasoning (Peirce, 1958, p. 623).

The deductive judgment to create a synthetic inference is reversed through the proposed procedure. Abduction captures the dynamics of knowledge and is open to new possibilities, which may be wrong. Still, if done correctly, they are likely to come to a proper conclusion (though not simply obtained as in the case of deduction). The classical

² Compare — William James and John Dewey as pragmatic Peirce successors.

deductive (and hypothetical-deductive) process is based on a finite number of premises with a one-way direction to the conclusion:

$$P_1, \dots, P_n \Rightarrow C,$$

P is any premise (including axioms or auxiliary hypotheses), C is the conclusion (prediction). The reasoning in the process is specific and monotonous (obtaining additional information will not invalidate the previous decision). Abductive reasoning, on the other hand, can be seen as a reversal of deduction with the introduction of additional conditions (Aliseda, 2003, p. 26):

$$P_k \Leftarrow C, P_1, \dots, P_{k-1}, P_{k+1}, \dots, P_n,$$

P_k is the abducted premise (explanation), P_{k-1} and P_{k+1} theories on which the procedure is based (and with which it must be consistent), P is any premise. The beginning is thus in the empirical evidence using the premises as the output of the derivation process. The records point to an explanation. Abductive reasoning “highlights the absence of dualism between facts/observations/data and theory, which is inherent in hypothetical-deductive systems.” (McMaster, Watkins, 2006, p. 8).

Findings from Abduction do not say what happens when certain conditions are met, but which deep structures affect the recorded phenomenon in the best explanation (Bhaskar, 2008). “Abduction, as used by Lawson’s critical realists, is often understood as the postulation of theoretical entities which, although non-empirical, are the best explanation for observable events [and phenomena], and such postulates are neither inductive nor deductive in nature.” (Boylan, O’Orm Gorman, 1997, p. 507).

Guessing instinct is Peirce’s answer to why the solver often guesses correctly. There is an affinity of the human mind with the laws of nature in the

form of an archetypal to the evolutionary characteristic of a man equipped to cope with various life situations (Peirce, 1958, p. 121). However, the use of the term instinct is somewhat unfortunate because Peirce rejects an intuition that he claims does not exist and at the same time opposes Cartesianism and British empiricism based on the subject-object theory of perception (with the implementation of intuition as an axiom) (Fann, 1970, p. 70).

Peirce views scientific methods as a model that has a structure. Thus, accepting the hypothesis is not a coincidence or an intuition. Modern science cannot take any statement for granted, but it is based on the scientific community’s consensus on what premises need to be accepted. Intuition then refutes itself, „but the only justification of inference from signs is that the conclusion explains the fact. To suppose the fact inexplicable is not to explain it, and hence this supposition is never allowable. “(Peirce, 1958, p. 265). That is, “everything is explainable” is in the position of the central postulate of logic, and it is not possible to include transcendental³ objects in the guessing instinct.

2.3 Methodical Level of Abduction Application

Although the author’s guessing instinct is not clearly explained, it allows for a rational course of Abduction that acts as an oppositional intuition. As a result, a hypothesis is provisionally accepted in the form of the most sensible possibility, which the solver then confirms or refutes through an experiment. There are demands on the hypothesis (Sebeok, Umiker-Sebeok in Eco, Sebeok, 1988, p. 22):

- The simplest and most natural explanation.
- The most economical for testing (the simplest and cheapest).

³ Not to be confused with transcendental objects, transcendental realism and actual domain! See „Cenek, Holik. 2023. Strategy Development: Ignoratio Elenchi Problem” for more information.

- Contributing to an understanding of the broadest possible range of facts.

Peirce stated that the hypothesis is assessed and selected for testing because it offers the effectiveness of the research process itself toward new truths. *“Methodetic has a particular interest in Abduction or the inference that starts a scientific hypothesis. For it is not sufficient that a hypothesis should be a justifiable one. Any hypothesis which explains the facts is justified critically. Nevertheless, among justifiable hypotheses, we have to select the one suitable for being tested by experiment.”* (Peirce in Hoffmann, 2005, pp. 37–38). Each hypothesis should consider factors of (Peirce in Peirce, Houser, 1998, p. 107–113):

- Costs — if the cost of falsity testing is low, it should be tested first to eliminate it.
- Value — credibility falling into the category of reasonable, objective or subjective (even justified credibility can be treacherous).
- Relationships:
 - Caution.
 - Applicability to explain various phenomena.
 - Non-complexity — A hypothesis that seems too simple should be applied as it can provide lessons for finding different and conflicting hypotheses that are less simple.

The caution factor is based on the popular period game “Twenty Questions”—if a well-targeted question can eliminate half of the possibilities, then twenty questions can help you choose from 2^{20} options. *“Thus, twenty skilful hypotheses will ascertain what 200,000 stupid ones might fail to do. The secret of the business lies in the caution, which breaks a hypothesis up into its smallest logical components, and only risks one of them at a time.”* (Peirce in Peirce, Houser, 1998, p. 107–113). The point is to extract the elementary aspects of the hypothesis or riddle and formulate them with appropriately chosen questions (Peirce in Peirce, 1958).

2^{20} possibilities are based on the mathematical game Rényi-Ulam, in which some answers may be wrong. The game implies that the information

measured by Shannon entropy statistics needed to identify any object is a maximum of 20 bits (this game is often applied as an example in information theory) (Pelc, 2002). In mathematical terms, if each question is structured to eliminate half of the objects, the most effective strategy is to ask questions that divide the remaining options field by about half. This is a process analogous to the binary search algorithm.

Using hypotheses based on abductive judgment and verifying these hypotheses, the researcher builds a set of facts (verified judgments) that form the input to the application of reasoning, based on predicting subjects’ behaviour depending on the facts and their intended varieties of the company behaviour.

3. Conclusion

Building the desired future reality requires the availability of facts, which form the primary value for strategic business management. Only based on facts can it be possible to apply reasoning in strategic management and predict the behaviour of market participants with cooperative and competitive interests towards the subject in question. Therefore, the formalization of working with facts constitutes a significant contribution to developing strategic tools. At the same time, the application of abductive reasoning based on trichotomy methods makes it possible to reach a logically almost accurate conclusion from one or more specific data.

Abductive reasoning is based on interpretive epistemology, and it is the interpretation of facts concerning indexical codes that provides a more complete and accurate understanding of reality. The new findings build on the existing ones. Through the introduced reasoning process, the researcher offers to generate hypotheses for experimental verification of the truth of the statements and thus verification of the facts. Deductive judgment is reversed to create a synthetic inference according to the relationship between premises, conclusion and empirical evidence. Abductive rea-



soning highlights the absence of dualism between facts/observations/data and theory, which are inherent hypothetical-deductive systems.

The article thus answered some of the critical questions related to applying reasoning in the company's strategic management within the doctrine of pragmatism. (I) How to approach the creation of a set of facts about cooperating and competing subjects (and factors of the business environment in general) from the point of view of the doctrine of pragmatism based on Peirce's approach of abductive reasoning? The creation of a set of facts about cooperating and competing subjects should be approached in the intentions of the proposed application of the process of abductive reasoning and trichotomy methods (see the chapter "Methodology based on trichotomy methods"). (II) What requirements should the hypothesis meet, and what factors should be considered when accepting the hypothesis? Each hypothesis developed should meet the needs of (i) the simplest and most natural explanation, (ii) the most economical formulation for testing, (iii) contributing to the understanding of the broadest possible range of facts. For each hypothesis, the factors determining its acceptance should be considered: (i) cost, (ii) authenticity (reasonable, objective, and subjective), (iii) relativity (caution, applicability to explain phenomena, non-complexity).

The proposed approach stimulates the solver to ask questions that, when properly formulated, can extract the elementary aspects of the hypothesis and eliminate incorrect solutions. By adhering to these rules, the solver can build a set of facts in the

form of verified judgments to apply the reasoning in the company's strategic management.

Acknowledgement, Part One

The support of the Masaryk University internal grant No. MUNI/A/1182/2018 is gratefully acknowledged.

Acknowledgement, Part Two

*This article will be followed by a thematic continuation in "Strategy Development: Ignoratio Elenchi Problem" with the assumption of publishing in the same periodical in 2023. It is also worth mentioning the thematic connection of this article to the already published trilogy of articles: (i) CENEK, Martin. On Abductive Reasoning for Strategic Cases Solution. In *Proceedings of the International Scientific Conference of Business Economics, Management and Marketing*. Brno: Masarykova univerzita, 2017. s. 44-55. ISBN 978-80-210-8714-9.; (ii) CENEK, Martin, Petr MIKUŠ a Roman HOLÍK. On the Context of Application of Abductive Reasoning for Strategic Cases Solution. In Ing. Petr Mikuš, Ph.D. *Proceedings of the International Scientific Conference of Business Economics, Management and Marketing 2018*. první. Brno: Ekonomicko-správní fakulta MU, 2018. s. 18-25. ISBN 978-80-210-9164-1.; (iii) CENEK, Martin. On Application of Abductive Reasoning for Strategic Cases Solution. In Ing. Petr Mikuš, Ph.D. *Proceedings of the International Scientific Conference of Business Economics, Management and Marketing 2018*. první. Brno: Ekonomicko-správní fakulta MU, 2018. s. 26-32. ISBN 978-80-210-9164-1.*

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Strategy Development: Doctrine of Pragmatism

ABSTRACT

Strategy creation shows high demands on systematic work with facts. The facts are imaginary bricks, without which a solid wall cannot be built in the form of a strategy. In addition, when applying reasoning in the





strategic management of a company, the demands on working with facts are amplified in the diction of the need to predict the future moves of cooperating and competing entities. The article's subject is a proposal for using facts in strategic business management. Applying abductive reasoning based on trichotomy methods makes it possible to reach a logically almost accurate conclusion from one or more specific data. The new findings build on the existing ones. Through the introduced reasoning process, the researcher offers to generate hypotheses for experimental verification of the truth of the statements and thus verification of the facts. Deductive judgment is reversed to create a synthetic inference according to the relationship between premises, conclusion and empirical evidence. While adhering to the defined requirements for creating hypotheses within the doctrine of pragmatism, the researcher ensures a credible and cost-effective creation of facts to apply reasoning in the company's strategic management.

KEYWORDS

Strategic management; pragmatism; abductive reasoning; inference from signs; explanatory hypothesis; risk decisions

JEL CLASSIFICATION

B40; C12; D01; D21; D81; D84



Development of “working-from-home economy” in municipal sector

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* 1. Introduction

Since the Covid-19 began to spread around the world in 2020 and the global pandemic hit all economics, the work landscape has changed dramatically. Many national governments have implemented stay-at-home policies and adopted the related “social distancing” measures to limit the rapid spread of the disease. The outbreak of Covid-19 required rapid adaptation. Companies, especially the large ones, have realized the need to adopt the remote work format, enabling employees to work from home. The organizational decision to adopt the concept of home office or other remote work arrangements may bring numerous benefits. Moreover, under pandemic situation, working from home has become one of the best options for employees to continue working without being exposed to the risks of contagion. The pandemic has normalised working from home that used to be more as a privilege and speeded up the transition process in companies that would take other months or years. Regardless of its increased usage and observing significant advantages, the challenges that need to be addressed remain. Shifts to working from home are likely to remain after coro-

navirus contagiousness is gone. As Waizenegger et al (2020) discusses, the pandemic has created a unique context that significantly differ from the previous remote working studies.

The aim of this paper is to explore the sudden and enforced issues Covid-19 has imposed to working culture and required skills for professionals. The paper is structured as follows: firstly, it discusses the current literature on remote work arrangements with consideration of related benefits and an aspect of transformation in time. The next part is dedicated to the issue of upskilling that has been emerging in last years and got into the priority in circumstances of increasing use of digital environment in 2020. Next, data on working from home during Covid-19 crisis are investigated within European region and special focus on the Czech labour market. As a casual study, the situation in the municipalities of the South Moravian Region in the Czech Republic was examined, how they were prepared for the possibility of online work and a home office during the time of restrictions caused by preventive measures against the spread of Covid-19 in 2021. Research evaluation is part of the article. Finally, discussion with recommendation and future prospects is made.



→ 2. Working from home before and during pandemic

The concept of remote work is related to the company's flexplace policy which allows employees to have more power over where they work, regardless of the time of day (Shockley and Allen, 2007; Bloom et al, 2015). Working from home, telecommuting or telework refer to mobile work or a flexible workplace as a work arrangement in which employees do not commute to a central place of work. Nilles (1998) defines telework as *"any form of substitution of information technologies (such as telecommunications and computers) for work-related travel; moving the work to the workers instead of moving the workers to work"* (Nilles, 1998, p. 1). As flexible work arrangements, Hill et al (2001) define the situation when an employer provides benefits that permit employees some level of control over when and where they work outside of the standard workday. The definition by the European Commission also relates flexible working arrangements with gender equality. Despite slightly different operational definitions across countries, they however rely on two different components (Eurofound, ILO, 2017). Generally, all types of technologically assisted work performed at an alternative workspace other than the default place of work that is centrally located are considered in the definitions of the above mentioned terms (Gajendran and Ravi, 2007). Secondly, there is the use of personal electronic devices as an essential part to perform the work without being in direct, face-to-face contact with other person. The use of personal electronic devices needs to be an essential part of carrying out the work (Eurofound and ILO 2017). As Garrett and Danziger (2007) add, remote workers often maintain a traditional office and usually work from an alternative workplace one to three days a week.

The advancements in information and communication technologies in last decades enabled more flexible forms employment to become an alternative to traditional offices. The potential advantages

are for employees as employers. Remote work has been shown to generally increase worker productivity and job performance (Pyöriä, 2011; Tato-Jiménez et al, 2019). Research shows that remote work also increases motivation and job satisfaction, helps employees have greater commitment and morale, and a higher level of energy at work by eliminating wasted time (Messenger and Gschwind, 2016; Wadsworth and Facer, 2016). On the other hand, an employee is exposed to isolation and together with stress, the line between professional and home environment vanishes (Messenger and Gschwind, 2016; Ramsdal, 2016). Previous studies document the link between distance work and measurable increases in productivity, fewer absences, lower unit labor costs and overall improvements in operational efficiency. The inability to easily monitor work performance requires a transition from "face-time culture" to "results-oriented culture" (Hill and Weiner, 2003; Messenger and Gschwind, 2016). The measurement of the performance, often embodied in an organizational culture of a firm is under rethinking process. The difference between the evaluation of the hours an employee spends on working or the results he or she produces can sometimes be significant.

The adoption of the remote work arrangements has been slower than initially expected. The determinants of the change process include for instance traditional organizational cultures, regulatory concerns related to liability and intellectual property rights associated with working outside the traditional office and overall control over legal liabilities (Pyöriä, 2011; Calvasina, et al. 2014).

As mentioned, with coronavirus outbreak and related restrictions, companies had to face the sudden change without prior planning which caused a lack of support systems for employees in many ways. The specific circumstances brought certain differences between remote working before pandemic and during Covid-19. Companies started shifting budgets to digital events and digital contents (Staboulis and Lazaridou, 2020). Working

from home stopped being an option and a benefit but it has rather been enforced. When comes to the motivation, people aimed at home office for increased flexibility and autonomy before Covid-19. Under governmental and organisational restrictions to avoid the risk of spreading the virus, the accommodation of private commitments has been however limited as well. Next, when more household members may be sharing the same space during lockdown and have to cope with their private, educational, or professional activities, employees have been facing more distractions than before which may jeopardise the original advantages including increased productivity (Engle et al., 2020, Waizenegger et al, 2020). Besides usual professional and private roles, employees – parents often take on multiple roles, such as teacher or cook (Kramer and Kramer, 2020). Restricted mobility for social gatherings, exposure to negative news and reduced life satisfaction in general then brings negative effects on well-being. Social responsibility for employees is more important in this situation, both in the private and public sectors (Nesiba 2021, Nesiba and Čuhlová, 2021). Flexibility of working arrangements happens on three levels, namely the societal level, the organisational level, and the individual level of an employee (Ramsdal, 2016) and the pandemic in 2020 imposed challenges on all of them.

3. Reskilling for the distance economy

Even before the coronavirus crisis, changing technologies and newly emerging working arrangements and technologies were disrupting jobs and the skills employees need to do them. The need of upskilling therefore predates Covid-19 and bears up accelerated technological change. The pandemic in 2020 has made this question more urgent. In many sectors, the global driving growth in demand for the digital skills needed to help reduce avoidable physical interactions and to work remotely, to use online services, and to connect with suppliers and markets through online channels is being ob-

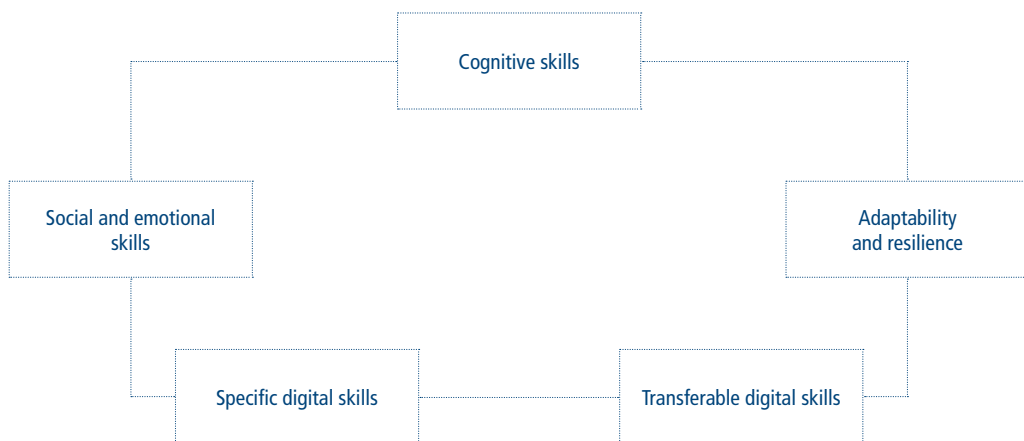
served and it imposes several challenges for work environment as transforming skills by employees is becoming crucial. Consequently, employees in all levels need to identify, develop, and strengthen a new set of skills to maintain a company's productivity while working from distance. As Staboulis and Lazaridou (2020) list, common job skills traditionally included:

- leadership and management (coaching, motivation, problem solving, strategic thinking, decision making, etc.);
- professionalism (dedication, ethics, integrity, self-confidence, etc.);
- organizational (multi-tasking, time management, goal setting, strategic planning, etc.);
- team building (flexibility, communication, collaboration, etc.); and
- analytical (critical thinking, data analysis, research, etc.).

These skills remain necessary to develop nowadays even more. Workers in any occupation across sectors are more employable if skills such as logical, creative and critical thinking, communication, team working and problem solving are strengthened. It also allows them to act more effectively in changing environment (Nesiba, 2018). This is also the case of environmental and digital literacy. Developing cognitive skills including critical thinking is needed in increased autonomy imposed by remote work. To maintain the ties among colleagues or subordinates, advanced interpersonal skills will supplement the core employability skills (McKinsey, 2020). Moreover, Kolenak et al (2016) mention so called subtle or fine skills that exist besides the traditional hard and soft skills. Subtle skills are not completely visible from the outside and they formed from the inner environment of an individual, but they create a significant added value of an individual's quality in terms of his orientation and functioning in a given situation. These include for example mental condition or reasonability and it is related to the concept of a resilience. Castro and Zermeno (2020) point out the case of the entrepreneur during pandemic Covid-19 when the resil-



→ **Figure 1 » Reskilling framework for post-pandemic era**



Source: Own processing

ience factors demonstrate a high degree of tolerance to ambiguity, and fast adaptation to change as well as taking advantage of those situations.

Besides rather soft skills category, according to the International Labour Office (2020), the most promising types of skills in the context of pandemic target also categories of specific technical skills and transferable technical skills. For transferable technical skills does not matter what position or industry an employee might have worked in, there are all-encompassing, with general applicability, e.g. digital attitude. Figure 1 classifies desired skills for post-pandemic era into five categories.

Findings of PwC (2020) demonstrate that the benefits of upskilling programs differentiate organisations. The main positive outcomes are especially stronger corporate culture and employee engagement, higher workforce productivity, improved talent acquisition and retention.

Although during the first lockdown in spring 2020 many employees experienced “learning by doing”, continued remote working has started to pose an upskilling challenge. That also includes training of managers, supervisors and leaders as remote management emerged as a very new disci-

pline. New leadership model must consider topics of fostering empowerment, maintaining sense of connection among team members or empathy. Nowadays leadership is an art of leading people to a goal, the pursuit of a vision, and the ability to encourage and inspire teams and employees to act effectively (Knap-Stefaniuk, 2021).

Moreover, national governments offer a range of initiatives for reskilling and upskilling to help businesses through the pandemic. This is a case of for example Ireland that plans a €100 million retraining package including a total of about 35,000 places across further and higher education in areas where there are acute skills shortages such as ICT, high-end manufacturing, data analytics and artificial intelligence (Irish Department of Enterprise, Trade and Employment, 2020). It is also partially a response to inevitable retraining and upskilling needs caused by a fast-changing economy where robotics and automation are replacing jobs previously carried out by humans, digital and analytics skills are in demand, and learners increasingly demand flexible options that fit around their lifestyles.

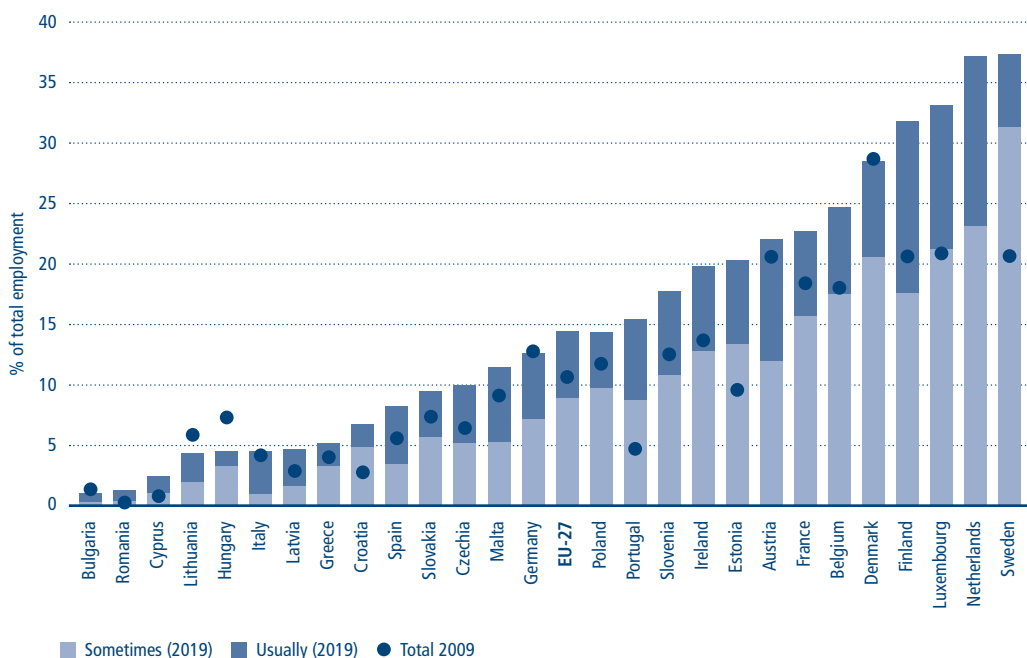
3. Teleworking on the European labour market

The historically increasing trend of using home office is related to the change in the economy, which is due to the gradual digitization and the situation on the labour market, where there is a shortage of workers, and thus it inevitably leads to greater use of alternative working hours. It is necessary to get people into the labour market who, for example, could not afford it in the past because they were not able to work at work for eight hours a day. The global Covid-19 pandemic in 2020 led to extensive physical distancing which significantly accelerated the entire process of intensifying work from home (Sullivan, 2020).

Many companies have downsized or stopped operating in the ordinary workplace in response to government regulations and due to concerns about

the health of their employees or a lack of customers. Some workers were able to switch to remote work relatively easily. However, for many jobs, it is impossible to carry out normal work activities from home, forcing many workers to become inactive or looking for a new job. Data from Eurofound (2020) suggest that close to 40% of those currently working in the EU began to telework fulltime as a result of the pandemic. It is necessary to realize the significant differences within the European countries, their labour markets and working culture habits. According to the Eurostat (2019) statistics before pandemic, teleworking has been most common in the Netherlands (14%), Finland (13.3%) and Luxembourg (12.5%). Especially, countries in Northern Europe showed the largest growth in the prevalence of telework over the past decade. Following Figure 2 illustrates prevalence of telework across EU member states before Covid-19.

Figure 2 » Prevalence of telework across EU economics before Covid-19



Source: Eurostat (2020a)

Data from Eurostat (2020a) show that as in 2019, the share of employees working from home on regular basis or at least sometimes was more widespread, above 30%, in Sweden, Finland, and the Netherlands where is a larger share of employment in ICT-intensive services. Contrary, half of the EU economics was below 10%. Between them, countries such as Belgium, France and Portugal have a share of telework ranged from 15 to 24%. Ojala and Pyöriä (2018) assume that national characteristics of labour force affect the levels of flexible work designs. They continue that the countries with the highest shares of managers and professionals (which is more than 30% in Belgium, Denmark, Ireland, Luxembourg, the Netherlands, Finland among the EU) may also experience the highest incidences of flexible knowledge work designs. This is supported by data on frequent ICT users (Eurostat, 2020b), often among managers and professionals.

Unlike Western European economics and the United States, the working culture in the Czech Republic is not on the same level of preparedness for work flexibility. A survey (Eurostat, 2019) before the pandemic Covid-19 showed that approximately 280,000 workers in the Czech Republic used the home office. Ten years ago, that was 85,000 fewer workers. In general, compared to European countries, Czechs were more among the countries where it was far more common to go to work every day. The usual telework was for only 4% of Czech workers (about 206,000 people) (Eurostat, 2019).

Due to the coronavirus crisis, there has been a significant increase in the number of people who can routinely work from home. Even before the crisis, about a fifth of employees had this option, with a new 16% added. Today, more than a third of workers in the Czech Republic have a home office at their disposal (LMC, 2020). According to the data, the most difficult areas to tackle were providing equipment for teleworking, establishment of communication in distance, mutual trust and harmonization of tasks and goals.

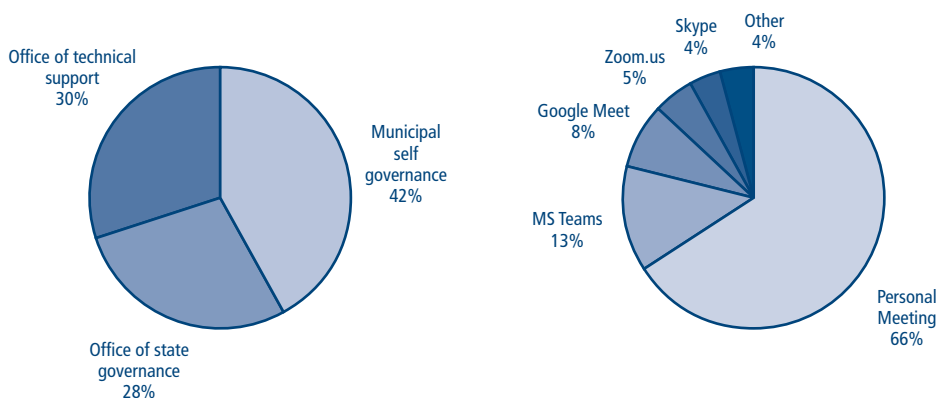
During the spring peak of the epidemic, the

transition to work from home varied significantly between educational groups. Although university students faced less work outages, thanks to the home office, there were significantly fewer of them fully present in the workplace than among others. During March and April, more than 40% of working university students used full-time work from home, while among high school graduates it was about 20% and for people with primary or secondary school without the final exams than 10%. This supports the previous data from Eurofound (2020) that concludes that the share of ICT-based mobile workers in the Czech Republic increases with the level of educational attainment (Eurofound, 2020). While about 4% of those with basic or secondary education without a school leaving certificate were ICT-based mobile workers in their current job, the proportion was about 16% among those with a university degree. Figure 3 illustrates working arrangements in the Czech Republic since the first lockdown in March 2020 till current situation in January 2021.

4. Research

Sociological research was done at municipal authorities in the South Moravian Region as a administrative part of Czech Republic. Research goal was to examine, how are used online instruments as the home office alternative. At a time of restricted working condition in the workplace announced by the Czech government during 2021 (in connection with the Covid-19), the research focused on the use of a “working-from-home” approach of municipal-public administration. In other words, how do individual municipal authorities use the opportunity for officials to work on the home office. The South Moravian Region is one of the 14 administrative regions of the Czech Republic, it is the second largest region in the Czech Republic in terms of population (as of 1 January 2021, the population is 1,195,327), and the third largest region in terms of area (7,188 km²), with total of 672 municipalities. Of this number, 216 municipalities were included

Figure 3 » *Left (relationship among types of public governance); right (types of IT applications used for online meetings)*



Source: Own processing

in the research. The research took place mainly in a personal form in the months April-May, 2021.

It was found that 100% of the surveyed municipalities used home-office platforms in some form, but only some sectors used electronic applications for interconnection. It was surveyed that due to restrictions, there was no cancellation of employment contracts and reductions in the staff of individual offices. Only 18 offices had to be reorganized and staff reduced. This situation occurred only at those small municipal offices that employed less than 20 officers in total (in the countryside and the small villages). In the situation was found, that over 85.2% of surveyed offices, the employer enabled training with new technologies in the online performance of work from home.

The research focused on how to change the conduct of management meetings among individual branches of public administration. It was found that in 65.7% of municipal offices, management meetings remained in the personnel regime. For the remaining meetings, the online form was used by 42% of local authorities (i.e. *municipal self-governance*), 28% by state authorities (i.e. *state gov-*

ernance) and 30% in the area of technical departments and support officers (see Figure 3).

It can therefore be stated that due to the low percentage of implementation of home-office options at a time of government restrictions caused by preventive measures against Covid-19, municipal authorities in the South Moravian Region are not yet (2021) stabilised for full operation of demand on working-from-home economy options.

5. Conclusion

Development in recent years indicate that the technological progress is only one aspect influencing the spatial work mobility. In 2020 the world has experienced new nonnegligible determinant. Since March 2020, the ongoing Covid-19 pandemic has forced many companies, employees, and educational institutions around the world to stay at home or limitedly interact face to face and adjust majority of professional activities and processes due to self-isolation policies mandated by governments as an effective measure to control the spread of the virus.



Changes on labour market related to pandemic situation evoke numerous trends that due to the interconnectedness of the industries, markets and economics have a cross-dimensional impact and it is possible to claim that even when the global health emergency is over, many new teleworkers will continue in remote working, at least part-time. Next, working from home trend is likely to influence migration patterns, both regional and global. As Covid-19 shutdown national borders, skills development is expected to be driven more acutely. To continue, international recruitment process and future skills supply chain, including a topic of visa systems, must be refocused. The concepts of home office, telework or remote working gives the organization the benefit of recruiting and retaining the best employees whenever they live while they might be unwilling or unable to relocate. Besides that, although as this paper states many benefits that home office arrangement may offer, such as increased productivity and task performance, or

better time management, it is not automatically for everyone and the transition to teleworking is not so straightforward.

In hand with digital innovation and need of technological advances, human capital demonstrated by its skills are being challenged. The paper discusses flexible working arrangement in comparison before and after coronavirus outbreak. Data on teleworking on European labour market with focus on the Czech work environment indicate a gap between the economics and thus different level of their preparedness for working-from-home economy.

A focus on skills could offer a strong foundation for building sustainable economies. Besides that, remote work arrangements have a positive impact on sustainability as it supports a variety of initiatives including reduced inequalities, sustainable cities, and responsible consumption for instance.

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Development of “working-from-home economy” in public municipal sector

ABSTRACT

The coronavirus pandemic and related crisis has altered the workplace and provided a driving force push towards working-from-home revolution. Despite rapid development in ICT and digitalization in last decades, many companies remained reluctant in incorporating flexible working arrangements such as working-from-home and this concept used to be continuously perceived as a benefit. The attitude rapidly changed when extensive physical distancing was demanding by stay-at-home policies imposed as a reaction to the virus Covid-19. The paper discusses the topic of home office concept as a flexible working arrangement from the perspective of time development, i.e. before and after coronavirus outbreak. The analysis points out a topic of upskilling concerning jobs across organizational hierarchy. Data on teleworking on European labour market with focus on the Czech work environment indicate a gap between the economics and thus different level of their preparedness for working-from-home economy. Authors supplemented their conclusions with their own research using online applications at the municipal offices of the South Moravian Region in the Czech Republic in 2021.

KEYWORDS

Flexible work arrangements; Home office; Remote management; Telecommuting; Upskilling

JEL CLASSIFICATION

J24; J60; J81

Leadership Development at University of Defence: Students' perspective

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* 1. Introduction

Education and readiness of future successful graduates of the University of Defence, Czech Republic for performing future professions belong to the basic preparation system. The basic system comprises mutually overlapping areas — education, upbringing, and training. These attributes of education are required, especially in the command and staff positions at the units and facilities of the Army of the Czech Republic (CAF).

The mission of the University of Defence is to educate quality experts and commanders within the Faculty of Military Health, the Faculty of Military Technology, and the Faculty of Military Leadership. All faculties focus on educating students in their military specialties, but above all, they train new officers — leaders.

One of the fundamental pillars of a good leader and leadership is a combination of moral qualities, clear assignment, and transmission of information, as well as the support of its people in the team and support from superiors.

These intertwining aspects are important for

the proper functioning of any successful organization, especially organizations such as the Army of the Czech Republic, working on the security and defense capabilities of the Czech Republic.

The General Staff and the management of the University of Defence are aware of the need to educate students, future commanders, from the first entry into the University of Defence (UoD). This process starts at the very beginning, with the initial military training in Vyškov.

The students themselves are very well aware of the need to learn and improve in the individual attributes of leadership as a prerequisite to becoming a good leader. They are fully aware that somewhere among their classmates there is a new top leader: the Chief of General Staff.

2. Leadership and its concept at the UoD

The structure of the first part of the article is a reference to the model of the so-called golden circle of Simon Sinek (2017). In this way, at UoD we pass the leadership on. The emphasis here is on understanding “why” is the leadership taught and “why” →

→ in this structure, where the individual subjects follow each other.

2.1 Why is leadership at UoD taught?

Leadership, in the Czech language, also the ability to lead non-violently, which is based on the English word “leader”, in Czech the leader or workhorse. Leadership has many definitions that intersect. According to Kateřina Jančíková (2016) *“Leadership can be also defined as giving the meaning to what people are doing together with how they understand and identify with it.”* Our students encounter different perspectives on leadership. According to Jocko Willink and Leif Babin (2017), leadership is the most important factor on the battlefield and the main reason for the success of any team, as well as the extreme ownership of the commander. According to General Stanley McChrystal (2015), leadership is the choice. Pete Blaber (2010, 2021) perceives leadership as a privilege and also mentions the 3M principle that has guided him throughout his whole career. 3M in terms of mission, my people, and my interests. Where on the first place is the fulfillment of the task, i.e. The Mission, on the second one is to take care of The Men and on the third is Me, my personal interests.

Leadership is understood as one of the necessary competencies that every commander should have. It is about a combination of some possibly more well-known disciplines, such as psychology, social psychology, management, social communication, ethics, etc.

The teaching of leadership, Military Leadership, and People Management should prepare and equip future commanders not only with the necessary basic knowledge and key skills for successful leadership of subordinates but also contribute to the knowledge and fundamental formation of the leader's style.

What do the commanders of the departments expect from the graduates of the UoD? One of the possible answers was offered by General Karel

Řehka in his contribution to the colloquium on the management of the educational Leadership process – Theory and Practice in 2018: *“Personally, I expect from the young officer who comes to the unit to be able to think analytically and critically, to be able to take a systematic approach to decision-making and problem-solving, as well as quality oral and written expression, logical argumentation and general overview.”* (Macháčková et al., 2018)

2.2 Concept of leadership subjects. What is being passed on?

Zežula et al. (2016) state that the fulfillment of the main study goal of future graduates of the Faculty of Military Leadership to succeed in military practice at the performance of command and staff functions and new requirements of military expertise administrators of the CAF General Staff led to the creation of new five-year master's degree programs (SP 2014) and in this context also a completely new subject of Leadership, which aims to give priority to shaping the student's personality for the performance of his future roles.

The subject leadership educational process was incorporated in the accredited study program SP 2014. This subject aims to prepare future officers for effective work with people, not only with their subordinates but also colleagues and across the communication flow of the unit. Tactical (direct) leadership or the “face-to-face” command is typical for the team leaders, platoon leaders, company commanders, and company senior ensigns (FM 6–22, 2006).

For this level has been also designed the subject Leadership taught to students of the University of Defence by the Department of Leadership (Zežula et al., 2016).

In 2019, the National Accreditation Authority, where the subject of leadership has been fully transformed, accredited a new study program, SP 2019. The new study program focuses in the first stage on the development of the social science base, especially on the development of ethics, psy-

chology, sociology, andragogy, communication, cultural, and civilizational contexts. We are focusing there on the creation of a theoretical social science foundation (*UNIVERSITY OF DEFENCE. NAU-113 / 2018-9, 2018*). The emphasis remains on tactical (direct) leadership and preparing the future Platoon Commander.

The theoretical basis takes place in the first semester. Students in training also work with text in small groups. They are involved in the process of acquiring information, so they consider it more their own. It is thanks to the fact that they actively work with them and not only passively accept them. Some training is realized based on experience pedagogy. It uses videos of decision-making situations intending to evoke the necessary atmosphere of the decision-making process. Team-based tasks are realized with a focus on identifying parameters of the leader's competence in individuals, supplemented by a final review and discussion (Mikulka and Nekvapilová, 2015).

At the end of the first year, successful graduates undergo field training. Field training includes comprehensive training based on fulfilling tasks on a designated route. There is a 24-hour time limit to complete the tasks on the specified route. Before and after overcoming the comprehensive training, the level of stress is measured for all participants. It is the primary indicator of an individual's resilience. The measurement is based on the X-Stream method (Ullrich et al., 2019).

The fundamentals of social sciences are very much needed for further development in the application part.

The second and third semesters focus on the application part, which primarily emphasizes:

- Military professional ethics (Mikulka et al., 2021) – values of the military profession, moral integrity of a military professional, civil society x Army of the Czech Republic;
- Psychology (Ambrozova and Ullrich, 2020) – I x military organization (Army of the Czech Republic), I x strain (Mac Gillavry and Ullrich, 2020) (Martof, 2019), I x strain of others, I un-

der strain x others under strain (Dont et al., 2021);

- Communication – tools, and forms of communication (announcement, persuasion, negotiation, delegating tasks); information flow management, feedback (Nekvapilová et al., 2018).

Malone (1983) mentions communication and active listening as the key skills of a leader. Puckett (2007), McRaven (2017), and McChrystal (2015) think similarly about communication.

At the end of the second year, field training is prepared for students, where we again measure the students' resilience. This time focuses on a quick assessment of a crisis, which consists of an explosion, injury, and treatment of a soldier and subsequent transport to safety. In this situation, we evaluate the natural selection of the leader in the team that can best respond to the situation that occurred. Right after the situation, we measure resilience. We can compare the measured resilience values from the second year with the measured resilience values from the first year. Based on the comparison of both measured values and observations under a strenuous situation, we can narrow the number of natural leaders (*UNIVERSITY OF DEFENCE. NAU-113/2018-9, 2018*).

The most important year in new leader development is the third year. We move from the general subject of leadership to the professional military part of Military Leadership. The fifth semester primarily focuses on the Warrior Ethos and the Esprit de corps; concept of stress resistance, coping with strain, resilience, and its building strategies (Pokorný et al., 2017) and model situations in military leadership. The sixth semester combines all the gained theoretical knowledge from the first year, the application part from the second year, and the leverage of feedback from the model situations. Continuous military training is available at the VŠZ (Military School Facility) in Knínický for selected specializations, as commander of the reconnaissance unit, commander of mechanized and tank units, commander of artillery units, and commander of engineering units. For other spe-



→ cializations, this work is as individual blocks (UNIVERSITY OF DEFENCE. NAU-113/2018-9, 2018):

- Competence pre-diagnostics of the commander-leader for individual students;
- Competence development of the commander-leader of the model situation in the platoon commander position;
- Competence development of the commander-leader for moral and communication competencies;
- Stress management;
- Resilience development – resilience to psycho-physical stress

This continuous training is also based on the above X-Stream method (Ullrich et al., 2019).

2.3 Teaching methods. How is it communicated?

The major way of passing information within the educational process, especially from tactical (direct) leadership, is through the transmission of practical experience in this area. Teaching is not just about passing on information, but training and education in this area and shaping the personality of future officers – commanders. During the courses, students not only have the opportunity to be confronted with various situations that come from practice, but primarily they solve the situation in their specific way. They can make mistakes in a safe environment and learn from their errors before coming to the department.

This method, among other things, brings the benefit, that students think about some issues earlier, and thus find solutions in advance, which leads to the fact that in implementing the decision-making process they will have the advantage of experience in solving similar situations, but above all that they get to know themselves through it. Related to this is how we at the Department of Leadership think about our mission: helping people to know who they are and understanding who they may be. Similarly, Willink and Babin (2018) also consider developing the leader, mentioning that

the leader needs to find his balance between being A Leader and a Follower, Plan, but Don't Overplan, Humble, Not Passive, Focused, but Detached.

According to experience in this field, it is not the primary task to teach different model situations that students should learn to repeat from memory, with no thinking and personal opinion. There is no such way of passing leadership to the UoD and we think that such form does not prove in practice. The primary goal is an elementary effort to teach students to analyze the problem properly and learn to solve it effectively with the least possible effort and resources with the help of self-knowledge, developing their competencies and of their subordinates. Students learn to know themselves, their strengths and weaknesses, and thanks to the development of their competencies, they can be authentic in command and management of people. Through this understanding, in the future, they are likely to have a greater understanding for their future subordinates. As Howe (2005), a veteran of special operations units, states, *“Confidence comes from experience and understanding true nature of people, and where we fit.”*

The educational process forms a theoretical basis in connection with practical experience, in which students can “experience first-hand”, both indirectly from real service life at the unit and also from foreign operations through experienced lecturers and university teachers. The experience gained in such a way, when interconnected, forms the basis of the required knowledge, skills, and value attitudes of the military professional – commander.

One of the basic pillars is the interaction between the commander and the subordinate based on the principle of trust (Trivino, 2015). Lamb also described credibility and the resulting trust (2014) as a key ability of a leader. Lamb (2014) thinks about trustworthiness: *“You are not born with credibility. You must earn and build your credibility by becoming accountable, listening to your people, and, most importantly, performing on a daily basis. That credibility will be earned through perfor-*

mance and life leadership experiences. Secondly, I want to work for a leader that is credible. The more leadership credibility someone demonstrates, the more his or her subordinates will expect it; and the more fragile that leadership becomes in terms of it being lost in an instant.”

The benefit in this regard, which helps the above, is a trend that the management have recently set and is positively perceived by students. It is about connecting theory with practice, which is supported by the recruitment of new lecturers who are professional soldiers and have many years of practical experience. It is therefore an implementation of an interactive form of teaching and, from a pedagogical point of view, it can be said that teaching in this sense is guided primarily by students, not by the teacher.

The exercises are often set up in such a way that the teacher is perceived as a mentor and study guide rather than as an authority with whom they should be concerned. By following the basic rule Lead by example, by a range of different solutions, whether good or less fortunate, is trying to point out to not only individuals but also to others the possible advantages or disadvantages of solutions and confront students with such an approach. As Howe mentions (2005): *“Record your strengths and positive experiences. Dwell upon them to the point where you can build on them and continually put them into practice in future lessons. Note weaknesses, then, try not to dwell on them and do not put them into action again. Learning not to do something again is learning.”*

Learning to think for the future and defend its opinion with this knowledge, to learn to make individual decisions, instead of repeating memorized models that mostly do not even correspond with the real practice, which is often completely different from the constant, ideal conditions in the classroom. Leading by example emphasizes on their thirty years of service experience from the rank of a soldier to the rank of Colonel Malone (1983): *“Follow me and do as I do, is a far more effective way to inspire good performance than Do as I say. If*

you expect your soldiers to do something, be prepared to do it yourself – and do it as well as you expect your soldiers to do it. There is no technique of leadership more powerful than this one. It is the absolute essence of leadership, whether in war or peace.” This further develops the internal integrity of individuals (Lamb, 2014) and the learning of responsibility, which includes learning to take responsibility for their actions and decisions (Willink and Babin, 2017). Lamb (2014) mentions the difference between inner integrity and loyalty: *“If your boss demands loyalty, give him integrity. But if he demands integrity, give him loyalty.”* Sinek (2015, 2017) also mentioned integrity as a key characteristic of the leader.

Each commander is different and has different competencies and has certain predispositions, both in the positive and negative meanings of the word.

At the department, we understand the teaching of leadership as a long-term process, where teaching is adapted concerning the development and long-term work with students. In the first years, the teaching is adapted primarily to the identification and validation of selected social competencies and the development of the individuals' potential. If an individual does not know himself/herself well, cannot work and manage himself/herself, it will be difficult to act effectively and naturally on others. Students learn to develop their competencies in communication, where they first learn about individual communication styles.

Later, he/she tries to find his/her communication style. In this way, they confront their peers, know how the student perceives him/her not only subjectively but also how he/she is perceived by his/her surroundings. Upon success or failure, students better shape images of themselves, which also helps them to make better decisions, for example, about the further focus of their studies, typical command fields, for instance, or vice versa. In specialized classrooms and practical training, students develop in stress management when they well understand the reaction of their organism and



work with it. Through training methods (Ambrozová et. al, 2016) they increase resilience to stress and get to know themselves better, which will allow them to cope better with stressful situations.

The work of the professional soldier is certainly more prone to stress. In the following years, the teaching focuses on cooperation in a team and the effect of social interactions within the unit. They will get acquainted with model situations of solving ethical and practical dilemmas that they are likely to encounter during their employment, such as communication with subordinates, superiors, colleagues, interviews (job interviews, reprimand, evaluation, motivation). They also learn about burnout syndrome and post-traumatic stress disorder and the ways to prevent them. The information is based on the scientific research activities of the teachers at the Department of Leadership (MacGillavry and Ullrich, 2020, Ullrich and Mac Gillavry, 2021).

In the last stage, we focus mainly on teaching conducted in practice, where students solve situa-

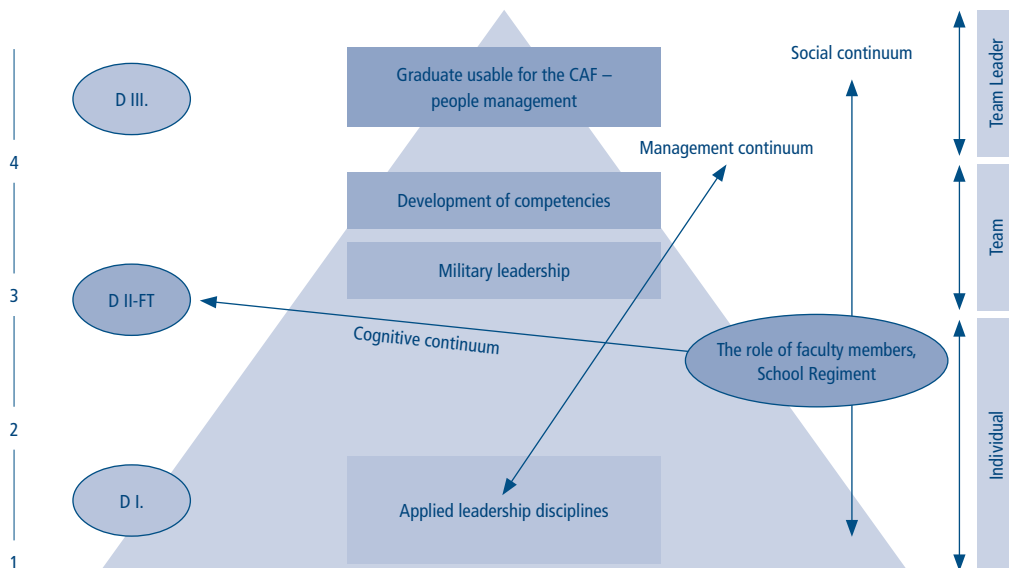
tions and work from the position of team leaders and are exposed to conditions approaching reality.

3.0 Student evaluation of teaching quality

3.1 Progress in obtaining feedback from students at UoD

At the Department of Leadership, feedback from our students is an integral part of further teaching improvement. When the current student quality assessment had not yet taken place at the University of Defence, at the end of the semester, a questionnaire survey was conducted at the Department of Leadership. Mikulka and Nekvapilová (2015) mention the questionnaire survey from the winter semester 2014/2015 and present the results. Students wrote answers to pre-prepared questions, at the end of the entire block of the course Leadership I. Data collection was anonymous (Mikulka, and Nekvapilová, 2015). For this article, the au-

Figure 1 » Leadership at UoD

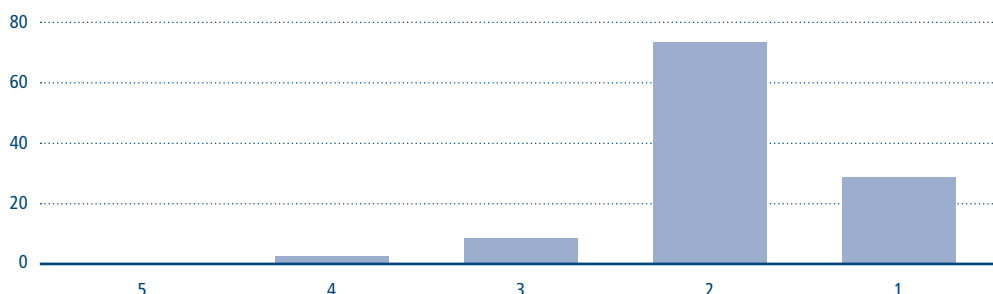


Source: Ullrich (2021), DII-FT (Field training)

Table 1 » Winter semester 2014/2015 1st semester questionnaire survey course Leadership I.

Scale	5	4	3	2	1
Evaluation	0	1	8	73	28

Graph 1 » Winter semester 2014/2015 1st semester questionnaire survey course Leadership I.



thors provided the original data on which they based their contribution.

Since the winter semester of 2018/2019, the students have been evaluating the quality of teaching in the information system of the University of Defence. Students also answer pre-arranged questions.

The limit of working with data from student quality assessments is the fact that completing the assessment is voluntary. At the beginning of the student quality assessment in the winter semester of 2018/2019, the interest was relatively high. In the following semesters, the interest decreased and in some semesters there no data are available.

As mentioned above, student feedback is an integral part of improving leadership teaching. Feedback is regularly obtained informally at the end of the semester, where it is possible to express an opinion on teaching. Notion on what is worth keeping in teaching and, conversely, what could be enhanced. The teacher can ask for details about exactly what needs to be improved, ask for ideas, and how this could be done. Some students also send feedback by email. Based on this feedback, teaching is further improved. It is possible that then students no longer feel such a need to complete a stu-

dent quality assessment. Simultaneously, we ask students to express their views on the teaching of the subject, whatever they reflect, in the student's quality assessment. It has increased this effort over the past semester. We expect the results of student evaluation of the quality of teaching for the winter semester of 2021/2022.

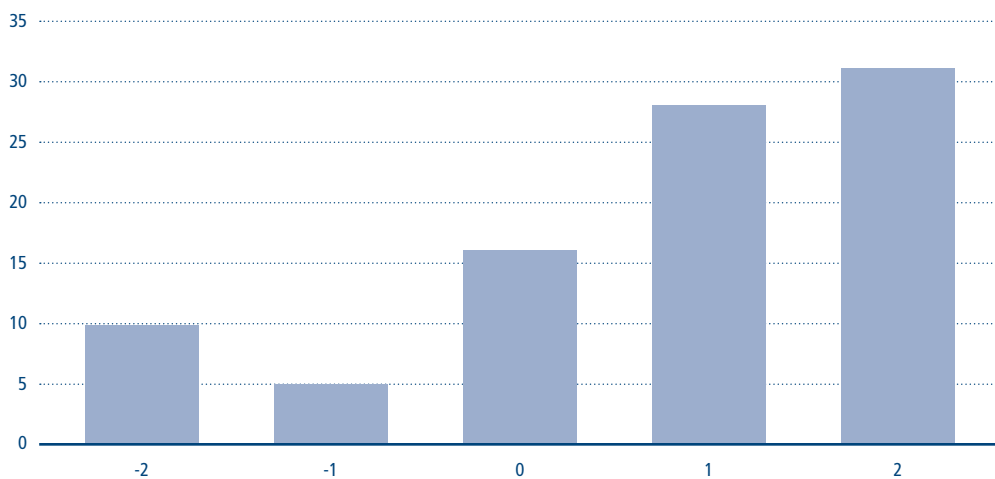
3.2 Student evaluation of the teaching quality of Leadership I. and II subjects.

Because of the above limits, it is possible to work with data from the questionnaire survey in the winter semester 2014/2015 and with data from the winter semester 2018/2019.

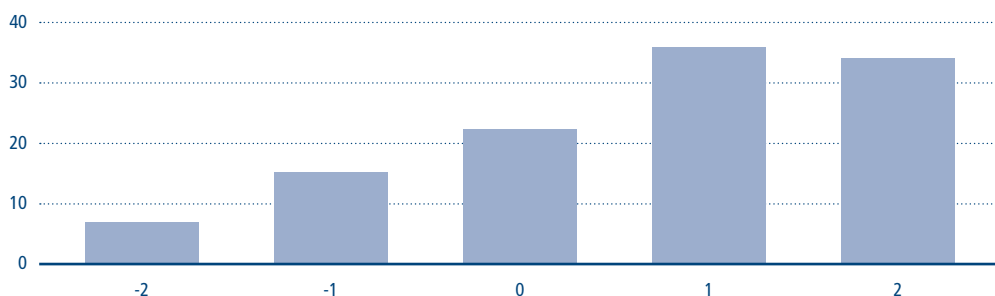
In the questionnaire survey in the winter semester 2014/2015, students answered the question "How would you overall evaluate the subject Leadership I?" on a scale of 1 to 5. Rating 1 was the best and rating 5 the worst. 110 students from the first year of the Faculty of Military Leadership took part in the questionnaire survey. 73 of them rated the subject with a grade of 2, 28 people rated the subject with a grade of 1. Thus, 101 respondents out of 110 evaluated the subject with a grade of 1 or 2. →

**Table 2 » Winter semester 2018/2019 1st semester evaluation of the course Leadership I.**

Scale	-2	-1	0	1	2
Evaluation	10	5	16	28	31

Graph 2 » Winter semester 2018/2019 1st semester evaluation of the course Leadership I.**Table 3 » Winter semester 2018/2019 3rd semester evaluation of the course Leadership II.**

Scale	-2	-1	0	1	2
Evaluation	7	15	22	36	34

Graph 3 » Winter semester 2018/2019 3rd semester evaluation of the course Leadership II.

In the student evaluation of the quality of teaching in the winter semester of 2018/2019, first-year students answered the following question: "Completion of this course was beneficial for me." They rated on a scale of -2 to +2. The meaning was: -2 — strongly disagree, -1 — rather disagree, 0 — have a neutral attitude, 1 — rather agree, 2 — strongly agree. 59 respondents out of the total number of 90 respondents completely or rather agreed.

In the student evaluation of the quality of teaching in the winter semester of 2018/2019, the students of the second year also answered the following question: "Completion of this course was beneficial for me." They rated again on a scale of -2 to +2. The meaning was as follows -2 — strongly disagree, -1 — rather disagree, 0 — have a neutral attitude, 1 — rather agree, 2 — strongly agree. 70 out of 114 respondents completely or rather agreed.

It complicates further work with the data because the data from the winter semester 2014/2015 come from a questionnaire survey, where the question was planned differently than in the student quality assessment in the winter semester 2018/2019. We expect data from the student evaluation of the quality of teaching from the winter semester 2021/2022, where the evaluation of the subjects Leadership I. and Leadership II should appear. It will be possible to compare the results with the winter semester 2018/2019 because we plan the questions in the same way.

4. Opportunities for further development of leadership education

4.1 Transition from direct to online teaching

Leadership teaching was, of course, affected by the COVID-19 pandemic, as it was at other educational institutions, not only in the country but abroad as well. The transition to online teaching was one of the factors that could affect the evaluation of the student's teaching quality and the overall student's view of the leadership teaching method at UoD. As already mentioned, we primarily built direct lead-

ership teaching on exercises, where the competencies of individuals and later other skills needed for teamwork, for effective people management, and, among other things, managerial skills are worked on and developed. One of the limits of the interactive model situations and habit creation at a University seems to be distance learning, and the associated online education. As an introduction to this issue, it is necessary to mention that the University of Defence, as an institution, currently does not have any accredited study program for distance learning. We should understand the distance form of education as a relatively complex form of teaching, which requires a longer preparatory phase before implementation, including support in study texts changed for distance learning, therefore the situation was even more complicated. *"Distance education is any form of study in which the student is not under the constant supervision of the teacher, but has a plan available, consultation possibility and is guided by the teacher at a distance. The goal of distance education is to enable continuous education of individuals who cannot participate in the full-time (contact) forms of education."* (Zlámalová, 2007, p. 30). The aim of this article is not to compare the advantages and limits of "classical" distance education, including leadership at University, but to reflect on this stage of teaching as a possible factor that could have influenced the evaluation of the quality of students teaching and the possible students' view of leadership teaching in this period. The transition from direct to online education because of government regulations had to be implemented in a relatively short period compared to direct teaching before the COVID-19 pandemic.

As well as the "standard" distance learning, for which the institution and university teachers prepared and planned well, the counter-rupture caused by the impact of various regulations to eliminate the effects of the pandemic, the conversion of the transition from direct to indirect in the sense (emergency remote teaching) (see, e.g., Bozkurt & Sharma, 2020; Cameron-Standerford et al.,



→ 2020). Teaching took place in the e-learning mode as a form of indirect distance learning to use computer technology and the Internet. In the future, there will be an effort to carry out a research study focused on the transition to online teaching in the period of COVID-19 at UoD in distance education. When the results of similar studies showed, among other things, that *“the workload of students was greater or significantly higher in online learning, moreover, with some difficulties in using online learning platforms. In the Czech environment, the professional reflection of university teaching in the pandemic is still limited to partial case studies of individual courses”* (Duschinská & High, 2020). In such sense, there is great potential for (empirical study) research at the Department of Leadership, which would like to fulfill these ambitions.

4.2 Leadership Academy

A concept with the working name “Leadership Academy” has been prepared at the Department of Leadership for a longer time. We already introduced the Leadership Academy concept at the International Conference on Leadership in Theory and Practice, which took place under the auspices of the University of Defence on November 4, 2021. At this conference has been formed a working group to further develop the concept. It should be about a follow-up study of current leadership education.

Why is it going to be a follow-up study?

Because a well-established theoretical basis from the previous subjects will serve as the foundations for this further selective study.

The Leadership Academy concept is based on many years of experience with the X-Stream method (Ullrich et al., 2019). According to the point of view on the planned Leadership Academy, teaching there will be about using multiple model situations, and complex exercises, as well as a psychological test “Leadership Judgment Indicator” with a subsequent reflection of results with the Leadership Academy student, followed by coaching with

an individualized leadership style. Unfortunately, for technical and capacity reasons, this cannot be offered to all our students, so the Leadership Academy will be selective. The Leadership Academy will deepen further their self-knowledge, work with the experience of others, as well as their own, and search for ways of long-term sustainable development of the leader and his/her future team.

5. Conclusion

The task of the Department of Leadership is to take part in the training of the future CAF officer, with the emphasis that, in most cases, he will start as a platoon commander. By keeping this in mind, it is necessary to look pragmatically for the optimal content of our students’ training. The principles of leadership remain the same, but the operating environment changes and the individual generations of students also differ. What challenges will they face in their careers? What will be the future military leader? One point of view offered General Karel Řehka at a conference in 2018 (Macháčková et al., 2018): *“We will still need a leader who, in an environment of fear, uncertainty, death and ruin (despite the famous Clausewitz fog and friction) will lead people to win the fight. We will have to get used to high-risk operations again. It will force us to operate in less comfort than we have become accustomed to over the last twenty years. The traditional fighting leader will still be needed. The future military leader will be the leader of change. It will have to be adaptable, flexible, resilient, and constantly learning. But he will still have to be a fighter.”* The acceptance of changes and uncertainty mentions also Nekvapilová (2010): *“...it means to accept as reality at least the following facts: everything is uncertain; the success of the chosen procedure is not guaranteed, we can not confine life to mathematical models and schemes; decision-making must be based on a responsible assessment of each situation as a whole; everything is always only once; nothing in human life can be repeated; What has happened cannot be taken back, annulled.”* Robert

Trivino (2015), a special mission unit veteran, summarizes the ability to cope with uncertainty and accept change as key leaders in a summary of his commander's experience. These facts place great demands on the continuous improvement of the content and methods of teaching leadership. Students' feedback from the student quality assessment is a key source of information, at the end of the semester during the last class as well. Another

valuable tool is the debriefing of teachers of a particular subject at the end of the semester. The same applies to listening to the voices of our graduates working in the departments. The process of improving leadership teaching is a never-ending journey. We need to keep an open mind and a pure heart to recognize and use what will be most useful to our students.

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Leadership Development at University of Defence: Students' perspective

ABSTRACT

The article deals with the development of leadership education at the University of Defence, Czech Republic (UoD) in the accredited five-year study program Management and Employment of the Armed Forces. The text content is divided into three parts. In the first part, he first describes the concept of leadership and answers the question of why the teaching of leadership is part of the training of future officers of the Czech Army. It also deals with the concept of leadership and Military Leadership and thus answers the question of what we pass on to students. The first part of the article concludes with a look at the methods of how leadership is taught at UoD, including model situations, as well as experience with direct and indirect teaching. The first part of the article concludes with a look at the methods of teaching leadership at UoD, including model situations and experience with direct and indirect teaching. After answering the questions of why, what, and how in the second part, the paper presents an evaluation of the quality of teaching and its development over time from the perspective of students. The third part of the paper describes the way of transition from direct teaching to online teaching during the COVID-19 pandemic in connection with government regulations, as one factor that may have influenced the student's assessment of the quality of teaching. It also offers insights on how it would be possible to further develop leadership teaching at UoD to make it as useful as possible for UoD students and to enable even greater opportunities for growth and development. The article aims to contribute to the discussion on teaching leadership and to share examples of good practice.

KEYWORDS

Leadership; direct teaching; indirect teaching; distance learning; model situations

JEL CLASSIFICATION

M14; I23; O15



Pandemic law to solve the Covid situation and its amendments focusing on business

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* 1. Introduction

In the Czech Republic, measures against the Covid19 pandemic are regulated by Act No. 94/2021 Coll. healthcare to combat the covid-19 pandemic (New pandemic law, 94/2021). However, a substantial part of the pandemic law, specifically § 1 to 8, is due to expire on February 28, 2022, which would significantly reduce the ability of the Ministry of Health and regional health stations and their ability to effectively cope with the covid-19 pandemic. With regard to the current unfavorable global development of the covid-19 disease, with special regard to the current situation and the prediction of its development in Central Europe, respectively. and in the light of the knowledge and experience of the covid-19 pandemic in the winter and spring of 2021, covid-19 can reasonably be expected to continue to pose a serious threat to public health, in particular with regard to the speed of its spread and the possible occurrence of new dangerous variants, which may be possibly. more resistant to vaccination and which may cause further waves of covid-19 disease.

Extraordinary measures were also taken pursuant to Section 69 of Act No. 258/2000 Coll., On the Protection of Public Health and on Amendments to

Certain Related Acts, as amended (hereinafter the "Public Health Protection Act") and a state of emergency was declared several times pursuant to Constitutional Act No. 110/1998 Coll., which the government may promulgate for a period of 30 days and its duration may be extended by Parliament for a definite period. Given that the latter two laws are not directly applicable to the Covid19 pandemic, we will continue to address the pandemic law and the impact of emergency measures on business in the Czech Republic (Špačková, 2018). At the same time, the subject of the article is an amendment to the Pandemic Act, which, if not adopted, will expire at the end of February 2022.

2. Material and methods

Based on the method of analysis, the author presented valid legal regulation of the pandemic law and its comparison with the proposed amendment in relation to the business. This amendment has not yet been approved, it is being discussed in the Chamber of Deputies of the Parliament of the Czech Republic as Chamber Press 127 and is to be discussed on 1 February 2022.

3. Results and Discussion

3.1 Extraordinary measures under the current legislation *de lege lata*

The Ministry of Health, the Regional Hygiene Station or the Hygiene Station of the Capital City of Prague (hereinafter referred to as the “Regional Hygiene Station”) may order or prohibit the COVID-19 epidemic or the risk of its recurrence by ordering or or restrict certain activities or services that could lead to the spread of COVID-19, or set conditions for performing such activities or providing such services. The Ministry may order extraordinary measures pursuant to the first sentence with nationwide competence or with competence in the territory of several regions. The Regional Hygiene Station may order extraordinary measures in the territory of its administrative district.

The emergency measure referred to in paragraph 1 (Act — New pandemic law, 94/2021) is

- a) restriction of public transport or determination of conditions of its operation,
- b) limiting the activities of a commercial or production establishment or the operation of a shopping center or setting conditions for their operation,
- c) restrictions on the operation of barbershops, hairdressers, pedicures, manicures or solariums, the provision of cosmetic, massage, regeneration or reconditioning services or the operation of a trade in which the integrity of the skin is violated, or the setting of conditions for their operation or provision,
- d) limiting the operation of a natural or artificial swimming pool or sauna or setting conditions for their operation,
- (e) prohibiting or restricting the holding of public or private events involving the accumulation of persons in one place, or setting conditions for their holding to reduce the risk of COVID-19 disease transmission, including the maximum number of natural persons who may participate; the prohibition or restriction shall not ap-

ply to meetings, sessions and similar events of constitutional bodies, public authorities, courts and other public or private persons held on the basis of law, and to assemblies under the law on the right of assembly,

- f) restrictions on teaching or other operation of the university or setting conditions for teaching or other operation of the university,
- g) an order to health service providers to allocate material, technical or personnel capacities in health care facilities,
- h) prohibition or restriction or setting of conditions for visits to medical facilities, social services facilities or prisons,
- i) an order to use protective, washing, cleaning or disinfecting agents and other anti-epidemic measures,
- j) an order to health service providers or social service providers in a weekly hospital, home for the disabled, home for the elderly or home with a special regime to provide the ministry or regional hygienic station with information from their activities in order to set up anti-epidemic measures,
- k) limiting the operation of the critical infrastructure elements concerned and laying down rules to ensure their operation,
- l) transfer of persons in custody or imprisonment to another prison or exclusion of the free movement of such persons outside prison,
- (m) an order to test staff and other staff for the presence of COVID-19.

3.1 Extraordinary measures pursuant to the amendment to the Pandemic Act

The proposed amendment to the Pandemic Act states that, in addition to the existing bodies (the Ministry of Health and Regional Hygiene Stations), extraordinary measures may be imposed by the Ministry of Defense or the Ministry of the Interior.

The emergency measures are then extended by these two. The new can be saved

- restrictions on the pursuit of a business or oth-



- er activity in an establishment, shopping center, markets places, market place or other space used for business or similar activities or the setting of conditions for their pursuit, including restrictions on business hours;
- limiting a business or similar activity in the performance of which a natural person comes into direct personal contact with another natural person, or setting conditions for the performance of such activity, (Act – New pandemic law, 94/2021).

3.3 Comparison of emergency measures under current and proposed legislation with a focus on business

If we compare the current and proposed measures, we can conclude that while the current measures are of a restrictive (not exclusive) nature, the newly proposed measures may, for example, prohibit certain business activities (Ginterová, 2020). For this reason, it must be issued in such a way as to interfere with business as little as possible.

3.4 Assessment of the constitutionality of pandemic law

In order to assess the compliance of the proposed amendment to the Pandemic Act with the constitutional order, particular account was taken of Constitutional Act No. 1/1993 Coll., The Constitution of the Czech Republic, as amended (hereinafter the “Constitution”), and Resolution No. 2/1993. Coll., On the promulgation of the Charter of Fundamental Rights and Freedoms as a part of the constitutional order of the Czech Republic, as amended (hereinafter the “Charter”). No discrepancy was found in this respect. The definition of newly regulated emergency measures must be designed in such a way that they cannot lead to a drastic restriction of basic human rights and freedoms in the sense of a total ban on operating or performing selected business activities in gastronomy and services (hairdressing, manicure, etc.),

however, with regard to the case law of administrative courts, this could exceptionally occur, especially during a state of emergency declared in accordance with the Constitutional Act No. 110/1998 Coll., on the Security of the Czech Republic. All state administration bodies authorized to proceed under the Pandemic Act, including the Ministry of Defense and the Ministry of the Interior, may only apply restrictions on the activity or set conditions for its operation or performance when applying all newly regulated emergency measures. It is therefore possible to impose restrictions consisting, for example, in the wearing of veils or respirators or testing of employees of entrepreneurs, or requirement to prove infectivity (Ministerstvo zdravotnictví ČR, 2020).

This follows, for example, from the judgment of the Constitutional Court of the Czech Republic of 7 December 2021, Pl. ÚS 20/21, in which the court came to the conclusion that there are no reasons either for the annulment of the pandemic law as a whole for alleged defects in the legislative process, or for the annulment of other challenged provisions of the pandemic law. (with the exception of the provisions of Section 9 (4), second sentence, which concerned the amount of damages; this issue does not concern the proposed amendment to the law). In other words, if the state takes measures that would cause damage to entrepreneurs, it cannot be stated in the law that the state will not pay for it.

3.4 Impacts of covid measures on business

The Covid virus appeared in December 2019, and the business environment is limited during 2019 to this day. Some business and entrepreneur sectors have been hit by the Covid pandemic more and some less. This was also influenced by the nature of the extraordinary measures restricting business in certain sectors. This is summarized in the table below.

The above table shows that in the vast majority of business sectors, the pandemic has put pressure

Table 1 » Restriction of business by extraordinary measures

Business sector	Type of restrictions	Opportunity
Tourism	Travel restrictions, closure of hotels and restaurants in the Covidm period, consequent restrictions, the loss of foreigners	Focus on domestic clients, taking over the competition.
Restaurants and pubs	Closed at a certain time, then restricted	Newly provided services — dispensing windows, food delivery
Industry and agriculture	Restrictions — veils, respirators and employee testing, employee quarantine	Pressure for more efficient production and robotics — industry 4.0
Transport	Lack of staff	Price increases
Transport and online services and providers of electronic communication platforms	Rising demand is unprecedented for the growth of this type of business	The Covid-19 panel has acted as a catalyst for the development of this type of business

Source: Economic impact (2020), Fan (2020), Frost et al (2019), own work

on business change, bringing some sectors to the brink of existence and kicking some species. From this point of view, we can see the pandemic as an opportunity for entrepreneurs.

3.5 Review of emergency measures by the Supreme Administrative Court in relation to business

The imposition of measures to combat the Covid pandemic must be proportionate and in accordance with the law, in particular the pandemic law. Their imposition is an important tool of the executive, which is under the control of the judiciary. Extraordinary measures are, in terms of legal form, measures of a general nature defined in the Administrative Procedure Code and are subject to review by the Supreme Administrative Court.

For this reason, emergency measures must be transparent, predictable, logical and proportionate and based on objective criteria monitoring the development of the Covid-19 pandemic.

For this reason, emergency measures must be transparent, predictable, logical and proportionate and based on objective criteria monitoring the de-

velopment of the Covid-19 pandemic. Objective criteria are based on hard data such as the number of infected, the number of patients in hospitals, the number of infected in intensive care units. It is therefore necessary to properly collect data on the development of the Covid-19 pandemic (Duncan, 2021).

The executive did not resist, and some extraordinary measures limited business and life beyond the law. The Supreme Administrative Court (2022) therefore annulled them.

An example is the judgment of the Sixth Chamber of the Supreme Administrative Court, which was issued under file no. No. 6 Ao 11/2021. The Supreme Administrative Court annulled an extraordinary measure by the Ministry of Health to restrict trade and services. exceptional procedure. This procedural defect could no longer be remedied even by the later consent of the government.

“Extraordinary measures result in serious restrictions and interferences with the fundamental rights and freedoms of individuals, and therefore the court insists on strict compliance with the law. If we accepted that an illegal ministry action would



→ always heal the subsequent consent of the government, we would make § 3 para.

In addition to this defect, which led to the cancellation of the entire extraordinary measure, the Supreme Administrative Court also commented on individual content objections. With regard to paragraph 16, which prohibits all private and public events involving more than two persons, the Supreme Administrative Court stated that this prohibition applied only to organized enterprises and could not affect family visits.

“A ban on family reunions in households would constitute an unconstitutional interference with the fundamental right to respect for private and family life,” the Supreme Administrative Court said in a statement of reasons.

Regarding restrictions on freedom of assembly, the pandemic law (unless we are in a state of emergency under the Constitutional Security Act of the Czech Republic) does not allow this at all. The Court emphasized that the ministry can only set hygienic conditions for holding meetings, or set the limit capacity of the premises if the meeting takes place indoors, but may not restrict the meeting, eg by setting the maximum number of people outdoors. The same applies to the exercise of religious freedom. Hygienic conditions for worship services can be set, but it is not for the ministry to intervene in liturgical forms of religious expression, in particular, bans on mass singing and the imposition of an obligation to sit during worship services are inadmissible. Meetings of the bodies of legal entities also cannot be limited by setting a maximum number of participants, provided that the meeting is held in accordance with the law. Nor would point 19 of the contested measure, which lays down different conditions for entry into the interior, be upheld without any justification for the differences.

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Due to a procedural defect, the court annulled the measure as a whole. He did not address the other points of the measure restricting or prohibiting shops, services, restaurants, concerts and other cultural performances, sports venues, etc., as the petitioner did not raise specific objections to them or claim to be affected in any way. However, in a general ruling on measures under the Pandemic Act and the Public Health Act, the Court noted that the notions of “prohibition”, “restriction” and “setting conditions” should be strictly distinguished and respected.

“It is not permissible for the Ministry to circumvent the absence of an authorization to issue a restriction or prohibition of a certain activity by setting such conditions which, as a result, make it impossible to carry out that activity (eg by effectively banning the provision of business services or prescribes unsatisfactory conditions for it).”

4. Conclusion

It follows from the above analysis that the existing emergency measures can be announced and regulated by their selected activities having an impact on social and business life. They cannot prohibit the activities. On the other hand, the newly prepared and discussed amendment may prohibit some business activities, which runs into constitutional barriers and the proportionality between the protection of public health and freedom of enterprise.

Acknowledgement

I thank NEWTON University in Brno for supporting this article from institutional research.

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Pandemic law to solve the Covid situation and its amendments focusing on business

ABSTRACT

The article deals with the pandemic law and its forthcoming amendment in the Czech Republic. It deals with extraordinary measures issued under the current law and according to the amendment and analyzes the impact on the business sphere.

KEYWORDS

Covid-19; pandemic law; extraordinary regulations; business

JEL CLASSIFICATION

K20; K22



Changes In Human Natural Behavior In the Context of 4.0 and 5.0 Environments

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* 1. Introduction

The article dealt with human nature, behavioural manifestations and thought stereotypes. The Covid-19 pandemic has given rise to several reasons for thinking about changes in human behaviour. In itself, it has created many stimuli that affect people's behaviour, but in the end, it has only accelerated and amplified the onset of 4.0 and 5.0 environments. In the context of these changes, human nature is likely to change, which has implications for various human activities, from everyday routine life, through interpersonal interaction, to setting an individual scale of people's values as individuals. The article aims to describe, based on secondary research, those changes in people's natural behaviour that can significantly affect people's cooperation in teams and the ability to lead and be led.

The researched area is closely related to the themes of the authenticity of leaders, but also the themes of personal development of individuals. The presented knowledge can be helpful in the personal preparation of individuals for coping with demanding environments, for managers and leaders who care not only about the quantity of performance but mainly about its quality and long-term sustainability.

2. The Historical Context of Nature

The idea of human nature has become essential to make people aware of the importance of human rights, developing interpersonal relationships, mutual tolerance and respect in society. Several professional authorities dealt with the topic, and each thinker took the concept of human nature from a different view. However, they all tried to describe the best values for man and his life in society.

Natural behaviour is described as a state where people were until the state and political institutions existed. Each of these authors describes this situation differently, and Thomas Hobbes's approach, in particular, is entirely different from Locke and Rousseau's.

In Hobbes' theory, we uncover many of the negative aspects that affected human lives in this state. There was fear, hatred, and each person's effort to preserve their property, especially their lives, regardless of the lives of others. According to Hobbes, there were no laws to protect an individual from another in their natural state. The logical way out of this situation was to create a social contract, so an agreement was reached between them to submit to political power. The people relinquished their freedom to preserve life and rights by surren-

dering to the state's power — Leviathan (Frouzová, 2013).

People tend to attack each other, keeping each other in tension. In the natural state, competition, distrust and the desire for power prevail. In these circumstances, it is a natural and valid law that freedom has no limits to one's self-preservation because, in the constant pressure and threat of each other, no one is guaranteed their existence and security. Hobbes goes on to state the right of everyone to everything, and it is fair to attack each other. He describes the subordination and bias of all against all as a peak, so he describes the natural state as a war of all against all (Coreth and Schöndorf, 2002). He describes the thesis that human nature is unchanging. However, it is possible to focus on assessing the means of self-preservation, which can be realized by handing over the natural law to an institution that is superior to individuals. The institution will then take responsibility for assessing the funds for the individual and will ensure human existence under the possibility of sentencing. This act transitions from natural to legal states (Frouzová, 2013).

Hobbes's approach, however, is very different from the theories of John Locke and J. J. Rousseau regards the natural state as the golden age of humankind. They agree that people lived happily, in harmony and peace. In John Locke's views, the man was a free individual. The only limits that restricted freedom were the limits of natural law. By constantly violating these laws by the people, an impartial and fair judge was needed to decide on a just punishment, lacking in its natural state. In the natural state, each individual judged himself. There were also no institutions that would oversee the proper execution of the sentence. The people, therefore, agreed to conclude a social agreement and created a state. Unlike Hobbes, however, they did not relinquish their sovereignty and retained some of their freedom (Frouzová, 2013).

Rousseau's theory of the natural state is based mainly on the views of Thomas Hobbes and John Locke. However, he brought his views on reason

and emotion into their interpretations, which made him different from them, which is why Rousseau is also described as a "preparer of the enlightenment." (Röd, 2004). Rousseau is not interested in leaving the natural state through a social contract but in returning to the natural state or getting closer to the moral principles on which this state was based. As has already been said, for Rousseau, the natural state was harmonious and good for man, but the development of civilization and science changed this state. Human morality has become distorted and foul (Frouzová, 2013).

The central theme of his works became the problem of inequality between people, especially social ones. Rousseau believes that the most important source of inequality was social development, in which laziness and luxury contributed to a large extent, from which property inequality was born. (Rousseau, 1978) According to Rousseau, a man got into this state of inequality and suffering through his efforts when he split from life, intended for people by nature. Through all development and adaptation to new circumstances, humanity in civilized society has moved away from the primitive, but natural state that Rousseau said was ideal for man. In the natural state, the individual was independent of another person and property. All were equal and lived in moral integrity. According to him, it was necessary to approach this state (Rousseau, 1978).

At the beginning of the book "Debates", Rousseau states that it is not easy to discern what is original in contemporary human nature and what is not. So he decided to study the natural state of people from its beginnings to the rudiment of society. According to Rousseau, the human soul is inherently linked to two principles older than reason: "one encourages us to care for our well-being and our preservation, the other instigates us in natural resistance when we see any sensitive being, especially one's neighbour, dying or suffering." (Rousseau, 1978). According to Rousseau, self-love is an original human expression, part of human nature. From this original passion, which he con-



→ siders honourable, other passions are derived, including compassion, which ranks first among Rousseau and plays a significant role in his theories. (Röd, 2004). He argues that: "It is certain, that compassion is a natural feeling which, by containing love for one in each individual, contributes to the preservation of the whole species... in its natural state, compassion replaces laws...". (Rousseau, 1978). There are no obligations to each other. Humans do not do evil to another person without self-defence by their very nature. He thinks that people do not harm each other because they are more sensitive than intellectual. Human soulfulness is also manifested through the perception that he, as a human being, has the opportunity to make free decisions and act freely. In this state, he is a free agent (Rousseau, 1978).

Due to the opportunities created by the common interest, people's desire for well-being has increased. People began to group and use speech. Man improved everything faster by enhancing his work. These changes caused people to observe themselves, to compare, everyone longed for public respect and admiration. People started harming each other. The rich longed to own more, the poor stole. The creation of tools to improve living conditions, according to Rousseau, resulted in a further deterioration of the situation, which was the division of labour that created private property. People no longer did work to provide vital needs but to own as much as possible. This forced labour led to the birth of property differences and the moral decay of the people. It is said that a constant struggle and fear of him was provoked on this essence (Rousseau, 1978).

Inequality based on private property and competition has thus caused wars and disputes between people. Rousseau stated that the conditions developed in society were not in harmony with human nature, and one loses natural freedom in life in society and is replaced by a social lack of freedom. It is said that the natural community of people, which was replaced by competition, gradually disappeared (Röd, 2004).

There is also a fundamental influence of culture in Rousseau's theory. He is aware that the emergence of culture is inevitable for the evolution of humanity. However, at the same time, the form that culture has acquired is the source of all the controversial issues of today's society. Indeed, not all advances in science and technology can replace actual natural values. (Coreth and Schöndorf, 2002)

Rousseau also tried to point out how this can be overcome. He deals with this in his theory of the social contract, whose task is to solve the incompatibility of human nature and community.

According to Rousseau, the social contract should be based on the general will. If something is decided in a state, such as accepting or rejecting a law, it is essential whether or not the decision is following the general will. This will is characterized by the individual, i.e. the citizen, agreeing with all laws that coincide with the general will, even if they do not coincide with his own will (Frouzová, 2013).

According to Rousseau, the general will is determined based on the vote-counting (Valeš, 2004). The will of all is a collection of individual wills of citizens, taking into account the private interest. The general will is sovereign, indivisible and non-expiring. No one can claim it, neither an individual nor a body of individuals. Always just the people as a whole (Razkova, 1998).

Man is thus subject to the general will, so he is not the state's very foundation that the people have become. The individual loses his rights at the expense of the people, thus acquiring the right to drive the individual to freedom. General welfare is preferred to the welfare of the individual, which is a manifestation of people's instinctive desire. Contrary to Hobbes' theory, where people try to secure the surrender of their sovereignty to the government, in Rousseau's interpretation, one engages in a society to which he is entirely subject. At Hobbes, the state supports the possibility of self-initiative in individuals; at Rousseau, the individual is subject to the general will (Rádl, 1933). According

to Rousseau, these treaty terms are that all individuals have the same personal benefits, and no one has any interest other than the common good. This community thus acquires absolute rights over its members (Scruton, 2005 and Frouzová, 2013).

3. The Context of Environmental Development

The industry is undergoing continuous development. When the scale of transformations reaches certain limits, we speak of the so-called industrial revolution. We, therefore, clashed with the first (mechanization, hydropower, steam), the second (assembly lines, electricity), the third (computers, automation) and the fourth (cyber-physics systems) industrial revolution.

Several developed countries have been dealing with the 4th Industrial Revolution, or the 4.0 period, which gradually brought about many changes in the industry, energy, trade, logistics and society. Scientific studies and practice show that the individual elements of the revolution will result in a solid economic and social transformation. Substantial changes concern the gradual implementation of information technologies, cyber-physical systems and artificial intelligence systems in production, services and all areas of the economy.

With the fourth industrial revolution, the automation of the entire production process is launched thanks to a superstructure computer system that works with artificial intelligence and sensors, which control and optimize processes (Brdička, 2016).

The head of the working group created at the Ministry of Education, Youth and Sports in 2014 for the Digital Education Strategy, Ondřej Neumajer, considers the accompanying phenomena of industry 4.0, among others:

- connecting people, services and things (Internet of Things = IoT) via the Internet, which leads to a large amount of generated data (big data),
 - big data and their constant analysis in real-time,
 - cloud solutions,
 - commencement of autonomous robots,
 - 3D printing,
 - augmented reality (Neumajer, 2016 and Vojnárová, 2020).
- Industry 4.0 is based on certain theses, which are defined in the following points:
- Interoperability: the ability of cyber-physical systems, people and all components of Smart Factories to communicate with each other through the Internet of Things and services,
 - Virtualization: interconnecting physical systems with virtual models and simulation tools,
 - Decentralization: decision-making and management occur autonomously and in parallel in the individual subsystems,
 - Ability to work in real-time: compliance with the real-time requirement is crucial for any communication, decision-making, and management in real-world systems,
 - Service Orientation: Preference for the computational philosophy of offering and using standard services leads to SOA (Service Oriented Architectures) architectures,
 - Modularity and reconfigurability: Industry 4.0 systems should be as modular as possible and capable of autonomous reconfiguration based on automatic situation detection (Dostál, 2017 and Mařík, 2015).
- The German Ministry of Labour and Social Affairs (Federal Ministry of Labor and Social Affairs, 2015) lists the challenges associated with Industry 4.0:
- Economic sphere: high installation costs, necessary adjustment of the business model and uncertain economic benefits of investments,
 - Sphere: abolition of several occupations as a result of automation of processes under the supervision of information technologies (especially manual professions), the importance of personal data protection, the reluctance of engaged individuals to change,



- Political sphere — the absence of standards, regulations and certifications and vague legal issues and the topic of data security.

Industry 4.0 has several impacts. The vision of Company 5.0 also appears, which appears to be the logical phase of the following Information Society (Vojnarová, 2020).

Due to the development of modern technologies, there is an increasingly closer connection between cyberspace and material space and man. All this is reflected in changes in society — not only the industry but also society as a whole is changing. For this reason, for example, Japan is not favouring the implemented changes as Industry 4.0, but rather Company 5.0. It came up with the mentioned concept in 2016, and, among other things, it is a response to the ageing population of Japan and the inevitable provision of care for it (Granrath, 2017).

In the beginning, man manifested himself as a hunter (1.0 — a society based on hunting), then people focused on growing crops and raising animals (2.0 — a society based on agriculture and pasturing). At the time of industrial development, mass production of “for all” products began — (3.0 — industrial society). Information is a vital topic in society (4.0 — information society). However, the creation of knowledge from information is still based on people. In the fifth stage of human society, knowledge creation and knowledge will be based on machines and artificial intelligence (5.0 — a society based on artificial intelligence) (Dostál, 2017 and Granrath, 2017).

The development of the business environment and the world has accelerated significantly, which has changed the way people live and work. The values of people and companies have shifted significantly. The current environment is, among other things, characterized by the “computerization” of relationships between people. It is increasingly difficult to know what is real and an electronically generated illusion in an information overload environment. The ability to think critically, perceive the situation’s complexity, and cope with pressure

at work and beyond is increasingly needed. It has thus become a frequently discussed problem of personality development (Ambrozová and Kolečák, 2017).

The science of Cognitive Management focuses on the qualities of potentials and abilities of people and human systems useful for their existence and development in a modern, complex and rapidly changing environment. Among other things, it exercises the guidance of people through their nature. Thus, it supports the approach where the leader is most decisive precisely because he behaves naturally, i.e. with a minimum of energy expended on his “image in society”, the need to manipulate others and create complex systems of maintaining power (Ambrozová and Kolečák, 2017).

4. The Context of Human Development

At the same time, changes in the field of education and the development of people, which naturally respond to the needs of industry 4.0, are gradually intertwined with intensive changes in the field of industry and work.

Education 4.0 is a response to the needs of Industry 4.0, where people and machines have to work together to make progress. Education 4.0 should apply digital technologies, personalized data, open resources and “new humanity” in a global technology-driven world. Education 4.0 provides a framework for future development and education from children, through on-the-job training, to lifelong learning (Fish, 2017).

The World Economic Forum stated in its report *Schools of the Future — Defining new Models of Education for the Fourth Industrial Revolution* (World Economic Forum, 2020) that the current generation of children will partly work in positions that do not yet exist, of which the majority cannot do without good knowledge of digital technologies and socio-emotional skills. They will operate in different business models with a significantly more distributed workforce. In an increasingly in-

terconnected world, there will be more and more natural collaboration among colleagues from other parts of the world, which requires an understanding of cultural differences and, in many cases, the active use of digital tools to enable these interactions (Vojnarová, 2020).

The report (World Economic Forum, 2020) identifies eight key features of quality education in line with the Fourth Industrial Revolution, Education 4.0:

1. Skills of a global citizen. Education should focus on awareness of the wider world, sustainability and active involvement in the global community. Focus on the development of future citizens and address challenges such as the uneven distribution of opportunities in the world, the depletion of natural resources, climate change, etc.

Communication and information technologies, such as the creation of virtual classes and conferences, can be used for discussions, which will enable children from all over the world to connect and provide them with the opportunity to discuss and exchange ideas and opinions on various global challenges. Similarly, virtual or augmented reality can transfer students to other locations to become aware of the problems that need to be addressed in those locations.

2. Innovation and creativity. The intention is to support the development of the skills needed for innovation, which includes solving problems comprehensively and thinking analytically and creatively. Cultivating these skills requires a different way of teaching children. Children need to be actively involved and supported in a critical analysis of existing approaches and solutions from an early age. Learning through learning contributes to the acquisition of innovative skills. They naturally develop curiosity, learning by trial and error and exploring new approaches. These methods are entirely different from traditional frontal teaching methods, where students act only as passive recipients of the information. An inno-

vative and creative approach in teaching requires interactive educational techniques, where the teacher has the role of mediator or coach rather than a lecturer. Appropriate digital tools can be used to strengthen these capabilities.

3. Technological knowledge. Technology and programming awareness is crucial for the future. The transformation of education should promote a healthy relationship with digital technologies in children, understand the principles of digital risk management and security principles, and build awareness of their responsibilities as responsible creators and consumers of such technologies. Computational thinking that combines math, science and digital literacy can help students understand how computers can solve different tasks and the benefits.

4. Interpersonal skills. In the context of automating routine activities using technology, it will give people an advantage over technology and their ability to work with people. Leadership skills, social influence and emotional intelligence are considered critical competencies for the future. Promoting the development of these skills in children will help them understand the importance of building healthy relationships with others, taking into account different aspects and complementing each other's abilities. Modern communication technologies, such as video conferencing systems, can be used for teaching, which will enable students to connect with students from different parts of the world for discussions on various current topics. At the same time, this approach encourages students to develop comprehensible expression, as students must take into account cultural differences and different perspectives of people from other parts of the world. At the same time, modern technologies can be an effective tool for students to collaborate on projects in genuinely global teams.

5. Personalized teaching with a pace adapted to each student. Many educational institutions so



far apply standardized educational procedures. Transforming education into a more personalized approach can help schools move closer to the real needs of working life outside school and achieve better outcomes during education. Reducing the size of study groups can be a helpful approach, which is practically difficult to implement. Another alternative is to divide the children into smaller groups working independently and the teacher switching between them. Another option is to provide space for students to demonstrate their qualities and skills in various ways (e.g. song presentations, videos, etc.), project-oriented teaching applications, where children choose their focus, etc. Computer technologies that allow students to browse can also support a personal approach—curriculum at their own pace.

6. Affordable and inclusive education. Education is a crucial key to social mobility and well-being, and therefore education systems should become more accessible to all while limiting the growth of inequalities. With accessible education, it is easier to support a variety of talents that can positively influence future innovation and growth. Again, modern technologies can be helpful from this point of view, e.g. speech-to-text technologies can be helpful for visually impaired students or those who have difficulty understanding the text. The introduction of modern communication and information technologies can have a turning point in those parts of the world where the possibility of teaching by connecting teachers and pupils is limited or not yet ensured. At the same time, virtual laboratories can be a valuable tool for teaching scientifically specialized subjects in areas where physical laboratories do not yet exist.

7. Problem-based learning and collaboration. The educator communicates information to students through traditional education by presenting processes and formulas that lead to a single correct answer. Children must memorize these formulas, and approaches must be memorized

and subsequently imitated by children to solve other similar tasks. The challenge is that today's development-driven times are subject to the creation of innovative approaches, mindsets, services and products, and no process or formula is available to do so. Creativity and innovation cannot be imitated, and on the contrary, they are subject to repeated attempts to solve a given problem, while the possibility of more solutions to a given problem must be accepted.

As a rule, there is a need for more people to cooperate and support education systems for a problem-oriented approach instead of a process-oriented one. At the same time, there is a need to change the approach to one correct response to an open-ended approach. These changes will support the possibility for children to try different solutions, compare results and iteratively build on the opinions of others, which requires greater cooperation. Problem-oriented topics of real projects can be solved so that students can find solutions in collaborative projects.

8. Lifelong and student-driven education. Traditional education systems operate on the principle of focusing on studies at the beginning of life, and subsequently, no significant volume of studies at an advanced age is expected. A sensible approach involves people in lifelong learning to strengthen their ability to cope with innovations in employment throughout life.

For this reason, it is helpful for children to cultivate a love of education from an early age and to support their natural curiosity. Promoting a love of learning will also require a change in the system, where the student may perceive that he or she is learning for his or her benefit, not to achieve a specific reward or successful completion of standardized testing.

At the same time, digital technologies can help with individualized education by allowing students to choose the specific teaching material they wish to work with and the specific time they want to study. Teachers have the opportu-

nity to map the path of education of individual students, assess their development and suggest further teaching (Vojnarová, 2020 and World Economic Forum, 2020).

Teaching technology and technology encourages students to develop critical and creative thinking, including questioning thought processes, actions and cognition (Best, 2017). Research-oriented teaching is a way of education in which students can discover, collaborate, research and respond to authentic problems and situations in the real world.

6. Discussion

The historical context varies from the concept of nature as a struggle of all against all to the concept of self-love and compassion presented as the highest principle. These two concepts accompany humanity during social development and are accentuated in various ways due to the evolving environment. Individual industrial revolutions demonstrate the development of the environment. As a result, however, it was always a social revolution, as there were always significant breakthroughs in the readjustment of people's values.

The Covid – 19 pandemic acts as a catalyst accelerating the dynamics of change and thus the onset of 4.0 and 5.0. The natural response of society should strengthen the effort to adapt to change, which can bring a significant competitive advantage to individuals and companies that are aware of the dynamics of change. We see an inclination towards education and personal development of individuals as an effective form of adaptation.

Technological and social progress is reflected in the constant pressure to develop technical education across the education system – from kindergartens through primary and secondary schools to universities. There is more substantial importance of extracurricular education focused on developing specific skills and talents of the emerging young generation. Lifelong learning plays an essential role in adult development, enabling them to

draw on the necessary knowledge, skills and competencies throughout life according to current trends while also allowing space for personal development and support of success and a sense of self-usefulness in the developing system.

It is no longer enough to focus exclusively on the curriculum, innovation of methods and forms of teaching is inevitable, and the transformation of facilities (classrooms, laboratories, workshops) for the implementation of new approaches to teaching is also related to this.

5. Conclusion

The article aimed to describe those changes in people's natural behaviour that can significantly affect people's cooperation in teams and the ability to lead and be led. A historical excursion, which concludes with two limited approaches, helped us achieve this goal. That is, the fact that human nature is self-preserving, built on the struggle of all against all, and thus as such, must be regulated by a superior authority, typically the state. The Covid-19 pandemic has manifested itself in many ways (buying out food when a pandemic is declared, dividing society, radicalizing society in terms of vaccination, lockdown, etc.). The second approach offers some alternatives in kindness, love and especially compassion for others. This approach during the pandemic balanced social trends and was generally perceived in society as an alternative, i.e., people were motivated to follow the measures by caring for others and being sympathetic.

A fundamental trend in the development of the environment is the tendency towards the time referred to as 5.0, characterized by the interconnection of living and non-living systems. It fundamentally breaks down the notion of nature in "traditional" perceptions. It creates an appeal towards the need for people to adapt to the new environment, through education and personal development, in particular, which should be given special attention to science and politics society.



The trend will be to apply the principles of research-oriented education and support students in developing critical and creative thinking, including questioning the directions of ideas, procedures, and ways of acting, cognition, and development and providing a space for discovering, collaborating, researching and responding to real problems and situations in the world, as well as the necessary experience and insights that they will be able to apply in various sectors. There will be an increasing emphasis on understanding the context of

teaching, mastering data and supporting the ability to search for the necessary data and information. The passive form of education emphasizing frontal teaching and memorization will step back, and the trend will be mainly interactive methods supporting critical and individual thinking required by contemporary innovation-driven economics.

Peer-to-peer learning will prevail. Teachers will act as facilitators or moderators of communities created around the shared theme of education.

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Changes In Human Natural Behavior In the Context of 4.0 and 5.0 Environments

ABSTRACT

The article deals with the topic of human nature, behavioural manifestations and thought stereotypes. The covid-19 pandemic has given rise to a number of reflections on changes in human behaviour. This in itself has created a number of stimuli affecting human behaviour, but ultimately it has only accelerated and amplified the onset of what is often referred to as the 4.0 and 5.0 environment. In the context of these changes, human nature is arguably changing, which in my estimation has implications for a range of human activities from daily routine life, to interpersonal interaction, to setting people's individual value ranking as individuals. Based on secondary research, the aim of this paper is to describe those changes in people's natural behaviour that can have a significant impact on people's cooperation in teams, and their ability to lead and be led. The tools, methodologies that will be used are closely related to the topics of authenticity of leaders, but also to the topics of personal development of individuals. The presented findings can be useful in personality preparation of individuals for coping with challenging environments, for managers and leaders who care not only about the quantity of performance delivered, but especially about its quality and long-term sustainability.

KEYWORDS

Leadership; human nature; pandemic

JEL CLASSIFICATION

D81; D91; I18



The End of Covid Crisis — Lessons Learned and Time to Prepare for Future Events

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* 1. *Introduction*

The infectious agent that causes the infection of living organisms behaves as competitively as any other living organism — it evolves in accordance with the laws of evolution. Evolution is based on random genome mutations that cause different alleles to be inherited from generation to generation, with natural selection affecting their carriers. In the long run, only the allele whose carriers adapt better to the surrounding environment will survive. Viruses behave the same way. In order for a virus to be developmentally successful, it must find a balance between the degree of damage to the host's health caused by its reproduction and the rate at which it spreads. The usual epidemiological schedule is an intense onset of the observed infection accompanied by high morbidity and mortality with possible epidemic to pandemic effects, passing into high contagiousity (infectivity) with low mortality. The reason is the need to keep the hosts alive so that the virus can continue to multiply in the population. If he kills the host with high mortality, then he actually kills himself. And that's not an evolutionarily good strategy.

Coronavirus SARS-CoV-2 is no exception. After

relatively intense initial variants, there is a gradual mutational development towards an easily transferable omicron variant, which combines the infectivity of the British Alpha and South African Beta with the effectiveness of the Indian Delta and the New York Beta. The resulting efficacy of omicron, thanks to a number of mutations collected throughout the development, makes it a new form of contagious agent, which has diametrically different clinical symptoms from the previous dominant delta variant, with significantly higher infectivity — 30 % higher according to Israeli and Danish statistics in December 2021, and 2.5–3 times higher according to Czech IHIS (Soukup, 2022) with equally significantly lower morbidity (80 % lower compared to all variants, 70 % lower probability of a serious course according to the South African NICD study (Wolter, 2021) than other variants. The statistics thus clearly confirm the laws of nature. Or vice versa?

2. *Manipulation with Public Opinion*

Coronavirus infection is associated with a number of manipulations and arguments, which keep the public in permanent stress and fear. This form of

social engineering is obviously focused on the restructuring of society, because the use of clearly false (and often downright false) statements polarizes society and decomposes it not only socially but also economically. The future will show how significantly this targeted anti-social activity will also lead to a disruption of the health of the population. It is possible to monitor not only local (national) activities of local business groups, hiring people with different relevant professional orientation to maintain the level of public fear. The media is helping this not only with their unbalanced news, but especially with the spread of toxic positivity. Many people have fixed themselves on an exemplary positive and optimistic manifestation of behaviour during pandemic constraints, while widely perceiving negative news, which has resulted in avoiding the painful emotions that come with the reality of the situation. With avoidance comes a lack of acceptance, and that is harmful. Toxic positivity, along with fear, stress and isolation, supports the development of anxiety and depressive disorders in the population. Most people try to live a pandemic every day without debilitating anxiety or depression, only to read on the social media or in the news the fiery challenges that called them “be positive” – and at the same time supply them with reports of deaths and infections, including catastrophic predictions, and alarms from various media “experts”.

In an interview with the Dazed portal (Radin, 2021), psychotherapist Elizabeth Beecroft describes it as *“the superiority of happiness or optimism in any situation, regardless of its severity”*. People are thus forced to try to maintain positive thinking even in very stressful moments. But that can do more harm than good. *“Toxic positivity is a trend of people avoiding negative emotions, such as sadness, anxiety or depression, and replacing them with superficial positive emotions,”* said Carrera Kurnick, who runs Fashion Snoops’ fashion trends agency (Lehmert, 2021).

A radical, artificial and, above all, unjustified long-term loss of income, especially in the middle-

income class, together with the psychological burden will lead to its socio-economic decline. According to the World Economic Forum (WEF), the duration of the covid state is predicted until 2023, which correlates with the European Commission’s agreements with vaccine manufacturers and the economic need for the WHO to end the pandemic state in 2023 in relation to the EC (Schwab, 2020; Castañeda, 2021).

The hard impact on the economy did not matter in the case of the general population or small and medium-sized enterprises, which have been systematically decimated since March 2020. In connection with improperly set testing rules, purposefully biased determination of epidemiological conditions (definition and implementation of the terms “testing”, “positive/negative covid”, “infected”, “isolation”, “quarantine”, “vaccination”, etc.) affects economic security large corporate players, as they rapidly accept solutions based on their political representation. This is evident in the originally absurdly strict lockdowns with small to minimal numbers tested positively, where the only risk was the filling of previously systemically reduced medical facilities.

3. Testing – True or False?

The virus variants of the time were isolated in the population by time-long isolations / quarantines of positively tested persons, who are currently incapacitated by a fold-higher number of economically active persons with the omicron variant. Therefore, different forms of isolation/quarantine shortening are being considered at the same time, although there is no other than economic reason for this, as there is no evidence of a shorter time of virus excretion compared to other variants. An extreme case may be Muzaffer Kayasan, who in the past 14 months came out as a positive covid in a total of 78 tests (Dikmen, 2022).

This is also associated with nonsensical testing – not only in schools and occupations, where even to ineffective antigen tests are used for previous



→ variants, but also as a form of institutional testing as a basis for official measures. Antigenic assays are primarily designed to capture high doses of antibodies in clinically (and especially symptomatically) patients with the first SARS-CoV-2 variants. Even then, their reliability in asymptomatic infections was not significant, but with the onset of omicron, they are unreliable even in clinically manifest infected (US FDAa, 2021). They often suffer from interference because antibody recognition is not error-free and may be distorted by the presence of other molecules.

Therefore, their use to test schoolchildren only exacerbates the suspicion of wasted funds, which is also confirmed by statistics. During testing in Czech schools on January 3, 2022, 0.33% of positive (3,695 out of 1,100,000 tested) schoolchildren were detected nationwide (iDnes, 2022). This is in direct contrast to Israeli omicron mortality statistics (0.003%), because then omicron mortality would be 1:1000 (i.e. 0.001%) among the “sick”, not 1.5: 100, according to the combined statistics Johns Hopkins University and Google (Google, 2022). Thus, the ten-fold difference indicates the high error rate of antigen tests used in Czech schools and thus the direct responsibility of persons promoting this testing for placing obstacles in education. By analogy, given the same tests used to

test employees, this can also be used as a reason to artificially place obstacles at work that limit work performance and earnings.

However, the problem of antigen testing is not limited to the ongoing omicron variant, but also extends beyond the delta variant in the long run. In the case of delta and omicron variants, antigenic tests are not able to detect less severe infections in vitro, in the delta it was from 6.50 log¹⁰/ml (Ct 25.4), in omicron it is 6.39 log¹⁰/ml (Ct 28.8) and were not able to detect them at Ct values 28. Only results with Ct values ≥ 35 can be assessed as non-infectious under certain conditions. PCR testing, which has been promoted, has similarly limited effectiveness. Its fundamental problem lies not in the accuracy of the instrumental technique, but in the test kits used, to which the results relate. These reference values are based on the original variants (Chinese and British Alpha), but they have little in common with the delta or omicron. This can be compared to recognizing an ostrich when you only have a picture of a hummingbird...

And then there is the most important critical point – the sampling itself. Professional sampling points demonstrate only low technical proficiency, because especially in nasopharyngeal tests, the correct design is associated with significant discomfort for the tested person. Proper collection of

Table 1 » Seizure success and seizure costs of antigen and PCR tests at selected health insurance companies in the Czech Republic

	OZP (autumn 21)	OZP (spring 21)	ZPMV (spring 21)
costs (CZK)	3,350.000	485,000.000	1,900.000
ATG tests (pcs)	59000	900000	
tests +	0.2 %	0.25 %	0.2 %
ATG+	145		3900
ATG false+		948	
PCR	45		
PCR+	11		
cost per ATG+ (CZK)	304,000	332.000	380.000

Source: insurance company data (Mensik, 2022)

biological material is crucial for the capture of a truly native coronavirus sample on the mucosa, not just viral debris, which, however, by repeated replication in PCR can give a false positive result – with significant consequences for the person concerned without appeal. The combination of shallow (i.e. technically unsuitable) swabs or gargling tests with a high viral load in the air, where virus particles broken by the immune system remain on the individual's mucosa, then leads to a high number of false positive tests in sensitive instrumental PCR techniques, which result in defective determination of each “*positive*” as “*sick*” without a medical examination not only devalues the statistics, but also causes significant economic damage.

The use of mass spectrometry offers a qualitatively and quantitatively better test method with success rate 84 % with specificity 97 % (Cardozo et al., 2020). Selected SARS-CoV-2 peptides are then used to detect identification using a high-throughput targeted proteomic assay based on turbulent flow chromatography coupled with tandem mass spectrometry (TFC-MS/MS). This proteomic assay does not detect peptides in clinical specimens from other strains of coronaviruses, rhinoviruses, enteroviruses, and influenza viruses, indicating that there is no interference with the assay – unlike other types of instrumental assays.

However, in addition to long-term damage, economic and limited access to education, direct and immediate damage is also associated with incorrect testing. The primary harm to the health of the population is the massive application of substances contained in experimental injections, which the population claims to be vaccines. The vaccine is designed to stimulate the body's immune response in order to reduce the risk of infection and to protect the vaccinated person from a dangerous disease before they come into contact with them (WHO, 2022). A vaccine is a biological substance designed to protect people against infections caused by bacteria and viruses. Thus, immunization uses the ability of our innate immune system to prevent infectious diseases (Woods, 2017).

4. Vaccines – Principles and Doubts

Simple and complex vaccines are standard, resp. modified applications of existing technologies. Unusual vaccines are intended for diseases for which immunization has not yet been available (e.g. HIV, malaria). Initially, mRNA vaccination was abandoned in favour of plasmid DNA until non-existent stabilization with an artificial substance (methylpseudouridine) having unknown health effects was applied under natural conditions (Liu et al., 2019). Although it is known experimentally that the combination of the three structural proteins (S, M, E) SARS-CoV-2 provides the best immune response, existing vaccines contain only mRNA information for the S protein. Undoubtedly for some good reason, because the S protein alone does not generate the immune response of key T-cells in animal models, unlike the combination of all three proteins (Corbett et al., 2020).

However, the main problem is the completely unknown – and from the immunization point of view unreasonable – manipulation of the very composition of genetic information in the coding of the mRNA for hemagglutinin in order to more effectively resist and obtain the appearance of human mRNA in the affected target organism (Hubert et al., 2020). In addition, the mRNA itself is microencapsulated in lipid nanoparticles, which helps it to penetrate target human cells. The basic component of this packaging is polyethyleneglycol (PEG), cholesterol and various fat particles (phospholipids, ionizable cationic lipids). These lipid particles are responsible for a strong inflammatory reaction of the organism (Norling et al., 2019; Ndeupen et al., 2021), which manifests itself in the affected persons with significant side effects such as severe pain, fever, swelling, drowsiness, etc. The inflammatory reaction at the injection site on the arm can spread intramuscularly, when the inflammation of the nearest lymphatic gland (axillary lymphadenopathy) occurs, similar to the case of a stormy autoimmune reaction to breast cancer. It is therefore not surprising that the list of the most →

common adverse reactions reported by the FDA during clinical trials with Pfizer-BioNTech includes “*injection site pain, fatigue, headache, muscle pain, chills, joint pain, fever, site swelling injection site erythema, nausea, malaise and lymphadenopathy*” (US FDA, 2021).

Another component of the lipid envelope, polyethylene glycol (PEG), acts as a strong stimulant of the immune response. Although a large dose of PEG does not cause an allergic reaction, the micro amounts contained in the vaccines used can lead to dramatic pathological conditions in the immune system (Mohamed, 2019). The most severe adverse reaction to PEG injection is anaphylactic shock and cardiovascular collapse, which occurs mainly at the second dose due to the widespread presence of anti-PEG antibodies in the population (Hamad et al., 2008; Kozma et al., 2019; Zuo et al., 2020). Thus, adverse and negative reactions to mRNA vaccine injection may be associated with a major stimulant of the immune response.

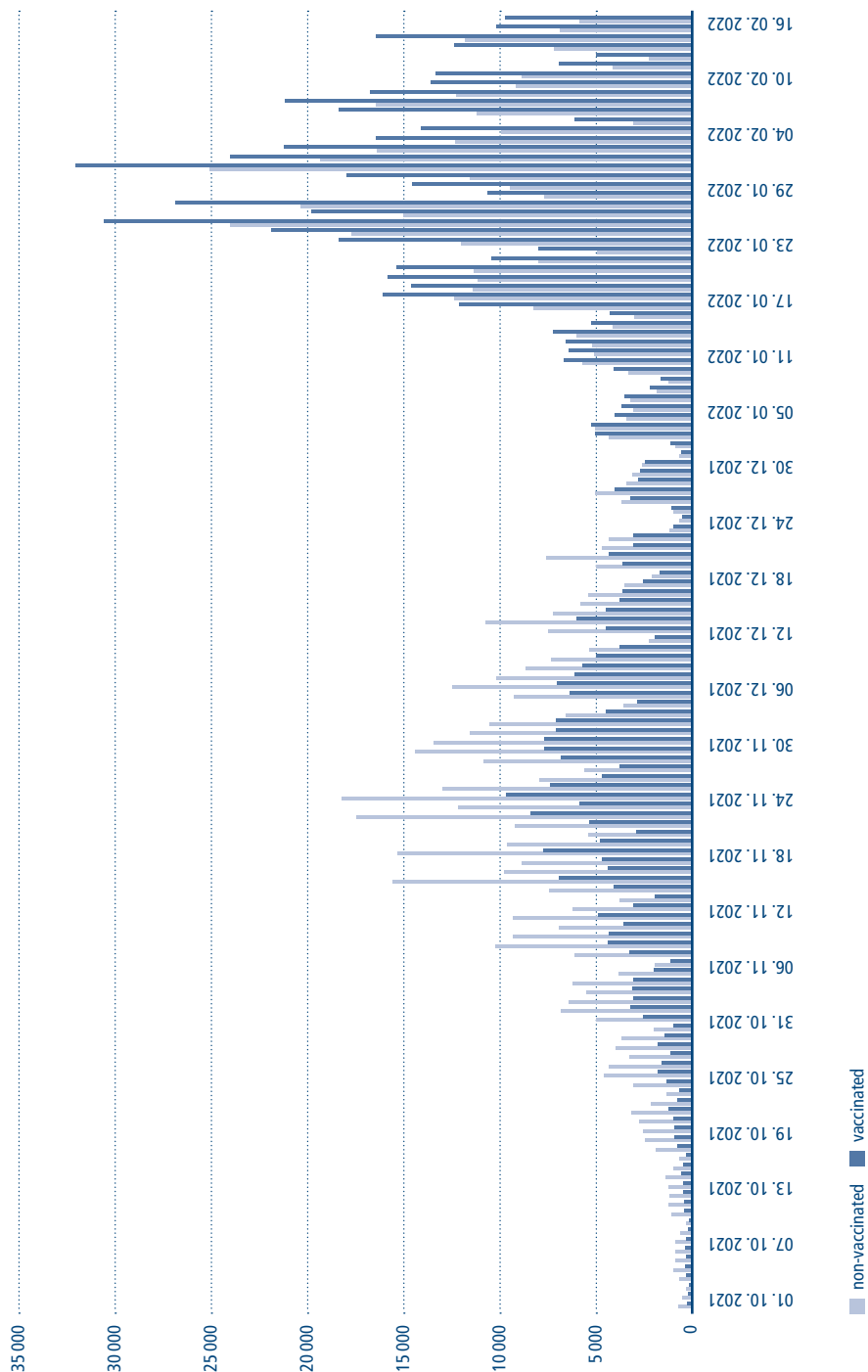
An interesting immunological phenomenon is Antibody-Dependent Enhancement (ADE), sometimes less accurately called immune enhancement or disease enhancement, in which the binding of a virus to suboptimal antibodies increases its entry into host cells, followed by replication. Suboptimal antibodies may be derived from natural infection or vaccination. This phenomenon has been known since 1964, but it has been ignored for decades due to its unclear meaning and function. It is thought to be responsible for a more severe course of dengue fever in people previously vaccinated or with a history of the disease, similar to Ebola, Zika fever or other flavivirus diseases. A similar warning occurred with SARS-CoV-2, with ADE observed in coronavirus vaccines tested in *in vitro* and *in vivo* models (Eroshenko et al., 2020). Evidence (Peron and Nakaya, 2020) suggests that the much more diverse range of previous coronavirus exposures encountered during the elderly may predispose them to ADE after SARS-CoV-2 exposure and thus to a significantly more severe cytokine storm-related disease and severe lung tissue damage. Wide-

spread vaccination then leads to reflection on the level of risk of developing ADE, either with booster doses or with SARS-CoV-2 coronavirus exposure alone.

The desired result of the application of the mRNA vaccine to the human body is the production of human monoclonal antibodies against the S protein. However, they produce cross-reactive antibodies against human endogenous proteins (Vojdani et al., 2021), which provoke ADE after previous vaccination or infection. Clinically, this condition is manifested by an autoimmune disease (acute or chronic) or an inflammatory condition, such as reactive arthritis. Highly reactive antibodies with affinity for SARS-CoV-2 proteins also have a high affinity for proteins responsible for celiac disease, Hashimoto's thyroiditis, multiple sclerosis etc. (Vojdani and Kharrazian, 2020). These diseases manifest symptomatically many years after the activation of the primary trigger. The autoimmune consequences of the acute COVID-19 disease are demonstrated by a sudden onset of idiopathic thrombocytopenic purpura, Guillaine-Barre syndrome or autoimmune hemolytic anemia or systemic lupus (SLE) with cutaneous manifestations in previously healthy individuals (Galeotti and Bayry, 2020; Zamani et al., 2021). Similarly, multi-organ inflammatory syndrome in children (MIS-C) can be associated with ADE, with 68% of children in the study sample having serologically significant antibodies to an infection caused by SARS-CoV-2 (Carter et al., 2021) or another coronavirus in genetically predisposed children.

Antibodies with affinity for SARS-CoV-2 are very commonly found in patients who have undergone COVID-19 in both blood (Vlachoyiannopoulos et al. 2020) and cerebrospinal fluid (Franke et al., 2021). Although SARS-CoV-2 is not directly present in the cerebrospinal fluid, the presence of a significant number of functional antibodies associated with G-protein receptors explains a number of neurological difficulties after COVID-19 (Wallukat et al., 2021), with post-covid syndrome manifested by heart rhythm disorders, neuropathies, al-

Table 2 » Daily gains of infected vaccinated and non-vaccinated against COVID



Source: Mensik, 2022



→ opecia, disorders attention, fatigue syndrome etc.

The opposite case of the immune response are people who, although positive in PCR, did not show symptoms of COVID-19. Their naturally strong immune system, along with a healthy mucosal barrier, killed the colonizing virus with neutrophils and macrophages without the need for antibodies. Thus, these individuals are not primarily at risk for COVID-19 itself, as they develop either completely asymptotically or only very mildly, but they may develop chronic autoimmune disease as a result of excessive antibody production due to unnecessary vaccine administration. The intersection of morbidity curves in vaccinated and non-vaccinated patients in the Czech Republic, demonstrated in the following Table 2 (Mensik, 2022), shows a decreasing level of vaccination efficiency. In the case of real vaccination, which evokes the existence of immunity against the etiological agent (and not just the induction of a short-term immune response), there could not be such a significant intersection of curves and especially an increase in morbidity of persons vaccinated with declining non-vaccinated morbidity.

The use of mRNA vaccines in the general population is therefore, to put it mildly, controversial, especially in terms of their future spread due to other target agents and thus a much greater impact on other populations (e.g. Moderna, 2022). Some aspects of the course of COVID-19 and the associated development and application of vaccines should also be considered in the context of the above information:

- first use of mRNA vaccination technology against an infectious agent
- first product that Moderna launched in 10 years of its existence
- first use of mass-distributed genetically modified polynucleotides (engineered RNA)
- first use of polyethylene glycol (PEG) by injection
- first medicine for which the manufacturer, doctors and responsible authorities point out the expected negative effects

- first medicinal product mass-administered to the general public, including groups with increased sensitivity (children under 12 years of age, people over 65 years of age)
- first vaccine for which there is no known (let alone clearly demonstrated) long-term effect on reducing infectivity, morbidity or mortality in relation to the target agent (SARS-CoV-2)
- first coronavirus vaccine (animal or human) – although coronaviruses have accompanied humanity for ages and have caused two events with pandemic potential for humanity in the last 20 years (SARS 2002, MERS 2012)

Biodistribution of the vaccine in the body begins with intramuscular injection, where the concentration is understandably highest, and then spreads through the lymphatic system through the nodes into the spleen and liver. This is understandable, as it is a transmission through macrophages and other immune cells. However, the presence of vaccine mRNA in the brain is striking (Baal et al., 2017; EMA, 2021). The spleen is a key organ for the body's immunity and also provides a source of about 30 % of the body's platelets. Treatment of vaccine mRNA with pseudouridine aims to make it more resistant to the body's immune cells so that it is able to penetrate into the spleen. However, the spleen is also the primary site for platelet clearance in the onset of idiopathic thrombocytopenia, when the body begins to produce antibodies against its own platelets. It eliminates foreign antigens and at the same time produces serum immunoglobulin IgG thanks to B lymphocytes. After exposure of the organism to vaccine mRNA and subsequent production of S protein SARS-CoV-2 in the body of the target person, neutrophils in the spleen gain the ability to react with B lymphocytes and thus trigger the production of antibodies (Puga et al., 2011).

However, the cross-mechanism of platelet and neutrophil communication may trigger idiopathic thrombocytopenia through the pathological response of NETosis (NET), as is known from the course of influenza infections, where platelets play an important role in eradicating the viral disease

(Jansen et al., 2020). Impairment of the body's ability to remove its own damaged cells appears to be directly related to the application of vaccine mRNA, even if the body is not exposed to live SARS-CoV-2 virus, with the subsequent development of a cascade of inflammatory processes leading to idiopathic thrombocytopenia. The vaccine mRNA stimulates the production of the S protein SARS-CoV-2 (which is its goal in order to allegedly protect the body against the outbreak of COVID-19), which binds to platelet glycoproteins and causes their significantly accelerated aging. And this results in the subsequent development of a tumultuous autoimmune reaction necessary to remove artificially aged platelets from the body and at the same time a rapid reduction in their number, which can lead to life-threatening conditions.

To summarize, the above information on the construction and impact of COVID-19 vaccine mRNAs points to a generally politically supported system targeting:

- maximizing the revenues of selected pharmaceutical corporations, either by the prices of primary doses or by an increase in booster doses, the effect of which, however, is not only obvious, but also officially counterproductive (Roy and Aripaka, 2022)
- adoring people linked to clearly defined sources of funding leading to the proliferation of injectable products as “vaccines”
- high potential for a massive future spread of autoimmune diseases in a selected population, shortening the length of productive and overall life of an individual

5. Repression and deception

The events of recent days make this clear. The crystalline case of demonstrated manipulation of public opinion for firm control of the masses is the Australian case of Djokovic. Novak Djokovic was officially deported from Australia on January 16, 2022, after being stripped of his residence visa. The reason for this official decision by Immigra-

tion Minister Alex Hawke is not only medical reasons (lack of vaccination due to a recent COVID), but especially maintaining public order, as Djokovic's “*presence in the country would be a risk to the anti-vaccination mood*” (BBC, 2022). The decision was made in accordance with the Immigration Act (§ 133C3) in the public interest and has resulted in a ban on entry into Australia for another 3 years (Gov Australia, 2022). Judicial review of this decision has evidently avoided the logic of reasoning, arguing that the legality of the Minister's Decree was examined, not its legitimacy.

A major spark of light in the darkness of general manipulations and delusions is brought by the main Danish daily Ekstra Bladet. Brian Weichardt made it clear on January 7, 2022, that the public and journalists were “*almost hypnotically biased*” by daily official statistics and obsessively biased by the number of infected, hospitalized and deceased, where the slightest movement of curves was demonstrated to the public by “*experts, politicians and authorities who constantly warned us against dormant corona. monster under our beds*”. The representative of this socially significant daily regretted that the journalists were not “*vigilant enough*” in a critical analysis of the government's reported numbers of hospitalizations “*with coronavirus*” or “*on coronavirus*” (Jørgensen, 2022).

This is the world's first major public revelation, where the government is clearly convicted of manipulating covid statistics in order to systematically deceive the public for two years. “*It turned out exactly that the official numbers of hospitalizations are 27 % higher than the actual number of those who are in the hospital simply because they have a corona. We only know that now,*” said Weichardt. He also made it clear to the authorities that their responsibility was primarily responsible for “*... correct, accurate and honest information of the population*” (Jørgensen, 2022).

Other countries, such as Canada, Australia and the United States, have added to this revelation, where health professionals have reported falsified numbers of infected hospitalized patients. New



→ South Wales Minister of Health Brad Hazzard told the Daily Telegraph on January 3, 2022 that up to half of the cases classified as hospitalizations with Covid-19 “*are actually people with other reasons for admission*”, including broken bones, labor pains, and even mental problems for which covid positivity was discovered only during a routine control smear. Another Australian state, Queensland, has admitted the same method of reporting (Graham, 2022). And it's no different in the Czech Republic.

The Institute of Health Information and Statistics (ÚZIS) also admitted that the share of positive people who came to the medical facility with another health problem, but were only identified as positive, there make up **25 % of patients in the Czech Republic** (Mensik, 2022). However, this does not include patients who have come up with another problem, but despite negative tests, they have been identified as covid patients to improve the reception of the medical facility.

In his contribution, Weichardt touched on the most incredible fact — no one with the power to speak to the public and be heard for two years applied at least basic critical thinking to facts that directly shouted that they were false or at least manipulated. And people who were not afraid to speak out were dishonored, their careers and often their lives threatened. And who among the kind readers remembers the sentence about the stress of toxic positivity mentioned in the introduction to the article, then Weichardt's subsequent words only confirm this. “*Constant mental alertness has worn us all out*”, he wrote, “*That is why we — the press — must also evaluate our own efforts. And we failed.*” (Jørgensen, 2022)

6. Pharmaceutical Companies — Winners of the Crisis

The information war is being fought on both sides. One side wants to sell and therefore increases the demand for its goods, the other side does not want to be just a victim. An example is coronavirus vaccines distributed in an emergency mode, i.e. with-

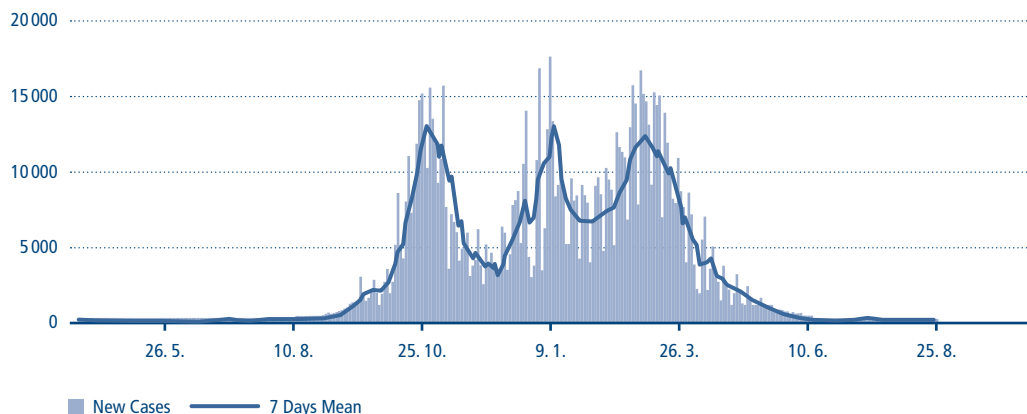
out guarantee and responsibility for the health consequences of vaccinated people. The extreme rate at which they were introduced indicates that they are untested preparations with unknown effects and consequences, as routine clinical testing of the new vaccine takes years. Also, the extent and frequency of adverse reactions to vaccination would otherwise lead to an immediate cessation of distribution and legal liability for both approvers and manufacturers. Vaccines were even recommended for some time in April 2021 to suspend administration due to serious health consequences, including the development of diffuse blood clots, suspected inflammation of the heart (myocarditis and pericarditis) or autoimmune diseases. In early March 2020, the WHO estimated that coronavirus vaccine production would take 18 months, a shorter time than the typical vaccine development process (Lehmert, 2021).

This is compounded by doubts about the definition of a pandemic as such, when the WHO redefined the terms epidemic and pandemic both in April 2009 and then in January 2020. Data collected by Johns Hopkins University show the actual course of the epidemic curve in the Czech Republic (the same exists for other countries). These data clearly demonstrate the unfoundedness of the extreme financial costs of personal protective equipment and other measures in the first half of 2020, when there was a classic psychological maneuver of insurance agents in the form of scaring the customer in order to open cash flows.

Doubts about the whole nature of the coronavirus pandemic in relation to economic flows are completed by comparing the basal numerical indicators of the causal agents of both influenza diseases according to public statistics:

This can also be compared on the yield tables of pharmaceutical companies producing influenza vaccines GlaxoSmithKline (especially the 2009 swine flu vaccine) and Moderna — the most expensive SARS-CoV-2 2020 vaccine on the market — almost twice as expensive as a similar product from Pfizer and almost 10 times more expensive than

Table 3 » Pandemic curve development in the Czech Republic 2020–21



Source: JHU CSSE COVID-19 Data, Czech Republic (06-08-2021)

Table 4 » Comparison of COVID-19 and bird flu incidents

Infectious agents	Number of officially infected persons (morbidity)	Number of officially recognized deaths (mortality)	CFR (case fatality ratio)
coronavirus SARS-CoV-2 (2020–21)	213 917 541	4 463 845	2 %
avian influenza H5N1 (2003–13)	630	375	59,5 %

Source: Authors (data via Google, WHO)

vector vaccine from AstraZeneca (Lehmert, 2021).

Infectious diseases have been squeezed by large pharmaceutical companies because they are unable to make the same benefits as other diseases, such as cancer and chronic diseases. However, the fact that most pharmaceutical companies have to start from scratch in Covid-19 highlights how unprepared the industry was and the great weakness of the pharmaceutical industry in the area of infectious diseases. This also refutes their claim that they have worked on vaccines for a long time and are therefore absolutely safe.

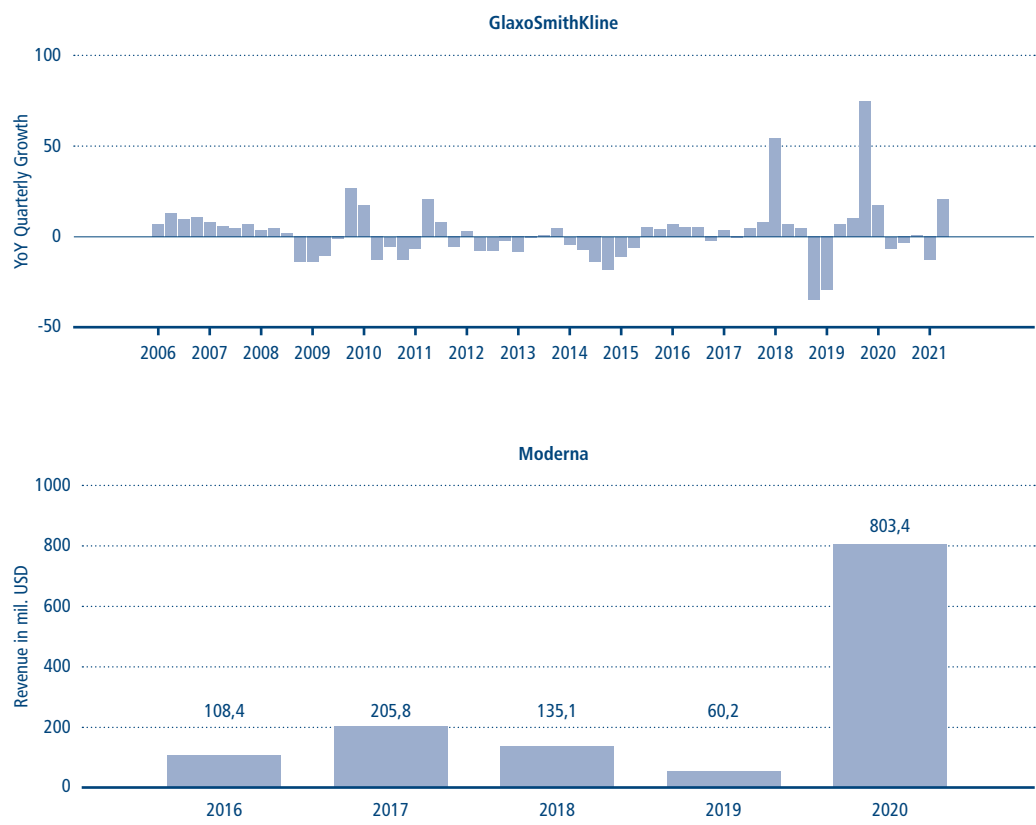
The exclusive Guardian story of May 25, 2020 (Boffey, 2020) revealed that large European pharmaceutical companies, including Johnson & Johnson, Pfizer, Eli Lilly and GlaxoSmithKline, have re-

fused to engage in preparatory work to accelerate vaccine development from possible outbreaks. A 2016 report by the Dutch Access to Medicine Foundation concluded that “*over the years, the focus on financial outcome has led many pharmaceutical companies to reduce research into diseases that affect the predominantly poor. Drug development has a strong focus on commercially viable goals: meeting the health needs of people in developed countries, while largely neglecting R&D for diseases in poor countries*” (Cole, Iyer, 2016).

Pharmaceutical companies focus on a market that is attractive in terms of profit. They do not necessarily set priorities according to global health priorities. Shareholders are accustomed to high rewards and their priorities often do not match the



→ **Table 5 » Comparison of economical curves both GSK and Moderna**



Source: Lehmert, 2021

priorities of public health or ethics. However, some companies claim that the explanation is too black and white, pointing to cancer, which is still the second leading cause of death worldwide, and chronic diseases (such as diabetes), which are on the rise. The epidemic is a unique challenge for pharmaceutical managers. When there is an outbreak, there is a lot of activity, but when the disease situation is alleviated, and thus the public interest is reduced, investment is reduced. Promising medical projects and technologies can go away because no one is ready to pay for them. This was repeated by Novartis CEO Vasant Narasimhan in an inter-

view with CNBC in early 2020, who said: “*There is a lot of interest and activity, but then not much happens and people lose interest and investment flows. So, the question is, how do you keep an investment targeted at pandemic candidates and similar outbreaks?*”.

The truth is that public health is not the top priority for the pharmaceutical industry; it is a matter of achieving the highest possible profit. Thus, they did not channel sufficient resources to vaccines or treat emerging infectious diseases, even though the pandemic had been predicted for the past decade. In the absence of reasonable prices, which

would include taxpayers' investments, the COVID-19 pandemic can provide an opportunity for pharmaceutical corporations to turn minimal resources and risk into huge profits and leave taxpayers and patients with costs. Pharmaceutical corporations did not pay attention to vaccine development until February 2020, until it became clear that the new coronavirus was highly contagious and was spreading rapidly. As the number of victims and the geographical reach of the virus progressed, the pharmaceutical industry knew that any company bringing the vaccine to market would sell the product to dozens of desperate government buyers and billions of frightened customers.

Last year's Drug Access Index showed that almost half of the research and development projects of the 20 largest pharmaceutical companies focus on cancer, while at the beginning of March 2020 there were no coronavirus projects (MERS-CoV and SARS-CoV). Novartis sold its vaccine division to the British pharmaceutical company GSK in 2014 after years at a loss. The company no longer has a critical mass of expertise in virology and no laboratories work on antivirals or diagnostics. Vaccine consolidation has left four large players out of the original seven, controlling about 80% of the nearly \$45 billion market.

GlaxoSmithKline's experience with Ebola is a frequently cited warning story. After years of investing in three vaccines, progress has stalled in the final phase of clinical trials at the end of the 2014–16 epidemic due to the declining number of Ebola cases. Without a real prospect of financial return, the company eventually surrendered and handed over the candidates to a non-profit institute in the United States last year, despite the then-breaking of Ebola in the Democratic Republic of the Congo (Lehmert, 2021).

7. Lessons Learned

In 1918, when the world did not yet know that the great ("Spanish") flu was caused by the H1N1 vi-

rus, there were no flu vaccines. In 1957, when the H2N2 pandemic hit the world, the flu vaccine was mainly a military tool. In the 1968 pandemic, which brought us H3N2, the United States produced nearly 22 million doses of the vaccine, but before it was prepared, the worst of the pandemic passed and demand waned. This "too little and too late" phenomenon occurred again in 2009, when the world finally had the capacity to produce hundreds of millions of doses of H1N1 vaccine; some countries cancelled much of their orders because they did not need them in the end. How did the pandemics end? These viruses have not disappeared; a descendant of the Spanish influenza virus, modern H1N1, circulates to this day, as does H3N2. People have not even developed herd immunity to them. This is when the pathogen stops spreading because so many people are protected against it because they have already been infected or vaccinated. It turns out that COVID-19 worked similarly. There is a serious suspicion that the world population has recently gone through a similar pandemic, as the symptomatology of COVID-19 ("Chinese" influenza) corresponds to Especially in the elderly population compared to standard influenza diseases (Knudsen, 2020; Vijgen et al., 2005). The primary wave of "Russian" influenza (1889–92) brought the disease to about 60% of people in the known population; of the planet's 1.5 billion people, about 1,000,000 people died (Williams and Preas, 2015).

Instead, the viruses that caused these pandemics have evolved. Or more precisely, the human immune system has undergone a change. Our immune system has learned enough to repel the deadliest signs of infection, at least most of the time. Humans and viruses have achieved an immunological decline. Instead of causing significant waves of disease, over time, viruses began to trigger small bursts of milder disease. The pandemic flu has become a seasonal flu. Viruses have become endemic. If this pattern of development is maintained, SARS-2 can be expected to attach to a handful of other human coronaviruses that cause



colds at some point, especially in winter, when conditions favour transmission. But the most important lesson in history should also be for managers from industry captains to small business owners — **immunity cannot be obtained** against influenza of any kind.

Experience from the above major pandemics over the past 100 years suggests that viruses are transformed from pandemic pathogens to endemic sources of disease, usually within two years of manifestation. Therefore, if we as a population do not have the opportunity to obtain biological immunity, we must take lessons and deal with it differently. Here comes the word intelligence as a distinguishing element of humanity and with it the ability to adapt, which should not be a simple biological adaptation, but a controlled free action based on coping with the burden of changing biological, economic and sociological climate. This was already clearly described by H. Selye (1936) as *“syndrome produced by various harmful agents”* and later known as the General Adaptation Syndrome (Ambrozova and Pokorny, 2018).

The sum of world wealth is constant at a given time. The economy is not a perpetuum mobile that generates outputs without having inputs. So, if there is an increase above the average somewhere, should have been an increase below the average, or decline exactly according to the development of the world economical product (Stolicna and Cizik, 2010). For managerial practice, it would be appropriate to develop and adapt the best adaptation procedures used in Disaster Risk Management (DRM). It is not possible, or only extremely difficult, to apply the general procedures as universally valid. Therefore, it is necessary to emphasize primary adaptation based on local knowledge using traditional knowledge to increase adaptive capacity at the community level. Management is one of the most important tools an organization has. It has an interdisciplinary character and has an immediate effect on the performance of a community (Mimura et al., 2014).

Therefore, the managers should be aware of the

vast impact their decisions may have on the others. Once they have clearly set their vision and mission, they shall start thinking about how they want to accomplish those goals. The main resource the organization has are the employees. Their knowledge and experiences present an endless option of opportunities for growth. Related to the communication and motivation of employees, it is necessary for the manager to know what kind of leader he wants to be and the style of leadership he wants to perform. The wax of leadership is crucial for surviving a company during and after the crisis (Stolicna and Pinke, 2020).

The experience gained from Disaster Risk Management reveals the importance of linking development, prevention and disaster risk reduction. Knowledge of local conditions should alert the quality manager to weaknesses and hidden impacts that may not be apparent at first glance due to the general obsession with globalization associated with structural inequalities and community vulnerabilities in society (exposure, sensitivity and adaptive capacity). The combination of two-way vertical management approaches using a low-pity strategy in the adaptation and implementation process will increase resilience to external intervention, improve economic conditions, reduce development pressures and strengthen sources of economic and social well-being. It can also help alleviate concerns about limiting the effectiveness of policy interventions. This may require systemic changes to allow planning of approaches capable of handling complexity and uncertainty, including multidimensional and multilevel coordination.

Conclusion

However, humanity is working effectively to breed viral strains with increasing morbidity by suppressing developmentally failed strains with ineffective vaccines. Similarly, to bacterial strains, weaker strains are selected by antibiotics to produce resistant and treatment-resistant bacteria. And that's why the process of adapting to incom-

ing events with lessons learned is so important. If someone thinks that a crisis similar to the just ending coronation will not be repeated for a long time,

then we should not miss Bill Gates' statement about the certainty of another pandemic crisis in the near future (Gilchrist, 2022).

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The End of Covid Crisis – Lessons Learned and Time to Prepare for Future Events

ABSTRACT

Any crisis has two sides. It is a catastrophe for those unprepared, but wise could always predict and prepare their business for what becomes a great opportunity. Cooperation with academics is a good start to receive reasonable warnings about the nature of future crisis and good manager can prepare his business to source →

- as much as possible of it. Comparison of 2009/2019 disease crises demonstrates the same pattern used, which brings, together with other relevant information, a good manual for future strategic decisions. Ending crisis is also time to prepare leaders for ongoing challenges as a decade till next global crisis comes is just time to have them trained and make business processes robust enough. Significant markers of following crises can be identified even now, which finally will led to important changes in most businesses. No instant solution is offered, just the analyses demonstrating crucial points to think about.

KEYWORDS

covid; analysis; leadership; technological change; innovation

JEL CLASSIFICATION

O310; O350; O390



Civil execution in the post-covid period. Trap, revolution or challenge?

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* 1. Introduction

Enforcement law at first glance is a very narrowly specialized slice of law and it would seem, perhaps, for the choice of topic as too practical and provides little space for scientific research and research. On a deeper look, however, there are many topics in the area that deserve attention, not only the media, but the serious, pragmatic, factual one.

A number of decisions can be enforced in enforcement proceedings and the range of possible enforceable titles is quite wide. It is therefore logical that individual enforcement proceedings have their own specific differences, and the range of problems that application practice brings is wide.

Civil executors have been working in this area in our country in modern history since 2001, i.e. almost 20 years. They have their own independent chamber, they are entrusted with an office by the Minister of Justice, they carry out enforcement activities, they manage the office, they are an official person, they have responsibility. They are also the most controlled legal profession ever.

Enforcement proceedings are designed as the compulsory enforcement of enforceable titles.

Thus, a creditor with an enforceable title proposes that the executor enforce the debtor, the debtor, who has not duly and timely fulfilled the obligation laid down in the enforceable title.

Enforcement proceedings begin with the creditor's application and end with the recovery or suspension of enforcement.

2. Execution in the time of covid

The world found itself in a situation that it had not yet dealt with in modern history. The hitherto normal functioning of society has completely changed. It was therefore quite obvious that the rules set so far needed to be adapted and adapted to this situation. And the area of executions was no exception. A law was passed, called LEX COVID in legal jargon, in three versions. It was a direct response to the pandemic that the Czech Republic — like most countries in the world — had to contend with not long after entering the second decade of the new millennium. This special law contains legal instruments to make it possible to cope with this crisis situation unprecedented in modern history, regardless of the existence of a state of emergency. →

→ 2.1 Lex covid

The judicial protection system has not yet been prepared for the state of emergency. One of the anticipated impacts of Lex Covid¹ is the extension of the rights of the parties to the enforcement of decisions and enforcement proceedings due to the restrictions resulting from the emergency measure taken to combat the spread of COVID-19.

In its general summary, the Act affects several basic institutes across the entire justice department. The area of enforcement and enforcement proceedings has undergone essentially three changes in connection with the adoption of this Act. The first breaks the principle that in enforcement proceedings and enforcement proceedings, failure to meet a time limit cannot be waived. Another area is the so-called measures of a temporary nature: limiting the enforcement of a decision (execution) by selling movable and immovable property for the so-called protection period from the effective date of this Act until 30. 6. 2020 and increasing the multiple of the subsistence minimum when ordering a receivable from an account with a financial institution until 31. 12. 2020. The last change is a permanent amendment to the Code of Civil Procedure (calculation of deductions of severance pay; inclusion of the tax bonus among claims that cannot be affected by enforcement or execution; increase in the threshold for the sale of immovable property in which the debtor has his permanent residence).

Subsequently, the legislation responded to the following waves of the pandemic by adopting other laws, i.e. Lex covid II² and III³.

2.1 Gracious summer

In the same period also came the so-called “gracious summer”. In the Czech Republic, this was an extraordinary and one-off debt relief action that lasted from 28 October 2021 to 28 January 2022. It applied in the case of executions where the beneficiary was the state, region, municipality, state and regional or municipal contributory organizations, health insurance companies, Czech Television, Czech Radio and other public entities. Some private companies such as Česká spořitelna, Air Bank, Komerční banka, Essox and Home Credit have also voluntarily joined. The principle of the gracious summer consisted in the fact that if the debtor (debtor) pays the principal of the enforced claim and the costs of enforcement in the lump sum of CZK 750 + VAT during the duration of this action, the enforcement will be stopped and the executor decides to exempt the debtor from paying the accessories of this claim (however, the exemption does not apply to financial penalties for intentional crime, compensation for damage caused intentionally, compensation for personal injury and maintenance)⁴

2.1 Child debts

In the era of the pandemic, we have also seen a change in the area of (already indicated above) so-called “child debt”. The amendment to the Civil Code and the Code of Civil Procedure has become part of the legal order. “The applicable legal regulation concerning the creation, duration and extinction of child debts, i.e. the obligation of minors to meet a pecuniary debt, is contained in Act No. 89/2012 Coll., the Civil Code, as amended (hereinafter referred to as the “Civil Code”)⁵

¹ Act No. 191/2020 Coll. (area of judicial proceedings, executions and insolvencies).

² Act No. 460/2020 Coll.

³ Act No. 38/2021 Coll.

⁴ Law No. 286/2021 Coll., Art. IV, point 25. [feeling. 2021-11-02]. Available online.

⁵ The explanatory memorandum to the law. 190/2021 Coll.

So-called child executions can be of various origins. Apparently, with the adoption of new legislation, the machinery of child debts, which was perceived by society as obviously unfair, ends for good.

3. The post-covid era, or what's next?

Now is the time to reflect on how the recent past, as well as the present, will affect the area of executions. Of course, none of us has an imaginary crystal ball, so we can certainly wait for completely unforeseen events. What enforcement law will look like and how well it will work in practice and serve its purpose will directly depend, in my opinion, on the following factors:

- how clear the legislation will be
- how predictable the decisions of the courts will be whether debtors will have sufficient assets to pay their liabilities

Now I will describe the above factors in more detail.

3.1. Clear legislation

For the actual execution of execution, it is absolutely necessary that the rules are clearly set. This means an absolutely undoubted definition of terms and terminology, powers, individual rights and obligations, as well as control mechanisms.

Unfortunately, for example, the so-called “gracious summer” does not fit into this concept very much. Just by way of example, this legislation does not respect the terminology that has been established so far and perceives the terms in a shifted meaning, or introduces completely new concepts. There are more problematic areas, but for the purposes of this post, I will give an example of the following. Payment, payment within the “gracious summer” does not have the same impact and is not understood as payment in normal execution, i.e. it is not considered to be recovered performance by payment, as we are used to in the sense of § 46 par.

4 ex. Order. Since it is not a matter of recovery, such a performance does not have the consequences of carrying out enforcement and, therefore, of the dissolution of the proceedings in this part. The regulation expressly insists that enforcement otherwise normally extinguished in this way must always be stopped “to the extent of the principal paid” (cf. paragraph 3, fourth sentence, “gracious summer”).

The recovery and recovery of the performance is accordingly understood within the “merciful summer” more narrowly as “performance obtained by the executor by one of the methods of execution referred to in § 58 par. 2 ex. ř., i.e. deductions from wages, assignment of claims, sale of property, etc.” However, this only applies to performance obtained since the effective date of the regulation (28. 10. 2021). The performance obtained up to the effective date of the Act (subpoint 2 paragraph 1 of the cit. regulation) is conceptually identical to the standard concept of § 46 para. 4 ex. Order.

In the concept of a “graceful summer”, an enforced claim is any that “went around the enforcement proceedings”, i.e. not only the one for which the execution was ordered, but also any registered claim participating in the distribution of proceeds, typically in the case of the sale of real estate.

3.1. Predictable court decisions

This problem needs to be seen in a broader context.

“A executor is a sui generis body — a natural person to whom the state has delegated part of its power rights that otherwise belong to the courts. A executor carries out his activity as a liberal profession and has the status of a public official. His legal status is therefore of a mixed nature, both as an enforcer of judicial and other decisions and, on the other hand, as well as a person authorised to carry on other activities within the scope of the law.”⁶

⁶ The Supreme Administrative Court had already described in its judgment of 16. 11. 2011, n.a. 5 Aps 6/2011-85.

Under Article 28 of the Enforcement Code, the acts of an executor are considered to be acts of the court.

However, it is not the case that an executor is simply a differently named judge. Its position has its own specifics.

An executor is “authorised”⁷ by the court to carry out each individual execution. The executor is supervised by the enforcement court and the decision-making is not entrusted exclusively to him in the enforcement proceedings, but is divided between the executor and the enforcement court.⁸

The predictability of judgments in enforcement cases must therefore be seen on two levels.

There is therefore a legitimate requirement for an executor to be able to assume how the courts will assess his activity or decision-making and within what limits he should move so that he is not subsequently punished for his activities.

Equally legitimate is the expectation of the participants.

Moreover, the issue of so-called surprise decisions in civil judicial proceedings is closely linked to the principle of legal certainty and the principle of legitimate expectations. The prohibition of surprising decisions, reflected in the principle of legitimate expectations, has been commented on many times by both the Constitutional Court and the Supreme Court and the Supreme Administrative Court. For example, the Supreme Administrative Court expressed itself very aptly on the issue in its judgment of 12. 8. 2004, No. 2 Afs 47/2004-83, in which it concluded that that “if the same panel of a regional court assesses procedurally completely comparable cases procedurally differently, without any justification, it commits a jurisdictional arbitrariness contrary to the basic principle of the material rule of law, which is the predictability of decision-making (...), which ultimately has repercussions on the principle of equality of parties to

court proceedings.” On the other hand, despite the principle of legitimate expectations enshrined in law, it can never be ruled out that two seemingly identical civil law cases will ultimately be decided differently by the court and in a different way from settled judicial case-law. However, if such a decision were ever to take place, it should always be thoroughly justified — there is nothing to prevent a different assessment of the case if the extraordinary circumstances of the case so require — e.g. if the legislation changes, if the determining authority considers the established decision-making practice to be incorrect or if there are clear reasons to change the case-law due to the unsustainability of the existing legal opinion.

However, when studying the decisions of the Supreme Court of the Czech Republic in the area of execution costs, the Constitutional Court and the decisions of the Supreme Administrative Court in the area of disciplinary agenda, I found out that the decisions are very varied.

If, for example, I had to address the question of whether, when enforcement is suspended, the debtor, the creditor, and whether the executor is entitled to reimbursement of costs, then completely contradictory decisions can be found in the same case.⁹ Such a situation not only makes the situation very complicated, but, in my opinion, also shakes legal certainty.

The problem of the extent of supervisory authorities’ control activities seems to be similarly contradictory. The competence of the supervisory authorities is expressly defined as the power to control only the processes and legality of the executor’s action, “except for his decision-making activities”, which can be reviewed by the court either ex officio or in the context of appeal proceedings. No legislative exception for deciding the costs of execution has yet been found, imported only by decision-making and application practices. The

⁷ § 43a c. 120/2001 Coll.

⁸ For example in ust. §54 and 55 of Act No. 120/2001 Coll.

⁹ For example, Supreme Court decision sp. 21 Cdo 3182/2014 of 23. 10. 2014 was totally surprising.

practice so far is that in disciplinary proceedings (against the executor) decisions on costs can be reviewed, even if they have the force of *res judicata*.¹⁰

The issue of breaking the principle of adjudication and finalised proceedings is very topical. These are most often cases of execution, the title of which is a “problematic” arbitration award. In the event that the execution has been performed (recovered) and finally concluded, and subsequently (even after a number of years) the enforcement title has been revoked for illegality, the enforcement court will of its own motion¹¹ halt the already final case and annul the final decisions on the costs of the execution. The debtor is then entitled to a refund from both the debtor and the executor.

With respect and humility to all decisive, wiser and more experienced judges than myself, I have to say that, no matter how hard I try to understand the practice and reasoning in these matters, I identify only with great self-denial, if at all. I can certainly understand the attempt at a kind of reparation of the pre-existing undesirable situation in which an illegal enforcement order resulted in interference with the debtor’s property sphere. However, I abhor the idea that finally concluded proceedings are thus changed and “revived”¹². It would seem far more convenient for me personally to do so, whereby the debtor, after the revocation of the enforcement order, would seek compensation from the state. In general, it seems to me that retroactive decision-making always shakes in some way the stability of all proceedings and legal certainty, and the possibility of legitimate expectations of the parties. confirmed by the higher court. The current case law of the higher courts also agrees with this conclusion, despite the fact that the legislation does not, in my view, expressly permit it. No similar practice has been found for other legal professions. The issue of breaking the principle of adjudication and finalised proceedings is

very topical. These are most often cases of execution, the title of which is a “problematic” arbitration award. In the event that the execution has been performed (recovered) and finally concluded, and subsequently (even after a number of years) the enforcement title has been revoked for illegality, the enforcement court will of its own motion halt the already final case and annul the final decisions on the costs of the execution. The debtor is then entitled to a refund from both the debtor and the executor. I consider personally established practice to be unbecoming from the point of view of equality of participants in all enforcement proceedings. There have always been cases where the claim has been recovered from the debtor and the execution proceedings have been finally concluded and only then a decision has been made on the enforcement order, which has become ineligible for some reason. Options, howeverOnly and exclusively those who were obligated by the annulled arbitration awards have to return to enforcement proceedings and change the final decision. This inequality is accelerated by the fact that not only do the debtors have the possibility of breaking the principle of finality, but they may not even actively show an interest in this possibility, since the courts “open” and adjudicate *ex officio*. The party’s disposition to the proceedings therefore disappears entirely. I understand the motives behind this procedure. However, I cannot help feeling that such steps are to be taken by the judiciary in an exceptional way, provided that they defend human rights values, democratic principles, or right obvious, socially unacceptable wrongs. Such areas of execution law can certainly be found. Personally, I would place in this category, for example, the sub-issue of so-called “child” executions. Particularly those where the child is put into execution as a result of irresponsible actions of the parents, that is, through no fault or fault of their own and when le-

¹⁰ E.g. *Disciplinary decision sp.zn. 14 Kse 2/2016-78, sp.zn. 14 Kse 2/2015-62, sp.zn. 15 Kse 1/2013- 56 or sp.zn. 15 Kse 1/2012-137.*

¹¹ *Order of the Supreme Court of the Czech Republic sp. 20 Cdo 2422/2020, of 15. 9. 2020.*

¹² *Order of the Supreme Court of the Czech Republic of 14. 12. 2005, n. 20 Cdo 2421/2004.*

gally. Only and exclusively those who were obligated by the annulled arbitration awards have to return to enforcement proceedings and change the final decision. This inequality is accelerated by the fact that not only do the debtors have the possibility of breaking the principle of finality, but they may not even actively show an interest in this possibility, since the courts “open” and adjudicate ex officio. The party’s disposition to the proceedings therefore disappears entirely. I consider the practice described above to be a very dangerous phenomenon. I consider him to be particularly dangerous because he actually challenges and disregards fundamental principles in the law applied, contradicts past decision-making practice and, moreover, for me, I understandably grant some participants more rights and protections.

3.1. Sufficient assets to pay enforced debts

In order to achieve the desired objective in enforcement proceedings, not only are there effective instruments to meet the debtor’s obligation (monetary or non-monetary) but also to pay all the costs involved. These costs are incurred not only by the executor but also by the creditor. However, the debtor’s ability to meet his obligations may be affected in two ways in particular. First of all, the debtor may objectively be in such an economic situation that he can no longer fully meet his obligations, or he may only pay them in instalments for a very long period of time. In the latter case, we are talking about a situation where the debtor possesses objectively sufficient assets, but has no will to pay the creditors, even by means of execution, and tries to hide his assets. Enforcement should therefore have a tool to deal with these potential problems.

In this respect, alongside the question of how to prevent the debtor from hiding his assets from the executor and the creditor, and on the other hand, who will pay the executor’s costs for the unsuccessful execution of the indigent debtor. This question is also directly related to the question of how

to correctly set the amount of the execution costs to be borne by the debtor to the executor.

4. Denouement

So the question is, will executions in a time of post-covid traps be revolutions or challenges? They can be all that. This time brings completely new situations and challenges in all aspects of life. The developments so far in the field of execution, whether in the area of legislation or in the area of application, rather create a trap from my point of view. Trap in that new and new regulations are constantly adopted that bring new procedures, new nomenclatures and tilt the notional hand of the balance between creditor and debtor, momentarily to one side or the other. Some changes seem revolutionary in that they introduce new things in executions (call recording, protected account). But the question is whether these changes serve anything practical in practice.

However, I would like to make the next few days challenging for legislators. The challenge he will use to unify the execution legislation will be unambiguous. This will limit the scope for extensive interpretation in the application of individual provisions. And what I would most like to see in the future is the state standing up for those who deserve it in the first place. I myself, quite unscientifically and emotionally, judge the quality of society by how it treats the weaker, children, the handicapped, the old and animals. When I first learned that there were indeed cases where a child who was in a children’s home had an execution for unpaid bins and that debt would wait for him to leave the children’s home and work somewhere, I was frankly shocked. In the context suggested above, it is impossible not to ask what input into the life and notion of justice and the functioning of justice we impart to the children of “trash can executions.” We are all seeing how vigorously the higher courts and the Constitutional Court have held the “so-called” weaker consumer in the credit case.

That led me to think- are children worthy of

protection for the state as much as “weak consumers”? It should be noted that, at the outset, we are talking about two “weaker parties,¹³” but these groups are certainly not equal in their “weakness.” The consumer is usually an adult self-righteous person who has genuinely borrowed money, albeit under unfavourable or obscene conditions. The child of “garbage” executions is a minor who usually lives in a children’s home and the basis of the debt is not his activity, or irresponsible behavior, but an unpaid municipal waste charge. It is true that, in some cases, the Constitutional Court has also taken a stand against child debtors, for example in its ruling No 1775/14 of 15 February 2017: “These international legal obligations for the Czech Republic imply an obligation to provide children with the protection and care necessary for their well-being. In the view of the Constitutional Court, such an obligation is not compatible with the imposition of a debt on a minor, the existence of which is often known only when he or she reaches the age of majority, when such a debt – albeit relatively low at first – may already be inflated by accessories and other costs which may have a choking effect, making it more difficult for the individual to enter adulthood. In addition, some foreign authors mention the increasing tendency of courts in Europe to regard life-destroying or overwhelming liability claims as being inconsistent with the principles of social justice, solidarity,

good faith and abuse of rights common to the majority of European Union Member States [cf. *Ferreira, N.: The harmonisation of private law in Europe and children’s tort liability: A case of fundamental and children’s rights mainstreaming, International Journal of Children’s Rights, Vol. 19 (2011), No. 3, str. 571–594*]¹⁴

However, we are talking about individual cases. In this respect, from my point of view, it was not only the initial link – that is, the municipality, the town – that failed. But also a follow-up decision by the judiciary. How is it that in so many cases no one has asked themselves whether this is against good manners or whether doing so is constitutionally conformist? How is it that we have had to wait so long for comprehensive legislation? On the contrary, in the field of “consumer” protection, the effort was much more pronounced. Not infrequently, courts deal carefully with the nuances of notarial deeds, or the amount of interest awarded in arbitration awards. And I commend their actions, and I do not question them. Only this effort to protect the “weaker side” gets a bit of a kick out of the moment when no one stops to consider whether it is right to oblige a child in a children’s home to pay for a trash can at their place of residence. I consider children’s “garbage” debts to be an immense disgrace to the Czech legal system

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Civil execution in the post-covid period. Trap, revolution or challenge?

ABSTRACT

A state with a well-constructed legal order cannot do without executions. They are primarily intended to guarantee the enforcement of the law. In order for this to be the case, the right legislative setting is essential. If the executors are given too much or too little power, the system cannot work well. The same is true in terms of costs. If the executions are too expensive or too small, the system will not work as well. The time of the

global pandemic will obviously affect society in many ways. and the area of executions will be no exception. How did the current legislation survive in the covid period? What awaits us in the future? This article comprehensively deals with executions during the covid and post-covid period.

KEYWORDS

claim; debt; execution; enforcement of judgment; creditor; debtor; costs

JEL CLASSIFICATION

K15; K35; K4

x

Systematic HR Approach to Decisions on Key Leadership Skills Development in Medium-sized Industrial Companies

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* 1. Introduction

According to a range of researchers, nowadays, competency-based approach is considered as a tool for working with leaders and is represented by mental and intellectual abilities (intelligence and talent), motives (values, needs, interests and attitudes), knowledge and experience, skills, and behavior. One of the very strong tools of human resources management is the application of competency models within the competency-based approach. These models can significantly unify the idea of what needs to be done in the future, what behavior an organization should support, develop, and reward. Human resource management uses a competency model as a basic management tool for more targeted communication and higher professionalism in connection with business. Managers also use the competency model as an instrument for providing feedback to the employees and for conducting an effective performance management. It allows employees to understand the needs of the company and provides recommendations for their individual development.

From the perspective of the entire organization, the competency model is linked to the company's strategy and used for benchmarking and organizational development. In relation to leadership, the leadership competency model describes the common competencies of all individuals, which for various reasons we refer to as leaders and can be clearly represented through the Leadership Code according to Ulrich, Smallwood and Sweetman (2015).

2. Preparation for the future

Preparing for the future is a crystal gazing in the current context of the COVID-19 pandemic. Nevertheless, planning is crucial for survival and future prosperity of an organization. Kubeš (2004) notes that only a few companies are truly ready for the future, although many of them are proceeding with projects that concern the future. Competency models in this regard can significantly unify the perception of planning and scheduling, supporting certain behavior, developing, and rewarding employees. Based on a series of questions, Kubeš

(2004) and Hroník (2006) present possible areas in which the competency model can be used to improve personnel and HR processes inside the organization. Within the selection, a competency profile of the candidate is created, and a behavioral interview or assessment center is carried out. A development plan supplemented by e-learning and e-development is created for the development of the leader. An important part of the process is evaluation through evaluation interviews and their link to remuneration.

The analysis of the benefits resulting from the use of a functional competency model is presented in the following table where these benefits are summarized and divided into four areas according to Hroník (2008).

Human resource management uses a competency model as a basic management tool for more targeted communication and higher professionalism in connection with business. Leaders also use the competency model as a management tool which helps them to provide feedback and to manage performance. The same model allows employees to understand the company needs and provides recommendations for their individual development. From the perspective of the entire organization, the competency model is linked to the company's strategic planning and is used for benchmarking and organizational development.

The next chapter presents the specific examples of leadership competency models used by contemporary researchers.

3. Specific terminology used in the field of competence approach

According to Sandberg (2000), leadership competencies are studied mainly within two main approaches. The first describes competencies as certain characteristics such as motivation, traits, skills, definition of social role or self-presentation or specific knowledge needed to perform some job. For example, Boyatzis (1982) uses competencies to define individual characteristics that help achieve high performance.

The second approach is a newer method of competence research also known as the interpretive approach. This approach considers competence to be a state that is defined by the situation in which the leader finds himself or the work that is expected to be performed by the leader. In other words, according to Sandberg (2000), the way the work is conceptualized allows the leader to arrange specific knowledge and skills into different performance competencies. According to McDaniel (2015) this conceptualization, defined according to the criterion of experience, is subsequently what enables the leader to be perceived as average, experienced or expert in the given field.

As competencies are a matter of perception, it depends on the context that is observed, given the different requirements for knowledge, skills, and abilities, which is also confirmed in studies by Bassellier (2003) and Marcolin (2000). Therefore, a leader who is considered an expert in one context

Table 1 » Advantages of a functional competency model. (Source: Hroník, 2008)

HR Management	Leaders	Organization	Employees
Basic HR tool which links staff selection, evaluation, and development	Effective and simple performance management tool (evaluation)	Company strategy continuity	Understanding the company needs
More targeted communication with clients (leaders)	Strong feedback content	Unity of management and common language	Clear expected behavior communication
Higher professionalism and connection with business	Natural performance increase	Benchmarking and organizational development	Individual development recommendation



does not have to be considered an expert in another context. For a leader to be perceived as competent, it is necessary for him to be able to express this knowledge, skills and abilities while working with others. During cooperation with others, it is others who can see and perceive competence or the absence of competencies in the appropriate context. Wang and Haggerty (2011) also mention, based on the results of their research, that leaders who demonstrate competence are likely to perform better than those who do not demonstrate competence. In this subchapter, the concept of the competence approach will be further terminologically mapped.

4. Competency concept definition

Being a relatively well known and often used term, “competency” still does not have an entirely clear definition. This ambiguity in the English language literature is a result of the usage of two very similar terms. The American psychologist McClelland (1973) stated that the results of intelligence tests say nothing about the real ability to succeed in life and profession. He recommended instead of analyzing and measuring intelligence (assuming a certain performance), to measure performance itself. He used the term “competence” (in the plural “competences”) to indicate the preconditions for filing this performance. Woodruffe (1993) characterizes competence as observable behavior related to work performance, which according to Cardy and Selvarajan (2006) can include traditional knowledge, abilities, and skills, but also motivation.

In addition to this term, however, in the foreign literature we can also find the term “competency” (plural “competencies”), expressing the ability of a certain behavior. The difference between the two terms and their meaning is not very significant and is often used inconsistently by Le Deist and Winterton (2005). For example, Boyatzis (1982) uses both in his book on managerial development without distinguishing between them, and McClelland

himself began to use the term “competency” in later texts.

When translating into Czech, a problem on how to translate these terms and whether it is appropriate to try to keep the difference between them arises. Armstrong (2015) defines “competence” as “professional ability” and “competency” as “ability to behave.” He deliberately avoids translation with the word “competence” as it can also be unclear in Czech, in the basic sense it denotes entrusted powers or responsibilities and in a figurative sense the ability to perform some activity. Terminological ambiguity is also pointed out by Turecki (2004), who further distinguishes between the concepts of competence in the sense of “potential for performance” and competency, in the sense of “realized ability”. According to the study by Veteška and Tureckiová (2008), competencies are represented by mental and intellectual abilities (intelligence, talent), motives (values, needs, interests, attitudes), knowledge and experience, skills, and behavior.

“Competence” according to Hroník (2008) represents professional skills and is often replaced by the term “Technical Competency” in the context of professional technical skills to perform the job.

Both versions of the term contain knowledge and skills necessary to perform the role, which are also called hard skills. They can be referred to as minimum qualification requirements and are derived from a specific job.

According to Hroník (2008) “competency” refers to soft skills that are necessary for successful work. It is the ability to behave in a way that leads to the set goals achievement.

5. Leadership competencies through the eyes of HR

To perform target development of competencies it is not enough only to describe the competencies and compile them into a competency model. It is also necessary to identify their significance and most importantly the perception of the leadership

competencies by human resources, who are responsible for those competencies' systematic development in companies. The authors of the article therefore posed the fundamental question: What competencies and their components are key for leaders of medium-sized industrial companies?

To answer above-mentioned research questions, authors chose the method of exploration in the form of a semi-structured personal interview between personnel workers of medium and large industrial companies established in the South Moravian region in the Czech Republic.

A total of 22 personnel participated in the research, with each one of them conducting a personal interview.

6. Research sample description

In the examined group, 68% of respondents worked in a large company with more than 250 employees and 32% of respondents were from medium-sized companies with number of employees between 50–250, see. Table 2.

Among the respondents in the HR position, women predominated with 86%, while only 14% were men, see Table 3.

7. Key competencies and their components for leaders of medium-sized industrial companies.

Based on the respondents' answers, the competencies that are considered key for the leaders of medium-sized companies were mapped. The ten most important leaders' competencies are sorted according to the frequency with which the respondents listed them and shown in graph 1.

To get a comprehensive idea of the frequency distribution, all 10 most frequently evaluated competencies are shown in Graph 1, while the interpretation of the first top 5 competencies crucial for perceiving the leader by his/her team are described in more detail. Based on the responses of the staff responsible for human resources management, these competencies include:

- the ability to communicate effectively with their team as well as with superiors.
- natural authority.
- the ability to create a confidential environment and to act fairly.
- expertise.
- team bonding skills.

The chosen leadership competencies were divided into two categories: team and professional competencies. They are alienated in the following graphs, whereas the higher the competence is lo-

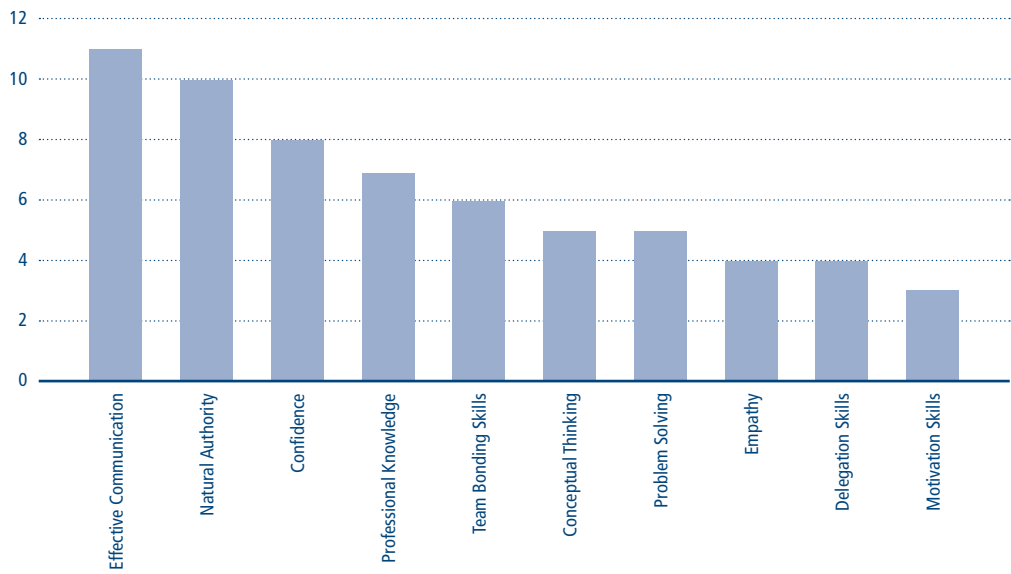
Table 2 » Research sample distribution

Company size	Number of respondents	Percentage representation
Medium-sized companies	7	32%
Large companies	15	68%

Table 3 » Research sample distribution by gender

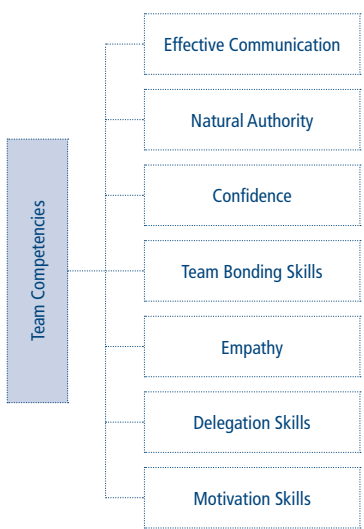
Respondent's gender	Number of respondents	Percentage representation
Male	3	14%
Female	19	86%

Graph 1 » 10 Key leader's competencies for medium-sized industrial companies



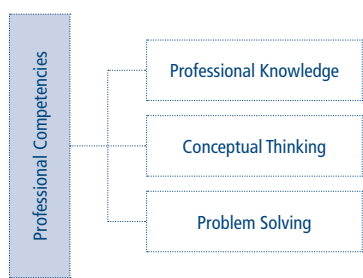
Source: authors' own elaboration

Graph 2 » Team leadership competences



Source: authors' own elaboration

Graph 3 » Professional leadership competences



cated, the more frequent the agreement on this component of competence among the respondents.

The above-mentioned data clearly show that the vast majority falls into the category of team competencies, where the most frequently mentioned include:

- ability to communicate effectively with the team,
- natural authority,
- the ability to create a confidential environment,
- team bonding skills.

The remaining three skill sets belong to the group of the professional competencies, where the professional knowledge is most often mentioned, particularly the knowledge of the company operations and procedures as well as the knowledge of the field where the company operates.

8. Research results further application into practice

The research results provide a concise but important basis for the systematic development of managerial and leadership competencies in small and medium-sized enterprises. Targeted development of the most important competencies which can significantly help company managers in their work begins with mapping the current needs in the field of leadership development in a particular industrial company.

The next step is to set development goals to be achieved (development of perceived personal effectiveness) and to decide whether the development program will be one-off or periodically recurring (for example, quarterly). An important step is

also to assess whether the company has the capacity for internal implementation of the development program, or will be provided externally, or both in a certain proportion. The input information comes from 360 ° feedback in which the perceived personal effectiveness of the leader is measured by his team, his superior and also the leader himself. Feedback is complemented by individual coaching with the aim of more accurate selection of developed competencies. Regarding the practical application of the leadership development model, it is recommended to proceed within two development programs, which will focus on soft and hard skills.

9. Conclusion

Based on the results of primary research and analyzes, authors identified behavior that supports the successful leadership of medium-sized industrial companies established in South Moravia. Following the research was created the leadership competency model (competency model, see Graph 1) that provides support for the development of identified competency areas, supporting the successful operation for a leader of a medium-sized industrial enterprise. It is these competencies that seem to be key to successful crisis management to which companies are currently exposed. Pandemic conditions, government action, Industry 4.0 accelerating — these are all key forces that need to be addressed flexibly. The systematic competence development for managers who are to be leaders for their employees and companies in these difficult times can be a decisive factor between the failure and survival of an organization.

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Systematic HR Approach to Decisions on Key Leadership Skills Development in Medium-sized Industrial Companies

ABSTRACT

The article presents the concept of leadership competencies and its importance for managerial work and personal development in medium-sized industrial companies. The first part of the article focuses on the general idea of competencies and the usage of competencies in practice. The authors define managerial competencies as mental and intellectual abilities, motives, knowledge and experience, skills and behavior that characterize the leader's personality. So-called competency models which are defined by organizations and companies as desirable and necessary competencies are widely used not only in the field of human resources management and development, but also in managing employee performance, forming a quality management team and achieving corporate strategic goals. In the second part of the article authors present the findings of the research on the importance of leadership skills as perceived by HR managers. It describes not only the methodology and the selected research competencies, but above all the results in the form of the ten most important skills necessary for each leader. These skills are further divided into team and professional ones and, according to the authors, are so significant for the perception of the individual as a leader that they should be purposefully developed, especially in the current pandemic and post-pandemic state.

KEYWORDS

leadership; competence model; HR management; decision-making on competence development

JEL CLASSIFICATION

J24; M12

x

Moral Decision-Making in Conditions of Social Isolation

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* 1. Introduction

The current international security situation (Crimley, 2018; Salgado, 2018) requires that Euro-Atlantic civilization face the threat of global terrorism, the risks of hybrid warfare, and currently the consequences of direct military conflict in the form of Russian aggression. v. Ukraine (Crimley, 2018; Salgado, 2018; Rațiu a Munteanu, 2018; Stukalo and Simakhova, 2018; Fabian, 2019; Bērziņš, 2020). All this against the background of the post-factual phase of existence (Lewandowsky et al., 2017; Modreanu, 2017; Keyes, 2018; Meyer et al., 2021).

In terms of training the staff of the Czech Armed Forces, this brings the need to develop “a unique ability to act successfully and develop their potential in various tasks and life situations” (Veteška and Tureckiová, 2008, p. 12), i.e. to develop key competencies of military professionals (Johansen et al., 2014; Balcerzyk and Zapała, 2020; Sorokoumova et al., 2021).

In the Czech Republic, the competence approach is currently implemented in the case of military professions and in the military environment (Spišák and Rak, 2016; Mikulka et al., 2017; Kozáková and Saliger, 2019; Ullrich et al., 2019; Tušer and Hošková-Mayerová, 2020; Kozáková et al., 2020).

This corresponds to the fact that the activities of military professionals in conducting military and combat operations in current armed conflicts represent a major decision-making burden and responsibility, linked – inter alia – to the need to address ethical-military and ethical-political dilemmas in a predictable and qualified manner (Emery, 2020). This naturally emphasizes the level of moral competence, specifically the ability to make moral decisions and actions. Every individual bears moral responsibility for fulfilling his professional mission.

Determining a precise definition of the term “moral” is often very difficult (Merriam-Webster, 2017). In general, morality deals with the relationships, decisions between “good and evil,” “right and wrong,” “law and duty,” “justice and injustice” (Garrigan et al., 2018). This type of definition already suggests that the content of morality is interdisciplinary in terms of the approach to its study (Lapsley et al., 2004). In the context of the socio-cultural and personality approach, moral theology (McKenny, 2010) and moral philosophy (Christensen, 2020) have traditionally dealt with morality, and more recently psychology of morality (Doris, 2010; Miller, 2021). In the case of moral theology, the emphasis is put on fulfilling the voca-

tion to holiness (purity of life, in the Christian sense a life without sin, without violating the Ten Commandments) and in this context on the ideals of good and evil, i.e. what is morally good and bad in context of a comprehensive (religious) system of daily rules of moral living (McKenny, 2010). In contrast, a moral philosophy that does not approach morality as something expected and predetermined raises the question of whether we can establish any rules in the conditions of human community – and if so, which ones (Christensen, 2020). Thus, it can be stated that the theological-philosophical approach seeks to find an answer to the question of how people should act in order to act in accordance with ideals (Flescher, 2013).

Psychology takes a different, personality approach to this topic, primarily through the psychology of morality, which seeks to find an answer to why people act the way they do. The psychological approach is closely related to the assessment of moral decision-making and judgment and the search for ways to measure decision-making and action (Doris, 2010; Miller, 2021).

This article, as already stated in the introduction, deals with moral decision-making in the military environment, specifically the moral decision-making of future military leaders in solving a moral dilemma and moral decision-making under the influence of social isolation. In the theoretical part, the authors plan the basic theoretical basis for moral decision-making in the military environment. The practical part, which is the content of the third chapter, describes the course and interpretation of the results of a questionnaire survey focused on moral decision-making – solving moral dilemmas related to the professional and personal actions of future military leaders in conditions of social isolation.

2. Theoretical Basis of Moral Decision-Making in the Military Environment

The content of this chapter is to define the theoretical basis for the moral decision-making of military

professionals based on the European (Western) concept of morality (George, 2000; Gusain 2021) and supplemented by a neuro-ethic approach to morality (Darragh et al. 2015). This definition culminates in the interpreting of moral integrity as a key and overarching element of the military professional's moral decision-making.

In the history of European moral philosophy, we may encounter a broad-spectrum approach to ethical issues. Among the most prominent ethical concepts of antiquity and the Middle Ages are Plato's stoic ethics of virtue, Aristotle's ethics of the bliss of mortal beings, Epicurean ethics, ethical interpretation of skepticism, the ethics of love of St. Augustine and the ethics of natural law of Thomas Aquinas (Špinka et al., 2014).

The moral philosophy of modern times and modernism links to the ethics of human nature by David Hum, the ethics of the moral law of Immanuel Kant, the ethical aspects of the practical philosophy of history by Georg Wilhelm Friedrich Hegel, the religious ethics of dilemma by Søren Kierkegaard, the utilitarianism of John Stuart Mill, ethics of the good by Franz Brentan, ethics of immoralism and power of Friedrich Nietzsche, ethics of existentialism of Jean-Paul Sartre and phenomenological ethics of Martin Heidegger and Hans-Georg Gadamer (Čapek et al. 2015).

The modern and post-modern period of European society has given rise to the situational ethics of Paul Tillich and Joseph Fletcher, the ethics of discourse by Jürgen Habermas and the ethics of virtuous conduct by Peter Köck. During this period, there intensively develops the effort to reflect objectively on moral decision-making and action, based on the intersection of moral philosophy and psychology, "...primarily associated with the concept of courage to moral deed as a necessary factor forming together with moral feeling and thinking what we call the umbrella concept psychological theories of morality – the moral integrity of a man" (Krámský, 2015, p. 10). It is a concept of psychology of the moral, including psychological theories of moral development, especially the theory



of development stages of Jean Piaget, the theory of development of moral judgments by Lawrence Kohlberg, the theory of morality of care by Carol Gilligan and the theory of dual aspects of moral behaviour by George Linda (Čapek et al., 2015; Krámský, 2015; Jirsa et al., 2016;).

However, across all the above ethical concepts of the European cultural context, we can highlight two basic concepts of moral decision-making: individualistic and altruistic. The individualistic (eudaimonistic) concept is based on the moral responsibility of the individual for himself and in front of himself in the sense of doing what does not harm him morally and allows him to do good. In this sense, it is a successful life (eudaimonia) whose building blocks are virtues (areté) and practical reason (fronésis). The individualist conception is sometimes criticized for being too selfish and focused on one's own ego and preference for one's own "happiness" (Hume 2009). The eudaimonistic approach to morality, the so-called ethics of virtue, has its roots primarily in the legacy of Plato and Aristotle.

In contrast, the altruistic concept (the morality of universal duty) is based on pro-social motivation associated with helping others and society. In this sense, the value of a relationship with other people has a preference over one's own "happiness" and manifests itself as a tendency to "increase another person's overall well-being, with behavior not bringing any obvious benefit to the actor but often requiring some sacrifice" (Reichel). and Baranová 1994). The altruistic ethic of duty

has its roots primarily in the legacy of Immanuel Kant.

There are two approaches to finding a theoretical basis for the moral decision-making of military professionals. An intuitive approach (David Hume, Arthur Schopenhauer, Jonathan Haidt, and others) based on emotion and intuition, which criticizes the rational conception of morality. The second approach is the rationalist approach, represented mainly by deontology¹ and utilitarianism² (Čapek et al., 2015; Krámský, 2015; McNaughton and Eawling, 2018; Tseng and Wang, 2021).

In the demands and specifics associated with moral decision-making and action in the military profession and the conduct of military and combat activities, one can unequivocally approach a rationalist approach and specifically deontological conception (Kant, 2017) and utilitarianism (Mill, 2011) because of the following arguments. Both theoretical starting points make it possible to "...create a universal moral theory that would offer an aim criterion for the correctness or incorrectness of any action" (Čapek et al. 2015, p. 179). Another argument is the fact that the moral conceptions of deontology and utilitarianism have a common emphasis on the so-called cognitively rational aspect, i.e. the ability to assess rationally the correctness and incorrectness of actions in relation to a rationalized norm. According to Immanuel Kant (2017), a key representative of the deontological approach, the essence of moral decision-making is an autonomous starting point: the ability of a man to accept — voluntarily and freely, based on

¹ Deontological conception (from Greek to δεον — required, obligatory, mandatory) of the moral philosophy (ethics) is normative. Human decision-making and action must be under firm principles and duties. The term deontology was first used by the English philosopher Jeremy Bentham (founder of utilitarianism) to describe his theory of morality, which sought to reconcile duty and self-interest in terms of suitability and usefulness. Immanuel Kant was the most prominent supporter of the ethics of duties and thus in this sense of deontology (Čapek et al., 2015, p. 79).

² Utilitarianism (from the Latin utile, utilis — useful) is a direction of moral philosophy that connects the meaning of human action with the search for benefit and utility and with the reduction of suffering and pain. It evaluates a person's actions only according to its consequences and is therefore often referred to as consequentialism (ethics of consequences). The founder of utilitarianism was the British philosopher Jeremy Bentham, who explained it in his book *Introduction to the Principles of Morality and Legislation*. The most prominent proponent of utilitarianism was John Stuart Mill. Utilitarianism has traditionally been and still is strongly represented mainly in the Anglophone cultural environment. It was strongly denounced in the first half of the 20th century, after 1950 it underwent a renaissance, when several attempts were made to restore it and develop it further (Čapek et al., 2015, p. 179).

a rational attitude — the moral imperative, i.e. to respect the moral law, which has the character of a moral obligation (Muchová, 2015). The moral imperative is planned in the so-called “categorical imperative”³, which serves as a criterion for the morality of our subjective rules of conduct, our maxims. According to Kant, a person who decides in violation of the moral law loses his autonomy because in his decision-making, external influence prevailed over respect for the law and for oneself: the desire for power, career, property, bodily instincts, the current emotional state..., etc. (Čapek et al. 2015, p. 92).

The third argument is the possibilities of both concepts. The deontological concept makes it possible to define developmental theories of moral reasoning (e.g. the model of moral development stages by Lawrence Kohlberg) and their practical applications in the form of tools such as the Moral Competence Test, for measuring moral decision-making and action.

The key and most problematic in this sense are the norms, which is always based on a certain historical context and socio-cultural environment (family, social, political, ideological, religious or professional system) and which does not have to be moral or not necessarily guarantee the morality of decision-making. Under certain circumstances, heterogeneous morality can even lead to decisions that can be described as amoral (Milgram, 1974; Rawls, 1971; Arenndt, 1995; Zimbardo, 2008; Baumann, 2010; Vogels, 2010; Kaposi, 2017). Thus, in the deontological sense, the condition that the norm allows for moral decision-making must be met (Čapek et al, 2015).

Utilitarianism, based on eudaimonism and the ethics of virtues and built on the principles of consequentialism, hedonism and impartiality, is the basis of the theoretical concept of moral integrity (Krámský 2015).

The concept of moral integrity based on deontological ethics seems to be more practical for the military and security environment. According to this concept, if we do not decide and do not act under the moral law, we also act in conflict with ourselves and as a result the moral integrity of our personality is decomposed (Krámský, 2015, 146). Thus, in a deontological thought construct, moral integrity can be defined as a stable pattern of decision-making and action, corresponding to the values to which the person subscribes (Krámský and Preiss 2014, Preiss et al. 2014).

Moral integrity (especially in connection with its deontological interpretation) can be comprehensively perceived as an agreement of our decisions and actions with moral consciousness. This agreement includes the ability to be receptive to the needs and value of the other person, the ability to make a critical moral decision and the moral courage to act morally (Krámský 2015).

Moral decision-making also resonated in the neuro-ethical approach based on natural sciences. The initial premise was the thesis that morality has its somatic address in the human body. One of the first attempts was the examination performed by Moritz Benedikt (Verplaetse, 2004), who examined the differences between the brains of a normal person and a person with a criminal burden (Benedikt, 1881). The most well-known and probably most frequently mentioned study related to the neuroanatomy of moral decision-making is the so-called Pinease Gage case. Here, neuropsychologist Antonio R. Damasio published a link between brain damage and a change in an individual's moral decision-making and action, which led to a loss of empathy (Damasio, 1994; Hurtubis, 2012).

Following Antonio R. Damasio, several theories have emerged linking the socio — emotional functions of the human brain with its moral decisions and actions. For example, the discrepancy in the

³ In „*The Metaphysics of Morals*“, we find two fundamental formulations of the categorical imperative. The first: “act only according to the maxim (own subjective rule — author’s note), which you may also want to become a general law”, the second: “act in such a way that you always use humanity in your person, so in the person of each other always as a purpose and never as a means”.

orientation towards rational, cognitive ethics (Kant, Mill) and intuitive ethics (Hume, Schopenhauer, Haidt) is interpreted by some authors (Greene, 2004, 2009) as a difference between different neural systems and between patterns of neural activities. Based on the results of the solved moral dilemmas, Joshua D. Greene (2015) concluded that there are neurobiological differences between emotional, moral intuition and rational moral judgment. According to the neurophysiological approach, moral feeling is evolutionarily conditioned, automatic, emotionally influenced, and centred in the right cerebral hemisphere (Greene, 2015).

Neurobiologically oriented authors emphasize that the level of moral decision-making and action is an innate issue, influenced by neuro-physiological factors (Mendez, 2009), in contrast to authors with philosophical and psychological orientation, who emphasize socio-cultural and personality factors.

The tension between the socio-cultural and neuro-ethical approach points to a new trend in the approach to morality and moral decision-making (Christensen and Gomila, 2012). If the legitimacy of the neuroetic basis for moral decision-making were to be confirmed, it would bring about a number of significant changes in the field of military professional ethics, including a change in the model of ethical education and leadership of military professionals. The implemented research of moral decision-making of future military leaders wants to help answer the question of which decisive factors, whether neuro-physiological or socio-cultural and personal, have a more significant influence on the process of moral decision-making. For this reason, the factor of social isolation was implemented in the research.

3. Moral Decision-Making in the Military Environment – Solving the Moral Dilemma

The chapter describes moral decision-making research focused on the moral decision-making of

future military leaders. Research is the answer to a defined research problem: *What is the state of moral decision-making of future military leaders – military students of the University of Defence?*

Based on the definition of the research problem, the following research goal was set: *To determine the state of moral decision-making of future military leaders – military students of the University of Defence.*

To achieve this research goal, research questions have been set.

Main research question: *What is the state of moral decision-making of future military leaders in solving moral dilemmas?*

Partial research question No. 1: *What is the state of moral decision-making of future military leaders in solving moral dilemmas related to their professional and personal actions?*

Partial research question No. 2: *What is the influence of social isolation on the moral decision-making of future military leaders in solving moral dilemmas?*

The whole research was divided into two phases.

The first, preparatory phase took place in the period October 2019 – December 2020. The COVID-19 pandemic significantly limited and disrupted its course and especially the adopted anti-pandemic measures (lockdown). Preparatory phase was characterized by compiling the questionnaire and verifying its functionality using pilot research.

The second research phase, combined with answers to the main and partial research questions, took place in the period December 2020 – December 2021.

The Covid-19 pandemic and subsequent anti-pandemic measures (repeated lockdown, social isolation of respondents, limitation of possibilities of data collection) significantly limited its course as well. The content of this phase was the implementation of two rounds of the questionnaire survey, and statistical processing and evaluation of the obtained data.

3.1 The First Phase of Research on Moral Decision-Making

The first phase of the research was focused on the creation and optimization of the research tool. Following criteria were set for its compilation: to create a set of short moral dilemmas in accordance with the set criteria. Criterion No. 1: individual dilemmas must be based on real situations and contexts understandable to the respondents, which are part of their personal, social, military – professional and study life. Criterion 2: A clear YES-NO answer must be possible for each dilemma.

Under the above criteria, a set of 50 situations was created – moral dilemmas, covering the military-professional, study, social and personal dimensions of the lives of future military leaders – military students of the University of Defence. The military-professional moral dilemma is given here as an example:

Martin and Jitka have had a serious relationship for several years. Because of that, the two also joined the University of Defence together. In the summer, field training takes place, during which the student-soldier carries over 20 kg of load all the day. Martin helps Jitka to carry her gear all the time. Jitka accepts it, even though she knows that there are other members of the team who, unlike her, have real problems and would need help. Is his action morally correct?

33 moral dilemmas were selected for the pilot research and a questionnaire was compiled. Subsequently, a pilot research survey was conducted, which was attended by 15 respondents (5 women and 10 men) from the University of Defence in the age range of 19–24 years, who typologically corresponded to the intended selection of respondents for the second phase of the research. The survey was conducted online.

Pilot survey confirmed that the formulated situations are comprehensible for the required category of respondents and the moral dilemmas they present are sufficiently serious and current. The questionnaire was optimized on the recommenda-

tion of the pilot respondents and one situation was erased. The optimized final questionnaire contained 32 situations – moral dilemmas from four areas (military-professional, study, social and personal). For each dilemma, the question was left: „Is his/her behaviour morally correct?“ whereas the NO response described the actions considered immoral in the situation.

3.2 The Second Phase of Research on Moral Decision Making

The resulting questionnaire was used in the second phase for a research survey, the purpose of which was to answer the main and partial research questions. A stratified random selection of respondents was performed – individual strata represented individual years of students, from which 100 respondents were subsequently randomly selected (Hendl, 2016). Respondents were contacted in an addressed, hidden form by e-mail, in compliance with all required ethical rules of research and while maintaining anonymity. The questionnaire survey itself was conducted online, using the Google Forms application.

In the first round of the second phase of the research, 58 respondents reacted and responded. At the same time, serious anti-pandemic measures (lockdown, transfer of activities to the online space, social isolation of respondents) immediately followed this phase.

Because of the relatively low return of completed questionnaires, because of the high agreement of respondents (on 13 military-professional and study dilemmas and 2 personal dilemmas) compared to the results of the same type of research in the civilian environment (Kundu and Cummins, 2013) and due to the expected psycho – social impact of the pandemic situation on the moral decision – making of an individual, a second round of the questionnaire survey was conducted. This round was scheduled for the period immediately after the anti-epidemic measures at the University of Defence (June 2021).



The method of stratified random selection was again used for the selection of respondents, and due to the high agreement of the respondents in the first round, the possibility of answers with the control option „I don’t know“ was added (YES-NO-I DON’T KNOW) to verify the legitimacy of the frequency of positive answers. The questionnaire survey was conducted directly, in the pencil – paper format. All participants were informed of their rights in the form of informed consent to data collection and processing. In the second round of the second phase of the research, 52 out of 100 respondents responded.

3.3 Results and Discussion

The resulting data from both rounds of the questionnaire survey was processed using statistical and analytical software IBM SPSS. To verify the

normality of the data distribution, Shapir – Vilks standard T-test was performed, which, however, did not prove the normality of the data distribution of the first and second rounds of the questionnaire survey. For this reason, the Mann-Whitney nonparametric test was used for further statistical calculations.

Using the coding method (-1 / 0 / 1 / -NO / DON’T KNOW / YES) in the evaluation of the answers of the second round of the questionnaire survey did not show a significant effect of the added alternative “I DON’T KNOW” on the frequency of positive answers.

The Mann-Whitney nonparametric test revealed that the results of the first round of the questionnaire survey (pre-covid) and the second round of the questionnaire survey (post-covid) differed significantly in relation to the total value (Total_Q_Score) (N pre-covid = 58, N post-covid =

Table 1 » Ranks

	Pre-covid = online, binary / post-covid = on paper, three point scale / experimental = verbal, three point scale	N	Mean Rank	Sum of Ranks
Total_Q_Score	Pre-covid	58	46.34	2688.00
	Post-covid	48	62.15	2983.00
	Total	106		
Military_Q_Score	Pre-covid	58	49.24	2856.00
	Post-covid	49	59.63	2922.00
	Total	107		

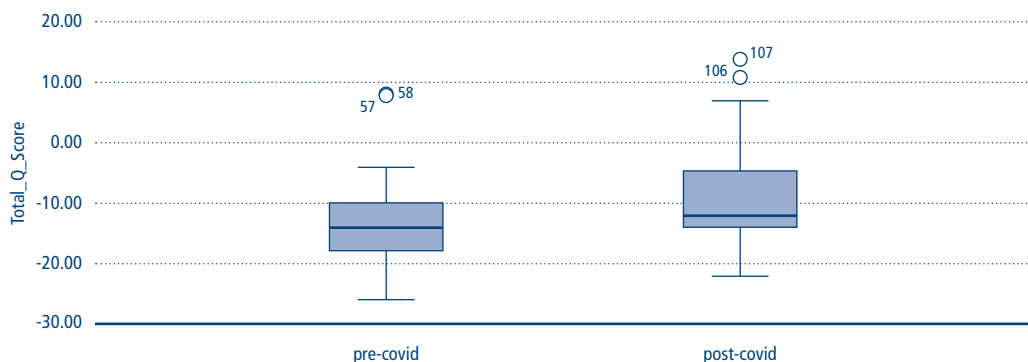
Source: authors

Table 2 » Test Statistics

	Total_Q_Score	Military_Q_Score
Mann-Whitney U	977.000	1145.000
Wilcoxon W	2688.00	2856.000
Z	-2.646	-1.850
Asymp. Sig. (2-tailed)	.008	.064

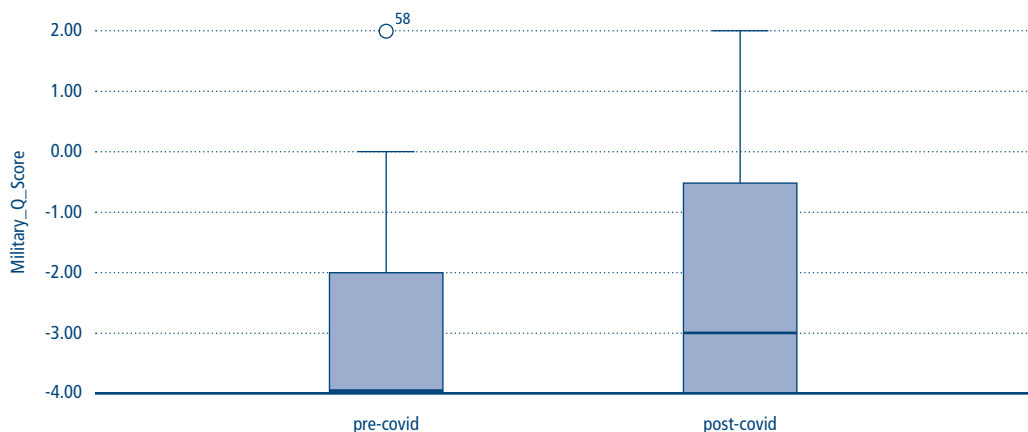
Source: authors

Figure 1 » Overall distribution of the answers to the first (pre-covid) and second (post-covid) rounds of the questionnaire survey



Source: authors

Figure 2 » Distribution of military — professional answers to the first and second rounds of the questionnaire survey



Source: authors

48) = Total Q Score 977, where $z = -2.65$, then $p < 0.05$. However, this change did not apply to military professional results (Military_Q_Score), where it was true that (Military N pre-covid = 58, Military N post-covid = 49) = Total Military Q Score 1145, where Military $z = -1.85$, then $p > 0.05$.

These results confirmed that anti-epidemic measures significantly affected moral decisions in

the social and personal spheres, while moral decisions in the military-professional area (decisions related to military-professional identity) remained relatively stable despite the influence of social isolation. A graphical illustration of this is identifiable in the following box-plots (see Figures 1 and 2).

If we will come out of the assumption that the design of the questionnaire considered that, the



answer NO marked the actions considered immoral in the situation and this answer. Statistically expressed, is represented by negative values of the graph, Figure 1 can be interpreted so that, as a result of social isolation. The military students of the University of Defence – future military leaders – have showed a significant reduction in the level of moral identity in their moral decision-making.

Based on interpreting Figure 2, it can be stated that the military – professional identity of military students of the University of Defence – future military leaders was not affected by social isolation – its loss cannot be significantly proven. Thus, it can be stated with certainty that the lower level of moral identity, caused by social isolation, manifested itself at the students of the University of Defence – future military leaders – in the area of social and personal morality.

4. Conclusion

In the context of socio-cultural and personality approaches, moral theology (McKenny, 2010), moral philosophy (Christensen, 2020), moral psychology (Doris, 2010; Miller, 2021) and neuroethics (Mendez 2009) deal with morality.

Emphasis on moral theology is placed on the fulfillment of the vocation to holiness, moral philosophy raises questions about the possibilities of functional rules guaranteeing the existence of human community (Christensen, 2020) and the personality approach of moral psychology seeks to answer why people act the way they do (Doris, 2010; Miller, 2021).

Neurobiologically oriented authors emphasize that the level of moral decision-making and action is an innate issue, influenced by neuro-physiological factors (Mendez, 2009).

The tension between the socio-cultural personality and neuro-ethical approaches points to a new approach to issues of morality and moral decision-making (Christensen and Gomila, 2012). Confirming the legitimacy of the neuroetic basis for moral decision-making would bring significant changes

in the field of applied (professional) ethics and ethical education and ethical leadership not only in the civilian, but especially in the military environment.

Research on the moral decision-making of future military leaders, in which the factor of social isolation was implemented, sought to answer the question of whether neuro-physiological factors play a more important role in the process of moral decision-making than traditionally preferred socio-cultural and personality factors. The solution to a defined research problem and assessment of the state of moral decision-making of future military leaders – military students of the University of Defence – were also based on these theoretical foundations. The determination of the research goal (to find out the state of moral decision-making of future military leaders – military students of the University of Defence) and the formulation of the main and two partial research questions also corresponded to this definition.

The results of the research in relation to partial research question No. 1 (What is the state of moral decision-making of future military leaders in solving moral dilemmas related to their professional and personal actions?) have proved that it is possible to confirm quality of moral decision-making ability of future military leaders only in the military-professional field. In relation to partial research question No. 2 (What is the influence of social isolation on the moral decision-making of future military leaders in solving moral dilemmas?) the influence of social isolation on moral decision-making was clearly showed in the study, social and personal field. In relation to the main research question (What is the state of moral decision-making of future military leaders in solving moral dilemmas?) we can conclude that this state is satisfactory only in solving military-professional moral dilemmas.

Thus, it can be stated that the research goal was achieved and at the same time it was proved that social isolation had an immediate effect on the quality of moral decision-making, which was de-

terminated by socio-cultural and personality factors and thus did not prove a dominant neuroethic influence.

However, given the conditions and volume of research carried out, this finding cannot be considered absolute and its confirmation must be verified by further researches.

Based on the above findings and the findings of the research, the authors propose to implement in the process of ethical education and leadership of future military leaders – military students of the University of Defense an aspirational approach to ethical education and leadership. An aspirational approach is based on moral decision-making skills as a result of the development of intrinsic values and character that would take more account of so-

cio-cultural and personality factors. As a possible tool for this implementation, the authors suggest the educational tool „Education for Character“ by Thomas Lickon (Lickon, 1992), which has sufficient potential for the specific environment of the University of Defense (Mikulka et al., 2018).

Acknowledgement

This article was created within the specific research project Moral decision-making in a military environment. The project is focused on determining the level of moral decision-making/ reasoning of military students of the University of Defence, on comparing this level with civilian university students and with military professionals of the Army of the Czech Republic – members of selected units.

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Moral Decision-Making in Conditions of Social Isolation.

ABSTRACT

The article deals with moral conduct in the military environment, specifically the moral decision-making of future military leaders in solving a moral dilemma. In the theoretical part, the authors describe the basic theoretical background enabling the solution of moral dilemmas in the military environment, specifically in the University of Defence. The practical part describes the course and interpretation of the results of two phases of the questionnaire survey, focused on solving moral dilemmas related to the professional and personal actions of military students. These difficulties were formulated in a questionnaire containing 32 model situations. First phase (addressed 100, return 58) took place online in the normal mode of life of students, before implementing the lockdown, which resulted in the social isolation of the respondents. The second phase (addressed 100, return 52) took place after the lockdown and social isolation of the respondents. The results showed the influence of social isolation, resulting from the pandemic situation, on the moral decision-making of the individual, especially in the personal and social field, less so in the military-professional field. In the conclusion, the authors plan proposals for the use of gained knowledge in the field of ethical education of future military leaders.

KEYWORDS

moral decision making; moral dilemma; social isolation; military leaders

JEL CLASSIFICATION

I20; I23



Efficiency in the home office — risks and opportunities

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* 1. Introduction

Since the beginning of preventive measures in the spring of 2020, the need for working from home has increased rapidly, making a unique benefit inevitable in most developed countries. Companies were forced to respond to the situation in the Czech Republic and most other countries, even though appropriate legislative frameworks were not available. Slovakia, for example, introduced the term “home office”, from the original “teleworking.” *“It turned out that many, not only Slovak companies, introduced the so-called home office, which was previously defined in the Labor Code as telework”* (Grožák and Stoličná, 2021, p. 23). The legislative introduction of the term “home office” in Slovakia took place in April 2020, including the possibility of ordering a form of working from home to the staff (Grožák and Stoličná, 2021).

For less than two years, strict restrictive measures have alternated with less stringent ones, which is why even leading companies are counting on this trend in the future. However, there is no unanimous agreement between companies concerning the extent to which working from home should be realised as there are many causes of it —

nature of the work performed, corporate culture, personal contact with the client, and many others. The idea of unification across all professions is utopian. Therefore, we will deal with possible identifiers for constructing a universal hybrid model.

1.1 Perception of working from home in the Czech Republic

About 80 per cent of Česká spořitelna’s employees work from home in the event of stricter measures, says a spokesman for Česká spořitelna, Filip Hrubý. Research at Avast Software has shown that around 50 per cent of employees voluntarily choose to work from home, regardless of current and practical measures. The IT corporation encourages about 95 per cent of its employees to work from home during a pandemic. LMC analyst Tomáš Dombrovský states that over 35 per cent of employees. He points out that at present, it is not a matter of deciding whether or not to allow working from home but a permanent setup of such a hybrid system (Vojáček, 2021). In the case of considering a vacancy, the opportunity to work from home is considered by subjective conditions rather than a real threat of a pandemic disease. The most vulner-



able group of employees, 55 plus, worked from home only in 16 per cent of cases (Dobiašovský, 2021). A survey by Instant Research suggests that employees perceive work outside the office and from home as the most significant benefit of restrictive measures (38 per cent in total), and more than a third of respondents confirmed that they had more free time otherwise spent commuting (Feedit, 2021).

Therefore, in many cases, working from home is perceived positively by the employees in the Czech Republic with the identified benefits. On the other hand, this is certainly not the case in all organizations and groups of workers.

According to Tomáš Dombrovský, about 40 per cent of employers, out of the total number of companies, plan to maintain the working from home mode (Mertová, 2021). Sociologist Danil Prokop from the PAQ Research company points out that working from home was hardly used, for example, in public administration, services, and some administrative positions in traditional industries (Mert, 2021). Therefore, we can expect a further increase in this form of work in the forthcoming period, as the barrier of dislike and fear of the unknown has disappeared in many cases. Further increases in the need and importance of addressing this issue at a scientific level are apparent.

2. Work performance, working from home, and corporate culture

Petra Jeřábková, HR Director of Siemens Czech Republic, has informed that the company employees are as productive when working from home as in the workplace (Vojáček, 2021). On the other hand, the company's sociologist, Vojtěch Bednář, claims that employee productivity, when working from home, falls by as much as 20 per cent caused by the social deficit, i.e., managers' supervision (Oupic, 2021). Instant Research confirmed the decline in productivity by 40 per cent of respondents (Vejvoda, 2021). Vendula Bláhová, from the real estate consulting company JLL, also confirms the ne-

cessity of social interaction and states that physical offices will not disappear from companies. However, they will serve as a zone for collaboration, social interaction, creative activities, or transfer of experience (Mertová, 2021).

Naturally, there may be dynamics or moderation of a corporate culture with the adoption of working from home. Corporate culture is formed over time and depends on the values and attitudes of employees. Moving work from the workplace home results in changing communication and management. Economic impacts force companies to measure the company's vision and strategy, which fundamentally transforms the basis of the corporate culture (Štullerová, 2021). The importance of corporate culture and its application is undoubted, as confirmed by Lucie Spáčilová, executive director of PERFORMIA. According to her, internal PR and corporate culture are pillars based on intensive social interaction (Plus. cz, 2020). The basics of corporate culture dynamically show changes, even the partial disappearance of culture and changes in the employees' behaviour. Since co-workers do not see each other every day, they tend to present themselves at a distance when their ego is at the expense of relationships (Loja, 2021).

From the above, the rate of decline in employee productivity is not apparent, but no consensus can be found as to whether productivity declines are occurring. Therefore, it is necessary to consider the possible reliability of this information due to the relatively short period for the benefit of objective information. It is also essential to think that productivity in the exercise of the profession outside the office may have a different decrease or increase concerning a particular job. Another open point is the productivity parameter itself and the possible use of other parameters such as efficiency.

This article sets up a model for collecting productivity, efficiency, and possible interrelationship indicators.

The scope of using the working from the home model and the form itself is influenced by the corporate culture and the number and type of profes-

sions in individual organizations. Radek Procházka, the Managing Partner from Procházka & Partners, confirms that some specializations are restricted to work from home and can only use the form a few days a week. Only 17 per cent of companies talk about a complete move to it (Plus.cz, 2020). Another aspect is the legal regulation of teleworking – there is no current solution in sight. It brings several obstacles for employers, one of which is employee monitoring. In these terms, we conflict between the employee's privacy and the employer's legitimate interest in controlling the performance of their activities (Szufányi and Slavík, 2021).

3. Measuring performance and productivity

According to Štullerová (2021), we can measure performance in the following indicators, which are derived from the rule “what we do not measure, we do not control”:

- in measurable fulfilment of assigned tasks;
- in the work outcomes;
- in work efficiency;
- in the activity, initiative of employees;
- under the employees' responsibility for performance;
- performance linked to the company's goals;
- as a focus on the process where values are created.

However, specific indicators cannot be applied generally across all professions. Any outputs from monitoring the activities of employees within the home office should be assessed individually. Significantly depending on the specific professional classification and standardized employee results (Szufányi and Slavík, 2021).

3.1 Selection of suitable indicators according to a profession and activities

Recent studies show that working from home in many countries exceeds 20 per cent of all professions, and this share grows with the economic ma-

turity of individual countries. For example, Dingel and Neiman state, “While fewer than 25 per cent of jobs in Mexico and Turkey could be performed at home, this share exceeds 40 per cent in Sweden and the United Kingdom.” (Dingel and Neiman, 2020, p. 10). According to a study focused on conditions in the Czech Republic (Bajgar, Janský, and Šedivý, 2020), over a third of workers in the Czech Republic can work entirely from home. These studies confirm that the proportion of professions varies in different industries. The authors state: “While in the financial, informational and communication sectors over 80 per cent of employees can work from home (as well as in science and surprisingly also in education it represents over 70 per cent), agriculture, culture, and leisure sectors reach hardly 20 per cent.” (Bajgar and Janský and Šedivý, 2020).

From the above, we can assume that a successful evaluation system of employees working from home will require selecting indicators for specific professions and adequately implementing appropriate conditions of the industry and the organization itself.

To evaluate an employee's productivity, generally as a ratio of outputs and inputs, the decisive parameter for most work from home is the time spent.

3.2 Productivity monitoring and assessment

Individual workers' productivity monitoring and assessment in manufacturing industries have long been verified from the last century based on the work of “Principles of Scientific Management” (Taylor, 1911). However, this is a relatively new area in information technology, science, and education. One of the many definitions of productivity states that:

- PRODUCTIVITY is equal to the OUTPUT / INPUT ratio for a given PERIOD, subject to the condition of MAINTAINING QUALITY (Cejthamr, 2010),



- We need to deal with the worker's activity, outputs, quality, and a suitably chosen evaluation period. In terms of productivity, it is appropriate to work with efficiency for further consideration. In this case, the ECONOMIC aspect is the ratio of outputs and inputs and EFFICIENCY (usefulness) proving the benefits of outputs to the recipients (Kotulič et al., 2010).

Employee activity measurable inputs can be relatively well described (timesheets) and monitored. However, in many cases, it is still challenging to describe measurable outputs of specific employees, especially for shorter periods, such as days or weeks, combined with the qualitative parameters of individual outputs.

Information technologies provide several tools for monitoring an employee's activity on the means of computer and communication technology added with movement monitoring available for other fields.

3.3 Monitoring tools and their implementation

Several different ICT systems or solutions are available for automated productivity and time utilization data processing. We can select them from various categories and how they are used to obtain data for assessment. Typical representatives are:

- Attendance systems – timesheet;
- Reports – productivity / timesheet;
- Time frames (by a human “auditor”) – timesheet;
- ERP (enterprise resource planning) – productivity;
- WFMS (workforce management system) – productivity;
- MES (manufacturing execution systems) – productivity / timesheet;
- Automated PC and Mobile time tracking systems – timesheet;
- Car and HHU (handheld unit) trackers – timesheet.

While the first represent systems known before

ICT implementation, the last two, in particular, are a phenomenon of this millennium and continue to evolve. One example is monitoring a worker's activity by a vehicle. It is relatively common to use data from CAR trackers owned by organizations or leased in various types such as Fleet full service to assess costs other technical and economic parameters. Car sharing services also seem to be a relatively new data source to assess employee activity.

Employees use car sharing in connection with their private and job activities. The report “Car-Sharing: Where and How It Succeeds” states that 21.2 per cent of car-sharing was considered work-related (Millard-Ball, 2005, pp. 3-12). Interest in using electric cars in car-sharing is motivated by the social individual and company responsibility and entirely economic aspects. Groos and Stoličná, for example, state: “Due to the incentives for electric vehicles, the i3 can be leased relatively inexpensively and is exempt from vehicle tax.” (Groos and Stoličná, 2021, p. 20). Thanks to the technologies used, today's electric cars are potentially a rich source of data and thus offer space for further use besides monitoring and vehicle operation assessment.

Especially in cases allowing to work with several data sources indicating an employee's activity outside the direct supervision, it is necessary to keep in mind the protection of his privacy. KPMG lawyers, for example, state the restrictions in handling the data obtained from job computers: “The principle of proportionality should always be observed to prevent from extensive monitoring of employees by constantly recording any activity on the computer.” (Slavík and Szufányi, 2021). Similar principles should be applied to other controls, such as GPS trackers (Slavík and Szufányi, 2021).

3.4 Data evaluation

Records of time worked and basic statistics processed can be used as a typical representative of the data evaluation on an employee's activity in a minimal form. The obligation to keep records is

imposed on the employer by law, specifically in Section 96 of the Labor Code (Act No. 262/2006 Coll.). Several different ICT technologies and procedures implement these systems, e.g., software solutions recording the beginning and end of the shift and breaks with the help of application or using identification terminals and cards when entering, or sophisticated solutions detecting the employee's mobile phone, computer, car, and finally a personal recognition system. These systems are more or less integrated into ERP, providing data for payroll processing in particular or an up-to-date overview of employees' whereabouts. A representative of traditional attendance systems is, for example, ACS Line, with several different variants of access terminals or mobile applications. The Qandle solution applies automation of employee presence detection and mobile applications, biometric sensors, or mobile devices' presence in a particular area. The mentioned attendance systems define and assess some fundamental indicators, such as the time worked or the employee's absence. Both systems can be extended with specific modules that monitor primary production data, such as individual products, orders (ACS Line) or assign individual tasks and their completion (Qandle). These systems are also subject to various integration options for other specific IT solutions, e.g. MES and WfMS.

These data allow the creation and monitoring of preliminary evaluations and reports, including productivity indicators. Modern IT systems such as Qandle, Kissflow, ubiAttendance, and others are often supplemented with several analytical, overview, and summary data visualizations in the form of various dashboards. They contain critical values of selected indicators supplemented with various graphs reflecting development over time, comparison, or evaluating shares. They often allow real-time data processing and display, including the possibility to navigate interactively through different levels of data.

The above approaches are dependent, to some extent, on the evaluator's skills and experience in

these analytical outputs, typically a manager responsible for one or more groups of employees. In simple cases where the data is relatively quickly linked to specific outputs, the degree of dependence on the employee's abilities and knowledge of specific activities and performance is lower.

As a default example, we can use the number of processed accounting records in the period when a particular user was connected to the accounting system during working hours. This example can be developed to analyse possible bottlenecks in process support by analyzing how long each sub-part took and, if so, what the system's responses (delay rate) were. In this way, the analytical approach can be developed in other areas, such as analyzing time spent in other support or related systems or, conversely, in the usual disturbers (e.g. email client, messenger). In complex cases without obvious connections between activities and outputs, a higher rate is needed for a valid interpretation of analytical outputs. Similarly, the employee activity or output data are not dense or significantly disproportionate. An example is a data on the activity of a researcher or teacher on a computer, as typical representatives of groups of workers with a high degree of ability to work from home. These data can be of different extensions at different stages of their work, and only partial outputs of their activities are in many cases available for a more extended period.

For these complex and uneven cases, we can use the possibilities of AI algorithms and machine learning for the detection and prediction of behaviour patterns and the related detection of possible anomalies. These algorithms are likely to have the potential to reduce the quality of the output evaluation time required in more complex cases and when properly implemented, overcome some of the legislative limitations on the scope of data collected. According to the authors of Artificial Intelligence in the Light of Privacy Protection (Pattynová and Drašković, 2019), if the detailed personal data collected is suitably processed, e.g., directly on the personal computer of a particular user, "so that ar-



tificial intelligence can work with personal input data subsequently, only the results of this artificial intelligence learning in the form of anonymized data entered the network". In this way, it is likely to identify bottlenecks in process support and thus directly improve employee efficiency and, indirectly, employee engagement by eliminating potential sources of dissatisfaction.

4. Discussion

The increased need to monitor the activities of employees working remotely is increasingly logically justified. Especially in the past two years, the work performed has shifted to the home more than ever before. The possibilities of measuring productivity and efficiency in monitoring activities are constantly improving, and the explanatory power and the market's increasing demands. The critical questions to answer before identifying the suitable evaluation methods are:

- Why do organizations measure or want to measure the productivity of working from home?
- What are the expectations of the implementation of methods and tools?
- How do they differ from those used before the form of working from home?

Do they expect monitoring staff working from home to identify opportunities to improve efficiency by changing processes or management, or should it only be a tool for supervision and control? The critical success factors will be the methods of implementation, the corporate culture, and change towards improving the efficiency of working from home. Corporate culture thus plays an essential role in adopting these systems as an integral part of working from home.

The question is whether, in times of environ-

mental challenges, Generation Z and the dynamics of environmental change focus only on assessing productivity or assessing efficiency in its broader economic and efficient sense, enabling to face the growing need for flexible response to needs of customers and employees!

The expected growth in implementing the combined model of working from home and workplaces in various proportions will further increase the need to apply appropriate evaluation methods and the quality of working conditions. Therefore, we should consider whether and how to include condition assessment directly in these methods.

5. Conclusion

Current information systems for automated employee performance evaluation focus mainly on monitoring employee activity and statistical processing. In some cases, a more complex connection with data on the results of an employee's performance is missing, which complicates the possibility of obtaining a relevant evaluation.

Without multifactor analysis, taking into account various inputs and outputs, automated productivity assessment is potentially misleading and requires crucial input from the human evaluator, typically a manager, to interpret them correctly.

Implementing an automated employee performance evaluation using AI and ML to monitor working from home as part of the ongoing optimization of process operations and improving their support is one possible way to further development.

Supporting the identification of bottlenecks in process support by appropriately applied AI and ML can potentially increase employees' perception of monitoring their working from home.

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Efficiency in the home office — risks and opportunities

ABSTRACT

From the beginning of 2020, restrictive measures against infection with the coronavirus Covid-19 came into force in a number of countries, including the Czech Republic. In our professional lives, it was often impossible to carry out our professions under the current situation. For these reasons, in a very short time the use of home office/remote working in almost all professions that allowed it at least partially became widespread. As employees have thus found themselves in completely different conditions for the exercise of their profession, this has changed the way in which they carry out their work. In many cases, this happened without adapting the operation of processes to the new conditions.



→ Some employers controlled or still control the work of employees by monitoring their activities. For example, by checking when an employee is online, the amount of time they are active on a particular system, or the amount of work done during working hours, such as the number of emails or phone calls handled. A more widely applied methodology for measuring their actual productivity and effective use of working time in this mode of work is not yet known.

There are a number of different automated tools for monitoring and evaluating employee activity both in the home office and in the online work mode. However, the activity data thus obtained requires a significant amount of individual interpretation for relevant evaluation. Especially when it comes to evaluating the resulting productivity and/or efficiency or identifying weak points in the support of the service processes. Here there is still quite a lot of room for further improvement and development of home office support.

It is also questionable whether productivity is currently a sufficient criterion and whether it would not be more appropriate to focus more on efficiency.

KEYWORDS

home office; productivity; restrictive measures; employers control; employers monitoring; word monitoring; measuring methodology; artificial intelligence; machine learning

JEL CLASSIFICATION

K20; K22; M14; M20



Consumer behaviour in fashion: Czech Gen Y and Gen Z attitude to fast and sustainable fashion

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* 1. Introduction

Today, consumers do not always take into account the environmental impact of clothing production when buying clothing. Most of them mainly deal with the price, design and aesthetics of clothes. Aspects such as the type of material or product certification are often secondary to consumers and are not key elements in the purchase decision. Fashion brand marketing targets customers from all sides and few people resist seasonal discounts or new trends, which are promoted not only by celebrities. Fast fashion sometimes presents up to 50 collections a year, and the production of such clothing is not entirely ethical and often not sustainable in the long run. Many well-known brands, such as H&M and Primark, have clothing sewn in developing countries, where clothing production has become an important industry. An example is Bangladesh, where 80% of exports are textiles. Workers there are low paid, spend many hours a day for too little money and very often find themselves in poor working conditions. At the same time, the production of clothing itself is very demanding on the environment. It consumes too much water, pollutes the air and generates a large amount of textile

waste. For this reason, it is necessary to take certain steps in this area and change current developments (Slow Femme, 2019).

2. Fashion history and its evolution

In the past, people approached fashion in a far different way than today. Fashion was slow, people had to get their own materials to make clothes, at that time it was mostly wool or leather. Furthermore, they are modified, woven and made from processed material (Rauturier, 2020).

With the advent of the Industrial Revolution in the 18th century, there was a transition from manual to mechanical production, which led to a factory system that is still used today. Gradually, the number of workers in this sector began to increase, and clothing began to be produced, mostly in the past, which became a universal material. A new technology in the form of a sewing machine and a bound stitch was introduced in the clothing industry in the 1930s. The production of clothing has thus become much easier and faster. Nevertheless, demand remained limited because people were still able to make their own clothes (Thomas, 2019). Gradually, middle-class tailor-made tailor-



ing shops began to appear (Rauturier, 2020), leading to the prosperity of American retail. Tailor-made robes were made, women began to emphasize their femininity, and they chose different clothing for each occasion. An important element in clothing was the material that divided society into individual social classes. The change came at the beginning of the Civil War, when it was necessary to produce a large number of robust uniforms. The producers responded to this situation by mass production of men's and women's clothing, which was divided into two categories. Simple styles and cuts for work clothes or underwear were produced in large quantities in textile factories, and the production of stylish high-quality fashion, on the other hand, was limited to smaller quantities. At the end of the 19th century, the number of people employed in the textile industry increased, and most of the garments made here were the inspiration or copy of Parisian fashion houses and designers (Thomas, 2019).

The biggest fashion rise came in the 1960s. It was not until the 1960s that 95% of fashion was made in the United States. By comparison, about 3% of the United States is now manufactured in the United States, and the remaining 97% is manufactured in developing countries (Morgan, 2015). Fashion chains realized that production abroad was more cost-effective, and began to place orders in Asia. While the turnaround time was slow, it lasted several weeks, but margins were significantly higher. In the mid-1970s, Hong Kong became the world's largest exporter of clothing, but goods had to be ordered at least 6 months before delivery (Thomas, 2019).

Clothing was already perceived as a form of personal expression at this time, but there was still a difference between the upper and lower social class. In the late 1990s, low-cost fashion peaked. Online shopping has grown and the main streets have been taken over by fashion chains, including H&M, Zara and Topshop. These brands have taken over the look and design elements of top-class fashion houses and reproduced them on the mar-

ket in a short time and at much better prices (Rauturier, 2020).

All fashion brands subsequently accelerated production and sales to such an extent that they were collectively described as fast fashion. Between 2003 and 2013, Chinese clothing exports to the US doubled (Thomas, 2019) and, compared to clothing prices over the last 20 years, it was found that the product was deflating, thus reducing prices, despite the fact that production costs still growing (Morgan, 2015).

3. Fashion nowadays

"Fashion is a set of anthropological, socio-psychological, economic and cultural values, more or less typical for a certain historical, socio-economic stage of human and social development" (Haunerová et al., 2019, pp. 19–23).

Thus, fashion is considered a fundamental part of what an individual wants to express about himself, what he enjoys or what he thinks, and at the same time reflects the current time and society in which one finds oneself (Thomas, 2019).

Previously, a system was in vogue, people took part in fashion shows, designers created collections for the spring / summer, autumn / winter seasons, and this system worked for several years. Gradually, various innovations took place. As a result, today's fashion industry tends to focus on production methods and takes into account only the interests of major fashion brands (Thomas, 2019).

Total clothing production was gradually shifted to low-cost economies, especially to low-wage jobs. This is because the more clothing produced in developing countries, the cheaper it is for customers. So there is room for a new model called fast fashion, which translated the way clothes are bought and sold almost overnight. Individual fashion brands compete with each other for the best production price, thus forcing textile factories to increasingly reduce costs and ignore occupational safety, which has already become an acceptable

part of this business model (Morgan, 2015). Today, the fashion industry employs one in six people in the world, making it the most demanding industry. Less than 2% of them make money at the subsistence level (Thomas, 2019).

3.1 Fast fashion

The term fashion itself characterizes several possibilities. It is not just about clothes and new fashion trends, but it is also possible to include lifestyle, music, food, housing, cars or cosmetic products. The field of fashion very often leads the company to irrational behaviour, especially to buy various products due to the need to get a feeling of belonging or owning the current trend, in the form of various products, which were set by certain people with a dominant influence. As a result, the utility value of the product no longer plays such a significant role (Haunerová et al., 2019).

Fast fashion is a term that means cheap and affordable fashion arising from the transfer of the latest fashion trends from world designers to clothing stores in the shortest time (Hubková, 2018). Haunerová et al. (2019) add that this is a really fast fashion, as the emphasis here is on the speed of putting the product into production, the speed of its production, and consequently its sales. The speed of exchanging goods at the store and changing collections is also important.

According to Haunerová et al. (2019) fast fashion holds the philosophy that not all customers can afford to buy expensive clothes, but still want to wear clothes that are the current trend. Therefore, they are offered products that are produced cheaply, in large quantities from relatively good material and according to designs that are taken over from successful fashion designers. In 1963, the Spanish businessman Amancio Ortega came up with the idea of producing clothes, in the same design, but of a different, lower-quality material at more affordable prices. Thanks to successful responses, he subsequently opened the first fashion store in 1975, which is still called Zara. This fact marked

the beginning of today's Inditex empire, which is one of the largest fashion distribution groups in the world. Fashion brands such as the already mentioned Zara, Zara Home, Pull & Bear, Massimo Dutti, Oysho, Uterque and Bershka are grouped here (Haunerová et al., 2019).

Today, clothing mainly has an aesthetic rather than a protective function. The constant supply and constant change of new clothes evokes in the company the feeling of the need for an immediate purchase. For this reason, people today are becoming puppets of fashion chains, which, thanks to endless discounts, create a feeling of joy and satisfaction by purchasing a large amount of clothing at very low prices. The result is a crowded wardrobe and a feeling of scarcity, which forces the company to constantly buy new fashion pieces (Hubková, 2018). Fashion chains are constantly changing the range they offer. Up to 52 new seasons are created each year, which means that a new collection comes to the store every week (Morgan, 2015). Customers make impulsive purchases for fear of selling goods out quickly, devaluing the value of clothing and fashion in general. Due to fast and excessive production, customers have wanted more and more and fast fashion is no longer fast enough for them. This creates space for a new business model called rapid fashion. Rapid fashion promotes online trading, which carries with it the main idea of fast fashion retail. The representatives of this business model are mainly British brands, which include Misguided or Boohoo. In order to further reduce their costs, brands use short logistics routes and focus on the production of goods in England, which they order according to how a particular product is sold. Therefore, even small-scale production can take place. These brands market new goods up to twice a day (Haunerová et al., 2019).

3.2 Slow and sustainable fashion

The term slow fashion was first used in 2008 by writer and professor Kate Fletcher, who likened the



functioning of the fashion industry to the trend of fast food. As in the 1980s, the opposite of the term fast food in the form of slow food arose in Italy, so did the opposite of fast fashion (Hubková, 2018).

Slow fashion arose as a reaction to today's surplus and ever-increasing production and consumption in the fashion industry. It is an approach to the overall production of clothing and other fashion accessories (Haunerová et al., 2019), in which there is a shift from quantity to quality and speed to slowness (Hubková, 2018). This fashion is mainly made by local designers, so the customer knows where to buy the product (Haunerová et al., 2019). At the same time, the quality of products is taken into account during production, which is associated with their higher purchase price (Hubková, 2018). Thus, full openness and sincerity towards the customer is promoted (Haunerová et al., 2019).

The goal of slow fashion is to have only clothes in the wardrobe with which a person has a certain relationship, still wears it and does not want to get rid of it. So to see clothing as a long-term investment and not to treat it as a consumer good. It is more about the way of thinking than about the product as such (Hubková, 2018).

The strategy of fashion chains today is to produce clothes that have a short lifespan, which leads to the customer using the clothes for only one season and having to buy new ones for the next. All of this is done by fashion chains for economic gain (Haunerová et al., 2019) and does not look at the impact of this behaviour on the environment. Planet Earth is able to restore the natural resources it provides in one year. In 2017, they were exhausted at the beginning of August, which led to the environmental debt in which the company now lives. Sustainable fashion tries to avoid this approach and focus on the future (Hubková, 2018) and at the same time tries to pay attention to the quality of the product, its utility value and monitors its entire life cycle (Haunerová et al., 2019).

It can be defined as clothing and other fashion accessories that are manufactured, sold and used in the most sustainable way, taking into account

socio-economic and environmental aspects. The goal of sustainable fashion is to minimize the adverse effects of the product life cycle on the environment, by ensuring efficient and careful use of natural resources, especially renewable at every stage of the product life cycle, and then maximizing reuse and recycling of the product and its components. At the same time, it seeks to improve current working conditions in developing countries, which should be in line with ethics and international codes of conduct (Green Strategy, 2020).

Sustainable fashion strives to use materials that lighten the environment. These include Econyl, a synthetic recyclate of reclaimed nylon from fishing nets and other nylon waste, as well as natural fiber materials such as GOTS-certified cotton (the strictest international biotextile certification – Global Organic Textile Standard), which guarantees that the substance was made of natural bio-fibers, thus protecting the environment and the health of production workers and consumers), the substance is made of eucalyptus or beech and oak cellulose and subsequently organic textiles such as organic cotton, hemp, flax or Tencel. It is gaining ground in fashion due to its low demands on water, space and antibacterial properties. At the same time, it is a smooth and gentle material suitable for allergy sufferers and individuals with sensitive skin, which is very durable with proper care (Ruppert, 2020).

So the clothes are greener and are designed to last longer. Nearly 50% of fast fashion retailers have reported a drop in customer purchases as consumers are currently looking for environmentally friendly brands. Thus, research shows that 88% of consumers want brands to help them protect the environment (Morgan, 2020).

Many sustainable fashion brands are growing and their innovative practices are becoming more common among retailers. The British design company Vin + Omi harvests its own crops and produces clothes from horseradish plants and chestnuts. It also includes garments made from recycled paint containers. Levi's recently introduced a new den-

im collection that uses 96% less water for production (Morgan, 2020).

Shopping for used items is also on the rise. The second-hand goods market is expected to reach \$64 billion by 2024. Although other forms of fashion shopping have hit the decline of COVID-19, second-hand online shopping is experiencing strong growth (Morgan, 2020).

4. Negative fashion impact

4.1 Environmental problems

The textile industry is the second largest polluter of the industry in the world. Only the oil industry stands in front of it (Morgan, 2015). Most people today, when buying clothes, first decide on the price, cut or material and no longer think about the impact of the production of these clothes on the environment. Therefore, it is important to look at the very beginning of the entire product life cycle, which is the production of material (Polášková, 2019).

Cotton growing

Growing cotton is a huge burden on nature and the environment. Its cultivation requires a large amount of water and countless chemical sprays to fertilize and control pests. For this reason, cotton growing is considered to be the most chemicalized agricultural sector in the world (Nešporová, 2016). Cotton is grown on 2.4% of the world's arable land, consuming 11% of pesticides and 24% of insecticides of total world consumption (Navrátilová, 2019). Pesticides and other fertilizers are called organic drugs. The more they are used, the more they need to be used, leading to soil contamination. In India in particular, the use of pesticides and other fertilizers causes cancer or mental illness in people living near plantations. 70–80% of children suffer from severe mental retardation and physical disabilities, which are signs of the toxicity of these fertilizers. Due to the ever-increasing interest in cotton products, its modification is taking

place. Genetically modified cotton is cotton to which the bacterial gene is added. It creates toxins for pest control. Over the last 10 years, 80% of cotton has been genetically modified (Morgan, 2015). Intensive irrigation of cotton causes water areas to dry up and groundwater sources to be salinized. An example is the drying up of the Aral Sea, which has led to the diversion of rivers, which supplied the lake with water, for irrigating cotton plantations. Thus, the lake gradually dried up, its salt was overwhelmed and a large amount of chemicals appeared. Contaminated water from the lake got into the air and soil (Nešporová, 2016), which caused the extinction of fauna and flora that lived near the lake and affected the lives of the inhabitants. Because of this, they do not have enough drinking water and suffer mainly from malignant diseases such as cancer, anemia or tuberculosis (Dokoupil, 2018).

Synthetic fibers

Today, polyester is one of the most widely used materials in the textile industry, which is made from oil (Polášková, 2019). Furthermore, other synthetic substances are used, such as nylon, acetate or spandex acrylic, for the production of which a huge amount of energy is consumed and carbon dioxide is released into the atmosphere (Navrátilová, 2019). Polášková (2019) adds that the textile industry produces up to 1.2 trillion tons of greenhouse gases a year. Currently, up to 90% of clothing that is made in textile factories contains polyester, elastane or acrylic fibers. These fibers release microfibers during washing, which can release up to 700,000 in one wash, and end up in wastewater. Wastewater treatment plants are currently unable to capture microfibers and they subsequently enter watercourses and seas, which serve as a source of drinking water and food (Polášková, 2019).

Toxic substances

Textile factories consume up to 10 billion tons of chemicals each year, much of which is very toxic. In total, about 2,000 different chemicals are used →

on clothing, including lead, chlorine and mercury. Up to 1,600 types of chemicals are used for dyeing textiles alone, of which only 16 are harmless to health according to the American Environmental Protection Agency (Navrátilová, 2019). Textile dyes may contain a toxic substance called nonylphenol, which is banned in the European Union (Nešporová, 2016). Nonylphenol is an organic compound that is toxic to aquatic animals and affects their reproduction. During its long-term action, the growth of algae and other aquatic plants decreases, while fish subsequently lose their body weight and slow down puberty (IRZ, 2019).

These toxic substances remain in clothing and their disappearance occurs only after several washes (Nešporová, 2016). When dyeing textiles, a large amount of water is consumed, the annual estimate is up to 2 trillion liters. Subsequently, after their use, dyes are discharged into watercourses, from which they gradually enter the seas. An example of such pollution is the Indonesian river called Citarum, which is considered the dirtiest river in the world. Textile factories discharge polluted water into the river, which makes the river highly alkaline and contains a large amount of nonylphenol, so it is harmful to health. The biggest problem is that more than 5 million people, many plants and animals, depend on the river (Nešporová, 2016).

Textile waste

Today, clothing is perceived as a consumer product or a single-purpose item, so there is excessive generation of textile waste. Most clothing is disposed of in municipal waste and ends up in landfills or incinerators. In the US, 10 million tonnes of textile waste end up in landfills every year, which is half as much as in China. Decomposition of clothing in landfills releases methane and greenhouse gases, which causes global warming. At the same time, chemicals and dyes are released from textiles, which then enter the soil and surface waters (Energy Globe, 2017). Thus, about 85% of all clothing ends up in landfills, while clothing made of synthetic materials such as polyester has been decom-

posed in nature for more than 200 years (Navrátilová, 2019). When clothes are burned, carcinogenic substances are released into the air (Energy Globe, 2017). Another possible solution, where 10% of the total textile waste ends up, is textile containers. The problem is that nowadays clothes are made from several types of materials and recycling technologies do not allow clothes to be broken down back into these materials. Thus, only 1-2% of clothing can be used for the re-production of clothing (Navrátilová, 2019). About a third of textile containers go to third countries for export, mainly to Africa, and the rest to second hands, textile recycling and downcycling companies and incinerators (Energy Globe, 2017).

4.2 Social problems and working conditions

Fast fashion has not only a negative impact on the environment, but also on society. People who work in textile factories and are involved in the production of final products spend most of their time in factories, where they have to face harsh, sometimes inhumane conditions and hardly pay for the necessary earnings, such as rent and basic human needs (Nešporová, 2016).

Today, clothing companies use the form of production outsourcing, ie they use factories they do not own for the production of clothing (Nešporová, 2016). The clothing company will design the collection, which has clear specifics regarding price and quantity, and will hand over the order to the supplier. He then finds a suitable factory to carry out the contract and agrees on business conditions (Hubková, 2018). This relieves companies of all responsibility for the working conditions that are set in the factories (Nešporová, 2016).

People who are involved in the production of clothing and footwear work in so-called sweatshops. The US Department of State identifies sweatshops as factories in which two or more labour laws are violated. Workers are exposed to poor conditions, have very low wages and countless hours. More than 160 million children be-

tween the ages of 5 and 14 work in developing countries (DoSomething.org, 2014).

Employment contracts are negotiated with employees for short periods and in most cases they are not even complied with. It often happens that people in factories work without any contract and live in constant fear of losing their jobs (Nešporová, 2016). There is two documentation, one that corresponds to the facts and the other with false data on the number of hours worked, overtime and wages paid, this documentation is used for possible audits in factories (Hubková, 2018). Wages are often set below the minimum limit, for this reason the employee's salary cannot cover the necessary costs, which include food, clothing, housing and health care. Workers are not entitled to leave or maternity leave (Haizler, 2015). Due to low wages, due to which workers are unable to support their families, they are forced to send their children to the factories. Even though the laws do not allow child labour, a large number of children still work in them. They work in the same working conditions as their parents, do not have time for education and are exposed to an environment that endangers their health and development (Nešporová, 2016).

Working hours can reach up to 15 hours a day for seven days a week. It is set according to orders. If the order needs to be processed faster, employees are forced to work overtime. During working hours, they often do not have space to rest or perform basic needs, which leads to a number of health problems (Nešporová, 2016). Physical and psychological violence often occurs in the workplace. Women are insulted, humiliated, beaten and subjected to sexual harassment, but they still come to work because their life situation does not allow them another option (Morgan, 2015).

The factories in which the workers are employed are in poor technical condition and are often built without the necessary building permits. There are often no emergency exits or even fire-fighting equipment, which can lead to fatal consequences (Nešporová, 2016). The best-known event

in the history of fashion is the collapse of the Rana Plaza building, which took place in 2013 in Bangladesh and claimed more than 1,100 victims and 2,000 injured. This building was originally intended for administrative purposes, but additional floors were added to produce clothing for Western markets. The vibrations of the sewing machines caused cracks in the walls of the building, which subsequently led to the collapse of the entire building (Hubková, 2018).

Workers come into contact with sharp needles and scissors on a daily basis, work with chemicals and are exposed to many other risks that cause them accidents at work or various chronic diseases. This is due to a lack of protection, work aids or proper training (Nešporová, 2016).

5. Research methodology

5.1 Data collection

The analysis of consumer behaviour in the field of fashion used the method of quantitative research which was carried out through an online questionnaire created in Google Forms. The questionnaire survey was conducted for 14 days in March 2021 through the social networks Facebook, in the community groups of the first, second and third years of bachelor's studies at NEWTON College (now NEWTON University), as well as on Instagram and WhatsApp in the form of private messages. A total of 295 respondents participated in the research, with Generation Y (33%) and Generation Z (67%).

5.2 Research design

The research focused on searches of secondary professional and practical sources focusing mainly on fashion evolution and therefore consumer behaviour because of the fact that fashion is an important part of social needs.

The main goal of the primary research, the questionnaire, was to find out the attitude of Czech consumers to shopping for clothes and a general



overview of sustainable fashion and upcycling. The questionnaire survey was preceded by a preliminary survey in the form of an in-depth interview with 5 consumers (Gen Y and Gen Z), from which the questions for the questionnaire were defined, including possible variants of answers from respondents in quantitative research.

The application of current data on consumer behaviour in fashion and fashion brands will be connected and used to define following research questions.

5.3 Research questions

For the research of Gen Y and Gen Z and their attitude to fashion, the following research questions were set.

RQ₁: How often and where do Czech consumers buy fashion?

RQ₂: What factors and aspects influence Czech consumers when buying fashion?

RQ₃: With what brands does the Czech consumer think of the concept of sustainable fashion and upcycling?

RQ₄: What reasons lead the Czech consumer to buy upcycled fashion?

6. Research results – Czech consumer behaviour in fashion

Today, the topic of sustainability is already becoming an important factor when shopping for half of Czech consumers. Social responsibility is important when purchasing for 49% of Czechs and 70% are willing to pay extra for a product that is environmentally friendly or the amount of the sale price is intended for a socially responsible project (MediaGuru, 2020).

The size of the online market for sustainable

fashion in the Czech Republic is constantly increasing. In 2019, the estimated turnover was CZK 140 million. The share of the turnover of sustainable products in the total turnover of fashion e-commerce was 0.5%. The average value of an order for sustainable products in 2019 was 38% higher than a regular order. According to the GLAMI Fashion (Re) search, the most popular products in the field of sustainable fashion were bamboo vests, recycled polyester backpacks, organic cotton underwear and hemp sneakers (GLAMI, 2020).

The situation of COVID-19 has changed the overall view of consumers on ecology and environmental protection, including the impact of fashion purchases on the planet. According to Ipsos research, 90% of people believe that the state of the environment is deteriorating very quickly, and if humanity does not change its behaviour, it will be reflected in the future (MediaGuru, 2020). Thanks to the trend of sustainability and ever-increasing consumer preferences, faster growth has been recorded in the offer of sustainable collections and products. In 2020, the number of clicks on products marked as sustainable was 10 times higher than in 2019 (Fashion (Re) search, 2020).

The survey also shows that 76% of Czechs are willing to pay extra for sustainable fashion and 27% said they wanted to buy it in the coming months. Long-lasting quality becomes a decisive factor when buying new clothes for consumers. They also focus on supporting local brands and Czech designers, pay attention to the origin of fashion pieces and are interested in second hand fashion. Consumers consider it important to address overproduction in the fashion world and at the same time see an opportunity to save, which moves the second-hand clothing segment forward. It was found that 17% of Czechs believe that this segment will affect the fashion industry in the coming years. Today, Vinted (Fashion (Re) search, 2020) is the largest and most used online platform for buying and selling second-hand clothing in the Czech Republic.

There are over 8,000 textile containers in the

Table 1 » Annual sales of clothing production in the Czech Republic

Year	2015	2016	2017	2018	2019	2020
Basic index (%)	100	104,6	112,8	115,3	125,3	127,5

Source: ČSÚ, 2021

Czech Republic. Most of them are exported several times a week. Up to 60% of container clothing is sent for recycling or disposed of. Clothes that are soiled or of unsuitable material go to a landfill or incinerator. The remaining clothing is stripped of buttons, zippers and other accessories, and the fabric is then torn and further processed into non-woven fabric, seat padding or weight mats. Still, much of the clothing ends up in municipal waste. Of the 3 million tonnes of total mixed municipal waste, 200,000 tonnes belong to textile waste (Škrdlíková, 2020).

The fashion industry produces up to 92 million tonnes of waste per year, and only 20% of the total is recycled or it is used again. In the Czech Republic, 10 kg of textiles are produced per person per year, of which only 3% are recycled. The remaining 97% end up in landfills, even though 98% of discarded textiles can be recycled. The reason may be that the concepts of recycling and sorting are very often confused. Czech consumers are very good at sorting textile waste, not at recycling it (Škrdlíková, 2020).

In the coming years, sustainable fashion will be important not only for our planet, but also for entrepreneurs in the fashion industry to stay in the market. 49% of Czech entrepreneurs in the field of fashion identify with this. It is therefore necessary to focus on the above-mentioned aspects that are most important for consumers in the current situation (Fashion (Re) search, 2020).

In the Czech Republic, sales of clothing are constantly increasing every year, as can be seen in Table 1. Sales are valued at current prices and relate to 2015. It includes data on the production of all clothing, not only clothing related to sustainable modes, as these data are not published. Since 2015,

clothing production has increased by 27.5%, which means that the clothing industry in the Czech Republic is still on the rise, even in the pandemic situation of COVID-19.

6.1 Analysis of selected sustainable fashion brands operating on the Czech market

Four brands in the field of sustainable fashion are selected for the analysis of competition on the Czech market. First and foremost, these are the Patagonia and Fjällräven brands, which are rated by Czech consumers in 2020 as the best brands in the field of sustainable fashion. The Corpus and Circle brands, which have been operating on the Czech market for a relatively short period of time, have been selected since 2018 and 2019. In this section, an evaluation of their 4P marketing mix with an emphasis on promotion is made. Individual parameters are evaluated according to partial criteria, which are based on theoretical knowledge. The evaluation is based on an analysis of publicly available information about the brand.

Patagonia focuses on outdoor clothing and equipment that is functional, practical to use and made from recycled material. To promote the brand, it is used cooperation with well-known designers and limited collections to bring customers a more attractive appearance of products. During COVID-19 also provides virtual shopping for its customers in this pandemic situation and publishes interesting articles on its blog. It also uses advertising on the Internet and in the press as part of its promotion. However, in order to encourage violence against protesters and racist acts, the brand decided to distance itself from the use of advertising through the Facebook and Instagram platforms →

(Patagonia, 2021a; patagoniaprague In: Instagram, 2021; Patagonia In: Facebook, 2021b).

The Fjällräven brand analysis found that it specializes in outdoor clothing and equipment as well as the Patagonia brand. The products are manufactured to be resistant to natural conditions, are recyclable and have a long service life. In terms of promotion, the brand focuses on offline and online advertising, uses collaboration with designers and creates new innovative variants of popular products in the form of limited collections. The brand mostly publishes the functionality of field clothes and shots from nature on social networks. It offers its customers a loyalty program, attractive competitions, events and a newsletter (Fjällräven, 2021a; fjallravenofficial In: Instagram, 2021; Fjällräven, In: Facebook, 2021b).

The CIRCLE brand is run professionally and timelessly, as are its products, which are made of ECONYL®, Q-NOVA and others. The materials are imported from Europe due to the lower environmental footprint when imported into production. As part of its promotion, it uses only social networks and sales support in the form of outdoor yoga and its own blog, focusing on the fashion industry and the COVID-19 pandemic situation, sustainable fashion or upcycling. The brand is already so interesting that it is sought after by the media themselves rather than being forced to use the media for paid promotion itself (CIRCLE, 2021a; circle.cz In: Instagram, 2021; CIRCLE, In: Facebook 2021b).

The Corpus brand emphasizes minimalism, simplicity and, above all, sustainability in its products and brand management. The products are hand-sewn from certified bamboo, so the material is breathable and gentle on the skin. The brand uses identical tools as the CIRCLE brand for its promotion. The brand does not emphasize advertising, because, as with the CIRCLE brand, the media writes about it itself. It focuses mainly on social networks, where it communicates with its followers by adding regular content in the form of posts or stories. It also offers its customers gift vouchers

and the opportunity to read an online magazine in the form of Q&A (Corpus, 2021a; corpus.lingerie, In: Instagram, 2021; Corpus, In: Facebook 2021b).

6.2 Research questions results

RQ₁: How often and where do Czech consumers buy fashion?

The aim was to find out how much clothes the respondent has in his wardrobes and how often he is willing to spend for new ones (without taking into account the current pandemic situation of COVID-19). 36% of respondents stated that they buy clothes once every 2 to 3 months, so it can be assumed that consumers change the wardrobe for each season (spring, summer, autumn, winter). 30% buy clothes once a month and 23% even several times a month. Only 11% of respondents buy clothes once or twice a year.

When asked where respondents most often buy clothes, it was found out whether it is more convenient for them to buy clothes online or in person at the store. More than half of the respondents, more precisely 65%, shops, where they can see and try on clothes live. 35% of consumers prefer more convenient form of shopping, which are e-shops.

The question that deals with finding out which retailers the respondents most often buy clothes is only informative to get an overview of which retailers are most supported. For this question, respondents could choose more than one of the options and add their own if they did not match any of the above.

Most respondents buy clothes from major fashion chains such as H&M, Zara, Bershka, New Yorker and others. Unfortunately, these fashion chains support production in developing countries and contribute to persistent environmental pollution, due to overproduction. As well as e-shops – ABOUT YOU, Zalando or ZOOT, which is supported by 50.5% of respondents. Even though these retailers have products from the sustainable fashion

Table 2 » Most common clothing sellers

Respondents' answers	Number of respondents	Percentage
Large fashion brands (H&M, Zara, Bershka, etc.)	228	77.2%
E-shops (Zalando, ABOUT YOU, ZOOT)	149	50.5%
Sports specialty stores (Nike, Adidas, Sportisimo, etc.)	97	32.9%
Second hand shops	60	20.3%
Supermarkets and hypermarkets (Lidl, F&F — TESCO)	55	18.6%
Outlets	40	13.6%
Other retail brands	38	12.9%
Local boutiques	33	11.2%
Designers	31	10.5%
Vinted	27	9.2%
Wish / eBay / AliExpress	10	3.4%
Marketplace	3	0.9%
Facebook groups	1	0.3%
Culturally specialized shops	1	0.3%

Note: Respondents' answers are listed in order of importance.
Source: Own processing

section in their range, this does not mean that the brands themselves are sustainable. However, there were at least 20.3% of respondents who buy clothes in second hand, 11.2% support local boutiques and 10.5% designers. In the future, however, this attitude, both on the part of retailers and consumers, will need to be changed.

RQ₂: What factors and aspects influence Czech consumers when buying fashion?

The question of how respondents decide where to buy clothing was included in the questionnaire to identify and monitor the most common factors by which consumers choose the appropriate retailer. The results are another point in setting up how the brand works. For this question, respondents could choose more than one answer and, if necessary, add their own.

More than half, 56.9%, choose the option of re-

liable trade. Thus, the store, which is pro-customer, immediately solves problems, informs the customer about the production of products, materials and the respondent returns to this store repeatedly. 56.5% choose a seller based on whether the clothing is made of quality and sustainable material and 47.1% decide on prices, so they choose a seller who is in a low price range. However, the answers also said that the respondents focused on sellers with prestigious brands, a clear and simple e-shop, a shop located near their home and many others.

As part of consumer behaviour, the three main aspects and criteria for making a purchase were identified.

The questionnaire showed that the society is gradually changing its views and attitudes to the issue of fast fashion. 82.7% of respondents are of the opinion that clothing should be mostly made of quality material and or material should be sustainable. From this it can be concluded that people are interested in the aspects of sustainable fashion. →

Table 3 » Factors for choosing the appropriate fashion seller

Respondents' answers	Number of respondents	Percentage
Reliable shop	168	56.9%
Material quality / material sustainability	167	56.5%
Low Prices	139	47.1%
Prestigious brands	67	22.7%
Clarity and simplicity of the e-shop	63	21.4%
Distance of the store from the place of residence	58	19.7%
Quality customer service	55	18.6%
Order is delivered quickly	54	18.3%
The goods are always in stock	37	12.5%
Stylish and fitting pieces	14	4.2%
Plussize section	1	0,3%
Free Returns	1	0,3%

Note: Respondents' answers are listed in order of importance.
Source: Own processing

55.6% consumers decide based on the design of the product, so the more interesting, the better. Another aspect is the practicality and variability of wearing, which is emphasized by 49.4% of respondents. Unfortunately, more than half of respondents still decide to buy clothes based on price. 20.7% of respondents when choosing clothing focus mainly on its trend and 18% on the brand and its familiarity. Only 15.6% are interested in where the clothing is made and under what conditions and 7.1% are local production, ie production in the Czech Republic and Slovakia.

RQ₃: With what brands does the Czech consumer think of the concept of sustainable fashion and upcycling?

Most respondents know the sustainable brands Fjällraven, Patagonia and Freshlabels store. The Czech brand Corpus, which has been on the market for a relatively short time, has known only 3.7% since 2018. The Czech brand Circle, which

has been operating on the market since 2019, is similar, as 5.1% of respondents are aware of this. 4.8% of respondents remember brands other than those listed above. These include, for example, Nu-IN, Organic Basics, KEVA and others. Surprisingly, over 17% of respondents do not know a single brand in the field of sustainable fashion and upcycling. This may be due to the fact that the brands do not sufficiently promote their sustainability or that the respondents are not interested in this issue and therefore do not even look for these brands.

RQ₄: What reasons lead the Czech consumer to buy upcycled fashion?

The fact that they reduce the amount of waste and protect the environment would lead the respondents the most to make a purchase. Today, we need to keep in mind that the fashion industry is the second biggest polluter of the environment, so it is important to make a difference and think about the future of planet Earth. Subsequently, 60% of re-

spondents would buy this clothing because of its original design. Other frequent responses included preserving memory and creating art with an overlap. Respondents here had the opportunity to choose more than one answer and add their own opinion, if necessary.

7. Conclusion

The article presented an analysis of the current situation on the market of sustainable fashion and upcycling, which showed that people are gradually changing their habits. They are beginning to lean towards choosing clothes from quality material,

Table 4 » Recall of brands/projects related to sustainable fashion and upcycling

Respondents' answers	Number of respondents	Percentage
Fjällräven	137	46.4%
Freshlabels	109	36.9%
Patagonia	99	33.6%
No brands / projects remembered	57	17.1%
SLOU	23	7.8%
VEJA	22	7.5%
Dedicated	17	5.8%
Friday	16	5.4%
Circle	15	5.1%
Other (NU-IN, KEVA, Glami, Nilastore, Organic Basics, APE, BIOGA, H&M, C&A, etc.)	14	4.8%
Corpus	11	3,7%
BOXX Kids	6	2.0%

Note: Respondents' answers are listed in order of importance.

Source: Own processing

Table 5 » Reason for buying upcycled fashion

Respondents' answers	Number of respondents	Percentage
Waste reduction	200	67.8%
Environmental protection	195	66.1%
Original design	177	60.0%
Preservation of memory	70	23.7%
Artistic creation with overlap	68	23.1%
Current trend	35	11.9%
Not worn	27	9.2%
Quality of workmanship	2	0.6%
Self-realization	1	0.3%

Note: Respondents' answers are listed in order of importance.

Source: Own processing



supporting local brands, tracking where a given piece of clothing was made and who participated in its production. It turned out that most of the waste produced by the textile industry ends up in landfills, even though it can be recycled.

Furthermore, four research brands operating on the market of sustainable fashion were examined in the research part according to the individual criteria of the marketing mix. Two global brands that have been operating on the market for some time and two Czech ones that have been operating on the market for a relatively short period of time, for two to three years, were chosen for this analysis. The output was to find out in which parameters the analysed brands are the strongest and in what, on the contrary, they have gaps in their functioning.

The article presented an analysis of the current situation on the market of sustainable fashion and upcycling, which showed that people are gradually changing their habits. They are beginning to lean towards choosing clothes from quality material, supporting local brands, tracking where a given piece of clothing was made and who participated in its production. It turned out that most of the waste produced by the textile industry ends up in landfills, even though it can be recycled. Furthermore, four research brands operating on the mar-

ket of sustainable fashion were examined in the research part according to the individual criteria of the marketing mix. Two global brands that have been operating on the market for some time and two Czech ones that have been operating on the market for a relatively short period of time, for two to three years, were chosen for this analysis. The output was to find out in which parameters the analyzed brands are the strongest and in what, on the contrary, they have gaps in their functioning.

Sustainable fashion is currently on the rise and is expected to be an integral part of the range of fashion brands within three to five years. Consumers are also changing their behaviour. They are more concerned with what and where they buy, how much they buy the thing for, what quality it is and where the given piece of clothing is made and under what conditions. As a result, the sustainable fashion industry is promising and growing interest in upcycled products can be expected.

During the research period, fast fashion stores were closed and data after reopening are not available yet. The big question is whether customers will return and be willing to spend the same amount of money on clothing as they did before the COVID-19 pandemic situation and how they will think about their further consumption in purchasing clothing in the long run.

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Consumer behaviour in fashion: Czech Gen Y and Gen Z attitude to fast and sustainable fashion

ABSTRACT

The aim of the research article is to focus on the behaviour of consumers when buying clothes, according to which aspects they decide and which seller they prefer. Subsequently, a general overview of people on sustainable fashion and upcycling and their attitude to this issue, especially in Gen Y and Gen Z. The qualitative and quantitative analysis will be used in the following paper as well as global overview of Czech consumer behaviour and current situation on the market. More and more respondents were aware that fast fashion is harmful to the environment, so they try to promote organic local brands, do not throw away their clothes and move it on, either by sale or donation. Unfortunately, there are many people who do not know sustainable fashion and upcycling. Following article will bring answers to preferable retailers, aspects and factors influencing consumers preferences and attitude to upcycling of fashion in the Czech Republic / Gen Y and Gen Z.

KEYWORDS

Generation Z; Consumer Behaviour; Fashion marketing; Fast Fashion; Sustainable Fashion; Czech Republic

JEL CLASSIFICATION

M31; M32; D47; D71; D91



Bank provisions in the context of the COVID-19 pandemic

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* 1. Introduction

The development of the world economy is influenced by many factors, including fluctuations in the price of oil and other commodities. In 2020, the dynamics of the world economy were particularly affected by the COVID-19 pandemic. The spread of COVID-19 disease to all countries of the world affected the economic and business activities of all economic entities. In order to mitigate the spread of this disease, various anti-epidemic measures were taken by national governments. The measures led to an almost complete shutdown of some industries and caused an overall reduction in consumer demand as well as in the supply of goods and services. The economic interdependence of countries led to a marked disruption of international supply and demand chains and a fall in world trade.

In order to reduce the negative impact of the pandemic, governments of countries affected by the coronavirus crisis adopted various stabilisation programmes. The main objective of these programmes was to alleviate solvency difficulties faced by households and businesses. For example, businesses were offered assistance in the form of

tax relief or help to cover operating costs. Households were offered assistance on both the income and expenditure sides. On the income side, there were one-off assistance benefits or nursing care allowances. On the expenditure side, clients who suffered a temporary reduction or complete loss of income due to the measures taken or the occurrence of COVID-19 disease were allowed to request a loan repayment deferral. Many banks decided to take up the option of deferring repayments in connection with the pandemic as early as March 2020. In April 2020, the Parliament also approved the legislative moratorium on loan repayments which allowed up to six months' legislative deferral of some loans. (ČNB, 2020c)

The COVID-19 pandemic has also a major impact on the domestic banking sector whose activities are essential to returning to a normal economy. The banking business is among the most regulated sectors, because it is extremely important to maintain the overall stability of this sector. With respect to great uncertainty about future economic development, the Czech National Bank and all banks in the system must ensure that the resilience and stability of individual banks are not compromised. The banking sector must withstand the increased



risks arising from the nature of the banking business, in particular credit risk, which is associated with customers' inability to repay their liabilities.

On the basis of the current development, assumptions and expectations for the future, banks need to closely monitor and regularly update the model of loan loss provisioning and the level of provisions made, as the level of provisions is directly related to the amount of credit risk taken.

2. Theoretical Background

Banks have a different nature of business compared with other entrepreneurial non-banking entities. It consists in providing banking products and using financial instruments. Received deposits are the dominant item of the bank's liabilities; and granted loans, which represent the bank's receivables from loans granted to customers, are on the other hand the most significant item of the bank's assets. The assessment of loans receivable, letters of credit receivable, guarantees and other financial activities of the bank is subject to banking regulation. The bank's management manages the bank with the objective of maximising its market value to shareholders in an environment in which it is exposed to a number of risks arising from the specifics of the banking business. The activities of each bank are mainly associated with credit, market, operational and liquidity risks.

The impact of these risks on the banking sector is very significant, therefore bank regulators and management pay increased attention to risk management. The Czech National Bank sets prudential rules which all banks operating in the Czech Republic must follow in their activities. On the basis of these rules banks develop their own policies and principles for risk management within the bank. (ČNB, 2020d)

In the area of lending, the bank takes on credit risk, which consists in the default of the counterparty, i.e., the inability of the client to meet his obligations in the future. The bank tries to eliminate credit risk as much as possible before granting a

loan on the basis of an assessment of the client's current and future creditworthiness. However, complete elimination of credit risk is never possible.

In 2020, the monitoring of credit risk was of the greatest importance for banks, as its size determines the level of provisions made by the bank for bank receivables. The source of credit risk is not only claims on clients from loans granted but also claims on government institutions or other banks. Credit risk is also associated with purchased bonds held in the bank's portfolio. In measuring credit risk, the bank focuses on parameters that affect the riskiness of loans receivable. These are the probability of the borrower default, the amount of the exposure, which reflects the value of the receivable exposed to credit risk, and utilisation rate. (Kašparovská et al, 2014) The results obtained from credit risk measurement are used for determining the amount of capital required to cover expected losses. (Kašparovská, 2010) The obtained data on the amount of credit risk are reflected in the level of provisions made for loans receivable. (Kašparovská, 2006)

It is the obligation of every bank to account for provisions for loans receivable. The main purpose of making provisions is to capture the expected impairment of bank assets. Provisioning comes from the accounting principle of prudence. Provisioning is important for the resilience of the banking sector because it reflects the size of expected losses on loans receivable and thus serves as a cushion from banks against these expected losses.

Bank loans are classified as financial instruments whose recognition and measurement are governed by international accounting standards. The valuation and subsequent revaluation of loans receivable is dealt with in International Standard IFRS 9 – Financial Instruments (hereafter IFRS 9). The issue of provisioning falls within the scope of this standard.

In Czech legislation, provisioning is dealt with in Decree No. 163/2014 Coll. on the performance and activities of banks, savings and credit coopera-

tives, and securities dealers. The Czech National Bank therefore implemented the requirements set out in IFRS 9 in this Decree. Thus IFRS 9 was adopted into Czech legislation in its full version, which had a major impact on provisioning in Czech banks.

In practice, there are three approaches to provisioning which enable to capture impairment of financial instruments. These approaches include models based on making provisions for expected losses, for incurred losses, and dynamic provisioning models. National regulators of the financial sector focus on the issues of provisioning because it enables banks to capture the expected impairment of loans granted by the bank. The level of provisions has an impact on the bank's profit and the level of bank capital required. The chosen approach to recording provisions in banks' accounting has a great impact on the objectivity of accounting and macroeconomic effects. (Pečínková, 2020)

The model of incurred losses was applied to calculate the level of provisions that were accounted for until the end of 2017 according to the then applicable standard (IAS 39). The weakness of the standard IAS 39 was the delayed recognition of credit losses, which made the IASB reconsider the method of calculating the level of provisions and adopt a new standard (Commission Regulation (EU) 2016/2067) based on the expected loss model where a provision is made before a credit loss is ever incurred. (Kadlecová, 2018)

In this model, losses that have not yet occurred but for which there is objective evidence that they will occur in the future are particularly relevant to the calculation of the provisions. Losses already incurred are, of course, included in the expected loss model, however, these losses only represent a subset of all losses considered. (Jeřábek, 2017)

For the expected credit loss model, the forecast of future macroeconomic development is very important. Macroeconomic forecasting models are capable of predicting future economic slowdowns and generating forward-looking information on

which the expected credit loss model relies in making provisions. (Malovaná and Tesařová, 2020)

The transition from the incurred loss concept to the expected loss concept was brought about by IFRS 9 and resulted in the change in the methodology for calculating the level of banks' provisions for loans receivable.

Under IFRS 9, the bank calculates the impairment of each of its receivables, loans, guarantees or commitments. The level of impairment of the receivable is then expressed by making a provision equal to the expected impairment of the financial instrument. IFRS 9 uses a three-step model for the purpose of making provisions. It uses the so-called "staging", which takes into account changes in credit risk since initial recognition. The classification of loans receivable into stages determines the level of the entity's provisions. Under IFRS 9, banks now classify loans receivable into three stages (Stage 1, Stage 2 and Stage 3), which then determine the level of provisions recognised. The consequence of adopting the new model is that more provisions are made earlier. The expected loss is then reflected in the bank's profit and loss account before the borrower actually defaults and the bank suffers a loss. In the expected credit loss model, the entity does not focus solely on historical and current data, but extends its interest to include information about forecasts of possible future development that may affect the borrower's ability to repay.

Stage 1 includes receivables incurred or purchased during the accounting period. All credit exposures are included in this stage when they are incurred. This stage also includes financial assets with no significant increase in credit risk since initial recognition and assets classified as low credit risk assets at the date of the financial statement. Provisions are therefore made to cover losses over the next 12 months. Stage 2 includes all receivables with a significant increase in credit risk since initial recognition, which are not classified in Stage 3. These financial assets are subject to an impairment loss in the amount of the lifetime expected



credit loss. For receivables in Stage 2 the bank makes provisions to cover credit losses until the asset matures. For financial assets classified in Stage 3, as in Stage 2, a lifetime expected credit loss is recorded. Assets in this stage are those that have objective evidence of impairment. Thus, there were one or more events that detect impairment of the asset. (BDO, 2017)

At the time of initial recognition, each credit exposure is allocated to the appropriate stage depending on credit risk. Exposures are subsequently monitored on a regular basis and therefore may move between stages in either direction over the life of each financial asset under pre-determined conditions. In order to calculate the correct level of provisions, it is important for an entity to determine at each reporting date whether or not there was a significant increase in credit risk of the financial instrument since initial recognition. (Deloitte, 2021)

The economic downturn in the year 2020 had a significant impact on banks, there was an increase in total expected credit losses and therefore an increase in the need for loan loss provisions. In the light of current events, banks may see a significant increase in credit risk in their loan portfolios for many of their loans receivable so we can expect banks to move more loans from Stage 1 to Stage 2 or Stage 3.

With the spread of COVID-19, stabilisation programmes were adopted in the Czech Republic to mitigate the impact of the epidemic. These stabilisation programmes included the adoption of a legal credit moratorium, which enabled loan repayment deferrals across the board to all entities that requested such deferrals from their bank. The legal credit moratorium was subsequently reflected in the balance sheet of individual banks, as the principal instalments of the loans were not repaid to the bank on the agreed date. The adoption of the moratorium also had an impact on banks' decisions about the categorization of credit exposures into credit stages, which determine the level of bank provisions for loans receivable. Even before

the adoption of the credit moratorium, individual banks had been dealing with how to classify loans receivable for which loan repayment deferrals had been requested. The possibility of deferring loan repayments outside the credit moratorium was always decided by banks themselves, since the rules and strategies for granting loans, their subsequent recovery and the management of loan claims are exclusively within the competence of banks. If, as a result of the preventive measures taken or COVID-19 disease, the bank's client suffered only a short-term loss of income, the related deferral of repayments need not cause the loan receivable to be reclassified as a "non-performing loan", because in this case the deferral of repayments may be the best way for the bank to ensure that the loan will be repaid in full in the future. The decision to reclassify a loan receivable therefore depends on the total period of the borrower's loss of income and also on his ability to repay his obligation to the bank in the future. (ČNB, 2020b)

The Czech National Bank periodically consults individual banks about how the rules for repayment deferrals should be applied. Banks need to work out how to set their own rules for categorizing loans receivable and how to make sufficient levels of provisions for them. This gives banks flexibility in assessing the categorization of loans receivable and the calculation of provisions providing that the level of provisions is appropriate to the riskiness of their portfolios. (ČNB, 2020a)

3. Research Methodology

For the purpose of determining credit losses under IFRS 9, banks use forecasts of future development based on macro scenarios. In accordance with this standard, banks classify their loans receivable into three credit stages. Due to the spread of COVID-19 disease, the Czech economy declined during 2020 and this changed the outlook for the development of macroeconomic factors. The predicted values of macroeconomic factors determine the parameters of credit risk and consequently the amount of cred-

it risk taken. On the basis of an analysis of loan portfolio riskiness of selected banks it is assessed whether these banks made provisions in a timely and sufficient manner and also in view of the loan repayment deferment for customers, which was made possible by the credit moratorium adopted by the government. Subsequently, it will be revealed whether there was a deterioration in the quality of the loan portfolios of the selected banks during 2020.

The research included an assessment of loan portfolio riskiness and the level of provisions made by four banks, namely Česká spořitelna, Komerční banka, UniCredit Bank and Raiffeisen Bank. The first three banks were selected with regard to their size, as they are the largest banks in terms of their annual turnover. For comparison purposes, Raiffeisen Bank, which belongs to the category of medium sized banks, was also selected. The initial source of data used was publicly available annual reports of the banks concerned for the period 2018–2020. For each bank, the composition of bank assets, the evaluation of balance sheet assets during the period under study as well as the share of customer loans receivable in total assets were analysed. Subsequently, the composition of the banks' loan portfolios was identified by the sectors to which funds were lent.

The analysis of the evolution of the gross volume of loans receivable in individual credit stages during the period 2018–2020 was the basis for the subsequent assessment of the quality of the banks' loan portfolios where the size of the credit risk taken by the bank is determined by a ratio expressed as the share of gross loans in the total gross loans granted. The ratio was calculated for the proportion of gross credit exposures in Stage 1, Stage 2 and Stage 3. This ratio can be used to assess how many of the loans granted are non-performing loans classified into Stage 3, for which the bank makes provisions for lifetime expected credit losses. Furthermore, the evolution of the volume of provisions for receivables classified into each credit stage during the period under study was exam-

ined to determine the share of provisions made for receivables in individual credit stages in the total volume of provisions made. The last indicator used to assess the quality of the bank's loan portfolio was the coverage ratio. The indicator was used to express the loan loss provision coverage ratio. At the same time the overall loan provision coverage ratio was assessed as a share of the total volume of provisions made in the total gross volume of loans.

The paper is written using scientific methods such as the method of description, comparison, analysis, and synthesis. Also, the methods based on the principles of logical thinking, especially the deduction method are employed. In the final part of the paper, the conclusions are formulated using synthesis.

4. Research Results

Each bank was evaluated with respect to the composition of bank assets, the evolution of balance sheet assets during the period under study. Customer loans receivable, which are associated with credit risk and for which banks are required to make provisions under IFRS 9, represent approximately half of bank assets. This applies to all the banks examined. Another 30–40% of assets are debt securities and receivables from banks, which consist mainly of reverse repos with the central bank. The share of customer loans receivable in total assets for each bank over the period under study is shown in Table 1.

The banks' loan portfolios as at 30 June 2020 and 31 December 2020 consisted of loans granted to financial institutions, non-financial corporations, government and other public sector organizations and households. A detailed overview of the composition of the loan portfolios of individual banks by the type of entity, to which the loan was granted, is given in Table 2.

According to the data obtained in 2020, there was an evident upward trend in loans to households by all the banks. A similar trend can be observed in loans to governments and other public



Table 1 » Share of customer loans receivable in total assets in individual banks

Banks	30. 6. 2018	31. 12. 2018	30. 6. 2019	31. 12. 2019	30. 6. 2020	31. 12. 2020
Česká spořitelna	48.61%	48.07%	48.23%	49.41%	45.36%	48.78%
Komerční banka	55.97%	58.96%	54.09%	60.08%	53.88%	58.26%
Raiffeisen Bank	66.18%	64.62%	65.64%	66.40%	60.76%	61.98%
UniCredit Bank	50.12%	61.35%	48.04%	64.20%	48.53%	69.46%

Source: Author's own research based on annual reports

Table 2 » The banks' loan portfolios in 2020 by entity type [in %]

Banks	Česká spořitelna		Komerční banka		Raiffeisen Bank		UniCredit Bank	
	30. 6. 2020	31. 12. 2020	30. 6. 2020	31. 12. 2020	30. 6. 2020	31. 12. 2020	30. 6. 2020	31. 12. 2020
Financial institution	3.93	5.44	5.01	1.92	4.14	2.22	4.89	3.80
Governments and other public sector organizations	1.28	2.81	0.52	2.09	2.87	2.98	3.72	5.32
Households	30.94	32.46	47.71	64.80	57.53	60.07	50.77	52.11
Non-financial corporations	63.84	59.29	46.76	31.19	35.47	34.73	40.63	38.78

Source: Author's own research based on annual reports

sector organizations. On the contrary, a downward trend was seen in loans to non-financial corporations.

During the first half of 2020 all the banks recorded an increase in the volume of loans granted despite the start of the first wave of the COVID-19 pandemic. As for the volume of bank loans classified into different credit stages, in the first half of 2020 all the banks experienced an increase in loans in Stage 2, compared to the previous half year periods, as shown in Table 3. Compared to the previous periods, the banks also saw a slight increase in loans classified into Stage 3, where banks classify loans receivable with borrower defaults that are more than 90 days past due. These changes were recorded as of the first half of 2020.

At the end of 2020, a visible increase in Stage 2 was only recorded in Komerční banka and Česká spořitelna; Raiffeisen Bank and UniCredit Bank saw a decline in this category. Compared to the

previous period, there was an increase in all the loans receivable classified into Stage 3. This is the period after the expiry of the credit moratorium when the banks were able to fully assess the ability of clients to repay loans after the end of the protection period. Loans with repayment problems or the increased likelihood of borrower default with respect to the new forecast of macroeconomic variables were reclassified by the bank into a higher credit stage. This is confirmed by the development at the end of 2020, when all the banks experienced an increase in loans receivable in Stage 3 and some banks also in Stage 2.

The quality of the banks' loan portfolios is also determined by a ratio that expresses the share of credit stage gross loans in total loans. According to the survey, each bank maintains the same share of loans in Stage 3, however, at the end of 2020 there was a slight increase observed for all the banks. The increase in the share of loans in the first half of

2020 was mainly in Stage 2, which is evident from the comparison with the year 2019.

For the banks it is important that loans in Stage 1, for which the bank makes provisions equal to the 12-month expected credit loss, make up the majority of loans, whereas loans with borrower default in Stage 3 make up a very small part, although their share is increasing, compared to the year 2019. Table 4 shows a comparison of bank data on the share of loans in each credit stage.

Table 5 presents the evolution of the volume of provisions for loans receivable. In the first half of 2020, there was an increase in total provisions, except for UniCredit Bank. The increase was recorded in each of the banks.

The largest increase in provisions for loans receivable was in Stage 2, which increased by at least 50% in the first half of 2020, compared to the previous half year. Again, with the exception of UniCredit Bank, the data reported at the end of 2020 show a further increase in provisions for loans receivable in Stage 2. The same trend is true for provisions for loans receivable in Stage 3.

The last indicator assessed was the loss coverage ratio, the values of which are presented in Table 6. This indicator was used in the paper as an additional indicator of the quality of the bank's loan portfolio which expresses the loan loss provision coverage ratio.

Table 3 » Evolution of the volume of loans receivable in different credit stages

Banks	31. 12. 2018	30. 6. 2019	31. 12. 2019	30. 6. 2020	31. 12. 2020
Česká spořitelna					
Stage 1	–	6.62%	-1.59%	-1.23%	1.31%
Stage 2	–	-10.28%	18.91%	127.88%	27.50%
Stage 3	–	2.27%	2.90%	8.20%	17.16%
Total	-1.62%	5.73%	-0.64%	5.30%	4.41%
Komerční banka					
Stage 1	-1.59%	3.33%	0.74%	3.35%	-0.01%
Stage 2	48.22%	-6.21%	5.11%	11.84%	19.14%
Stage 3	-0.40%	-13.37%	-6.45%	5.93%	22.68%
Total	0.21%	2.38%	0.78%	3.83%	1.52%
Raiffeisen Bank					
Stage 1	–	6.59%	3.73%	-17.55%	38.46%
Stage 2	–	-8.95%	-8.35%	85.84%	-19.49%
Stage 3	–	-15.81%	27.62%	8.10%	32.69%
Total	3.04%	2.59%	1.55%	2.29%	18.61%
UniCredit Bank					
Stage 1	2.14%	0.32%	4.75%	0.67%	-33.07%
Stage 2	22.95%	23.40%	21.77%	60.22%	-33.50%
Stage 3	-2.65%	-4.31%	-3.62%	3.78%	27.05%
Total	2.76%	1.19%	5.44%	4.37%	-31.73%

Source: Author's own research based on annual reports



Table 4 » Share of loans receivable in each credit stage

Banks	31. 12. 2018	30. 6. 2019	31. 12. 2019	30. 6. 2020	31. 12. 2020
Česká spořitelna					
Stage 1	93.45%	94.23%	93.33%	87.55%	84.95%
Stage 2	4.84%	4.11%	4.92%	10.64%	12.99%
Stage 3	1.64%	1.58%	1.64%	1.68%	1.89%
Komerční banka					
Stage 1	92.03%	92.89%	92.85%	92.42%	91.03%
Stage 2	5.26%	4.82%	5.02%	5.41%	6.35%
Stage 3	2.71%	2.29%	2.13%	2.17%	2.62%
Raiffeisen Bank					
Stage 1	74.72%	77.64%	79.31%	63.93%	74.63%
Stage 2	23.37%	20.74%	18.72%	34.01%	23.09%
Stage 3	1.78%	1.46%	1.83%	1.94%	2.17%
UniCredit Bank					
Stage 1	93.00%	92.20%	91.60%	88.35%	86.62%
Stage 2	4.32%	5.27%	6.09%	9.35%	9.11%
Stage 3	2.67%	2.53%	2.31%	2.30%	4.27%

Source: Author's own research based on annual reports

The data show that the banks maintained the same level of loan loss coverage ratio in Stage 1 and Stage 2 over the periods under study. The coverage ratio in Stage 2, despite the large increase in the volume of loans in this credit stage, was maintained by the banks in the first half year at the same level as in the previous half years thanks to a sufficient increase in provisions for loans receivable assigned to this stage. As regards non-performing loans coverage ratio in Stage 3, it declined slightly for all the banks in 2020. Only Česká spořitelna was able to maintain the same level of coverage in Stage 3 as in the year 2018.

5. Conclusion

The research conducted shows that the quality of the loan portfolios of the banks surveyed deteriorated in 2020. This was mainly due to the migra-

tion of loans receivable from Stage 1 to higher stages, i.e., Stage 2 and Stage 3, which carry a risk of default. Whether a loan receivable experienced a significant increase in credit risk is assessed by the banks according to their own internal models. The largest increases in loan volumes were recorded by the banks in Stage 2. While the banks identified a significant increase in credit risk for these loans, there were no borrower defaults recorded.

If there was a large increase in loans in Stage 3, it would mean that a large number of bank customers stopped meeting their payment obligations. However, there was no significant increase in receivables in Stage 3 in 2020. The share of defaulted loans in the banks' total loans was small at the end of 2020. The banks experienced an increase in the share of loans in Stage 2, which slightly deteriorated the quality of credit portfolios of the banks. However, the banks state in their reports that the

quality of their loan portfolios is high despite the overall economic downturn.

In 2020, the banks experienced movements of different intensity between credit stages. This may be a result of different systems used by the banks to assess significant increases in credit risk, as each bank uses its own quantitative, qualitative and supplementary criteria. It may also be a consequence of differences in the volume of new loans granted by the banks in the year 2020, the credit-worthiness of the bank's existing clients, i.e., how many customers of each bank had problems to repay their obligations well before the year 2020. Last but not least, the movements of different in-

tensity between stages may be due to the different composition of the banks' loan portfolios in terms of the type of receivable (whereas consumer loans have a higher risk of default, mortgage loans have a low risk due to the collateralisation of these loans) or financing different sectors (clients operating in hotel, hospitality, tourism, transport, entertainment businesses, etc. became risky for the bank in 2020).

As for making enough provisions for loans receivable in connection with the riskiness of the banks' loan portfolios in 2020 in the context of the crisis caused by the spread of COVID-19, the banks had to adjust their models for calculating expected

Table 5 » Evolution of the volume of loan loss provisions in credit stages

Banks	31. 12. 2018	30. 6. 2019	31. 12. 2019	30. 6. 2020
Česká spořitelna				
Stage 1	6.17%	-3.41%	-9.82%	-5.21%
Stage 2	9.55%	-5.72%	2.62%	133.37%
Stage 3	-15.79%	2.80%	-0.31%	10.96%
Total	-8.12%	-0.09%	1.13%	27.21%
Komerční banka				
Stage 1	-30.13%	4.95%	5.50%	54.84%
Stage 2	4.57%	-11.67%	8.46%	56.88%
Stage 3	-4.89%	-12.67%	-8.53%	-4.52%
Total	-6.09%	-11.52%	-5.88%	7.11%
Raiffeisen Bank				
Stage 1	–	-5.64%	-11.32%	-18.79%
Stage 2	–	-28.17%	6.56%	48.74%
Stage 3	–	-14.89%	12.47%	2.06%
Total	-7.58%	-18.04%	8.63%	9.94%
UniCredit Bank				
Stage 1	3.65%	-2.29%	-1.44%	54.43%
Stage 2	8.99%	26.21%	7.44%	102.63%
Stage 3	-2.95%	-6.78%	-0.92%	-5.56%
Total	-1.59%	-4.27%	-0.31%	10.58%

Source: Author's own research based on annual reports



Table 6 » Loan loss coverage ratio of individual banks

Banks	31. 12. 2018	30. 6. 2019	31. 12. 2019	30. 6. 2020	31. 12. 2020
Česká spořitelna					
Stage 1	0.30%	0.27%	0.25%	0.24%	0.33%
Stage 2	5.64%	5.93%	5.12%	5.24%	5.82%
Stage 3	69.47%	69.83%	67.66%	69.38%	67.62%
Total	1.73%	1.63%	1.66%	2.01%	2.50%
Non-performing loans coverage ratio	105.47%	103.04%	101.26%	119.05%	123.06%
Komerční banka					
Stage 1	0.12%	0.13%	0.13%	0.20%	0.19%
Stage 2	3.55%	3.35%	3.45%	4.85%	5.98%
Stage 3	59.40%	59.88%	58.54%	52.77%	50.19%
Total	1.91%	1.65%	1.54%	1.59%	1.87%
Non-performing loans coverage ratio	70.52%	72.02%	72.46%	73.27%	71.25%
Raiffeisen Bank					
Stage 1	0.19%	0.17%	0.14%	0.14%	0.26%
Stage 2	1.85%	1.46%	1.69%	1.36%	2.45%
Stage 3	70.97%	71.75%	63.23%	59.70%	55.22%
Total	1.85%	1.48%	1.58%	1.70%	1.97%
Non-performing loans coverage ratio	103.82%	101.08%	86.04%	87.51%	90.71%
UniCredit Bank					
Stage 1	0.29%	0.28%	0.27%	0.41%	0.44%
Stage 2	3.39%	3.46%	3.05%	3.86%	3.35%
Stage 3	74.40%	72.48%	74.51%	67.81%	51.59%
Total	2.40%	2.27%	2.15%	2.28%	2.89%
Non-performing loans coverage ratio	89.96%	90.00%	93.09%	99.19%	67.72%

Source: Author's own research based on annual reports

credit losses on the basis of a new forecast of macroeconomic variables. The data show that the banks made sufficient provisions for loans receivable in 2020, even in the context of the adoption of the credit moratorium. The increase in the volume of provisions in Stage 2 and Stage 3 was in response to increased credit risk on customer loans in connection with economic downturn.

In 2020, the large increase in provisions was mainly for loans in Stage 2 as the volume of these

loans rose significantly, compared to the previous year. The growth in loans in Stage 2 was influenced by the expected economic downturn and the credit moratorium. For the bank the possibility of repayment deferral did not mean automatic loan receivable reclassification into a worse stage. The bank had to assess the risk of default on these receivables after the expiry of the credit moratorium and subsequently classify the receivables into the appropriate credit stages and make provisions for

the receivables in the appropriate amount. The volume of provisions increased because of the need to make provisions for lifetime expected credit losses on these receivables. The data on the banks show that the banks maintained the same level of provisioning coverage in Stage 1 and Stage 2 over the period under study despite the deterioration in the economic situation. The coverage ratio in Stage 2, despite the high increase in the volume of loans in this stage, was maintained by the banks in 2020 at the same level as in previous periods thanks to a sufficient increase in the provisions for loans receivable reclassified here.

The research shows that the banks' loan portfolios in 2020 are of high quality despite the effects

of the COVID-19 pandemic. However, the extent of the impact of the COVID-19 pandemic will depend on the overall duration of the pandemic and the intensity of the spread of COVID-19 disease. However, it is clear even now that the banks will reclassify loans receivable into higher credit stages, which will lead to higher provisions in the amount of expected credit losses.

Acknowledgement

Supported by funding of specific research at the Faculty of Business and Economics, Mendel University in Brno – IGA PEF_TP_2021005.

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Bank provisions in the context of the COVID-19 pandemic

ABSTRACT

The paper deals with the issue of making banks' provisions in the context of the current economic development in connection with the ongoing COVID-19 pandemic. It focuses on risk in the banking business, especially credit risk. It is the existence of credit risk that gives rise to the obligation of banks to make provisions for loans receivable, which is the main topic of the paper. In making provisions and calculating their correct level, banks followed the International Accounting Standard IFRS 9 – Financial Instruments, which has been in force since 2018. The starting point for determining the correct level of provisions for the bank's receivables is the classification of loans receivable. When calculating the provisions for loans receivable, the provisioning method under IFRS 9 focuses mainly on future expected losses and introduces a new classification of loans receivable, the so-called staging. Depending on the classification of loans receivable into stages, banks then make provisions under IFRS 9 for 12-month or lifetime expected credit losses. The research part of the paper concentrates on the timeliness of provisioning of banks in the Czech Republic in relation to the evolution of the riskiness of bank loan portfolios in the year 2020. For selected banks the quality and composition of loan portfolios, the evolution of the volume of loans in individual stages, and the level of provisions were assessed. Loan provisioning was assessed in the context of the adoption of a legal moratorium, which allowed an across-the-board deferral of repayments to bank customers for up to six months in 2020.

KEYWORDS

Credit risk; expected credit loss; IFRS 9 – Financial Instruments; provision; receivable

JEL CLASSIFICATION

G21; M41

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Microeconomic Support for Agri-environmental Measures in Areas with Natural or Other Special Constraints in the Czech Republic

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* 1. Introduction

The paper deals with issues of the support of agri-environmental measures and management in less favoured areas (LFA) and areas with natural or other special constraints (ANC/PPO according to the 2018+ methodology). Supports of agri-environmental measures contribute to maintain sustainable agricultural systems, rural development and current agriculture. Together with the implementation of direct payments in the new member states of the European Union, further steps were in progress connected with an increase of means in the field of rural development. The support was more markedly promoted by structural and other aspects of multifunctional agriculture. The changing economic environment opens issues of the comparability of agriculture development both for established and new member states of the European Union. In fact, all member states of the EU are increasingly affected by the processes of globalization of food markets and agribusiness. Through a transformation from the original model based on supply conditions towards the system markedly oriented to demand conditions, possibilities for success have also changed in the context of global

networks of food production and it becomes one of the decisive criteria of modern agrarian policy. This paper aims to analyse the application of agricultural and environmental measures and supports of management in less favoured areas in the Czech Republic.

2. Selection factors for the support of agri-environmental measures

In the present model of Common Agricultural Policy, a decline is characteristic from the support of incomes in agriculture on the basis of price support of particular commodities with a transition to the system of grants of the direct payment type and structural support based on project conception. Within these measures, the member states may separately allocate and distribute particular grants according to their priorities, nevertheless within rules and limits determined by law within the European Union. Thus, particular countries have opportunity to decide, what issues in agriculture they prefer and what amount is to be spent on a specific problem. Agricultural support has been discussed very often in relation to reforms of the Common Agricultural Policy. From a long-term

perspective, the world economy tends to a higher liberalization of markets and further globalization processes. Therefore, it will be essential to maintain an indispensable extent of agriculture also in less favoured areas in the future, especially in countries with a high economic growth and decreasing farm land (Tuček, 1999).

For a successful development of competitive and, at the same time, environmentally friendly agricultural production in the areas with less favoured conditions, an active government support is necessary for extensive agricultural production, landscape protection and other environmental services (Střeleček, Kollár, Lososová, 2003). Poláková (2019) assessed three categories of less favoured areas support: farm competitiveness measures, LFA measures, and agri-environment measures that are complementary to safeguarding land management and delivering ecosystem benefits. As mentioned by Bečvářová (2011), particular countries should decide not only the level of support and tools in agribusiness but the criteria should include economic costs induced by particular forms of support, including effects on the market environment and potential market deformation. The rules for selection of particular tools by Bečvářová (2015) are following:

- degree of economic development of the country,
- business position of the country,
- time period,
- general conception of economic policy,
- particular objectives and selected strategy.

The supposed time horizon of support is important above all where transaction costs make up a higher proportion of costs. These costs can decrease in the long-term. The costs of deformation increase over the course of time because the difference between potential and real variables increases in response to the economic effect of a measure within a longer time period. The issues concerning the strategy and conception of solutions within economic policy in relation to agriculture refers in practice to relationships between the effectiveness

of allocation and redistribution objectives including the definition of costs, which are induced by the implementation of various types of tools of grant policy, see for instance Bečvářová (2011, 2015) and Grega (2006). Pareto optimal solutions can go together with high transaction costs, positive and negative externalities related to agricultural production etc. Other costs can be a result of deformation effects of the selected support. As mentioned by Bečvářová (2008a, 2008b), in this respect it is necessary to check how particular type of support might interfere with markets distorting its conditions or signals. It is difficult to measure costs of deforming effects given by the impact of a particular support measure on markets. And usually only a part of costs is taken into account at the stage of decision making, i.e. direct transaction costs etc. The problem of transaction costs is also linked with the selection of a basis to provide the given type of support, which is one of the main issues of funding the reform of Common Agricultural Policy.

3. Patterns of the support for agri-environmental measures

The gradual introduction of direct payment within the support of new member countries of the European Union including the Czech Republic but also the application of reforms, which mean the transfer of supports into project and goal-oriented supports, is connected with an increase in the proportion of means for rural development. This became also evident in the change of the support structure in agriculture of the Czech Republic. The support of farmers from the point of view of their competitive advantages decreases and belongs to the lower supports within new member countries of the European Union. Industry modernization and investment support were decreasing as well as the support of other stages of processing creating added value to agricultural and food-processing products. Payments for natural and other regions of less favoured areas and agri-environmental measures



were increasingly supported in the Czech Republic. Grants for agri-environmental measures and contributions for management in less favoured areas with ecological limitations were paid within the rural development plan. These grants were accessible through an application to the State agricultural intervention fund (SAIF) according to a given methodology.

Agri-environmental measures are to support ways of use of agricultural land for the protection and improvement of the environment, landscape and its properties. The support was paid from the European Agricultural Fund for Rural Development particularly aimed at the management of areas of high natural value, natural sources, biological diversity and landscape maintenance. Physical and legal entities, which registered in Land parcel identification system a minimum area of agricultural land for the given system of management, can participate in these measures. Payments for applicants are to cover costs associated with participation in the measures (e.g. grassing) and the loss of incomes (e.g. arable land, which was grassed for the period of five years). In order to obtain a grant it is necessary to fulfil certain conditions, e.g. the grassland must not be changed to arable land or herb residues must not be burnt on land blocs. The financial support is provided for the period of a contractual obligation of five years. The reimbursement is provided by the European Union and by the national budget. Grants are paid by the State agricultural intervention fund (SAIF) for ecological agriculture, integrated production, grass land (meadows, pastures, bird localities, heathland), arable land (grassing, intercropping, biobelts).

4. Compensation contributions for management in less favoured areas

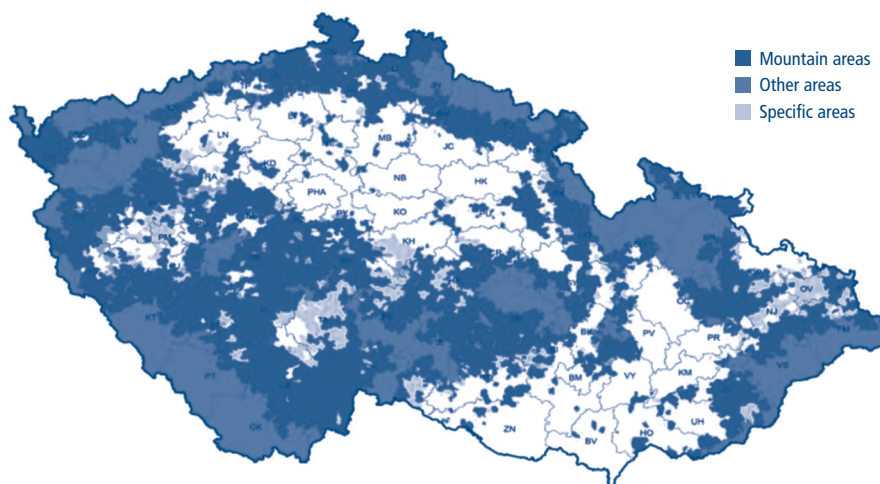
The less favoured areas contribution was intended for managing in less favoured areas with ecological limitations, specifically for grasslands registered in Land parcel identification system, which occur in Mountain areas (H) with an altitude above 600 me-

ters above sea level, Other less favourable areas (O) with altitude 300-600 meters, Specific areas (S) including industrial regions in areas with raw material mining and areas with ecological limitations. Rates of the compensatory contribution were dependent to the area type. The highest support can be obtained for mountain areas with an altitude above 600 meters, the lowest support for areas with ecological limitations. Physical or legal entity farming at least five hectares of agricultural land in less favoured areas or one hectare of agricultural land in less favoured areas following the scheme of ecological agriculture or two hectares of agricultural land in less favoured areas if it includes state protected landscape areas can apply for a contribution. If the applicant breeds cattle, sheep, goats or horses, he has, at the same time, to keep the size of it. In addition to this, the applicant has to farm in less favoured areas for the period of at least five calendar years, to fulfil conditions of principles of proper agricultural practice on the whole area of agricultural land registered in land parcel identification system and in buildings and facilities serving for the agricultural production. Required provisions concerning the use of pharmacological materials for animal treatment have to be also applied. The compensatory contribution has been paid by the State agricultural intervention fund that also monitors or imposes potential sanctions for violation of the above mentioned rules and conditions.

5. Redefinition of less favourable areas to areas with natural constraints

The methodology of less favoured areas in the Czech Republic has been changed in 2018. The main reason for changes was a requirement of the European Commission for a unification of criteria for other areas with natural constraints to achieve an equal access for farmers to subsidies across the member states of the European Union. (ÚZEI, 2022) The title LFA has changed to ANC (areas with natural constraints) and PPO (payments for

Figure 1 » Areas with natural or other special constraints in the Czech Republic



Source: ÚZEI (2022)

provisionally supported areas). The ANC payment replaces the previous LFA due to the redefinition of areas with constraints. It is a compensatory payment for those applicants whose agricultural production is subject to certain restrictions and it therefore compensates them for potential additional costs and lost revenues. These include, for instance, mountainous areas, less profitable land or sparsely populated areas. The respective rate depends on the production focus of the applicant on animal or crop production and on the type of agricultural land. Due to the new definition of areas for the given subsidies and the removal of the obligation to meet the minimum intensity of livestock breeding, a number of farmers who applied for support in the first year after the change increased by one half. (Naxera, 2018). Areas with natural constraints can be divided into three basic types of areas:

- mountain ANCs, which are characterized by higher altitude or higher altitude in combination with sloping land,
- other ANCs, which are defined on the basis of

unified restrictions defined by the European Commission, so-called biophysical criteria. Areas that have overcome natural handicaps, for example through investment measures or have above-average revenue potential, are not included in the ANC.

- specific ANCs, which are characterized by lower yields of agricultural land and are not included in mountain or other ANCs. (EAGRI, 2022)

Figure 1 indicates areas with natural or other special constraints in the Czech Republic from 2018. Mountain areas are mostly represented in South-Bohemia and Karlovy Vary regions, but also in Moravia (the Jeseníky Mountains and the Beskids). The majority of areas rank among the type mountain and other areas. The PPO subsidies apply to areas that were historically a part of the LFA but do not meet the new criteria for ANC areas. Only applicants who have been granted an LFA payment in 2015–2017 or PPO 2018–2019 are eligible to apply for a PPO, see details on SZIF (2022).

The practical implementation of ANC is based on the methodology for the implementation of the



government regulation on the conditions for providing payments for mountain areas and other areas with natural or other special restrictions, see EAGRI (2021). The respective subsidies described in this paper should contribute to the preservation of the rural landscape and the maintenance and promotion of sustainable farming systems by encouraging the sustainable use of agricultural land. Farmers in these areas achieve lower production than farmers farming in favourable areas and these subsidies allow them to compensate additional costs and lost income resulting from the reduction of agricultural production. An absence of these measures could lead to a decrease in the economic performance of farmers in areas affected by natural handicaps in the long term and might lead to a gradual marginalization of these areas. This could result in the agricultural land abandonment with a negative impact on ecosystems dependent on agriculture in areas with natural disadvantages. Until 2017, these areas in the Czech Republic were referred to as less favoured areas. Since 2018, areas have been marked as areas with natural constraints (ANC), thus distinguishing the period before and after redefinition. (EAGRI, 2021)

5. Conclusions

After the accession of the Czech Republic into the European Union, Czech policy fully adopted principles of the Common Agricultural Policy applied so far in existing member countries of the EU. Together with the introduction of direct payments in new member countries, further steps were in pro-

gress reflecting the transfer of supports originally included into the market support to project-oriented supports. These were related to the increase of payments in the field of rural development. Major changes of the common agricultural policy in the respective field occurred in 2018. The new determination of payments for less favoured areas was prepared and the methodology in the Czech Republic has been changed from that year. While mountain areas remain unchanged, there are significant methodological changes in the category of other less favoured areas. The main aim of the support for areas with natural or other special constraints is to maintain and preserve agriculture in areas, which are characterized by structural and permanent natural disadvantages. The support should help to the sustainable use of agricultural land, which will contribute to the preservation of the natural environment, support of sustainable agricultural systems and vital community in the country. The recommendations point out the necessity of linked operations in particular measures of the country development. The importance of these subsidies for farmers can be found in a compensation of additional costs and lost income resulting from the reduction of agricultural production. This can prevent potential reduction in the economic performance of agricultural farms in areas affected by natural handicaps in the long term avoiding a gradual marginalization of these areas potentially resulting in the agricultural land abandonment with a negative impact on ecosystems dependent on agriculture.

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Microeconomic support for agri-environmental measures in areas with natural or other special constraints in the Czech Republic

ABSTRACT

The paper deals with issues of the support of agri-environmental measures and supports of management in less favoured areas in Czech agriculture. The methodology of less favoured areas in the Czech Republic has been adapted four years ago. While mountain areas remain unchanged, there are significant methodological changes in the category of other less favoured areas. Supports of agri-environmental measures contribute to maintain sustainable agricultural systems, rural development and current agriculture. The changing economic environment opens a number of questions of the comparability of agriculture development both for established and new member states of the European Union. All member states of the EU, including the Czech Republic, are increasingly affected by the processes of globalization of food markets and agribusiness. Through a transformation from the original model based on supply conditions towards the system markedly oriented to demand conditions, possibilities for success have also changed in the context of global networks of food production and it becomes one of the decisive criteria of modern agrarian policy.



→ **KEYWORDS**

Microeconomics; LFA support; Agribusiness; Funding

JEL CLASSIFICATION

D40; H41; Q10



Women in Management

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* 1. Introduction

Today, the word gender appears popular in societies and many industries, and that's no different in management. Historically, women have fought for their rights, leading to greater empowerment. In the 21st century, it is not surprising that women often occupy leadership positions relative to men in the workforce. The overall employment rate of women at certain levels of education and qualification is slowly stabilizing compared with men. However, the status of women in senior management is still no closer to reaching parity (Mikuláščík, 2015).

According to eurostat.eu (2021), the total employment rate of women in 2020 in the Czech Republic was 67.1 %, which is less than 1 % compared to 2019. In 2019, the female employment rate was 68.1 % and was the highest in the last ten years. The Slovak Republic had a female employment rate of 61.7 % in 2020 and 62.4 % in 2019. According to Eurostat.eu (2021) statistics, the female employment rate tends to rise, which means more women are in the labor market.

2. Characteristics of women in managerial positions

Women face various barriers in the labor market upon entry or during their careers like discrimination, wage disadvantage, glass ceiling, tokenism, and others. One of the most significant barriers seen in the labor market is career disruption due to maternity. Despite the various stereotypes, prejudices, and barriers, they have the potential to reach senior management positions. While men in management tend to form masculine communities, women in management are left alone (Eagly, Carli, 2007). Furthermore, due to these facts, women have a difficult position in managerial positions, and the environment may even treat them intolerantly (Pauknerová, 2007).

Female executives are more patient and rational in crises and make more compromises compared to men. Another benefit of women as managers is empathy, which allows them to understand the needs of others. They are also able to form closer but still professional relationships. Overall, women are more tolerant, which increases the popularity and openness of junior employees (Mikuláščík, 2006).



One of the most fundamental differences between men and women is communication. Women often are criticized for not using such a masculine style of communication. The female communication style is characterized by attentive listening to the other side, assessing body language, and not interrupting the other person by speaking. In uncomfortable sit-downs, women try to avoid aggression and direct conflict when, on the other hand, men feel the need to flex their power. Women are more considerate and subconsciously behave in a maternal manner in some instances. This personality trait is also present in the workplace when women managers feel they need to protect and care for their team or the company they work for (Mikuláščík, 2015).

In general, women value building relationships and teamwork, which are essential in management. Women need to understand the whole situation and individual tasks in-depth. Also, they can delegate work, rely on their subordinates, and sufficiently appreciate a job well done. Women managers also excel in motivating employees and knowledge of the importance of creating a pleasant atmosphere in the workplace that can ensure better results (Lamson, 2018).

Studies and statistics highlight that increasing diversity in an organization's culture leads to better business outcomes. Increased diversity leads to decision-making, contributes to an organization's bottom line, and promotes innovation, among other benefits (Deliotte.com, 2019).

The following figure shows the rates of women in the occupational group in proportion to all occu-

pational groups in the European Union, the Czech Republic, and the Slovak Republic.

Based on a chart the trend for women in leadership positions is slowly increasing. In the Slovak Republic in 2020, 36.1 % of women were in leadership positions, which exceeds the results from the whole EU and the results from the Czech Republic, where only 28.5 % of women were in leadership positions (Eurostat.eu, 2021).

The tabular representation is reflected in the graphic representation (Figure 1), where the trend is visually followed.

The policy of gender equality in the workplace in the Czech Republic started to emerge only after the accession to the EU – it was one of the conditions for joining the EU. It was necessary to implement the directives of the *Acquis communautaire*, which contained a chapter on equal opportunities for women and men (Social Policy and Employment). One of the first steps in 1999 was the amendment of the Employment Act and the harmonization of the Labour Code dating back to 1965 when the following was introduced: equal pay for men and women, and the prohibition of direct and indirect discrimination (Křížková a kol., 2011).

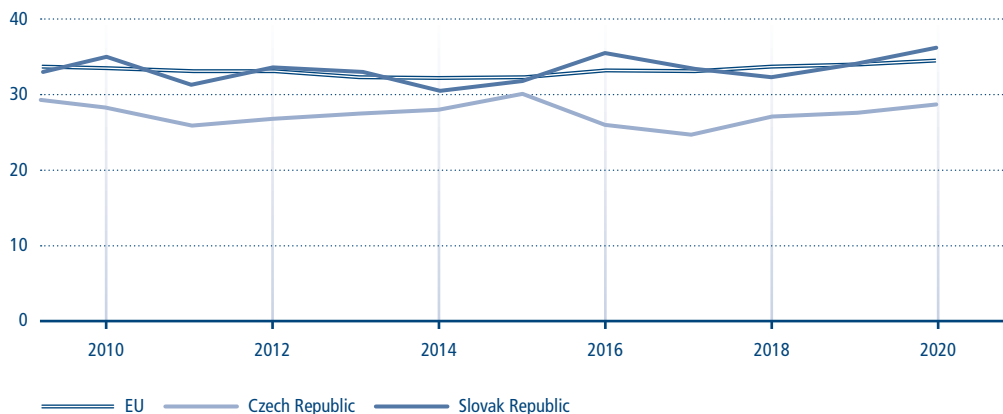
Gender quotas are considered controversial measures to ensure equality between men and women. Their function is to increase and equalize the numbers of both genders in management. At present, certain forms of quotas can be observed in our predominantly multinational organizations. In 2006, Norway became the first country to introduce quota measures to increase the number of

Table 1 » Percentage of women in the occupational group in the EU, the Czech Republic, and Slovakia, over the years

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
EU	33,2	33,4	32,9	33	32,3	32,1	32,2	33	32,9	33,3	33,8	34,3
Czech republic	29,3	28,1	25,9	26,4	27,4	28,1	29,8	25,9	24,6	27	27,5	28,5
Slovak republic	32,3	34,7	31	33,3	32,9	30,4	31,7	35,3	33,2	32,3	33,9	36,1

Source: Eurostat.eu, 2021

Figure 1 » Graphical representation of the evolution of women in leadership positions in the EU, the Czech Republic, and the Slovak Republic over the years



Source: Eurostat.eu, 2021

women on company boards. A similar proposal has been presented in the European Union. However, it was not supported or adopted – the prevailing view is that gender quotas should only apply at the state level. As such, quotas may help to increase women in management positions (Dytrt, 2014). Besides, there may be a situation where organizations would not have enough qualified women and would have to elect someone given quotas. It can have an impact on overall organizational performance (Chládková, Hendrychová, 2015).

2.1 Women's leadership styles

Leadership studies have constantly changed and evolved over the years determining whether male and female leadership styles are the same or different. There are no differences between whether employees are led by men or women. It is hard to compare leadership when it is not definite whether leaders, male or female, have the same position or role. The fact is that women, because of stereotypes that persist today, usually occupy lower posi-

tions where a mix of different leadership styles is expected (Foels et al., 2000).

Despite mentioned above, most new research suggests that women aim to use a relationship-focused leadership style and men implement a task-focused approach (Eagly et al., 2002).

More than 160 studies demonstrate that women tend to use less directive, dominant, and autocratic leadership styles and are more likely to use democratic and participative styles of leading people. Women contribute by acting more protective, caring, and pleasant to other team members (Booyen, et al., 2010).

The transformational leadership style incorporates more authentic leadership and leans toward emotionally intelligent leadership. This leadership style is relatively new and emphasizes mainly motivation and commitment with creating a shared vision. Likewise emphasizes individual assessment and provides a model focused on highly ethical behavior that fosters respect and trust. Transformational leadership style is more naturally perceived and used by women (De Mascia, 2015).

3. Gender segregation in employment

Occupational segregation almost always harms women and the efficiency of the labor market as a whole. Gender segregation in the labor market is a long-standing phenomenon that occurs globally. Gender segregation in the labor market means the distribution of employees (women and men) into different jobs, sectors, positions under different contractual and working conditions. Another point of view defines gender segregation, as “the concentration of men and women in different occupations in which one of the sexes dominate”. The gender gap is responsible for the rise of gender inequality in the labor market. There are integrated areas where the proportion of women and men is roughly equal (Křížková, Sloboda, 2009).

Gender segregation is categorized into different types of segregation — sectoral segregation and occupational segregation or horizontal and vertical segregation (Křížková and Pavlica, 2004).

Women naturally prefer sectors that are close to their gender roles. A higher proportion of women can be found, for example, in textile/apparel manufacturing, education, health care, and similar sectors. We can also find more women in the service sector (hairdressing, nannies). Men are more concentrated in physically demanding industries such as metalworking and woodworking.

With horizontal segregation, it is possible to encounter a glass wall. The phenomenon of the glass wall makes sense when in feminized professions women occupy service positions. If a man enters such an industry, he mostly occupies a higher managerial position with higher salary conditions (Křížková and Pavlica, 2004). Horizontal segregation is also commonly referred to as occupational gender segregation or occupational segregation based on gender. Vertical segregation is understood as the distribution and concentration of men and women in different positions of the employment hierarchy in an organization or at various levels in management. Such a distribution favors the male gender since it is men who most often occu-

py senior management and decision-making positions. When women are promoted to senior management positions, they are viewed from a gender-stereotyped perspective as a male occupation. (Pauknerová, 2012). Within the issue of vertical segregation, we encounter the notion of the glass ceiling, which represents an invisible but existing barrier that affects the advancement of women to the highest managerial positions in an organization (Dudová et al., 2016).

4. Barriers to working life

Terms such as discrimination, mobbing, glass ceiling, tokenism, or harassment are popular nowadays and occur in all sectors. Many people, mainly women, are fighting for equal conditions for men and women, even if it is legally entrenched (Mikuláščík, 2006).

It is a fact that most women face their unequal and discriminatory position in the labor market. Stereotypes in any given society, men and businesses, are not considered.

Laws such as the Universal Declaration of Human Rights of 1948, prohibiting discrimination based on gender, and the International Covenant on Civil and Political Rights of 1966, which provide equal rights without any distinction, should prevent society from inequalities. These laws are often not respected and result in, for example, a lack of equal opportunities for career development, unfair wage conditions for women, and many others (Tomeš, Koldinská, 2003).

A big role in this issue is delivered by work and time demands, level of responsibility, psychological and work prerequisites, certain stereotypes and myths, and family role in which a woman is an inherent part. One way of equalizing the position of men and women in the working environment is through education in families and schools, but also by encouraging organizations and businesses to provide equal opportunities for women and men (Mikuláščík, 2006).

4.1 Gender discrimination

The research reports of Mansard Society Cominison (1990) and Beck and Steel (1989) summarized several points that hinder women's opportunities for equal treatment with men and manifest as discriminatory attitudes on the part of employers and appear at first glance to be equal rights for men and women. These points are lack of responsibility to work (work for a woman is not paramount), secondary duties unrelated to employment, lower levels of physical and mental ability, lower level of authority, unsuitability for a particular job, and others.

Stressed out that the concept of discrimination has changed over the years. What was considered the ordinary behavior of men in a company towards women a few years back, is now considered a significant manifestation of discrimination (e.g. half pay for equal work). Discrimination is looked at from two perspectives — legal and psychological. Discrimination may be legally resulted and defined as restricting, discriminating, excluding, depriving of rights, favoring an individual or a specific group of people, and must be proved by evidence, taking into account the presumption of innocence and failure to prove intent. Discrimination from a psychological perspective is more difficult to prove. The psychological aspect directly affects individuals and is sometimes difficult to detect unless the individual speaks up. A person under the pressure of psychological discrimination and terror may feel threatened to report such a fact. They are worried about losing their jobs or seeing their employer mock the situation (Mikuláščík, 2006).

Discrimination based on gender can be considered direct or indirect discrimination. Direct discrimination refers to situations in which one person is treated disproportionately and worse than another person in the same situation based on gender (Foltysová, Pavlík, Simerská, 2004). Indirect discrimination occurs in situations that, at first glance, appear to be neutral but with closer obser-

vation, have a negative impact and disadvantage on a particular gender. Such situations mainly occur in politics in provisions, laws, criteria, or customs (Osvaldová, 2004).

Women in the work environment have to overcome several negative circumstances that they may encounter already when advertising for a job, during the job interview, or during the actual performance of the job. For illustration, in a job interview, women may encounter male dominance, whether on the panel or in the candidate's position, and skills or aptitudes of the job applicant are not always the deciding factor. There may be concerns for younger women from the employer's panel as the claimant's early pregnancy, household, and child care. In such cases, women will only be successful if they significantly outperform other male candidates in terms of competencies and translations (Mikuláščík, 2006).

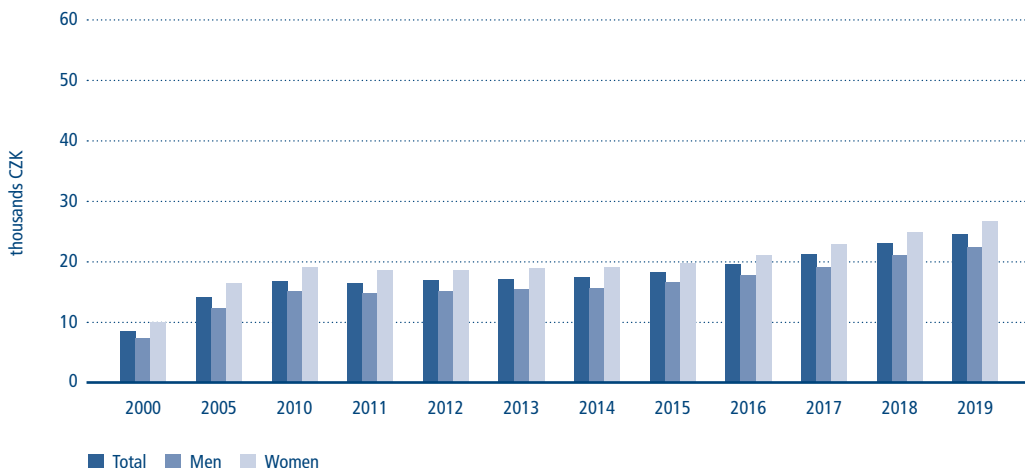
4.2 Women's pay disadvantage – The gender pay gap

It may seem that all the prerequisites for ensuring gender pay equality in the Czech Republic or worldwide are met and working. Nowadays, we have anti-discrimination legislation in place that is specific to the problem of unequal pay, and women achieve the same level of education as men. Today, women are the dominant group of university graduates. Despite the already mentioned assumptions of equal pay, it is difficult or even impossible to ensure equal pay conditions (Křížková et al., 2018).

Primary issues in the labor market which occur are: are low wages, feminization of poverty, weak control of compliance with legislation, low union organization, insufficient support for the combination of work and childcare, low availability of childcare facilities combined with long parental experience, gender stereotypes, women's economic dependence on men, women's undervalued work, low trust in and knowledge of anti-discrimination legislation, barriers to employment that appear in some fields and management positions for

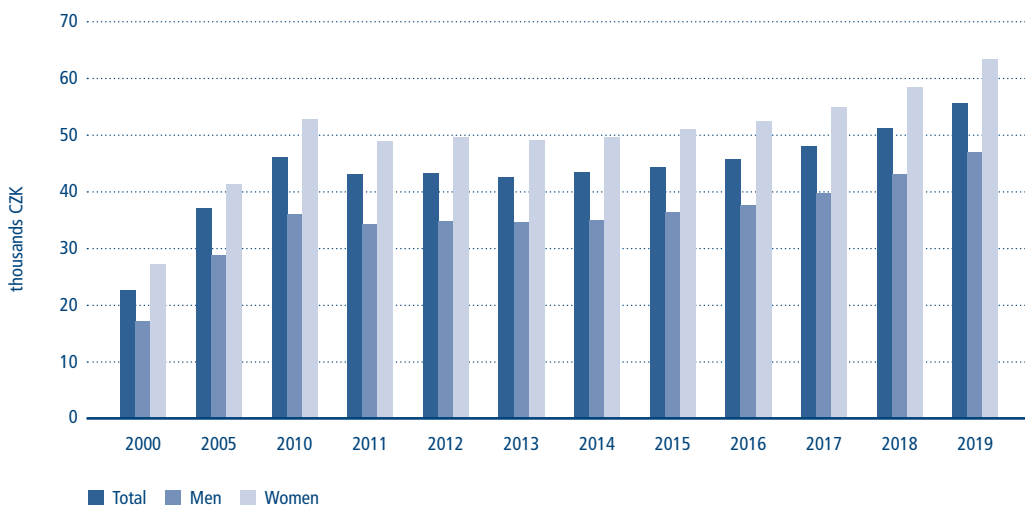


Graph 1 » Evolution of the average gross monthly wage (in thousands, Czech crown currency) without education, with primary education, and with secondary education without graduation in the Czech Republic during the years studied. Green color represents both — women and men, red color represents women, and blue color represents men



Source: ČSÚ, 2020a

Graph 2 » Evolution of the average gross monthly wage (in thousands, Czech crown currency) for those with higher education in the Czech Republic in the years under review. Green color represents both — women and men, red color represents women, and blue color represents men



Source: ČSÚ, 2020a

women, ethnic and national minorities, the elderly and people with disabilities (Křížková et al., 2018).

For a comprehensible expression of gender-based wage discrimination, we use the Gender Pay Gap indicator, abbreviated GPG. Its value is the average difference between the average wages of men and women (Equal Pay, 2020). Today, we can calculate its value reflecting the difference in earnings between women and men in a comparable position, at a certain age, and with similar education or length of experience. We can more accurately determine how much of the GPG is directly accounted for by discrimination itself (Křížková et al., 2020).

In the European Union, the GPG is uniformly defined and valid as the indicator of unequal pay between women and men and serves for international comparison. If terminologically correct, it is necessary to define the difference between salary and wage. Salary is the remuneration of male and female employees of the state. By contrast, wages are paid to employees of an employing entity, i.e. in the private or business sphere (Křížková et al, 2020).

Gender inequalities and pay gaps represent a complex problem that arises at different levels and spheres of life. Eliminating the causes of their emergence is time-consuming and needs to be solved systematically. Women receive disadvantaged wages in numerous industries, especially stereotyped as male-dominated, and in most positions hierarchically across the firm. The GPG is an indicator of women's and men's position in the labor market because it captures the quality of their economic participation in this area (Křížková et al, 2018).

Gender gaps have an impact on the living standards of women and their households, women's lower incomes, the feminization of poverty, the upbringing, aspiration, and future life success of children, in fact, the performance of the whole economy. The most disadvantaged women in the labor market are older women, single mothers, and women with young children. As for retired women,

the difference in the number of their pensions is also visible here, where the long-term gender gap is up to 18% (Křížková et al, 2018).

Inequalities in income have an impact on the economic situation of the whole country. There are different theories and approaches explaining the issues caused by gender inequalities and continue to confirm that we live in a world where men have power — a masculine world.

Within the EU, the Czech Republic has the fifth-highest gender income gap (GPG) — 18.9%. The EU average is more than 5% lower (Mikuláščík, 2006).

The following charts show the average gross monthly wages over years for men, women, and the joint average. The graphs are shown for the territory of the Czech Republic and then the Slovak Republic. In the Czech Republic, the average gross monthly wages are given in Czech koruna, in the graph for the territory of the Slovak Republic, the average gross monthly wages are given in euros (ČSU, 2020).

In Charts 1 and 2, it is possible to observe how average gross monthly wages for both sexes have increased steadily over the years in the Czech Republic.

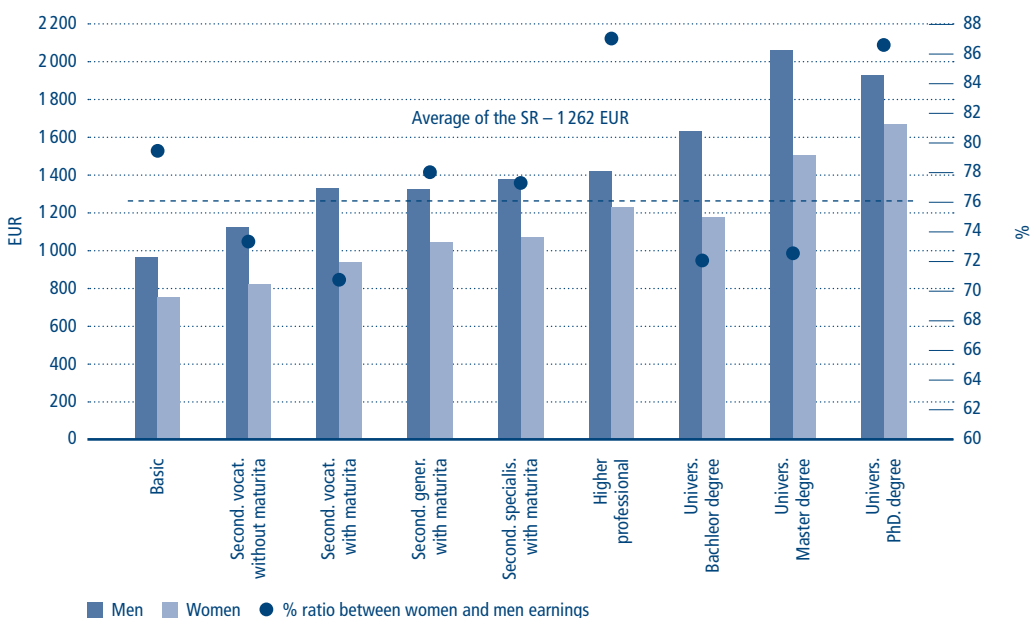
In the case of men, it is seen that their average monthly gross wages are a few thousand more than for women. In chart number 4, the average gross monthly salary in 2019 for men was around CZK 28 000, for women, it is around CZK 22 000.

In chart 2, for employees with a university degree, the average gross monthly wage for men in 2019 is around CZK 62 000, and for women we see a jump, showing that their average gross monthly wage is around CZK 48 000 (ČSÚ, 2020).

In the following chart No. 3, it is possible to see statistics showing the average gross monthly wage by education and gender in 2019 in the whole territory of the Slovak Republic. In chart 3, differences can be seen based on the educational attainment of individual employees. Employees with a level 2 university degree earn the highest average gross monthly wages. For men, this average gross

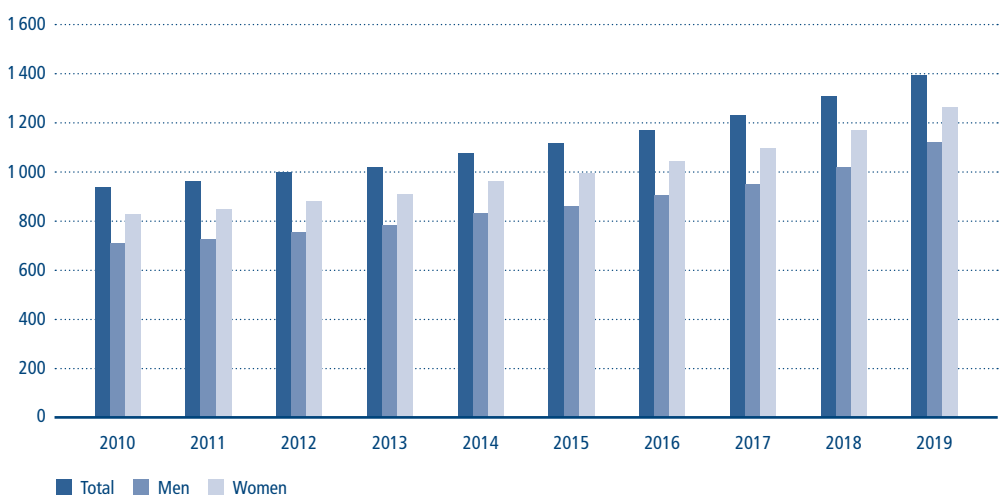


Graph 3 » Average gross monthly salary by education and gender in 2019 for the territory of the Slovak Republic



Source: ŠÚ SR, 2020

Graph 4 » Average gross monthly wages over the years in the Slovak Republic in euros. Green color represents both — women and men, red color represents women, and blue color represents men



Source: ŠÚ SR, 2020

Table 2 » Differences in GPG across European Union countries and the UK from 2010–2018

Teritory, country	2010	2013	2014	2015	2016	2017	2018
EU	17,1	16,8	16,6	16,5	16,3	16,0	15,7
Belgium	10,2	7,5	6,6	6,5	6,1	6,0	6,0
Bulgaria	13,0	14,1	14,2	15,4	14,4	13,6	13,5
Czech Republic	21,6	22,3	22,5	22,5	21,5	21,1	20,1
Denmark	17,1	16,5	16,0	15,1	15,0	14,7	14,5
Estonia	27,7	29,8	28,1	26,9	25,3	25,6	22,7
Finland	20,3	18,8	18,4	17,6	17,4	16,7	16,3
France	15,6	15,5	15,5	15,3	15,3	15,4	15,5
Croatia	5,7	7,7	8,7	–	11,1	11,6	10,5
Ireland	13,9	12,9	13,9	13,9	14,2	14,4	–
Italy	5,3	7,0	6,1	5,5	5,3	5,0	–
Cyprus	16,8	14,9	14,2	14,0	13,9	13,7	13,7
Lithuania	11,9	12,2	13,3	14,2	14,4	15,2	14,0
Latvia	15,5	16,0	17,3	17,0	17,0	15,7	14,1
Luxembourg	8,7	6,2	5,4	5,5	5,5	5,0	4,6
Hungary	17,6	18,4	15,1	14,0	14,0	13,3	11,2
Malta	7,2	9,7	10,6	10,4	11,0	12,2	11,7
Germany	22,3	22,1	22,3	22,0	21,5	21,0	20,9
Netherlands	17,8	16,6	16,2	16,1	15,6	15,2	14,8
Poland	4,5	7,1	7,7	7,4	7,2	7,2	8,8
Portugal	12,8	13,3	14,9	17,8	17,5	16,3	16,2
Austria	24,0	22,3	22,2	21,7	20,1	19,9	19,6
Romania	8,8	4,9	4,5	5,8	5,2	3,5	3,0
Greece	15,0	–	12,5	–	–	–	–
Slovakia	19,6	18,8	19,7	19,6	19,0	19,8	19,4
Slovenia	0,9	6,3	7,0	8,1	7,8	8,0	8,7
United Kingdom	23,3	21,0	20,9	21,0	20,7	20,9	19,9
Spain	16,2	17,8	14,9	14,2	15,1	14,0	14,0
Sweden	15,4	14,6	13,8	14,0	13,3	12,6	12,2

Source: ČSÚ, 2020b

monthly salary is around EUR 2 000, for women, it is around EUR 1 500. It is also important to note that the average gross monthly wage for women with a third level of education is even around EUR 1 700 (ŠÚ SR, 2020).

Chart 4 shows the evolution of average gross monthly wages over the past nine years in the territory of the Slovak Republic by gender. According to chart 6, The male sex dominates the higher wages throughout the period under consideration. The



average gross monthly wage for men in 2019 has been around EUR 1 400. For women, this wage was lower and hovered around EUR 1 250 in 2019 (ŠÚ SR, 2020).

An important aspect when comparing wages is whether the employee works in the public or private sector. The significant differences in wages, between males and females, can be noticed primarily in the private or business sector. Unlike the private sector, wages in the public or state sector are transparent and protected by legislation – wages in the state sector are determined based on wage tables or pay scales for civil servants. Salary scales can prevent discrimination or disadvantage in pay in the workplace (Křížková et al, 2020).

The table below reflects the differences in GPG across European Union countries and the UK from 2010–2018. Only businesses with over ten employees are included in the GPG statistics. The conclusion from the table is that the Czech and Slovak Republics are ranked as countries where women earn significantly less than men, according to the GPG indicator. In 2018, the lowest differences were in Romania and the highest in Estonia (ČSÚ, 2020a).

4.3 The glass ceiling, labyrinth, cliff, escalator

Women's disadvantages in the labor market can occur at several stages of working life. We can define objective barriers to career advancement observed in promotions to leadership and management positions. Also return peripherally to the subjective barriers to career advancement, role conflict (Křížková, 2011).

The glass ceiling is a metaphor that denotes the existence of an invisible and impenetrable barrier that blocks women's vertical mobility in the organization. It does not allow women sufficient career opportunities and results in direct and indirect discrimination (Křížková, 2011).

The glass ceiling was defined as an invisible and transparent barrier, along with traditional attitudes, assumptions, and values, that prevent wom-

en from achieving positions in the hierarchy of an organization that is ranked at a higher level in the Wall Street Journal in 1986. Women face a glass ceiling when they try to advance their careers in organizations where a small percentage of women achieve the highest professional, academic, economic, and political positions. Metaphorically speaking, the ceiling is the boundary where women reach the highest in their advancement, the adjective "glass ceiling" conveys that a woman "can see" due to her skills and qualities, to high leadership positions and can imagine herself in these positions. However, when she begins to advance to top positions, she encounters invisible and hard-to-define barriers (ČSÚ, 2020).

The barriers that prevent women from reaching the top jobs are many. If we focus directly on senior management and women, in the Czech Republic only 6 % of women are in executive positions (in the large companies with publicly available data in 2018), and 29 % of women are in managerial positions (in 2017). In the Slovak Republic, 20 % of women are in executive (in the large companies with publicly available data in 2018), approximately 40 % are in managerial positions (in 2017) (McCarthy, 2019).

The glass ceiling effect is caused by:

- Social barriers: the overall gender structure of society, gender stereotypes (male breadwinner, female caretaker of household and children),
- Difference barriers: matching the selection of a candidate (based on gender) for a higher job position to the rest of the executive,
- the existence of the so-called 'gender gap'.
- information barriers: lack of awareness in companies and firms of the representation of women in management,
- gender segregation of the labor market: women in high-level positions find employment in feminized fields,
- shortcomings in anti-discrimination laws: legislative measures are poorly formulated,
- and also inappropriate behavior of men towards women (Křížková and Pavlica; 2004).

The term the glass ceiling has the problematic consequence of women using this phenomenon as an excuse as a justification for quitting their careers or staying in their current position without trying to move up in the social hierarchy. In response to increased criticism of the glass ceiling, the term glass labyrinth was coined to describe the existence of ,walls all around. The glass labyrinth metaphorically involves the possibility of achieving a higher hierarchical position, but the path is neither direct nor easy. Once the women break through the glass ceiling, they may find themselves on a glass cliff. The glass cliff occurs in times of crisis and when an organization is not meeting its goals and results. An organization needs to reverse the situation and lead the organization out of the crisis. During such times women are placed in high positions. Women's roles during this period are riskier and associated with the possibility of failure and criticism. The fact is that the number of women in senior management has increased precisely during the financial crisis over the last few years. Women, in these cases, are seen as the last resort to save in hard times because of their ability to find compromises, manage conflicts and communicate. The consequence of the glass cliff is usually a natural departure of women from a high position, accompanied by increased stress, pressure, which leads to an overall demotivation to stay in leadership (Eagly, Carli, 2007).

The concept of the glass escalator explains why men are promoted faster in feminized industries. In female-dominated industries, men have more opportunities to shine with promotion, precisely because of the minority of men in the organization. The glass escalator confirms that men create a monopoly over management and higher positions in feminized industries (Eagly, Carli, 2007).

4.4 Tokenism

The term tokenism within an organization was introduced by Kanter, who defined it as a phenomenon associated with minorities or disadvantaged

groups. According to Kanter, women in management are often taken as a token because their representation in leadership is comparatively lower than men. Based on studies, Kanter defined a theoretical measure of 85:15 that divides group members into dominant (85 % or more) and others (minority – less than 15 %), called tokens (Kanter, 1993).

One of the mechanisms of glass ceiling formation is tokenism. Tokenism is a phenomenon that can be observed in situations where a representative of a particular group is the only one or a very small representation in a community or organization. In top management, it is mostly women who are in this position. Men attribute to women managers typical and stereotypical characteristics attributed to the functioning of women within the organization (Booysen, et al., 2010).

Tokenism significantly affects women in management and manifests itself through increased stress and constant uncertainty about how to behave in certain situations. Women tend to start to control themselves more and think what men will think of them – if they act too hard, it will be perceived as too exaggerated or, on the contrary, too soft when they will look too weak and typically feminine (Booysen, et al., 2010).

4.5 Mobbing and harassment

More serious forms of gender-based discrimination include mobbing – psychological abuse, bullying, and sexual harassment – deliberate sexual harassment. These forms of discrimination are extreme cases that occur in the workplace. According to official information, these forms of discrimination in the work environment occur very rarely. However, it does not change that mobbing and sexual harassment do occur. If such a situation occurs most of the time is not reported, formally investigated, or public. Mobbing and sexual harassment are offensive, frustrating, and humiliating for women.



4.5.1 Mobbing

The term mobbing was introduced in the early 1980s by Professor Heinz Leymann and can also be used to refer to psychological abuse or bullying in the workplace. Psychological abuse can be visible or hidden, one-off (bullying), or long-term. Mobbing only applies to situations that last for a long time. It also involves psychological harassment and intrigue, which can be difficult to prove (Mikuláščík, 2006).

Mobbing arises, for example, if an individual appears in a group who is different from others in the group or community, also out of disregard for ethical rules and laws, the vulnerability of the individual, envy, or selfish interests. Other examples can be caused by increased pressure on the individual, overwork, fear of unemployment, or competitive pressure. A favorable environment for mobbing can also be created by the employer, mainly through poor management of the company and poor HR policies. Ultimately, mobbing can be detrimental to the entire company, given that the company culture and workers are subjected to negative psychological pressure. This psychological pressure leads to reduced efficiency and subsequent economic losses (Mikuláščík, 2006).

Mobbing can occur in the form of slander, ignoring, constantly pointing out deficiencies, concealing or distorting information, sabotaging work, crashing women's work performance, defamation of character, threatening, or violating privacy (Mikuláščík, 2006).

If a situation arises from the part of a supervisor and a subordinate employee is under psychological pressure or other forms of psychological abuse, such a phenomenon is called bossing. Bossing may manifest itself in the assignment of meaningless, impossible tasks, exaggerated demands on the employee's performance, or insinuations into the psyche of the person. Typical victims of mobbing are mostly women newly hired, lonely, or overly conspicuous, primarily those who are different in some way from other employees (Mikuláščík, 2006).

4.5.2 Harassment

The definition reads as intentional harassment with a sexual context repeated and unsolicited by the other party (usually female). Harassment, or sexual harassment, is the behavior of an individual (usually male) towards another person, is unwelcome, inappropriate, or offensive and consequently leads to a diminution of the person's dignity or discomfort in the workplace environment (Vymětal, 2008).

Nowadays, sexual harassment is not only manifested in a male-female relationship, but it can also be the other way around. There are also cases where a person is harassed by the same gender (Vymětal, 2008).

Sexual harassment is an illegal phenomenon and can directly affect the work performance of the person and their interpersonal relationships in the workplace. Sexual harassment can take the form of verbal harassment, inappropriate jokes and touching, flirting, sexual innuendo, and suggestions about the act itself. Over time, such behavior can escalate and can lead to threats of rape. If the first signs or symptoms of sexual harassment appear, it should be reported and dealt with at the outset. These are serious problems that will not just get better and will only get worse. It is also necessary to seek out experts on this issue and inform the management concerned (Mikuláščík, 2006).

5. Summary of research

The main purpose of research was to identify how women are different in leading their employees and what characterized them as unique in managerial positions, and if they have met with any form of discrimination during their career paths. The secondary purposes of the research were to find out:

- What management strategies do women use, most often in leadership positions, and why do they most identify with this strategy?
- What makes women genuine when it comes to managing employees?

- How do women balance work and life and what are the most common barriers to working?

The research consisted of quantitative and qualitative research in the form of a questionnaire survey and face-to-face interviews with women in managerial positions. It is important to emphasize that each person has their own opinion and experience on this issue.

All-female managers have a different career path to a managerial position. This shows that there is no one-size-fits-all guide on how to get into management — it all depends on a person's personality and circumstances.

The current status of women in management brings a gentler, more social perspective that focuses on the needs of employees. Female managers who lead employees complement the male leadership style perfectly. This implies that men should more accept women and their different perspectives on leading people. The position of women in management can be very refreshing. Currently, the number of women and men in management is not ideal and certainly not equal.

Identifying specific female qualities, skills, or experiences that are required in executive leadership is not different from those of men. Managers, in general, must be decisive, be goal-oriented, and show results. However, women and men indeed possess different innate qualities. Women are more sensitive, influenced by emotions, and are not as tough on decisions as men. In general, women in the workplace are more focused on creating a pleasant and motivating environment for employees, are non-confrontational, and can be more appreciative of a job well done. A woman who wants to get into a leadership position should be tenacious, ambitious, consistent, and have courage and healthy self-esteem. She needs to react with poise and be assertive where others might challenge her.

The low number of women in management is a deep and long-standing problem. The low number of women managers is partly the fault of women themselves.

Ideally, leadership depends on the degree of

communication with their subordinates or team. Female managers prefer face-to-face communication where there is also a need to manage some rapport with employees. Here we see the feminine empathy and emotionality in women by nature. Women managers care about creating a friendly and motivating workplace environment. They believe that if they help their employees grow, they grow with them. We find here that most women are naturally inclined to manage their employees. The important thing is that women do not copy other leadership styles, but find their moral code of work to apply in the workplace. Although women are often influenced by their sensitivity when making decisions, respondents do not share that perspective. They are aware that they are naturally more caring and bring a maternal approach to the workplace, though they can detach themselves rationally from these qualities in situations. Female executives characterized themselves by a logic that is more dominant than intuition, task-oriented, and assertive and decisive in their approach. The authoritative leadership style is used only in crises or when employees are not doing their jobs.

In most cases, direct disadvantage or discrimination is not experienced by female managers. Women in managerial positions report indirect disadvantage or discrimination, mainly concerning motherhood. For women who do not have children, the employer is particularly concerned about the employee taking maternity leave soon. For women who already have children (in most cases more than one child), it is reported that the employer has questions about whether the woman will have enough time to devote to her work.

If a woman is present in business meetings, the other party may not trust the woman enough or be ignored. Other obstacles or negative experiences are not particularly visible to women. This may also be related to the fact that many women in management are sufficiently confident and do not notice or ignore certain forms of discrimination. As long as women have natural authority and respect, they will not even get into situations such as



disadvantage or discrimination – others will not allow it.

Women managers are exceptionally good at prioritizing. And this is also true in how they manage work-life balance. As long as women are willing to devote themselves to both career and family life,

they have a challenging position in life, but not an unmanageable one. A manager's role is to make decisions, and sometimes decisions need to be made during private time. These two lives influence each other, but as long as a woman finds the right system that works.

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Women in Management

ABSTRACT

The article explores a distinctive perspective on the position of women in managerial/executive positions, their leadership style, and gender differences in the work environment. Many contemporary publications, →

→ scholarly articles, researches, and statistics focus on how management and leadership theories apply to female managers, what barriers they have to face and how they are affected by gender stereotypes. It seems clear that, when compared to men, female managers face less than ideal positions in the labour market. In management, women are still a minority, regardless of whether we speak about the whole world or just the Czech and Slovak Republics. Nevertheless, this controversial subject of inequality is gradually improving and many employees can currently experience women in leadership positions.

In 2020, according to Eurostat.eu (2021), 28.5 % of managerial positions in the Czech Republic and 36.1 % in Slovakia were occupied by women. In general, not all levels of management offer the same undisturbed environment and stability for women. Female professionals often face various barriers, such as gender stereotypes, women's gender roles, or much more serious issues of sexual harassment, etc. Undoubtedly, these negative phenomena will take time and some creative effort to be minimised or even eradicated.

The COVID-19 pandemic clearly affected everyone, including women – be they economically active or child-caring mothers. The article offers an assessment of the acute situation of women in leadership positions and management in general and aims to evaluate what makes women in leadership positions exceptional. It also defines which forms of discrimination or disadvantage are most common or if they occur at all. And finally, it strives to define what makes women authentic, what kind of leadership styles they especially use in their working lives, and whether they can, even under present conditions, effectively balance the two distinct roles of professional managers and family caring mothers at the same time.

KEYWORDS

Leadership; gender; female managers; stereotypes

JEL CLASSIFICATION

J13; J16; J24; J71; J80; M14; O15



Diagnostics of Metacognitive Abilities of University Students III.: The MCQ Method

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* 1. Introduction

Flavell introduced the concept of metacognition in 1979 as knowing how a person knows and the ability of a person to think about their own thought processes in order to improve their cognitive abilities (Flavell, 1979). The form of the concepts is theoretically constantly deepening, and their field of application is expanding. Due to the massification of higher education in the last decade, metacognitive processes are also a research subject in higher education. The metacognitive processes control one's thinking, and the social situation accentuates learning even more. Distance forms of university study place additional demands on the student's metacognitive abilities, and their level can determine their academic success.

University graduates are primarily expected to become experts in their field and respond more flexibly to the dynamically changing and globally changing labour market, enabling applicability throughout the productive phase of life (Koucký, Ryška, Zelenka, 2014). The massification of university studies brings diversification of the student base — students with more developed preconditions for academic success come, even those with

less developed ones (on a cognitive, personal or situational level). There are also specific educational programs at universities that respond to changes in the composition of students. Among other things, they focus on developing metacognition to increase student success (Basco, Cichá, 2006). Brock (2010) on the need for change and support of students in connection with the shift in their composition. It shows that support programs can significantly increase student success and co-determine the final contribution of higher education to students' intellectual and personal development. You contribute to this by studying the metacognitive level and structure of students' metacognitive processes. The MCQ-30 can be a valuable tool in this.

1.1 Cognitive Characteristics during University Education

The theme of “transition to adulthood” in a broader context (including changes in thinking) is a topic that is considered. Arnett (2015) describes the feeling between adolescence and adulthood in 18 to 29. He proposes to divide this period of life as a separate period and calls it “emerging adulthood”. →

It characterizes it as a period of identity discovery, lower background stability, self-focus, feeling between adolescence and adulthood, age of opportunity and cognitive development.

Prudký (2014) emphasizes the development of students' personalities in tertiary education as an essential aspect of its quality. It focuses on the metacognitive dimension of higher education, resp. studies. He points out that it is about the knowledge needed to apply in the field and the skills required to use in life. Students appreciate the opportunity to learn something meaningful and valuable instead of memorizing and copying. Educators share the same opinion.

Nevertheless, Dvořáčková et al. (2014) in their work confirm the constant dominance of replication-based education. Knowledge of metacognition and a targeted focus on its development would significantly affect students' ability to withstand very rapidly changing conditions in the 4.0 environment. In the field of work, the ever-increasing area of cognitive management addresses these issues.

Through internal work, cognitive management aims to learn about and organize the mind and thinking (Ambrozová et al., 2016). He views man as a whole complex living in a constantly changing environment. Cognitive management, therefore, includes a holistic, process and organic approach. He holds the idea that people's cognition, decision-making, and action influence the state of the internal human environment. Cognitive management aims to improve the human mind connect our thinking and decision-making, which will lead to critical, ecological, and systemic thinking. The purpose is the conscious development and management of self-knowledge and improving a person's quality of life. Cognitive control also allows the individual to consciously manage their own experience using their potential and the environment's potential. The university stage is also heading for this.

1.2 Extension of the Metacognition Concept

By the concept of cognitive management, Gardner (1999) also describes the so-called sense of self as an essential metacognitive aspect. The essence of self-consciousness is understanding one's feelings and experiences, which are based on cultural interpretive schemes and symbolic systems.

Krykorková (2008) works with the broader concept of "cognitive individuality". It leads to a more comprehensive idea of cognition. It represents two cognitive levels – lower, bound primarily to content, and higher, attached to thought content, to their formation and treatment. Mental originality is shaped by metacognition and self-regulation. The concept of metacognition relates to self-regulation of learning and self-reflection. Lokajíčková (2014) assumes that knowledge is adequate if it is conscious.

Romainville (1994) find a relationship between metacognition and performance in the sample of students studied. In tertiary education, self-regulation is assumed, and it is appropriate to direct students to metacognition (Case, Gunstone, 2006). If we deal with metacognitive practice in the academic environment, it is possible to focus on personality and cognitive assumptions of the individual and external circumstances – teacher's personality, concepts, methods and context of teaching (Pabian, 2012).

1.3 Metacognitive Abilities and their Diagnostic Methods

Due to the broad definition of metacognition, the area of determining metacognitive abilities is a complex issue. The most common methods include questionnaires, a knowledge test or an interview. An example of a questionnaire for measuring declarative, procedural and conditional metacognitive knowledge is, for example, the Metacognitive Awareness Inventory by Schraw and Dennison (1994). However, like other self-assessment questionnaires, this tool does not have an apparent ref-

erence value. It is unclear whether the individual items are suitable for assessing metacognition and will adequately replace the individual's observations in solving the assignment. Unfortunately, other tools are also being developed with this limitation.

An example is the Metacognitive Awareness of Reading Strategies Inventory (Mokhtari and Reichard, 2002) or the metacognitive knowledge test about oneself, tasks and strategies developed in mathematics (Vlachopoulos and Efklides, 2012). According to Kreutzer, Leonard and Flavell (1975) or Myers and Paris (1978), another approach to metacognition detection is interviews or open-ended questions to assess awareness of critical variables affecting memory, learning, or specific activities. Although these tests provide more detailed knowledge of metacognitive knowledge, they are limited to individual test situations. They follow the methods of evaluation of metacognitive control and regulation performed during a given cognitive activity of a person or through feedback after completing an assignment (Händel, Artelt, Weinert; 2013). These procedures are implementation and time consuming; their standardization is problematic.

1.4 Introduction to the Research

The dataset described below was compiled and translated within the project "Metacognitive abilities of university students and possibilities of their development". Metacognitive abilities are a decisive element in the development of competencies and overall personality development.

The aim of the research was to find out the level of metacognitive abilities of university students of various years of study and to find the connection of metacognitive abilities with selected personality characteristics indicating personality growth and learning (self-efficacy, optimism, time orientation to the future). Furthermore, based on the findings to consider the targeted development of metacognition.

The presented text presents the results of the

third part of the dataset. The MCQ 30 focuses on measuring differences in the selection of metacognitive methods of beliefs, judgments and monitoring trends considered important in the metacognitive model.

SPSS Statistics was used for data analysis.

2. The MCQ 30 Method

2.1 Background

The metacognitions questionnaire (MCQ-30) is a brief multidimensional measure used for assessment of metacognitive beliefs, judgments and monitoring tendencies. It is a short, but valid version of the original MCQ. The MCQ-30 showed positive associations with measures of anxiety, pathological worry, depressive, and obsessive-compulsive symptoms in both samples, demonstrating adequate convergent validity.

Original MCQ is a 65-item scale with Alpha reliabilities for the five subscales range from 0.72 to 0.89 (Cartwright-Hatton, Wells, 1997). MCQ-30 consist of 30 items. The four-point Likert response scale used in the original MCQ was retained. The points on the scale were used and defined as follows: 1 (do not agree), 2 (agree slightly), 3 (agree moderately), and 4 (agree very much). Factorial analysis has shown the presence of five factors (Wells, Cartwright-Hatton, 2004): (1) positive beliefs about worry, POS (measures the extent to which a person thinks that

perseverative thinking is useful), (2) negative beliefs about uncontrollability and danger, NEG (assessing the extent to which a person thinks that perseverative thinking is uncontrollable and dangerous), (3) cognitive confidence, CC (assessing confidence in attention and memory), (4) need to control thoughts, NC (measures the extent to which a person believes that certain types of thoughts need to be suppressed, and (5) cognitive self-consciousness, CSC (the tendency to monitor one's own thoughts focus attention on thought processes).



Factor analysis supported a five-factor structure, which was almost identical to the original solution obtained in previous studies with the full MCQ. Internal consistency of MCQ-30 ranged from 0,72 to 0,93 (Cronbach's alpha). The psychometric properties of MCQ-30 suggest that the instrument is valid assessment of metacognitions and compare to the original MCQ, using is more economical (Wells, Cartwright-Hatton, 2004).

MCQ-30 has become a popular method that is localized into many languages, such as Italian (Quatropiani et al., 2014), Spanish (Martín, 2004), but also Serbian (Marković et al., 2019) or Korean (Cho, Jahng and Chai, 2012) with good psychometric properties.

2.2 Data and Applications

Students from NEWTON College were involved in all parts of the research. Participation in the research was voluntary and included 115 undergraduate students, the Economics and Management degree program. There were 85 students from the first year, 14 students from the second year and 16 students from the third year, 75 women and 40 men.

The dataset is based on questionnaire and scaling methods to determine the level of development of partial metacognitive abilities and strategies for NEWTON College students.

As the research of metacognitive abilities in early adulthood is not systematically developed in the Czech Republic, it was necessary to identify research methods from foreign professional (scientific) literature. The obtained test files were translated into Czech. Subsequently, they were evaluated and selected to form a compact whole.

Methods were administered by group, in the form of pencil – paper during the lessons.

The final dataset includes 5 parts:

1. AILI, Awareness of Independent Learning Inventory – independent learning (45 items);
2. Goals Inventory – Learning and Performance Goal Orientations (25 items);

3. MCQ-30, Metacognition Questionnaire 30 – metacognition in relation to personality (30 items);
4. MMG, Multi-Motiv Grid – semi-projective method (total 14 items, in this research 8 items selected);
5. Ryff Scales of Psychological Well-Being (36 items).

A first study (Pánková, Benetti, 2020) was devoted to the results of the AILI questionnaire focused on independent learning which was driven by metacognition.

The previous study reflected the outputs of The Goals Inventory Method (Pánková, Benetti, 2021).

This study reflects the outputs of the MCQ 30 Method.

In the MCQ 30 Method are 30 items scored on Likert's 4-point scale presenting the level of agreement. These items are divided into five subscales, each with six items:

- positive beliefs about worry (POS);
- negative beliefs about uncontrollability and danger (NEG);
- (Lack of) cognitive confidence (CC);
- need to control thoughts (NC);
- cognitive self-consciousness (CSC);

The SPSS Statistics was used for data analysis.

3. Results of the Research

First, Table 1 represents the case processing summary. Of the total number of 115 respondents, 106 respondents responded within the POS component; 3 respondents lacked answers, which accounted for 2.6% of respondents. Within the NEG and CSC components of 115 respondents, 110 respondents answered, five respondents did not respond. Of the 115 respondents, 111 responded to the CC and NC files, so four respondents did not answer.

Second, to analyse the dependence of variables, it was first necessary to assess the normality of the data. An assessment of the normality of data is a prerequisite for many statistical tests because nor-

Table 1 » Case Processing Summary

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
POS	112	97.4	3	2.6	115	100.0
NEG	110	95.7	5	4.3	115	100.0
CC	111	96.5	4	3.5	115	100.0
NC	111	96.5	4	3.5	115	100.0
CSC	110	95.7	5	4.3	115	100.0

Source: own elaboration

Table 2 » Test of Normality

	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
POS	0.070	112	0.200	0.987	112	0.382
NEG	0.116	110	0.001	0.954	110	0.001
CC	0.107	111	0.003	0.952	111	0.001
NC	0.113	111	0.001	0.965	111	0.006
CSC	0.110	110	0.002	0.960	110	0.002

Source: own elaboration

mal data is an underlying assumption in parametric testing. There are two main methods of assessing normality: graphically and numerically. SPSS Statistics was used for data analysis. The results of the numerical assessment of normality are summarized in Table 2.

According to the results of elementary statistical analyses, all components have approximately normal distribution. Thanks to these results, it was possible to calculate the sample correlation coefficient – we chose Pearson correlation coefficient (1.1) for our needs. The results are shown in Table 3.

$$r = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}} = \frac{\sum_{i=1}^n x_i y_i - n \bar{x} \bar{y}}{(n-1) s_x s_y}, \quad (1.1)$$

where:

$\bar{x}$ and $\bar{y}$ are sample averages and s_x and s_y are the sample standard deviations.

One of components correlate negligible (*P value* < 0.001) – CC ($r = 0.298$). Some of components correlate low (*P value* < 0.001) — NEG ($r = 0.489$) and CSC ($r = 0.459$). Only one component correlate moderate (*P value* < 0.001) — NC ($r = 0.298$). No item in the analyzed components significantly reduces their internal consistency or correlates significantly with other items.

4. Discussion

The analysis of independence can be modelled using various statistical modelling tools. The correlation method was chosen according to the character

Table 3 » Correlations

		POS	NEG	CC	NC	CSC
POS	Pearson Correlation	1	0.489	0.298	0.527	0.459
	N	112	109	110	110	109
NEG	Pearson Correlation	0.489	1	0.444	0.332	0.451
	N	109	110	108	108	108
CC	Pearson Correlation	0.298	0.444	1	0.292	0.109
	N	110	108	111	110	109
NC	Pearson Correlation	0.527	0.332	0.292	1	0.290
	N	110	108	110	111	108
CSC	Pearson Correlation	0.459	0.451	0.109	0.290	1
	N	109	108	109	108	110

Source: own elaboration

of the examined data, namely Pearson correlation coefficient. Pearson's correlation coefficient is a statistical indicator of the strength of a linear relationship between paired data. It is a sample correlation coefficient. Positive values of r mean a positive linear correlation between the investigated quantities. The results of the analysis showed that there is a weak dependence between the variables examined. In addition, there are other statistical tools to reflect the dependence between the variables examined. Further research could also focus on comparing the results using other statistical methods that can be used to investigate dependence between variables.

5. Conclusion

The aim of the research, which was attended by 115 bachelor's students of the Economics and Management study program, was to determine the level of their metacognitive abilities and to demonstrate whether there is a dependence between learning orientation and performance orientation. The article focused only on the results of the third part of the dataset – The MCQ 30 method. The MCQ 30 focuses on measuring differences in the

selection of metacognitive methods of beliefs, judgments and monitoring trends considered important in the metacognitive model. In the MCQ 30 method are 30 items are scored on Likert's 4-point scale presenting the level of agreement. The results show that there was a dependence between five subscales. There was a negligible (CC), low (NEG and CSC) or moderate (NC) dependence between the individual components.

Overall, further research could focus on re-testing students, comparing the results with the results of this research, and if the dataset included enough students, the results could be compared separately between years of study.

Acknowledgement

This paper was created with the support of specific research, "Metacognitive abilities of university students and possibilities of their development", which was carried out within the scientific activities of NEWTON University, a.s, was approved and coordinated by the School's Internal Grant Agency.

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Diagnostics of Metacognitive Abilities of University Students III.: The MCQ Method

ABSTRACT

The current global situation limiting full-time form of study in schools of all levels places new demands not only on the education system, but also on the learning practices of pupils and students. Schools are in a situation where it is necessary to reconsider existing cognitive strategies regarding distance learning, its form, and tools. Students' metacognitive skills affect their ability to change cognitive strategies with respect to any changes in the teaching process and often determine their success in new conditions.

The present study builds on the previous “Diagnostics of Metacognitive Abilities of University Students: Awareness of the Independent Learning Inventory Method” and “Diagnostics of Metacognitive Abilities of University Students II.: The Goals Inventory Method” and complements it with outputs from another method, this time focusing on measuring differences in the selection of metacognitive methods of beliefs, judgments and monitoring trends considered important in the metacognitive model. The overall goal of the test battery is to determine the level of metacognitive abilities of students and their connection with other personality characteristics and styles of their learning.

The study focuses on the results of the questionnaire The MCQ 30 focuses on measuring differences in the selection of metacognitive methods of beliefs, judgments and monitoring trends considered important in the metacognitive model. The questionnaire survey was aimed at students in the 1st to 3rd year of the Economics and Management study program at NEWTON College (University).

The results of the overall diagnosis of metacognitive abilities of university students lead to two goals. First, naming possible areas of development so that students use metacognition consciously, which will allow them to respond flexibly to changing teaching conditions. From the second point of view, by knowing the structure of students' metacognitive abilities, universities can adapt their teaching methods so that they maintain their effectiveness even in the distance form of study.

KEYWORDS

Metacognition; Metacognitive Skills; University students; Self-Regulated Learning.

JEL CLASSIFICATION

A22; I20, I21, I23; M12

x

The Liability of Representatives of Self-Governing Territorial Units in the COVID-19 Pandemic Context

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* Introduction

In the following article, I would like to address the risks the representatives of local governments were exposed to during the COVID-19 pandemic. Generally, it took the form of certain forms of potential legal liability related, for example, to the purchase of supplies (or services) at a price that fluctuated considerably on the market over time. The usual price often changed significantly, even in a few days. For example, changes in respirator prices occurred in the first half of 2020 virtually every day. In the period from March to May 2020, the prices¹ ranged from lower tens of crowns to amounts attacking CZK 900 / pc.² It was no different in other segments of medical devices, as well as in some other areas.

Ambiguous issues had to be addressed by (not only) representatives of regional governments in connection with, for example, determining the procedure for employees in case of COVID-19 dis-

ease detection, in cases of quarantine, in connection with testing employees either antigen or PCR tests, employee vaccination or even imposing the obligation to be vaccinated.

In the following article, I will deal with issues of the liability of representatives of regional governments in the context of public procurement law. However, these conclusions can also be applied to some other situations that had to be addressed in this highly challenging time.

Given the seriousness of the decisions taken in the current crisis, the regional government representatives' unavoidable concern is certainly understandable, as their actions are usually subject to a greater degree of civil and public control. Commonly, representatives of self-governing territorial units are forced to the highest possible forms of legal liability, i.e. criminal liability, according to JUDr. Petr Toman, LL.M., more than ¾ criminal proceedings against regional government representatives, are later terminated without finding

¹ Concerning the type of respirator, i.e., among other things, given whether it was an FFP1, FFP2 or FFP3 respirator.

² Cf. Sedláčková, H. (2020) ÚZIS analysis: the Ministry of Health purchased in the coronavirus crisis at below-average prices. Medical diary. IN: <https://www.zdravotnickýdeník.cz/2020/06/analýza-uzis-ministerstvo-zdravotnictvi-nakupovalo-koronaviro-ve-krizi-za-spise-podprumerne-ceny/>

guilt and imposing a sentence. In other words, more than 75% of prosecuted representatives are prosecuted illegally.³

Deciding in situations where it was vital to act promptly, often using legal though nonstandard means, thus logically placed significantly higher demands on the persons concerned.

So what has been the legal responsibility framework of regional self-governing representatives in their decision-making during the COVID-19 pandemic, for example, in connection with the public funds spending?

1. Legal Regulation of Territorial Self-Governing Units

The Constitution of the Czech Republic distinguishes between two types of self-governing territorial units, namely municipalities (lower territorial self-governing units) and regions (higher territorial self-governing units). A specific position in the Czech legal system is then granted to the capital city of Prague, which means that there are a total of three legal regulations at the legal level governing the exercise of territorial self-government. These are, in particular, Act No. 128/2000 Coll., On Municipalities (Municipal Establishment), as amended (hereinafter referred to as “**ME**”), Act No. 129/2000 Coll., On Regions (Regional Establishment), as amended (hereinafter referred to as “**RE**”) and finally Act No. 131/2000 Coll., on the Capital City of Prague, as amended (hereinafter referred to as “**ACCP**”).

In 2021, there were 6,258 municipalities (of which 608 cities, 27 statutory cities), 14 regions,

and the capital city of Prague⁴ was located in the Czech Republic. The municipal bodies include the city council, the city committee, the mayor, and the municipal office.⁵ In the case of the region, it is the council, the regional council, the governor, and the regional office.⁶ The situation is similar in the case of the capital city of Prague, where, however, the governor is called the mayor and the regional authority the municipality.⁷

In principle, the council, the committee members, and the head representative of each self-governing territorial unit (regional representatives/mayor) are elected persons, i.e. directly as a representative or a person selected from among them. An exception is the composition of the service body of local governments, i.e. the composition of municipal or regional authorities. For other purposes, however, we will consider only the responsibility of the representatives, which may include the responsibility of the members of the council or the responsibility of the governor, regional representative, or mayor.

In specific cases of individual territorial self-governing units, partial acts within public procurement procedures are usually determined by internal regulations for public procurement.⁸ For example, according to the internal regulation, which regulates the tasks of the Regional Office of the Olomouc Region set out in the Directive of the Olomouc Regional Council No. 1/2021 “*Procedure for awarding public contracts of the Olomouc Region*”, approved by the Olomouc Regional Council on March 29, 2021, by Resolution No. UR / 16 / 57/2021, most tasks in awarding procurements are performed by the relevant department or procure-

³ Toman, P. (2015) *Criminal liability of representatives*. Legal space. p. 157. IN: <file:///C:/Users/Martin/AppData/Local/Temp/Toman.pdf>. <file:///C:/Users/Martin/AppData/Local/Temp/Toman.pdf>.

⁴ Wikipedia. Vývoj administrativního dělení Česka. IN: https://cs.wikipedia.org/wiki/V%C3%BDvoj_administrativn%C3%ADho_d%C4%9Blen%C3%AD_%C4%8Ceska#2021

⁵ Provisions of § 67 et seq. ME.

⁶ Provisions of § 31 et seq. RE.

⁷ Provisions of § 48 et seq. ACCP.

⁸ In specific cases, these may be decrees or regulations of self-governing territorial units, their statute, as well as resolutions of councils or committees of relevant self-governments.

ment department of the Regional Office of the Olomouc Region. However, the most critical tasks are entrusted either to the Olomouc Regional Council (for example, approval of tender conditions, appointment of commissions, decision on the selection of the most suitable tender, approval of the contract, etc.) or the Olomouc Regional Representative (for example, exclusion of tenderers).

Similarly, the representatives of the town of Černošice have divided competencies in their internal regulations. Internal Regulation No. 5 – Public Procurement, effective from 13 September 2021, states that the mayor decides on the commencement of the selection procedure on the recommendation of the tender department. However, the conclusion of the contract is already approved by the Černošice City Council. The mayor (or a person authorized by him) signs the contract. For example, the mayor also decides to cancel the tender procedure.

The public procurement administrator also enters these already complicated relationships. It is usually the contractual representative of the contracting authority (in this case, a specific territorial self-governing unit) in the sense of the provisions of Section 43 of Act No. 134/2016 Coll., on the procurement, as amended (hereinafter “PPA (ZZVZ)”). The administrator is not eligible to select a supplier, exclude a tenderer, cancel a tender, or decide on objections.⁹

Therefore, the acts mentioned above are usually performed by the mayor or regional representative of a local government, or the council, as a body of a collective nature. In other cases, the person of the public procurement administrator may be authorized to perform the tasks independently, limiting the liability of councillors to some extent if their standard care has been maintained and other performance requirements of a member of the council/committee/mayor, etc. However, the con-

tracting authority liability (self-governing territorial unit as such) for compliance with the rules of the Public Procurement Act remains.¹⁰

Above all, the administrator had to be chosen appropriately, without doubting his expertise. Its activities should also be subject to regular supervision. Apparent mistakes or even evident intentional or grossly negligent violations of the law by the administrator should therefore not be accepted or ignored by individual representatives. Otherwise, some of the forms of legal liability of councillors could still arise.

2. General Civil Liability of Representatives of Territorial Self-Governing Units

When considering the civil liability of certain persons, we usually consider the obligation to pay damages. Act No. 89/2012 Coll., Civil Code, as amended

hereinafter referred to as the “**Civil Code**”), effective from 1 January 2014, no longer uses the term “*liability*” in connection with damages, which has a different (broader) content than it was under the “*previous*” Civil Code.¹¹

ME, RE, and ACCP do not contain special legal regulations of the obligation to compensate for damage. Therefore, the general legal rule of damages is used in the provisions of § 2894 et seq. of the civil code. The essential preconditions are thus a breach of a particular legal obligation, damage occurrence, and a causal link between the breach of duty and the event of damage. Suppose it is a breach of an obligation imposed by law (or another legal regulation), the wrongdoer’s fault is also required, i.e. the internal relationship to the breached duty or the damage caused. On the other hand, no-fault is needed if the damage occurred due to a breach of the contractually assumed obligation. It can be noted here that there is a tenden-

⁹ Provisions of § 43 par. 2 PPA (ZZVZ).

¹⁰ Cf. provisions of § 43 par. 1, sentence two PPA (ZZVZ).

¹¹ I.e. according to Act No. 40/1964 Coll., Civil Code.

cy to assess the function of council members as a contractual relationship, concerning the similarity with the relationship in the performance of the statutory body member role who fulfills obligations under the contract of office.¹²

A prerequisite for the representative not to violate the obligations comprised in his function is, above all, knowledge of these obligations, i.e., a deeper awareness of the legal framework of ME, RE, or ACCP. However, it will also be the regulations of the local government, including, for example, the statute, resolutions of the council, committee, etc. This conclusion was repeatedly confirmed in the judicature of the Supreme Court of the Czech Republic, which stated:

“(...) a prominent and presumed precondition for the function of the mayor (of the city district) is knowledge of the law on municipalities and the statute of a territorially divided statutory city, as a basic by-law regulating the powers of the city district, which the mayor represents”.¹³

However, it is the regulations governing local self-government and the legislation usually associated with these functions' performance. Specifically, for example, the area of public procurement law (regulated primarily within the PPA (ZZVZ)), the area of construction law, tax law, etc. The judicature also confirms this conclusion:

“From (...) the current position (and honorary political functions) it is possible to presume (...) knowledge of such legal regulations as, for example, Act No. 128/2000 Coll., on Municipalities, as amended (hereinafter referred to as the “Municipalities Act”), or Act No. 183/2006 Coll., on Territorial Planning and Building Regulations (Building Act), as amended (hereinafter referred to as the “Building Act”)”.¹⁴

The representative responsibilities include the promise of the council member in the sense of the

provisions of § 69 paragraph 2 of the Municipal Establishment, § 33 paragraph 2 of the Regional Establishment, and § 50 paragraph 3 of the ACCP (the Act of the Capital City of Prague). It states that the representative will perform his function conscientiously and in the interest of the self-governing territorial unit.

Members of local councils are also subject to the obligation to use the property of local governments efficiently and economically (see § 38 para. 1 of the Municipal Establishment, § 17 par. 1 of the Regional Establishment, and § 35 par. 1 of the Act of the Capital City of Prague). In the case of pecuniary, it is then necessary to determine the usual price of the item (see § 39 par. 2 of the Municipal Establishment, § 18 paragraph 2 of the Regional Establishment, and § 36 par. 2 of the Act of the Capital City of Prague). Only a lower price than usual can be applied in exceptional cases, with adequate justification for such a procedure.

The legislation also imposes certain other obligations on members of local councils. Among the more generally defined ones, we can mention, for example, the prohibition to prioritize personal interest over self-interest, resulting from the provisions of § 3 paragraph 1 of Act No. 159/2006 Coll., on conflicts of interest, as amended, informing obligation (§ 83 par. 2 of Municipal Establishment), or the obligation to act with due diligence (§159 par. 1 of the Civil Code). It is precisely the obligation to act with due diligence that is perhaps the most frequently used when deriving the obligation to pay the damage.

In this respect, § 159 par. 1 of the Civil Code states that he “who (...) accepts the office of a member of the elected body undertakes to perform it with the necessary loyalty as well as with the necessary knowledge and diligence.” “(...) He is deemed to have acted carelessly, who is not able to do so

¹² Cf. provisions of § 2910 et seq. Civil Code and § 2913 et seq. Civil Code. See also Achour, G. Pelikán, M. (2015). Náhrada škody a nemajetkové újmy v občanskoprávních a obchodních vztazích. (Compensation for damage and non-property damage in civil and commercial relations.) Ostrava: KEY Publishing s.r.o.

¹³ Resolution of the Supreme Court of the Czech Republic of 24 February 2012, file No. 11 Tdo 454/2011.

¹⁴ Resolution of the Supreme Court of the Czech Republic of 31 May 2012, file No. 8 Tdo 1131/2011.

with due diligence, even if he had to find out when accepting or performing the function, and does not draw any consequences for himself.”

Both civil liability (i.e. including the obligation to compensate for damage or issue unjust enrichment, etc.) and public liability (i.e., for example, liability for a misdemeanor, administrative offense, and, in the extreme case, criminal liability) can be inferred from the breach of any of these obligations). In this context, however, it should be noted that the judicature of the Constitutional Court of the Czech Republic shows that civil liability should take precedence over criminal (public) liability.¹⁵

In the event of a breach of the representative's obligations, e.g., by failing to ascertain the usual price of the item to be alienated by the local authority, it is not possible to hide behind the collective body decided in the given case. It will usually be ascertained how the representative voted in a given case. A particular minor advantage of these “*accomplices*” can perhaps be seen only in the joint and several liabilities of these persons, which allows claiming recourse (part of the compensation) from other council members, usually according to the degree of participation in the damage. However, this is undoubtedly only a small consolation.

Finally, councilors cannot rely on the sometimes recurring mantra in business corporations that “*where there is no prosecutor, there is no judge.*” If the self-governing territorial unit has caused damage by violating the representative's liability, the latter is obliged to claim it from the wrongdoer (representative). Otherwise, such self-government, or representatives who neglect the liability, commit a breach resulting in further damage. Unlike business corporations, a change in the ranks of persons deciding whether to claim damage or not can be expected here.

3. General Criminal Liability of Representatives of Territorial Self-Governing Units

As indicated above, in addition to civil liability (especially the incurrance of an obligation to pay damages), public liability can be invoked, frequently in the form of criminal liability, even though it should be a means used more in extreme, exceptional cases (*ultima ratio*).

Some conclusions already made in the interpretation of the origin of the obligation to compensate for damage can also be used in considering the origin of criminal liability, e.g., the obligations that may be breached, i.e. the obligation to act with due diligence, the obligation to determine the usual price, etc. However, when determining whether a representative has committed a certain criminal offense, the question of whether the factual basis of a specific criminal offense has been fulfilled will be relevant. In a specific case, it may be, for example, the fulfillment of the criminal offense of abuse of power of an official in the sense of the provisions of §329 of Act No. 40/2009 Coll., The Criminal Code, as amended (hereinafter the “**CC**”), the criminal offense of the breach of the administration of third-party property in the sense of § 220 of the Criminal Code, or the criminal offense of breach of duty in the administration of third-party property due to negligence (§ 221 of the Criminal Code), etc.

The conduct of criminal proceedings against a member of the council cannot be considered a disproportionate interference with the right of self-governing territorial units to self-government guaranteed by the Constitution of the Czech Republic as confirmed in the judicature of the Constitutional Court of the Czech Republic.¹⁶

As already stated in the interpretation of the assumptions of the occurrence of damages, the individual cannot hide behind the decision of the col-

¹⁵ Cf. Judgment of the Constitutional Court of the Czech Republic of 3 March 2005, file No. II. ÚS 413/04.

¹⁶ Resolution of the Constitutional Court of the Czech Republic of 6 June 2007, file No. II. ÚS265/07.

lective body. However, this conclusion must not lead to representatives avoiding decision-making. After all, even an unavoidable decision can lead to damage (after all, especially in situations that we will consider below.¹⁷

The most fundamental conclusion follows directly from the need to perform the function in the elected body (i.e., in the council, committee, or the function of a mayor, regional representative, etc.) with the so-called “*necessary knowledge*”. The person obliged to act with due diligence either has this knowledge of his own or has the opportunity to obtain it from third parties — consultants and experts. If an individual relies on such information, and if the information cannot be assumed, without a reasonable reason, incorrect, then it is not possible to infer a breach of liability to act with the necessary knowledge and usually no breach of liability to act with due diligence in the sense of § 159 of the Civil Code. In other words, if someone relies on an opinion given by a law firm unless this is manifestly incorrect, the intention to breach the liability cannot be inferred.¹⁸ At the same time, it will also be challenging to infer negligence in such a situation.

It is also essential to be aware that a local government is not a business corporation that should operate for profit. Thus, the representatives’ decisions do not always have to be guided by the financial *ratios* or achieve the maximum possible profit. This conclusion is quite apparent in the case of local governments. However, there must be another legitimate (and public!) interest to which the decision is directed. Such an interest can be protected not only by the self-governing territorial units but

also by the business corporations. The High Court in Olomouc recently confirmed this fact in its landmark decision.¹⁹

In general, representatives can always be advised first to get acquainted with all relevant legislation and liabilities. They should always be able to justify all their decisions duly. It is also appropriate to keep all the documents for their decisions, even though the law does not impose the transfer of the burden of proof in the performance of the function of a representative, as is the case in the law of business corporations.²⁰ Finally, it can also be recommended to always take in the necessary experts for decision-making to process expert opinions, i.e., lawyers, economists, builders, etc., to maintain decision-making “*with the necessary knowledge*”. It is also advisable to devote “*a sufficiently long time*” to decision-making. In the Open card case, the prosecution reprimanded the Prague City Council for devoting only 30 minutes to such a complex case.²¹ However, something like this cannot be expected in the case of crisis decisions, such as during the COVID-19 pandemic.

4. Public Procurement During the COVID-19 Pandemic

Now, we are finally coming to the decision-making process of representatives in public procurement in the context of the (still) current coronavirus pandemic.

Public procurement is generally regulated by the Code of Public Procurement (ZZVZ). The code is based on several fundamental principles,²² including transparency, proportionality, equal treat-

¹⁷ Resolution of the Supreme Court of the Czech Republic of 9 December 2012, file No. 5 Tdo 827/2012.

¹⁸ Resolution of the Supreme Court of the Czech Republic of 19 January 2011, file No. 5 Tdo 848/2010.

¹⁹ Judgement of the High Court in Olomouc of 20 October 2021, file No. 8 Cmo 113/2021.

²⁰ As amended, Cf. provisions of § 52 par. 2 of Act No.90/2012 Coll., on Business Companies and Cooperatives (the Business Corporations Act).

²¹ Toman, P. (2015) *Trestněprávní odpovědnost zastupitelů (Criminal liability of representatives)*. Právní prostor. (Legal space) p. 160. IN: file:///C:/Users/Martin/AppData/Local/Temp/Toman.pdf

²² Cf. e.g., Kruták, T., Krutáková, L., Gerych, J. (2020). Zákon o zadávání veřejných zakázek s komentářem k 1. 9. 2020. (Public Procurement Act with commentary on 1 September 2020.) Olomouc: ANAG.

ment, and non-discrimination.²³ These principles then guide the individual procedures for public procurement. A particular other public interest must justify exceptions to them in breach of these principles. This can easily lead to significant distortions of competition and cuts in public finances.

However, these procedures suffer from one significant ailment – many formalisms and relatively long deadlines, for which the time from the start of the procurement procedure to the conclusion of the contract (until its fulfillment) can take many months. The Code of Public Procurement (ZZVZ) and related legislation, of course, provide for non-standard situations. Furthermore, at the onset of the COVID-19 pandemic, it was up to the representatives to what extent and how they were able to apply these exceptions.

First of all, it should be noted that the provisions of § 29 (c) of the Code of Public Procurement defines the exception to the public procurement awarding in compliance with the Code of Public Procurement (ZZVZ) in case of the existence of security measures created based on other legal regulations under the current conditions when it is not (objectively) possible for the contracting authority to take such a measure that would allow the performance of the procurement procedure. The interpretative opinion of the Ministry for Regional Development of the Czech Republic, *“Possibilities of contracting authorities in awarding public contracts in an emergency and crisis management regime”*, cites as an example the immediate purchase (outside tenders) of *“respirators, masks, medicines, medical devices, etc.”* necessary to fulfill a public task, such as, inter alia, the protection of the health and life of citizens, persons of the in-

tegrated rescue system, doctors, patients, etc. However, such an exception does not apply to the standard award of public procurements, e.g. the everyday operational needs of contracting authorities.²⁴

Another option offered by the Code of Public Procurement (ZZVZ) was a negotiated procedure without publication within § 63 par. 5 of the Code of Public Procurement (ZZVZ) requiring extremely urgent circumstances which the contracting authority could not have foreseen or caused, and at the same time, the fact that deadlines (not even shortened!) for some of the more transparent procurement procedures (such as the open procedure) cannot be met. There should not be the possibility to comply with the deadlines for, for example, simplified sub-limit procedures (§ 52 (b) (2) of the Code of Public Procurement (ZZVZ)).²⁵

In this context, the European Commission has issued Guidelines for Using the COVID-19²⁶ Crisis Procurement Framework, which states that in urgent cases, potential suppliers inside and outside the EU can be contacted directly, hired intermediaries, sent representatives to countries with the necessary supplies, all under the conditions of a negotiated procedure without publication, or other extraordinary contract institutes. Thus, although one paragraph of that document states that the purchase may be made within a few days or even hours, it all refers to Article 32 of Directive 2014/24 / EU, which governs the negotiated procedure without prior publication. According to the Commission, direct award to a selected economic operator can only be possible concerning a single supplier on the market.²⁷

In its communication, the European Commission, therefore, recommended using the possibili-

²³ Provisions of § 6 of the Code of Public Procurement (ZZVZ).

²⁴ Opinion of the Ministry of Regional Development of the Czech Republic (2020). Možnosti zadavatelů při zadávání veřejných zakázek v nouzovém stavu a režimu krizového řízení. (Possibilities of contracting authorities when awarding public procurements in a state of emergency and crisis management regime.) IN: www.portal-vz.cz

²⁵ Ibid.

²⁶ In particular, the Commission Communication of 1 April 2020, No. 2020 / C 108 I / 01, European Commission Guidelines on the Application of the Public Procurement Framework in the emergency related to the COVID-19 crisis.

²⁷ Ibid.

ty of shortening deadlines in urgent cases in the first instance. This procedure leads to a standard, so-called open procedure of 15 days instead of 35 days. However, this may not be sufficient in all cases. Therefore, the Commission offered the second opportunity to use the Negotiated Procedure Without Publication (“NPWP”) (“JŘBU”) but drew attention to the judicatory of the Court of Justice of the EU on the exceptional use of NPWP (JŘBU). Within NPWP (JŘBU), contracting authorities can negotiate with potential suppliers directly.

Conditions for the use of NPWP (JŘBU) include (i) an event that the contracting authority could not have foreseen; (ii) extreme urgency, when the general deadline cannot be met; (iii) the causal link between unforeseeable events and cases of extreme urgency; and (iv) use only until more durable solutions are found.²⁸ The COVID-19 pandemic could be considered an unpredictable event for any client at the beginning of 2020.²⁹ There is no doubt that the most urgent needs of, e.g., hospitals, needed to be met as quickly as possible. Whether it seemed impossible to meet the shortened deadlines must be assessed on a case-by-case basis. Moreover, according to the judgment of the Court of Justice of the EU in Case C-352/12 of 20 June 2013, in the event of an extremely urgent situation, it must be possible to award the contract without delay.³⁰

The causal link between unforeseeable events and cases of extreme urgency is unlikely to be challenging to establish in these situations. However, what can cause difficulties in practice is the time until more lasting solutions are found, such as framework agreements. In other words, in 2022, such a long time has passed since the beginning of

the COVID-19 pandemic that it is no longer possible to “make excuses” for the crisis. At the beginning of the crisis, the contracting authorities could use nonstandard institutes, especially the Negotiated Procedure Without Publication (JŘBU). However, until now, they have had enough time to expect the need to purchase respirators.

However, the situation may change significantly over time. Mutations in coronavirus lead to significantly different demands on the health and social system, vaccination of the population, effectiveness of vaccination against the coronavirus variant that is currently the most widespread in the population, etc. Situations of “extreme urgency” can also occur in an entirely local way, i.e., affecting a higher (extraordinary) population rate in a particular municipality, in a specific home of social services, etc. Then it may again be necessary to react quickly, without the possibility of meeting the Code of Public Procurement (ZZVZ) deadlines.

So what should the representatives prepare for in the light of the above conclusions? If they doubt the correctness of their actions from the pandemic, they can undoubtedly be calmer. Nonstandard institutes were usually possible, but the conditions were met. The purchase of routine operating items through Negotiated Procedure Without Publication (JŘBU) will thus usually be challenging to defend.

The later these institutes were used, the more the conditions were no longer met, as the criterion of “unpredictability” would usually be missing. Furthermore, it is necessary to realize that the market determines the price of supplies or services (often, the offer with the lowest bid price is selected). Conversely, when using Negotiated Procedure

²⁸ The Commission Communication of 1 April 2020, No. 2020 / C 108 I / 01, European Commission Guidelines on the Application of the Public Procurement Framework to the COVID-19 Crisis.

²⁹ Cf. Bříza, P. (2020). Koronavirus jako důvod neplnění smluvních povinností v domácím i přeshraničním obchodním styku, aneb lze pozdní dodávku ospravedlnit virem? (Coronavirus as a reason for non-fulfilment of contractual obligations in domestic and cross-border business, or can the virus justify late delivery?). Epravo.cz. IN: <https://www.epravo.cz/top/clanky/koronavirus-jako-duvod-neplneni-smluvnich-povinnosti-v-domacim-i-preshranicnim-obchodnim-styku-aneb-lze-pozdni-dodavku-ospravedlnit-virem-110791.html>

³⁰ Judgement of the Court of Justice of the EU in Case C-352/12 of 20 June 2013, paragraphs 50 to 52.

Without Publication (JŘBU), representatives must defend the price of a given supply/service purchased under non-market conditions. Everyone remembers the price fluctuations of respirators at the beginning of 2020, for which in March 2020, the Ministry of Finance of the Czech Republic even issued a notice regulating the price.³¹ Even the acquisition of goods or services in times of crisis must be made with forethought, mainly at the usual price. At the very least, the opposite approach leads to suspicions of a breach of liability in the administration of third-party property and thus to speculation about the possible origin of the obligation to compensate for damage.

Therefore, to avoid the risk of some form of legal liability in their decisions, councilors should first assess whether the situation in which their self-government currently finds itself is extraordinary. Furthermore, documents that prove these facts should be archived, e.g. in the form of photo documentation. As times are highly turbulent, it is also advisable to have sufficient training in areas that may be currently relevant, i.e. crisis management is offered and training in public procurement law. It may also be appropriate to develop a crisis strategy for the various cases in a given territorial self-governing unit, including the relevant legal procedures.

5. Summary

Representatives have been facing many complex tasks these days and before the COVID-19 pandemic. In making decisions, they may fail their liabilities resulting in private (e.g., the obligation to pay damages) and public liability (including criminal liability).

For the representative (including a member of the council, the mayor, the regional representative, etc.) to reduce these risks, he should, above all, make his decisions in a sufficiently informed manner. Therefore, if the decision-making is in an area that is not close to the person, he/she should be provided with expert advice, e.g. in the form of an expert opinion, legal opinion, etc. Individual decisions must also be duly substantiated and documented. However, something like this is not always possible during emergencies, and these principles do not go entirely aside even in such cases. The example of public procurement law shows that the law remembers crises. However, if they disappear or are no longer unpredictable, non-standard procedures can no longer be excused.

The councilors are fully responsible for requesting expert assessments for their decisions, insisting on proper procurement procedures, and even making decisions for a sufficiently long time. Otherwise, they may raise more or less reasonable suspicions that they did not act in compliance with the law.

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³¹ Decree of the Ministry of Finance of the Czech Republic of 4 March, 2020 No. 3/2020, which amends the list of goods with regulated prices issued by the Ministry of Finance No. 01/2020.

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The Liability of Representatives of Self-Governing Territorial Units in the COVID-19 Pandemic Context

ABSTRACT

In connection with the COVID-19 pandemic, numerous challenges were faced, among others, by representatives of local governments. They had to decide on several issues concerning, for example, the purchase of protective equipment, their specific use, the application of work (or service) procedures to employees of the local government to prevent COVID-19 disease, etc. These were often highly complex management decisions with a high risk of legal liability. In practice, this is usually civil liability (most often in an obligation to pay damages) or public liability (misdemeanor or even criminal liability). The paper tries to point out the general rules of these forms of responsibility, which do not change, especially in a situation as extraordinary as the global pandemic undoubtedly represents.

KEYWORDS

Liability; Damages; Criminal Liability; Representative; Regional Self-Governing Unit; Managerial Decision Making

JEL CLASSIFICATION

K20

Motives and Barriers to IPO Implementation in the CEE Region Conditions

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* *Introduction*

The academic literature considers the initial public offering (IPO) to be an exceptional moment across the life stages of a company, and therefore considerable attention is paid to the study of its motives (Pagano et al., 1998; Ross et al., 1996; Meluzín and Zinecker, 2009; Loughran, T., JR Ritter, and K. Rydqvist, 1994). Company-specific motives include, in particular, the acquisition of external capital, while external factors stimulating the implementation of an IPO usually include investment sentiment, i.e. the development of the capital market of a given economy. This article focuses on identifying internal, i.e. intra-firm factors that influence decisions on the company's entry into the capital market in a public offering of shares in the conditions of selected markets in Central and Eastern Europe. The development of stock exchanges in CEE is far behind the markets from Anglo-Saxon countries. The only stock exchange which can compete in terms of the amount of IPO is the Warsaw stock exchange. A question arises if this is due to the lack of competitive domestic and foreign business entities interested in implementing IPO in CEE markets or specific barriers that prevent them

from doing so. The novelty of this survey consists of gathering primary data from CFOs of surveyed companies from the CEE region that implemented IPO between the years 2004–2016. Their opinions on why and when they intended to implement IPO were not surveyed as often as in their “western” colleagues. There is a lack of evidence on internal motives for IPO in this region, and there is a question whenever the existing IPO theories can be applied in the CEE region.

Literature background

Recent research in Central European countries identifies the possibility of raising capital as the most important reason for an IPO and paying the debts, and improving the public image for marketing reasons (Meluzín, Zinecker and Lace, 2016). In Anglo-Saxon countries, the authors identify the capital gain as the main driver for IPO (Kim and Weisbach, 2008; Bancel and Mittoo, 2009; Draho, 2008; Ljungqvist 1995). Another determinant is the ability to raise awareness of a company and improve its image (Carey et al., 2015; Cook et al., 2006). Notably, existing shareholders can benefit significantly from implementing an IPO, as prior

studies repeatedly emphasize (Rydqvist and Högholm, 1995; Jargot, 2006; Ritter, 2011). Besides, existing shareholders can carry out generational change (Black and Gilson, 1998; Pagano, 1996; Mello and Parsons, 1998; Bancel and Mittoo, 2009; DeTienne et al., 2015; Modigliani and Miller, 1963). However, in addition to the motives for the IPO, the authors also identify entry barriers into the capital markets. These include mainly the costs associated with the IPO process. In general, according to the Oxera study (2006), the costs of an IPO are divided into the costs of realizing the primary issue and the costs of public trading of securities. Certain costs are directly related to launching the company on public capital markets and are divided into direct and indirect costs of IPO implementation. The direct costs are in the form of fees to subscribers, fees for admission of shares to trading on the markets, fees to audit professionals, legal and other services, marketing costs and internal costs of the company related to the implementation of the IPO. The indirect costs of the IPO include, in particular, the initial undervaluation of the share issue price. Loughran and Ritter (1995) and Paleari et al. (2006) studied the phenomenon of undervaluing the price of primary securities. From the issuer's point of view, the undervaluation of securities is an implicit cost. The problem of underestimating the issue price of shares is most often associated with the so-called information asymmetry (Hoque, 2013) Meluzin et al. (2014) state that the essence of information asymmetry is that investors have less information available than issuers. Issuers thus underestimate the quality of the issue. The authors mention the diversity of investors and their approaches to information crucial for investment decisions (Myers, 1984). Better informed investors will want to invest in undervalued stocks, while less-informed investors will invest in random stocks without price discrimination. Čornačič and Novák (2013) conclude that especially in emerging markets, issuers are significantly less informed than those on established capital markets due to more pronounced information asymmetry.

Also, in these emerging markets, alternative methods of communication were often absent (Allen and Faulhaber, 1989; Chemmanur, 1993). Authors such as Paleari et al. (2006) state that the company's activities will be critically monitored in detail after the IPO. On the one hand, there will be shareholders whose different reactions to the company's financial results may affect the share price. On the other hand, there will be potential investors, analysts, banks, business partners, competitors and other entities monitoring the company's performance. Companies that believe disclosing sensitive information will harm their interests will not implement an IPO (Yosha, 1995). The development of the stock market in Central and Eastern Europe is somewhat different from the development of the advanced capital markets of Western Europe. The reasons for these differences can probably be seen mainly in the historical development, the development of legislation, but also the socio-cultural aspects. Countries such as the Czech Republic, Slovakia, Hungary, Croatia, Bulgaria, Romania and Poland, part of Central and Eastern Europe and currently belong to the European Union, currently have harmonized IPO legislation. However, in terms of the number and volume of primary emissions, these markets differ widely. While in Poland dozens of emissions have been carried out per year over the last 15 years, in other countries of the region, there are only units of IPO (Meluzín, Zinecker and Łapińska, 2014; Brzeszczynski, 2014; Peterle, 2013; Roženský 2008; Peterle and Berk. 2016). Therefore, a question arises of how CFOs perceive the motives and barriers of implementing IPOs and whether their attitudes and perceptions coincide with those found in the conditions of developed capital markets. The results presented in this article are based on the primary data of a sample of 33 companies that conducted IPOs on selected local stock exchanges in the CEE region. The data collection took place in 2018 and 2019. The article follows the research of Meluzín and Zinecker (2014) and Meluzín et al. (2018). While these authors addressed the perception of IPO opportuni-



ties and risks in terms of CFOs in only two markets in the region (the Czech Republic and Poland), this article offers results for a total of six countries in the region (the Czech Republic, Poland, Hungary, Croatia, Bulgaria and Romania).

Methodological approach

A questionnaire survey was chosen for primary data collection, as it can be used to obtain completely new knowledge about issuing companies and their management attitudes (CFOs), which would not otherwise be possible to ascertain from publicly available sources. In order to collect data, a questionnaire was sent to the CFOs of a selected sample of companies. This questionnaire aimed to assess the attitudes and opinions of individual financial managers regarding internal motives and barriers that influenced their decision to conduct an IPO. The research sample was represented by companies that conducted IPOs on selected local stock exchanges, specifically in the Czech Republic, Poland, Hungary, Croatia, Bulgaria and Romania. The list of respondents was compiled from the stock exchanges lists of issuers. These issuers were private companies (respondents) that implemented IPOs on the primary and secondary markets of the relevant national stock exchanges from 2004 to 2016. The reasons for choosing such respondents were the development of local capital markets after joining the European Union. The sample of respondents then amounted to 150 subjects. For the individual questions of the questionnaire, the respondents had to indicate the degree of their agreement with the given opinion on a five-point Likert scale (1 minor importance to 5 significant importance). The results of the survey were evaluated using the methods of descriptive statistics. The survey took place in two phases. The first phase of the survey took place in 2018. The second phase was carried out in 2019. At first, only a few companies replied to the questionnaires sent by e-mail. After this initial failure in the data collection, telephone contact was made with selected companies.

Due to the complexity of the questionnaire, it was not possible to survey by telephone. The level of willingness to communicate was relatively low for selected companies. Half of those who promised to send the questionnaire back did not do so. After numerous urgencies, 33 completed questionnaires were collected. Therefore, the rate of return of this survey was 33 out of 150 questionnaires sent out, which is in line with the rate of return of other studies performed. It is a 22% return. At the time of the research, several companies from the sample were no longer listed on stock exchanges or had disappeared entirely. It was not easy to contact their representatives, and even the representatives of the stock exchanges did not have the opportunity to pass on the contact. The willingness of companies to cooperate in research was very low, and those who agreed to participate conditioned it on the absolute anonymity of the answers. Respondents were asked to indicate on a scale of 1 to 5, where one indicates unimportant, two relatively unimportant, three neutral, four crucial and five very important, the relative importance of the individual factors influencing an IPOs on the domestic stock exchange. Responses were further analyzed according to the age of the companies, which were divided into “young” and “mature” (<16 years, >16 years since establishment), by the number of employees (small <250, large >250) and by type of ownership (a large number of shareholders, family-controlled and private venture capital). There is a premise that a company’s age might be a significant factor of determination to go public. As the company grows, it might need more capital to finance its business activities. Also, the size of a company can be an important determinant. Small companies might have a different approach to why they go public than large ones. A detailed description of the sample of respondents is shown in Table 1.

Table 1 » Sample

Number of Companies 33		
Variable	Frequency	In %
Size		
Small (employees)	16	48.48
Large (employees)	17	51.52
Ownership		
Widely held	18	54.55
Family-controlled	10	30.30
Privately held	5	15.15
Company Age (in years)		
Young (<16 yrs)	15	45.45
Old Overall (>16 yrs)	18	54.55
Industrial Sector		
Manufacturing	8	24.24
Finance	4	12.12
Technology	6	18.18
Services	4	12.12
Pharmaceuticals	2	6.06
Other	9	27.27
Country of Origin		
Bulgaria	4	12.12
Czech Republic	5	15.15
Croatia	2	6.06
Hungary	4	12.12
Poland	15	45.45
Romania	3	9.09

Source: Own processing, 2020

Conducting research and results – Motives for IPO Implementation

Table 2 shows the summary results of the statistical data processing concerning the motives in favour of the IPO implementation. Motives in favour of IPO implementation are ranked from the most important to the least significant.

“Raising capital to finance investment opportunities”. The companies were first asked about the importance of the stimulus for raising capital to finance investment opportunities. According to the results, the possibility to obtain funds from investors is perceived as one of the most critical IPO motives (84.85% rated with values 4 and 5, on avg. 4.27). For young companies, the possibility to raise



capital was a more significant stimulus than for mature companies (86.67% of young companies rated with value 4 and 5, on avg. 4.4; 83.3% of mature companies rated with value 4 and 5, on avg. 4.1). Small companies need capital greater than mature (87.5% of small companies rated with value 4 and 5, on avg. 4.25; 82.35% of large companies rated 4 and 5, on avg. of 4.29). Private entities with a broad investor base were more motivated to acquire capital than in companies where the family holds the majority share of the registered capital (88.89% of the broadly controlled ones rated with value 4 and 5, on avg. 4.44; 70% of family-owned rated with value 4 and 5, on avg. 3.8; 100 % of privately controlled indicated a value of 4 and 5, on avg. 4.6).

“Improving publicity and company image through IPOs” is one of the main non-financial motives of IPOs. Respondents repeatedly emphasize that the company receives considerable publicity in the media during the preparations and throughout the IPO process. Especially in stock market news, every IPO is an event of the year. The company’s image in the event of a successful IPO will also strengthen, as being a listed company shows its high potential, performance and profitability, which is a benefit for all parties involved (75.76% rated with values 4 and 5, on avg. 3.85). Both young and mature companies are aware that the implementation of IPOs has a significant impact on strengthening publicity and company image, but for young companies, it is a crucial reason for IPOs (93.33% of young companies rated with value 4 and 5, on avg. 4.2; 61.1% of mature companies rated with value 4 and 5, on avg. 3.56). In terms of the size of companies, their attitude to this IPO stimulus is also influential. For small and large entities, improving publicity and image is essential. Small size companies identify it as even one of the most vital stimuli (75% of small companies rated with values 4 and 5, on avg. 3.81; 75.67% of large companies rated with values 4 and 5, on avg. 3.88). Publicity and image improvement is significant for both widely held companies and fami-

ly-owned companies and proved to be relatively unimportant for privately held companies (88.89% of widely held companies rated with values 4 and 5, on avg. 4.06; 80% of family-owned rated with values 4 and 5, on avg. 3.8; 20% of privately held companies rated 4 and 5, on avg. 3.2).

However, **“Being recognized by the relevant financial community as a major company”** is proving to be a very influential stimulus for IPO. Whether banks, equity funds, business angels, venture capitalists or small shareholders, they all bring capital to companies through the capital market. Having the status of a respected subject is therefore very important. Without the financial community’s confidence in a given company, the issue would be doomed to failure and high costs on the issuer’s part. Thus, companies are working hard to strengthen their reputation, and this seems to be decisive for the development of IPOs (69.7% rated with values 4 and 5, on avg. 3.55). The vast majority of young companies and a large part of mature companies want to be a significant player thanks to the IPO (73.33% of young companies rated with value 4 and 5, on avg. 3.73; 66.67% of mature companies rated with value 4 and 5, on avg. 3.39). Most small companies rated this motive as very important, and half of the large companies rated it as necessary (87.5% of small companies rated with values 4 and 5, on avg. 3.94; 52.94% of large companies rated with values 4 and 5, on avg. 3.18). Almost all widely controlled and half of the family and privately-owned companies confirm that recognition of the financial community is a crucial reason for the IPO (77.78% of broadly controlled companies rated with value 4 and 5, on avg. 3.94; 60% family rated with value 4 and 5, on avg. 3.2, 60% of privately controlled rated with value 4 and 5, on avg. 2.8).

The surveyed companies consider the **“increase in the liquidity of securities”** an essential motive for the IPO (60.61% rated with values 4 and 5, on avg. 3.52). The more liquid the securities held in the hands of shareholders, the greater the benefit for them. It shows the potential investors

that it is worth buying these shares and that their potential for other returns is considerable. In general, the liquidity of individual securities traded on the stock exchange signals implementing an IPO. Young companies were highly motivated, and half of the mature companies agreed with young ones (53.33% of young companies rated with values 4 and 5, on avg. 3.53; 66.67% of mature companies rated with values 4 and 5, on avg. 3.5). For both small and large companies, securities liquidity was an essential motive for the IPO (62.5% of small companies rated with values 4 and 5, on avg. 3.5; 58.82% of large companies rated with values 4 and 5, on avg. 3.53). Widely held companies preferred the increase in liquidity through IPOs (66.67% of broadly controlled companies rated with values 4 and 5, on avg. 3.89; 50% of families rated with values 4 and 5, on avg. 3.2; 60% of privately-controlled companies rated with values 4 and 5, on avg. 2.8).

“Being monitored by outsiders (analysts, investors, etc.) in order to increase the company value” is what the companies care about according to the results (57.58% rated with values 4 and 5, on avg. 3.27). Determining the company value before an IPO is an integral part of setting the issue price of a share, and its excessive overvaluation or undervaluation may instead harm the company. How analysts and investors perceive the IPO is crucial to the ultimate success of the issue. Investor sentiment is easily influenced and decisive for IPOs. More than half of young and mature companies want to be monitored very closely by outsiders (53.33% of young companies rated with values 4 and 5, on avg. 3.13; 61.11% of mature companies rated with values 4 and 5, on avg. 3.39). Small and large companies perceive this motive similarly positively (56.25% of small companies rated with value 4 and 5, on avg. 3.25; 58.82% of large companies rated with value 4 and 5, on avg. 3.29). All types of companies by size saw a strong motive for IPO (61.11% of broadly controlled rated with value 4 and 5, on avg. 3.5; 50% of families rated with value 4 and 5, on avg. 2.9; 60% of privately controlled rated with value 4 and 5, on avg. 3.2).

“Reducing the company’s indebtedness” is one of the central IPO motives. In a situation where the company is already too indebted to obtain a loan, for example, from a commercial bank, an IPO appears to be a suitable debt relief tool. Therefore, it is likely that at least half of the respondents faced significant indebtedness in their company, and the IPO was the way to deal with this situation (51.52% indicated 4 and 5, on avg. 3.09). Both young and mature companies perceived debt relief similarly (53.3% of young companies rated with values 4 and 5, on avg. 3.13; 50% of old companies rated with values 4 and 5, on avg. 3.06). More often than large, small companies preferred debt relief in the form of IPOs (56.25% of small companies rated with values 4 and 5, on avg. 3.19; 47.06% of large companies rated with values 4 and 5, on avg. 3). Broadly controlled companies preferred debt relief in the form of IPOs, family and privately controlled companies coincided in the strength of this motive (62.1% of broadly controlled companies rated with value 4 and 5, on avg. 3.39, 40% family rated with value 4 and 5, on avg. 2, 7; 40% of privately controlled rated with value 4 and 5, on avg. 2.8).

“Strengthening bargaining power towards banks and other financial intermediaries” may lead to better interest rates and broader bargaining power to raise capital and other services not only with existing creditors but also with potential new creditors, especially for already indebted companies (48.48% of respondents values 4 and 5, mean 2.94). Young companies slightly less than mature companies needed to strengthen this bargaining power with financial institutions and creditors (46.47% of young companies rated with value 4 and 5, on avg. 3; 50% of mature companies rated with value 4 and 5, on avg. 2.89). In contrast to large companies, small companies also perceived this motive as more important (56.25% of small companies rated with values 4 and 5, on avg. 3.19; 41.18% of large companies rated with values 4 and 5, on avg. 2.71). In terms of ownership, bargaining power was most crucial for broadly controlled companies, less so for family and privately con-



trolled companies (55.56% of broadly controlled companies rated with values 4 and 5, on avg. 3.17; 50% of families rated with values 4 and 5, on avg. 2, 9; 20% of privately-controlled persons rated with values 4 and 5, on avg. 2.2).

“Increasing financial flexibility (creating new financial alternatives)” is also an essential motive for entering the capital market in the form of a direct share offer. The IPO is perceived as an excellent alternative to financing through, for example, bank loans or private investors’ help (45.45% rated with values 4 and 5, on avg. 3.36). Young companies perceived increased financial flexibility as more motivating than mature companies (53.3% of young companies rated with value 4 and 5, on avg. 3.67; 38.89% of mature companies rated with value 4 and 5, on avg. 3.11). Small companies more than large prefer the possibility of obtaining various forms and sources of capital (50% of small companies rated with value the value of 4 and 5, on avg. 3.56, 41.8% of large companies rated with value the value of 4 and 5, on avg. 2.71). Companies with a broad shareholder base rated this motive as much more decisive than those controlled by families (44.4% of broadly controlled companies rated with values 4 and 5, on avg. of 3.3; 40% of families rated with values 4 and 5, on avg. of 3.4; 60 % of privately-controlled rated with values 4 and 5, on avg. 3.4).

“Estimating the market value of a company” is a costly and lengthy process for the issuer. The company is obliged to publish all information about its activities, including financial results, based on which, among other things, the issue price of the share for which the shares are subscribed is determined. The quality of the issue intermediary, the market in which the issue will occur, and many other factors affect the company’s value. This factor is considered essential by the majority of all respondents (45.45% indicated values 4 and 5, on avg. 3.39). Depending on the age of young and mature companies, they want to estimate the value of the company as best as possible, but for the estimation itself, half or less than half of

them want to make an IPO (53.33% of young companies rated with values 4 and 5, on avg. 3.67; 38.89% mature companies rated with values 4 and 5, on avg. of 3.17). Small companies implement IPOs through value estimation in more than half of the cases. Large ones are more restrained (56.25% of small companies rated with value 4 and 5, on avg. 3.56; 35.29% of large companies rated with value 4 and 5, on avg. 3.24). Broadly-controlled companies are more interested in IPOs to estimate the company’s value than family and private (55.56% of broadly controlled companies rated with values 4 and 5, on avg. 3.78; 40% of families rated with values 4 and 5, on avg. 3.3; 20% privately-controlled rated with values 4 and 5, on avg. 2.2).

“Compensation of employees and managers”, an integral part of the company, can be addressed by implementing an IPO. The possibility of their compensation is a significant motive (42.42% rated with values 4 and 5, on avg. 3). Managers are often influential shareholders of the company and, if they leave their positions, they can continue to profit by holding the company’s shares. It is a very promising strategy in cases where managers were also the founders and owners of companies. Although they no longer directly impact the company running, they can still benefit from the success they have committed. Young companies and mature ones prefer this type of compensation (40% of young companies rated with values 4 and 5, on avg. 3.13; 44.4% of mature companies rated with values 4 and 5, on avg. 2.89). In half of the cases, small companies see this option as a motive for IPOs, and more than a third of respondents have a similar opinion (50% of small companies rated with values 4 and 5, on avg. 2.94; 35.29% of large companies rated with values 4 and 5, on avg. 3.06). Broadly controlled and family companies want to compensate employees through IPOs and see this as a significant advantage, rather than private companies (50% of widely owned companies rated with values 4 and 5, on avg. 3.5; 40% family-owned companies rated with values 4 and 5, on avg. 2, 6;

20% of privately controlled rated with values 4 and 5, on avg. 2).

“Reducing the cost of debt and equity” has been a central theme of companies for several decades. Capital cost optimization is one of the effective management tools to gain a competitive advantage and increase the company’s profits. Also, in this survey, it turned out that the focus on costs was quite a significant motive for the IPO (39.39% of companies rated with values 4 and 5, on avg. of 2.7). Interestingly, more than half of young companies considered the optimization of capital costs as important. However, only less than a quarter of mature companies agreed (60% of young companies rated with values 4 and 5, on avg. 3.53 22.2% of mature companies rated with values 4 and 5, on avg. 2). Small companies, rather than large ones, saw IPOs as a tool to reduce the cost of debt and equity (43.75% rated with values 4 and 5, on avg. 2.81; 35.29% of large companies rated with values 4 and 5 on avg. 2.59). Broadly-controlled companies wanted to reduce their debt costs much more than family and privately-controlled companies (55.56% of broadly-controlled companies rated with values 4 and 5, on avg. 3.06; 20% of family rated with values 4 and 5, on avg. 2, 4, 20% of privately-controlled rated with values 4 and 5, on avg. 2).

“Attracting employees with high potential” is essential, especially today, when knowledge capital is the most crucial form of capital. An IPO can also serve as a way to gain these employees through visibility in the labour market. When a company is successful, it attracts successful employees who will be proud to work for the company and thus move forward in their careers. The IPO is a significant motive when looking for a prestigious job and potential employees (39.39% rated with values 4 and 5, on avg. 2.7). When it comes to different companies’ approaches according to age, young and mature companies have different views on this motive. For young, lesser-known companies, quality employees are vital in order to quickly build a good reputation among their customers and in other relationships in the customer-supplier

environment (53.3% of young companies rated with value 4 and 5, on avg. 3; 27.78% mature companies rated with value 4 and 5, on avg. 2.44). The size of companies also had a significant impact on the importance of this motive. While small companies want to attract high-potential employees through IPOs, large ones seem to have other ways to find such employees because they are already known in the markets, and their reputation may be renowned for many years before the IPO (56.25% of small companies rated with values 4 and 5, on avg. 3.06, 23.53% of large companies rated with values 4 and 5, on avg. 2.35). Even when dividing companies by ownership, different views on this motive emerged. Broadly-controlled companies considered it more important than family ones, but it was the least essential for privately-controlled companies (44.4% of broadly-controlled companies rated with values 4 and 5, on avg. 2.83; 40% family companies rated with values 4 and 5, on avg. 2.8; 20% of privately-controlled ones rated with values 4 and 5, on avg. 2).

“Allowing one or more representatives, managers, company owners to diversify their portfolio” is a common motive for an IPO. At some stage in a company’s life, it may be logical for existing owners to leave the company and thus recover the invested and often very well-valued funds to diversify their wealth portfolio. Often, company owners spend several years of their lives building them, which is why an IPO seems to be a suitable way to leave the company entirely or only partially. Research results suggest that the “investor exit” was vital for 36.36% of respondents (rated with values 4 and 5, on avg. 2.67). Young and mature companies had some degree of incentive to make IPOs diversify portfolios (33.3% of young companies rated with values 4 and 5, on avg. 2.67; 38.89% of mature companies rated with values 4 and 5, on avg. 2.67). Small companies emphasized the strong IPO motive in the form of diversification, but this was almost not the case for large companies (50% rated with values 4 and 5, on avg. 3.25; 23.53% of large companies rated with values 4 and 5, on avg. 2.12).



In terms of ownership structure, the diversification motive played a role in broadly-controlled companies. Somewhat less importance was attached to it by family companies, and privately-owned companies did not see any motive for IPO (50% of broadly-controlled companies rated with values 4 and 5, on avg. 3.06; 30% of families rated with values 4 and 5, on avg. 2.50; 0% of privately-controlled rated with values 4 and 5, on avg. 1.6).

“Being listed where financial analysts (and other major financial players) are located” was, according to companies, one of the less critical motives for IPOs (36.36% indicated 4 and 5, on avg. 2.42). Companies probably do not care when deciding on an IPO whether these other entities are present on a given stock exchange. Young companies want to be listed on a stock exchange where major financial players are much more than mature companies which are known and well established (40% of young companies rated with values 4 and 5, on avg. 2.6; 33.3% rated with values 4 and 5, on avg. 2.28). Small and large companies consider this motive less critical (37.5% of young companies rated with values 4 and 5, on avg. 2.5; 35.29% of large companies rated with values 4 and 5, on avg. 2.35). Almost half of the broadly-controlled companies attach importance to this motive, while family and privately held companies perceive it as relatively less unimportant (44.44% of broadly-controlled companies rated with values 4 and 5, on avg. 2.78; 30% of family companies rated with values 4 and 5, on avg. 2.2, 20% of privately-controlled ones rated with values 4 and 5, on avg. 1.6).

“Attracting the attention of financial analysts” can help be well informed about the IPO and help the issue succeed, thus bringing high returns to investors. However, this IPO motive is proving to be less important for all companies surveyed (33.33% rated with values 4 and 5, on avg. 2.33). Only a small proportion of young and mature companies intended to attract analysts by conducting an IPO (33.3% of young companies rated with values 4 and 5, on avg. 2.4, 33.3% of mature compa-

nies rated with values 4 and 5, on avg. 2.28). Small companies were more motivated by analysts’ attention during the IPO than large companies (56.25% of small companies rated with values 4 and 5, on avg. 3; 11.76% of large companies rated with values 4 and 5, on avg. 1.71). In the case of broadly-controlled companies, the interest of analysts is less critical than in the case of family and privately-controlled companies (27.78% of broadly-controlled companies rated with values 4 and 5, on avg. 2; 40% of family rated with values 4 and 5, on avg. 2.6; 40% privately-controlled rated with values 4 and 5, on avg. 3).

“The possibility of exit by investors” is another motive of the IPO, which seems logical. If risk capital is invested in the company and after a particular time these funds are valued, the risk investor wants to sell his share in the company and earn money for the entire transaction. If the company does not want to reduce its profit by paying out this share, an IPO is suitable for paying off venture capital. In the case of these research results, 30.3% of respondents indicated values 4 and 5, on avg. by 2.67. For young companies, the departure of venture capitalists did not play a significant role in IPO decisions; in the case of mature companies, its influence was significantly higher (13.33% of young companies rated with values 4 and 5, on avg. 1.67; 44.4% of mature companies rated with values 4 and 5, on avg. 2.72). Small companies did not perceive this motive as ultimately decisive for the IPO. Large ones were affected even less. (31.25% of small companies rated with values 4 and 5, on avg. 2.06, 29.41% of large companies rated with values 4 and 5, on avg. 2.41). However, in terms of motives by type of ownership, privately-controlled companies were understandably much more interested in allowing these capitalists to leave through IPOs than in broadly controlled and family-controlled companies (22.2% of broadly-controlled companies rated with values 4 and 5, on avg. 2.06; 30% of families rated with values 4 and 5, on avg. 2.1; 60% of privately-controlled rated with values 4 and 5, on avg. 3.2).

“Create publicly traded shares for use in future acquisitions.” In today’s globalized world, it often happens that after a company becomes successful in its industry, it changes its ownership structure and acquires another company or becomes part of the acquisition itself. In many cases, the merger of several companies will create a multinational company, in which the IPO appears to be the way to make this acquisition easier (30.3% indicated 4 and 5, on avg. 2.55). However, young companies did not prefer the possibility of acquisition as a reason for IPO, and even in the mature companies, the creation of public shares was not carried out only because of possible future acquisitions (26.67% of young companies rated with values 4 and 5, on avg. 2.47; 33.3% mature 4 and 5, on avg. 2.61). Small companies perceived IPOs as an opportunity for acquisitions better than large ones (37.5% of small companies rated with values 4 and 5, on avg. of 2.75; 23.53% of large companies rated with values 4 and 5, on avg. of 2.35). Privately-controlled companies were most likely to opt for an IPO as a tool for future acquisitions, broadly-controlled companies tended not to consider acquisitions as a sufficient motive, and family companies would instead not make IPO because of an acquisition (27.78% of broadly-controlled companies rated with values 4 and 5, on avg. 2.5; 20 % of families rated with values 4 and 5, on avg. 2.4, 60% of privately-controlled rated with values 4 and 5, on avg. 3).

“Expansion of co-ownership” is also a frequent reason given by the literature for an IPO. It is a tool to reduce the influence of individual shareholders. If one or a few shareholders control the company by a narrow majority, disagreements may arise in strategic decision-making. In expanding the shareholder base, this influence may subside, making it easier to reach a consensus. However, as the survey results suggest, fewer decision-makers can manage the company more effectively and achieve the set goals without the need for broad agreement. Companies are not too motivated by expanding their ownership base (24.24% rat-

ed with values 4 and 5, on avg. 2.73). Young companies are not motivated by changes in ownership almost at all, mature companies perceive this slightly more positively, but this motive is still not decisive (20% of young companies rated with values 4 and 5, on avg. 2.6; 27.78% of mature companies rated with values 4 and 5, on avg. 2.83). In terms of size, small companies, according to the results, would instead expand the number of investors than large ones, where a large group of shareholders already exists (37.5% of small companies rated with values 4 and 5, on avg. 2.47; 11.76% of large companies rated with values 4 and 5, on avg. 2.47). When it comes to ownership structure factor, both broadly controlled companies and family-controlled companies as well as privately-controlled companies see some degree of motivation for IPOs in expansion but do not rank them among the primary motives (27.78% of broadly-controlled companies rated with values 4 and 5, on avg. 2.61; 20% of families rated with values 4 and 5, mean 2.9, 20% of privately-held rated with values 4 and 5, avg. 2.8).

According to the respondents, **“to solve the problem of succession by IPO implementation”** does not seem to be an important motive. However, if one generation of owners wants to hand over the company to their successors, the IPO is a way to make a generational change (21.21% rated with values 4 and 5, on avg. 1.88). This motive was not significant even in terms of the age of the companies (13.33% of young companies rated with values 4 and 5, on avg. 1.8; 27.78% of mature companies rated with values 4 and 5, on avg. 1.94). Furthermore, according to size, the companies again agreed that the IPO was not motivated by the need to resolve succession (12.5% of small companies rated with values 4 and 5, on avg. 1.5; 29.41% of large companies rated with values 4 and 5, on avg. 2.24). Finally, the strength of the motive was not reflected in the ownership structure, although family companies did not consider it too necessary to solve the problem of succession through the implementation of IPO (22.2% of broadly-controlled



Table 2 » Survey Results — Motives for IPO Implementation

Company Representatives' Answers	Mean	Most Common Value	Appearance Frequency	S. Deviation	Answers in %
Raising capital to finance activities	4.27	5	18	1.02	84.85
Improving the publicity and image	3.85	4	7	0.96	75.76
Company recognition	3.55	4	5	1.18	69.70
Increasing the liquidity of securities	3.52	4	7	1.18	60.61
Monitoring by outsiders	3.27	4	3	1.14	57.58
Reducing the company's indebtedness	3.09	4	2	1.19	51.52
Strengthening bargaining	2.94	1	8	1.59	48.48
Increasing financial flexibility	3.36	5	9	1.27	45.45
Estimating the company's market value	3.39	3	8	1.23	45.45
Compensating employees and managers	3.00	4	4	1.28	42.42
Reducing debt and equity costs	2.70	4	1	1.27	39.39
Attracting employees with high potential	2.70	4	0	1.19	39.39
Allow owners to diversify their portfolio	2.67	1	3	1.39	36.36
Be where financial analysts are located	2.42	1	0	1.33	36.36
Attracting the financial analysts' attention	2.33	1	0	1.29	33.33
Possibility of exit from investors	2.24	1	6	1.65	30.30
Create traded shares for acquisitions	2.55	2	5	1.42	30.30
Expanding the co-ownership structure	2.73	2	2	1.08	24.24
Solve succession problem by IPO	1.88	1	4	1.45	21.21
Following competitors	1.70	1	2	1.36	21.21

Source: Own processing, 2020

companies rated with values 4 and 5, on avg. 1.94; 30% family rated with values 4 and 5, on avg. 2.1; 0% of privately-controlled rated with values 4 and 5, on avg. 1.2).

“Following competitors / similar listed companies” could seem like a clear signal to the IPO. According to the respondents, this may not be the case at all. Companies enter the stock exchange for their motives, so the mere fact that competitors carry out on IPO is not enough for them. Each company develops at its own pace, and to reaches the stage where it needs additional capital to develop investments. The implementation of the IPO is a crucial step in company's life, so it is preceded by

careful preparation and evaluation of the situation. It may explain the low impact of this motive (21.21% rated with values 4 and 5, on avg. 1.7). Young and mature companies were only slightly affected by the competition listing (13.33% of young companies rated with values 4 and 5, on avg. 1.4; 27.78% of mature companies rated with values 4 and 5, on avg. 1.94). Large companies were motivated by competitive admissions even more minor than small ones, which, however, also did not describe this motive as significant (25% of small companies rated with values 4 and 5, on avg. 1.88; 17.65% of large companies rated with values 4 and 5, on avg. 1.53). Broadly-, family- and private-

ly-controlled companies do not tend to implement IPOs at a time when their competitors (27.78% of broadly-controlled companies rated with values 4 and 5, on avg. of 1.94; 10% of families rated with values 4 and 5, on avg. 1.3, 20% privately-held rated with values 4 and 5, on avg. 1.6).

Conducting research and results – Barriers to go Public

Analogous to the advantages of IPO, the identified barriers are ranked from most important to least decisive. Details of statistical data processing can be found in Table 3.

“The IPO requires us to disclose information that is key to maintaining a competitive advantage.” Most companies found agreement here (75.76% rated with values 4 and 5, on avg. 4.21). This obligation is imposed on companies by valid legislation and stock exchange rules, and issuers are obliged to publish information for transparency of initial public offerings on the stock market. Although competitive advantage is something that companies guard strictly, it becomes a tool for success in relation to investors in the case of an IPO. Young and mature companies agreed with this statement in the vast majority of cases, so the age factor does not matter (73.33% of young companies rated with values 4 and 5, on avg. 4; 77.78% of mature companies rated with values 4 and 5, on avg. 4.39). In the case of small companies, almost all agreed that the IPO is associated with disclosure of information and competitive advantage (87.5% rated with values 4 and 5, on avg. 4.38). In most cases, even large companies agreed with this (64.71% rated with values 4 and 5, on avg. 4.06).

Concerning the type of ownership of companies, it appears that broadly-controlled and family-controlled companies agree very strongly with the statement that disclosure is an IPO issue. (72.22% of broadly-controlled companies rated with values 4 and 5, on avg. 4.28; 90% of families rated with values 4 and 5, on avg. 4.4). In privately-controlled companies, more than half agree (60% of privately-

controlled companies rated with values 4 and 5, on avg. of 3.6).

“The effort to maintain control over the company has played a significant role in our company.” Half of the companies perceived this statement as accurate (69.7% rated with values 4 and 5, on avg. 4.12). This statement was rated with a value of five by most companies. In total, 21 of them, it is therefore essential that in the IPO, the company correctly chooses the number of new shares it wants to subscribe to the public, what institutional investors they choose and how many shares new shareholders will get. Young companies did not address the intention to retain control over the company as the mature ones (66.67% of young people rated with values 4 and 5, on avg. 4; 72.22% of mature companies rated with values 4 and 5, on avg. 4.22). However, large companies were worried about losing control, significantly more than small companies (62.5% of small companies rated with values 4 and 5, on avg. 3.94; 76.47% of large companies rated with values 4 and 5, on avg. 4.29). Publicly-held companies wanted to maintain the most control (77.7% rated with values 4 and 5, on avg. 4.5). For privately-controlled and family companies, the desire to maintain decision-making control also played a significant role (60% of privately-controlled companies rated with values 4 and 5, on avg. 3.2; 60% of family companies rated with values 4 and 5, on avg. 3.9).

“When we made the IPO, there were alternative sources of capital that were more flexible (e.g. in terms of time or administration).” This statement was supported by many companies (66.67% indicated values of 4 and 5, on avg. 3.64). With large volumes of required capital, the administrative burden is relatively significant. Banks and other potential creditors generally ask for guarantees to repay the debt, i.e. in the form of pledges, sufficient profit generation, optimized inventories, etc. (77.78% rated with values 4 and 5, on avg. 4). During the IPO, young companies were also interested in other more advantageous sources (53.33% rated with values 4 and 5, on avg. 3.2). More ad-



ministratively available sources of capital at the time of the IPO were registered mainly by large companies. (70.59% indicated 4 and 5, avg. 3.71). However, even small companies sought other sources of capital (62.5% indicated a value of 4 and 5, on avg. of 3.56). All privately-controlled companies agreed with this statement, family and widely-controlled companies agreed with an absolute majority (100% of privately-controlled companies rated with values 4 and 5, on avg. 4.4; 66.67% of broadly-controlled companies rated with values 4 and 5, on avg. 3, 72; 50% of family-owned rated with values 4 and 5, on avg. 3.1).

“When we made the IPO, there were alternative sources of capital that were cheaper.” Half of the companies were aware of other sources of capital during the IPO, which were less expensive (54.55% rated values of 4 and 5, on avg. 3.45). The advantage of capital obtained in the form of an IPO lies mainly in the fact that it is not necessary to return it to creditors, as is the case with debt capital, with the issue of corporate bonds, obtaining bank and non-bank loans, etc. Even though debt capital may be cheaper at the time of acquisition, its return to creditors at a given time may be an obstacle. Especially mature companies entirely identified with this (88.89% rated with values 4 and 5, on avg. 4.28).

On the other hand, young companies did not focus on other possibilities of raising capital (13.33% rated with values 4 and 5, on avg. 2.47). In terms of size, small and large companies were interested in alternative cheaper capital (68.75% of small companies rated with values 4 and 5, on avg. 3.88; 41.18% of large companies rated with values 4 and 5, on avg. 3.06). Even the ownership structure did not change the views of the surveyed companies much. Half of all broadly-controlled and family companies agreed with the statement. Representatives of privately-controlled companies strongly agreed with the claim that cheaper capital was available at the time of their IPO (50% of broadly-controlled companies rated with values 4 and 5, on avg. 3.17; 50% of families rated with values 4 and 5,

on avg. 3.4; 80% privately-owned indicated 4 and 5, on avg. 4.6).

“When we implemented the IPO, the asymmetry of information between external investors and the company was a major problem.” More than half of all 33 surveyed companies agreed with this (51.52% indicated values 4 and 5, on avg. 3.03). Asymmetry of information is an accompanying phenomenon of IPO, which more or less every issuing company and investor encounters, and its limitation is vital for the success of IPO. Young companies and mature ones perceive the asymmetry of information as a very significant problem (46.67% of young companies rated with values 4 and 5, on avg. 3.07; 55.56% of mature companies rated with values 4 and 5, on avg. 3). Small companies saw information asymmetry as a big problem (75% rated with values 4 and 5, on avg. 3.69), but only a small proportion of large companies perceived it the same (29.41% rated with values 4 and 5, on avg. 2.41). Companies with a broad co-ownership structure and family-controlled companies solved the problem of information asymmetry more significantly than privately controlled companies (55.56% of broadly-controlled companies rated with values 4 and 5, on avg. 3.06; 70% family-owned rated with values 4 and 5, on avg. 3.6; 0% of privately-controlled companies rated with values 4 and 5, on avg. 1.8).

“Reporting requirements under the law and stock exchange regulations have been a major problem for our company.” Only a few surveyed companies found agreement (18.18% rated with values 4 and 5, on avg. 2.33). Companies operating in the European Union and issuing shares are obliged to disclose financial and non-financial information in a harmonized form, and following the E.U. legislation as mentioned above, so that the information about IPO is understandable, truthful for investors and interest groups and that investors can make an informed decision on a purchase of shares. Young companies less than mature considered reporting requirements a problem, probably due to existing reporting rules at their creation.

However, the old companies had to switch to new standards afterwards (0% of young companies rated with values 4 and 5, on avg. 1.53; 33, 3% of mature companies rated with values 4 and 5, on avg. 3). For small companies, legal and stock exchange requirements were less of a problem than for large companies (18.75% of small companies rated with values 4 and 5, on avg. 2.44; 17.65% of large companies rated with values 4 and 5, on avg. 2.24). Differently controlled companies agreed that reporting according to the law and the rules of the stock exchange is not a major problem in the IPO (11.11% of broadly-controlled companies rated with value 4 and 5, on avg. 2.17; 20% family-owned rated with values 4 and 5, on avg. 2, 4; 40% of privately-controlled rated with values 4 and 5, on avg. 2.8).

“Trying to avoid weakening ownership has played a significant role in our company.” Almost half of all companies agreed with this statement (45.45% rated with values 4 and 5, on avg. 3.12). In particular, existing owners may fear a weakening of their ownership of the IPO, as a broader range of investors will suddenly own their company. However, if the company has already exhausted its capital resources and will no longer reach the debt capital, the sale of part of the company in an IPO is an appropriate solution. Mature companies found a significantly more agreement with this statement than young ones (61.11% of mature companies rated with values 4 and 5, on avg. 3.28; 26.67% of young companies rated with values 4 and 5, on avg. 2.93). More than large companies, small companies wanted to avoid weakening ownership during the IPO (50% of small companies rated with values 4 and 5, on avg. 3.19; 41% of large companies rated with values 4 and 5, on avg. 3.06). In broadly-controlled companies, concerns about weakening ownership played a more substantial role than in privately controlled companies and family-controlled companies (50% of broadly-controlled companies rated with values 4 and 5, on avg. of 2.6; 40% of family-owned rated with values 4 and 5, on avg. 2.83, 40% of privately-controlled companies rated with values 4 and 5, on avg. 3).

“When we made the IPO, the time factor was a major issue for our company.” The companies agreed that the time factor was not a problem (15.15% rated with values 4 and 5, on avg. 2.3). However, young companies negatively perceived less than the mature time factor (0% of young companies rated with values 4 and 5, on avg. 1.93; 27.78% of mature companies rated with values 4 and 5, on avg. 2.61). Among small companies, almost none was found to consider the time factor in an IPO to be a significant problem (6.25% indicated 4 and 5, on avg. 2.06). Large companies more or less followed this trend. Only a small part of them considered the lack of time a problem (23.53% rated with values 4 and 5, on avg. 2.53). The meagre number of widely controlled companies perceived time as problematic. Family companies did not consider this essential at all. Private companies perceived this most negatively (16.67% of widely-controlled companies rated with values 4 and 5, on avg. 2.44; 0% family rated with values 4 and 5, on avg. 2; 40% of privately-controlled companies rated with values 4 and 5, on avg. 2.4).

“The high price of IPOs (fees to subscribers, etc.) was a major problem for our company.” Most companies disagreed (only 12.12% of companies indicated values 4 and 5, on avg. 2.27). Despite the relative financial demands, the fees associated with the IPO are a relatively insignificant factor. Companies are happy to sacrifice these costs in order to obtain significant funds. The age factor of companies did not affect the perception of IPO costs (0% of young companies rated with values 4 and 5, on avg. 1.8; 22.22% of mature companies rated with values 4 and 5, on avg. 2.67). Similarly, the size of the companies did not significantly affect the results (12.5% of small companies rated with values 4 and 5, on avg. 2.44; 11.76% of large companies rated with values 4 and 5, on avg. 2.12). The form of company ownership also confirmed the insignificance of this problem in the implementation of the IPO (11.11% of broadly-controlled companies rated with values 4 and 5, on avg. of 2.11; 20% of families rated with values 4 and 5, on



avg. of 2.6; 0% of privately-controlled companies rated with values 4 and 5, on avg. 2.2).

“Fear of the IPO failure was a severe problem for our company.” The decision on the IPO is a strategic step that companies consider, plan and implement very well. According to the respondents, if they are ready to make this change, they are relatively confident of success (12.12% rated with values 4 and 5, on avg. 2.15). Young and mature companies did not consider failure a problem (13.33% of young companies rated with values 4 and 5, on avg. 1.8, 11.11% of mature indicated 4 and 5, on avg. 2.44). Size also did not matter. Failure was an unimportant factor for small and large companies (12.5% of small companies rated with values 4 and 5, on avg. 2.31; 11.76% of large-rated with values 4 and 5, on avg. 2). Broadly-controlled and privately-controlled companies did not identify failure as an essential factor, family companies perceived it slightly more sensitively, but failure was not a significant problem either (11.11% of broadly-controlled companies rated with values 4 and 5, on avg. 2.11; 20% of family-owned rated

with values of 4 and 5, on avg. 2.3, 0% of privately-controlled rated with values 4 and 5, on avg. 2).

“Fear of being taken over by another company was a significant concern in our company.”

Only a few companies identified this statement as an essential concern (6.06% rated with values 4 and 5, on avg. 1.58). It is challenging for a competing company to take over the issuer in a correctly chosen IPO strategy. Neither young nor mature companies addressed this threat (0% of young companies rated with values 4 and 5, on avg. 1.4; 11.11% of mature companies rated with values 4 and 5, on avg. 1.72). No minor and a minimum of large companies also felt fear of a takeover due to the IPO (0% of small companies rated with values 4 and 5, on avg. 1.5; 11.76% of large companies rated with values 4 and 5, on avg. 1.65). None of the family or private investor-controlled companies identified fear of takeover as a significant concern in the IPO (0% of family companies rated with values 4 and 5, on avg. 1.2; 0% of privately-controlled companies rated with values 4 and 5, on avg. 1.4). Only a tiny proportion of broadly-controlled com-

Table 3 » Survey Results — Barriers to Go Public

Company Representatives' Answers	Mean	Most Common Value	Appearance Frequency	S. Deviation	Answers in %
IPO requires us to disclose information	4.21	5	19	1.07	75.76
Effort to maintain control played a role	4.12	5	21	1.30	69.70
Existence of more flexible capital at IPO	3.64	4	8	1.18	66.67
Existence of cheaper capital at IPO	3.45	4	9	1.28	54.55
Existence of asymmetry of information	3.03	4	4	1.36	51.52
Efforts to avoid weakening ownership	3.12	3	8	1.47	45.45
Requirements of reporting problematic	2.33	2	2	1.17	18.18
Time factor was the significant problem	2.30	2	0	1.06	15.15
The high price of IPOs was problem	2.27	2	2	1.05	12.12
Fear of the IPO failure was a severe problem	2.15	2	0	0.96	12.12
Fear of being taken over was our concern	1.58	1	0	0.85	6.06
Capital markets were non-transparent, risky	1.70	2	0	0.76	6.06

Source: Own processing, 2020

panies feared takeovers (11.1% indicated 4 and 5, on avg. 1.83).

“We perceived the capital market as non-transparent and too risky when considering the IPO.” Given that all respondents issued shares in European Union markets, which are subject to EU legislation, the risk of non-transparency of these markets is minimal. The evaluation also corresponded to this (12.12% rated with values 4 and 5, on avg. 2.15). Young companies were not afraid of capital market non-transparency, mature neither so (0% of young companies rated with values 4 and 5, on avg. 1.4; 11, 1% of mature companies rated with values 4 and 5, on avg. 1.94). Large companies trusted the market entirely, as did small ones (6.25% of small companies rated with values 4 and 5, on avg. 1.69; 5.88% of large companies rated with values 4 and 5, on avg. 1.71). Similarly, in the division of companies by ownership, broadly controlled companies and privately controlled companies did not consider it risky at all, family businesses only to a minimal extent (0% of broadly-controlled companies rated with values 4 and 5, on avg. 1.61; 20% family-controlled rated with values 4 and 5, on avg. 2; 0% of privately-controlled rated with values 4 and 5, on avg. 1.4).

Conclusion

This survey focused on determining whenever the motives and barriers of companies to go public in the CEE region are the same as those of companies that implemented IPO in Anglo-Saxon countries.

As already mentioned, companies have their reasons for making an IPO. In order to determine whether the motives and barriers affecting IPOs in Anglo-Saxon countries are similar to those affecting companies operating in the CEE region, survey-based research was carried out. The survey findings support the theories that the most important internal factors to go public are to gain additional capital to support a company's growth and gain more public attention. Further important motives were also identified, and existing shareholders want to exit from the company, change the wealth distribution strategy, or make a generational change through an IPO. However, the results of this survey do not fully support the results of the research mentioned above, which focused on cost-related barriers. The costs of IPO are not the main barrier to go public in the CEE region. The respondents' costs are only a mandatory issue that does not influence their decision to go public. It is essential to say that due to the limited number of questionnaires obtained and the considerable subjectivity of the answers of the interviewed companies, the conclusions cannot be completely generalized. There were only limited amounts of implemented IPOs across the surveyed countries in the given period. A further survey is needed to understand why there is such a limited amount of implemented IPO in the CEE region compared to the Anglo-Saxon countries and why some companies withdraw from stock markets soon after the IPO implementation.

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Motives and Barriers to IPO Implementation in the CEE Region Conditions

ABSTRACT

This paper aims at identifying motives and barriers of IPO implementation in selected Central and Eastern European capital markets. Survey-based research has been conducted within a sample of non-financial companies operating in the Czech Republic, Croatia, Hungary, Poland and Romania. The results suggest that the leading reasons companies go public include the desire to raise capital, improve image, and be recognized as an important market player by the financial community. On the other hand, increased transparency and losing control over the company are the main barriers to going public. Interviewed CFOs also point out that they prefer to remain in the private ownership model because of more flexible capital in administrative procedures.

KEYWORDS

IPO; CEE region; barriers; motives; going public; decision-making

JEL CLASSIFICATION

O16; F21; G15; G34

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Validation of the Markowitz's Investment Portfolio Theory Under Specific Capital Market Conditions

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* 1. Introduction

The current coronavirus pandemic has strong global effects on the health and well-being of individuals on every continent of the world, but the coronavirus pandemic has affected not only the goods and services market, the production factors market, but also the financial markets. The stock market response was equally disastrous with a high level of market volatility. The down and up trading pattern over the last two years suggests that stocks could be volatile in the coming years.

2. Research objective

The main objective of this paper is to evaluate and validate the classic Markowitz's Modern Portfolio Theory (MPT). The contribution of Markowitz's theory is not only in determining the concept of portfolio diversification, but also in determining how diversification reduces risk. Verifying the effectiveness of the theory is important if we consider the current turbulent stock market develop-

ments, which are characterized by high volatility, significant changes in the form of sudden falls and a subsequent steep recovery, followed by periods of strong growth.

3. Methods

The calculation of the optimal portfolio is based on data, data from the period 2018/2019 were selected for the purpose of the article and the optimal portfolio. The resulting optimal portfolio was subsequently tested on a set of real data from the period 2020 and the first half of 2021. The work confirmed a significant improvement in investment results after applying the theory, even after considering the effects of exchange rate differences or the overall situation of significant market growth in world markets in late 2020 and early 2021. The only constraint that needed to be considered in relation to the total available processing time was related to a shorter target period, which only needed to be reduced to one year and one quarter.

The calculation and analysis of the optimal portfolio was processed based on data – (1) input

historical data of 2018 and 2019 (daily values of selected indexes), which preceded the turbulent period of 2020; (2) the optimal portfolio obtained from the input data was tested on a set of real data for the period 2020 and the 1st quarter of 2021. Daily values were processed from the three most important regions of the world (US, Europe, Asia-Australia), namely – S&P 500, Dow Jones Industrial Average, NASDAQ-100, DAX, EURO STOXX 50, FTSE 100, Hang Seng Index, S&P ASX 200 and NIFTY 50.

Scientific publications, scientific articles, papers by various authors have been analysed for preparing the theoretical background of paper (e.g. Smoleň and Dudic (2017); Copuš et al. (2017); Chovancová et al. (2020); Vartiak (2016), Hrvoľová et al. (2015), Chovancová et al. (2016), Bondareva et al. (2021), Tkáčová et al. (2017), Fabozzi, F.J. and Peterson Drake, P.(2009)). Results part has consisted of the main findings according to data obtained from different stock index (S&P 500, Dow Jones Industrial Average, NASDAQ-100, DAX, EURO STOXX 50, FTSE 100, Hang Seng Index, S&P ASX 200 and NIFTY 50). Paper has been prepared by using a comparative historical, fundamental, and technical analysis.

4. Theoretical Background

Stock index is a specific indicator that we may encounter when trading in stock markets. This is a statistical quantity indicating changes in the market for a defined group of shares representing a specific part of the stock market (e.g. technology companies). However, the index may also represent the entire stock market, or a region or the world market. The essence of such an indicator is that the investor can easily monitor in which direction the whole area (group of shares) or market is moving. This is one of the basic information of technical analysis needed for investment deciding. (Chovancová et al. (2016)) At the same time, this figure creates a benchmark for assessing performance of individual investment vehicles, or also in

the evaluation of the quality of the work of the investment manager himself.

The number of indices we can see in the stock markets today is enormous without any exaggeration. At the same time, such a distribution (the three best-known indices from each of the three basic regions of the world (Europe, Asia and America)) should naturally provide some protection against regional risks, although, of course, due to the current global economy, in most cases it will usually only be a certain distribution (delay) of risk transfer between regions over time.

The Standard & Poor's 500, or simply the S&P 500, is a stock market index tracking the performance of 500 large companies listed on stock exchanges in the United States. It is one of the most commonly followed equity indices. The index uses the Global Industry Classification Standards (GICS)), with companies represented in the index covering the entire spectrum of areas in categories such as information technology, health, finance, industry, materials, services, real estate, retail and other. (spglobal.com)

The Dow Jones Industrial Average (DJIA), also known as the Dow 30, is a stock market index that tracks 30 large publicly owned blue-chip companies trading on the New York Stock Exchange (NYSE) and the NASDAQ. (Tkáčová et al. (2017)) DJIA is one of the oldest and most watched stock indices. If we compare the DJIA with broader market indices (S&P 500, Russell 2000 Index), it cannot be taken as a picture of the overall US stock market.

The NASDAQ-100 Index is a basket of the 100 largest, most actively traded U.S. companies listed on the NASDAQ stock exchange. The index includes companies from various industries except for the financial industry, like commercial and investment banks. These non-financial sectors include retail, biotechnology, industrial, technology, health care, and others. A large portion of the index covers the technology sector, which accounts for 56 % of the index's weight. (Tkáčová et al. (2017)) The next largest sector is consumer service-



es, represented by companies like restaurant chains, retailers, and travel services. (nasdaq.com)

The DAX is a German blue-chip stock market index that tracks the performance of the 40 largest companies trading on the Frankfurt Stock Exchange. The companies listed in the DAX are multinational concerns that influence the domestic German economy and the global economy as well. The DAX 40 is usually reported as a performance-based index. This means companies' dividends, capital gains and cash disbursements are added to the next net stock price, as opposed to a price index where the corporate distributions remain disregarded. (Tkáčová et al. (2017))

The EURO STOXX 50 Index, Europe's leading blue-chip index for the Eurozone, provides a blue-chip representation of super sector leaders in the region. The index covers 50 stocks from 11 Eurozone countries. The index is licensed to financial institutions to serve as an underlying for a wide range of investment products such as exchange-traded funds, futures, options and structured products. (Chovancová et al. (2016), stoxx.com)

The Financial Times Stock Exchange 100 Index, also called the FTSE 100 Index, is a share index of the 100 companies listed on the London Stock Exchange with the highest market capitalisation. The index is maintained by the FTSE Group, a subsidiary of the London Stock Exchange Group. All stocks on the FTSE Index group are free float weighted, companies are weighted according to the total value of the shares available to portfolio investors and not according to the total market capitalization. (Tkáčová et al. (2017))

The Hang Seng Index (abbreviated HIS) is a free float-adjusted market capitalisation-weighted stock market index in Hong Kong. It is used to record and monitor daily changes of the largest companies of the Hong Kong stock market and is the main indicator of the overall market performance in Hong Kong. These 45 companies represent about 67 % of capitalisation of the Hong Kong Stock Exchange. (hsi.com.hk)

The S&P/ASX 200 is the institutional investable

benchmark in Australia. The components of the index come from eligible companies listed on the Australian Stock Exchange. The S & P / ASX 200 is designed to measure the performance of the 200 largest index-matched shares listed on the ASX using market capitalization adjusted for mobility. The index is widely regarded as Australia's leading reference index. (spglobal.com)

NIFTY 50 Index, commonly referred to as NIFTY, is the benchmark index that tracks the performance of portfolio of blue-chip companies, the largest and most liquid Indian securities. It includes 50 of the all companies listed and/or traded on the National Stock Exchange. NIFTY 50 Index, along with the BSE Sensex, are two leading broad based-market indices in India. They are considered to be the barometers of the entire stock market in India. (niftyindices.com)

5. Calculation of the optimal portfolio

5.1 Data and adjustment

In the first step, we evaluated the ex-post return based on the historical data recorded in the reference period for individual indices. At present, such statistical records can be obtained from a number of freely accessible internet databases. For this work, we decided to use the data from the database portal Investing.com. (Investing.com)

The time interval for the sample of data can be selected with a daily, weekly, or monthly periodicity. We chose the most detailed, daily interval, which corresponds to an approximate 250 values recorded for each working day in the calendar year concerned. The selected database provides, for each such day on which the instrument was traded, the value of the opening price of the instrument, the final price at the end of the trading day and the highest and lowest recorded value on that trading day. For the purposes of this calculation, we have decided to use the values of the closing price of the index on a given trading day.

We decided to process the input data from the period 2018 and 2019. The sudden, unexpected event, which was a global virus pandemic that spread across the planet in a relatively short period of time and had a devastating impact on the economies of the affected countries, which were forced to take several unpleasant countermeasures. slow down its spread, it is precisely this important factor with a significant impact on the created portfolio.

5.2 Conversion to common currency (USD)

Individual indices are listed in different base currencies. Values of selected indices from the U.S. region are quoted in U.S. dollars (USD). In the case of the European region, however, two of the three indices are in the EURO, and the third is listed in British pounds (GBP). In the case of the Asian region, all three selected indices are in different currency units. In the case of china's Hang Seng, it's the Hong Kong Dollar (HKD), the NIFTY 50 is listed Indian Rupees (INR) and the third of three, the Australian S&P ASX 200, is quantified in Australian Dollars (AUD). Since the calculation itself works with percentage changes in the prices of two consecutive values, it is also possible to calculate directly from the given input data, which are indicated at different exchange rates. However, the result of such a calculation will be affected by the exchange rate difference. For this reason, we decided to process the calculation in both variants, that is, first values in the original currency units and then repeat the calculation after their recalculation into a common currency, and, as a next step, to compare the resulting values obtained. We decided to use the US dollar (USD) as a common currency for the second calculation. Historical values of the daily exchange rates obtained from a public internet database exchangerates.org.uk were used for the conversion of individual currencies. (exchangerates.org.uk)

5.3 Calculation of average daily values and total annual return

The calculation of individual statistical data was subsequently carried out using standard MS Excel spreadsheet functions. Using the AVERAGE function, we calculated the average daily return value for each of the selected indices in a range of data from both 2018 and 2019 entry years. By subsequently multiplying this daily value by the number of samples in a calendar year, we calculated the average value of the total annual return for each index. In the next step, we used the function VAR.S to determine the variance of the daily values of the yields and, consequently, multiplying it by the number of samples for a given calendar year, we have determined the variance value for the calendar year.

5.4 Covariance matrix

Portfolio theory, first introduced by Markowitz, applies the covariance matrix by considering how to optimally allocate an investment between a number of assets in a portfolio. (Chovancová et al. (2020)) In other words, for the calculation of the optimal portfolio, it is important, among other things, to know the correlation between the different indices, which we then tried to modulate the resulting value so that the overall risk of the portfolio is minimal. We used the standard function MS Excel Covariance.S to calculate the covariance matrix. Individual values obtained from daily data we then multiplied with the total annual number of samples to obtain values proportional to the overall annual data.

5.5 Calculation of the expected return and the standard deviation (risk) of the portfolio

The relationship between risk and return is a basic investment concept. The concept states that an increased probability of return correlates highly with an increase in the level of risk taken. We used



standard functions available in MS Excel to estimate return and risk.

5.6 Sharpe Ratio

We used the Sharpe Ratio to find the final combination of components in the optimal portfolio. The Sharpe Ratio (or Sharpe Index) is commonly used to measure the performance of an investment by adjusting its risk. The higher the ratio, the greater the return on investment in relation to the amount of risk taken, and thus the better the investment. The ratio can be used to evaluate a single stock or investment or the entire portfolio. (Saxunová, 2019)

5.7 Optimal Portfolio

To obtain the final combination of optimal investment distribution, i.e. the final optimal portfolio,

we used the SOLVER tool, which is also part of MS Excel. This tool allows you to enter several input conditions, based on which it tests the relevant equation (in our case, the Sharpe Ratio) to find the optimal solution that meets the specified conditions.

In the baseline scenario, we tried to find the maximum Sharpe Ratio using changes in the weight distribution of individual instruments, assuming that their total is equal to 1. Since in this case the portfolio consisted of only several instruments, we added a conversion under other conditions requiring a certain minimum value. investment in each of the various instruments. We then repeated this procedure for several different combinations of such minimum values. In so called balanced portfolio, the following two conditions were fulfilled:

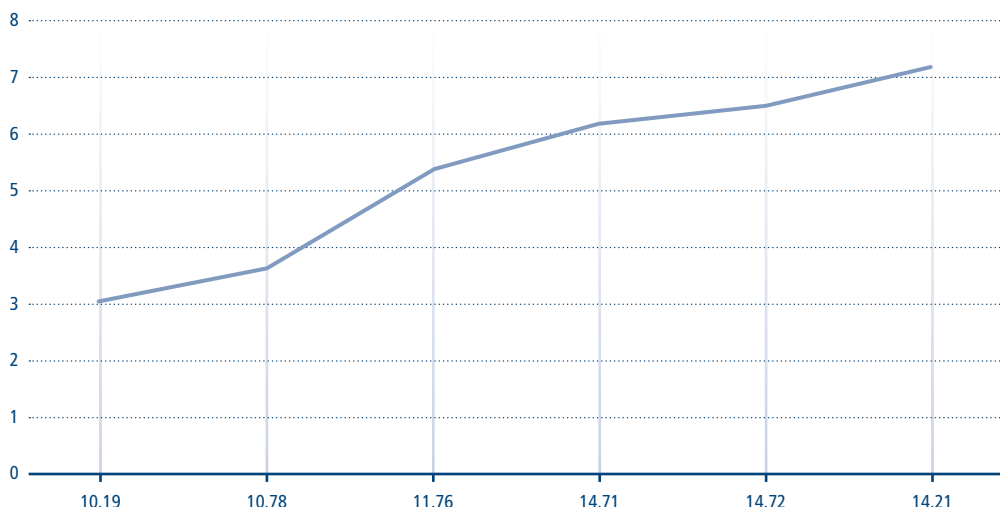
- 1. The sum of the instruments in the portfolio is always equal to 1 (or 100 %).

Table 1 » Distribution of the portfolio on the basis of entry conditions, expected return, standard deviation and Sharpe Ratio

PORTFOLIO	Equal	Balanced	Balanced 2	Balanced 3	Balanced 4	Balanced 5
S&P 500 (USD)	11 %	0 %	5 %	0 %	10 %	10 %
DJIA (USD)	11 %	0 %	5 %	0 %	10 %	10 %
NASDAQ-100 (USD)	11 %	66 %	60 %	40 %	20 %	55 %
DAX (EUR)	11 %	0 %	5 %	0 %	10 %	5 %
EURO STOXX 50 (EUR)	11 %	0 %	5 %	30 %	10 %	5 %
HANG SENG (HKD)	11 %	0 %	5 %	0 %	10 %	0 %
S&P ASX 200 (AUD)	11 %	2 %	5 %	0 %	10 %	5 %
NIFTY 50 (INR)	11 %	32 %	5 %	30 %	10 %	10 %
FTSE 100 (GBP)	11 %	0 %	5 %	0 %	10 %	0 %
Σ =	100 %	100 %	100 %	100 %	100 %	100 %
Return	3,06 %	7,18 %	6,21 %	5,37 %	3,64 %	6,49 %
Standard deviation (risk)	10,19 %	14,21 %	14,71 %	11,76 %	10,78 %	14,72 %
Risk-free rate	2,237 %	2,237 %	2,237 %	2,237 %	2,237 %	2,237 %
Sharpe Ratio	0,08118	0,3478	0,2703	0,2661	0,1298	0,2890

Source: own calculations based on available data (S&P 500, Dow Jones Industrial Average, NASDAQ-100, DAX, EURO STOXX 50, FTSE 100, Hang Seng Index, S&P ASX 200 and NIFTY 50.)

Figure 1 » Risk/Return trade-off of overall portfolio (%)



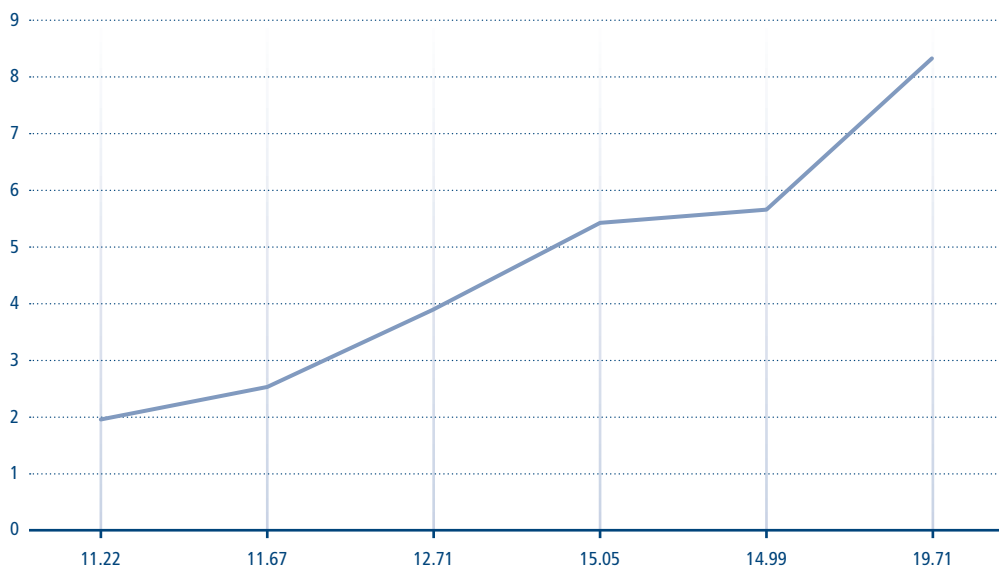
Source: own calculations based on available data (S&P 500, Dow Jones Industrial Average, NASDAQ-100, DAX, EURO STOXX 50, FTSE 100, Hang Seng Index, S&P ASX 200 and NIFTY 50.)

Table 2 » Distribution of the portfolio on the basis of entry conditions, expected return, standard deviation and Sharpe Ratio converted into USD (%)

PORTFOLIO	Equal	Balanced	Balanced 2	Balanced 3	Balanced 4	Balanced 5
S&P 500 (USD)	11 %	0 %	5 %	0 %	10 %	10 %
DJIA (USD)	11 %	0 %	5 %	0 %	10 %	10 %
NASDAQ-100 (USD)	11 %	100 %	60 %	40 %	20 %	55 %
DAX (USD)	11 %	0 %	5 %	0 %	10 %	5 %
EURO STOXX 50 (USD)	11 %	0 %	5 %	30 %	10 %	5 %
HANG SENG (USD)	11 %	0 %	5 %	0 %	10 %	0 %
S&P ASX 200 (USD)	11 %	0 %	5 %	0 %	10 %	5 %
NIFTY 50 (USD)	11 %	0 %	5 %	30 %	10 %	10 %
FTSE 100 (USD)	11 %	0 %	5 %	0 %	10 %	0 %
Σ =	100 %	100 %	100 %	100 %	100 %	100 %
Return	1,96 %	8,32 %	5,45 %	3,96 %	2,59 %	5,66 %
Standard deviation (risk)	11,22 %	19,71 %	15,05 %	12,71 %	11,67 %	14,99 %
Risk-free rate	2,237 %	2,237 %	2,237 %	2,237 %	2,237 %	2,237 %
Sharpe Ratio	0,0250	0,3084	0,2138	0,1353	0,0304	0,2282

Source: own calculations based on available data (S&P 500, Dow Jones Industrial Average, NASDAQ-100, DAX, EURO STOXX 50, FTSE 100, Hang Seng Index, S&P ASX 200 and NIFTY 50.)

Figure 2 » Risk/Return tradeoff of overall portfolio converted into USD (%)



Source: own calculation based on available data (S&P 500, Dow Jones Industrial Average, NASDAQ-100, DAX, EURO STOXX 50, FTSE 100, Hang Seng Index, S&P ASX 200 and NIFTY 50.)

Table 3 » Return and risk of optimal portfolio in 2020 and 2021

PORTFOLIO	Equal	Balanced	Balanced 2	Balanced 3	Balanced 4	Balanced 5
Return	13,50 %	31,71 %	27,13 %	23,55 %	15,98 %	28,24 %
Standard deviation (risk)	23,83 %	27,41 %	28,08 %	24,21 %	25,22 %	28,76 %

Source: own calculations

Table 4 » Return and risk of optimal portfolio in 2020 and 2021 converted into USD

PORTFOLIO	Equal	Balanced	Balanced 2	Balanced 3	Balanced 4	Balanced 5
Return	7,55 %	18,60 %	13,63 %	11,87 %	8,66 %	13,59 %
Standard deviation (risk)	25,41 %	34,43 %	28,62 %	25,59 %	26,36 %	29,28 %

Source: own calculations

2. The instrument's share in the portfolio is always greater or equal to zero (negative values corresponding to short selling are not allowed). For extended scenarios we used:
 - a) minimum investment of 5 % in each of the individual instrument (balanced portfolio 2),
 - b) minimum investment of 10 % in each of the individual instruments (balanced portfolio 4),

- c) selective investment in the three instruments chosen with the highest return in a given region (balanced portfolio 3),
- d) graduated investment ($1 \times$ minimum 50%, $3 \times$ minimum 10%, $3 \times$ minimum 5%) in the seven most powerful instruments (balanced portfolio 5).

5.8 Evaluation of the optimal portfolio based on actual data 2020 and 2021

Using the method described above, we obtained the layout of the optimal portfolio, which meets the specified entry criteria, and several other variants that meet additional conditions. As a next step, we can therefore, on the basis of real data from 2020 and the first half of 2021, determine what real return the portfolio thus compiled would achieve.

From Tables 3 and 4 we can see that the 'Balanced' portfolio clearly achieves the highest returns from the individual scenarios used. At the same time, it can also be seen that if the calculation is done in different currency units, we can achieve the maximum return value, but the overall distribution of investment in individual instruments as well as the actual quantification of expected return will vary, which can be naturally confusing from the investor's point of view.

6. Final evaluation of results

The aim of our contribution was to design a multi-segment investment portfolio using the classic MPT methodology so that we achieve an optimal, highest possible return, with the lowest possible risk. As a basis for the creation of our portfolio, we have selected the 9 largest stock indices, whose values are linked to the results of companies in various segments of the economy, in various countries and regions of the world. We have selected the indices so that all three regions of the world cover the three indices. Such a division of investments to some extent eliminates regional risk.

However, due to the high interconnectedness of today's global economy, the transmission and spread of economic shocks and sudden changes is very rapid. All such shocks and turbulences spread either almost immediately or with little delay.

The first and probably most important result obtained from our model is the difference in returns for an evenly distributed portfolio and an optimized portfolio. In the case of an even distribution of the investment into 9 equal parts (investment 11% in selected instruments), based on real data from 2020 and the first half of 2021, the resulting average return is 13,5% and the risk is equal to 23,83%. On the other hand, if we use the methodology described above, then the return would be approximately 31,71% and the risk would be 27,41%. This means that using this methodology, we could achieve almost 2,3 times higher return with an increase in risk just below 3,6%. In such a case, the optimal portfolio would consist of only three instruments out of the total number: 66% would be in the NASDAQ-100 index, 32% would be in NIFTY 50 and 2% would be invested in the S&P ASX 200 index. However, these values were based on a comparison of indices before their conversion into a common currency (USD). After converting the indices into USD, we get different values, corresponding to the real situation. These data are more relevant for a potential investor who would probably also make his investment from one common start-up currency (e.g. USD or EURO).

Even in this case, however, the difference of the return between an equal investment in all 9 instruments and an optimised investment in selected balanced portfolio instruments on the basis of theoretical calculation was more than 10%. In the case of evenly distributed portfolio is the return equal to 7,55% and the risk 25,41%, on the other hand, for an optimal portfolio, the total return would reach 18,60%, with an overall portfolio risk equal to 34,43%. In this case, we could reach almost 2,5× higher return with the 9,02% increase in the risk. However, it is important to note that in this case, the optimized portfolio contains only



one instrument and the entire investment under this model should be included exclusively in the NASDAQ-100 Index.

For this reason, we have implemented several other scenarios in our calculations, by adding expansion conditions for a minimum investment of 5 % and 10 % to each index or selective investment only in the most important indices with the highest growth rate (scenario 4) or a tiered investment in each of the 7. indices with the best results in the reference period.

However, as can be seen from the individual results, the return on any of these alternatives would not be higher than the return on the optimal portfolio and, equally significant, the risk of each alternative would always be higher than in the case of the optimized portfolio.

The dependency between return and the corresponding risk of a given portfolio combination is shown in Figure 1 and Figure 2. In both cases, we can see an almost linear relationship between risk and return as expected.

A more detailed analysis of the data will alert us to an interesting paradox regarding revenues in

2018–2019 and 2020–2021. The return in 2018–2019 was only a few percent; for a balanced investment it was 3.06 % and for a balanced, optimal portfolio it was 7,18 % (see Table 1). After converting the portfolio to USD, it was 1,96 % and 8,32 % (see Table 2). In contrast, yields in 2020 and the first half of 2021 are significantly higher. In the case of a balanced investment, the total return for this time is equal to 13,5 % and 31,71 % for the optimal portfolio. Even after converting to the current currency unit (USD), the yield values are 7,55% and 18,60% (see Tables 3 and 4).

It can be assumed that this increase is related to the amount of fiscal stimulus that governments implemented worldwide to support the development of their economies at a time of economic stagnation. In any case, it can be stated that such an increase is naturally not ‘free’, but is offset by higher overall volatility (i.e. investment risk) that markets recorded during this period. However, to better understand this situation, it would be necessary to realize a more in-depth analysis, which was not part of and the aim of this paper.

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Validation of the Markowitz's Investment Portfolio Theory Under Specific Capital Market Conditions

ABSTRACT

Portfolio theory combines knowledge from the economic theory of finance with knowledge from the mathematical field of probability and statistics. Stock markets tend to be significantly affected by various crises. As a result of crises, stock markets are characterized by high volatility, significant changes such as a sharp decline, followed by a sharp recovery, then a period of significant growth. Significant changes can be observed in the stock markets due to the crisis caused by the Covid-19 pandemic, too. The research problem of the article is to verify the validity and results of the classic Markowitz, Modern Portfolio Theory, in the current development of stock markets under the influence of the crisis caused by the Covid-19 pandemic. The calculation and analysis of the optimal portfolio was processed on the basis of data – (1) input historical data of 2018 and 2019 (daily values of selected indexes), which preceded the turbulent period of 2020; (2) the optimal portfolio obtained from the input data was tested on a set of real data for the period 2020 and the 1st quarter of 2021. Daily values were processed from the three most important regions of the world (US, Europe, Asia-Australia), namely – S&P 500, Dow Jones Industrial Average, NASDAQ-100, DAX, EURO STOXX 50, FTSE 100, Hang Seng Index, S&P ASX 200 and NIFTY 50.

KEYWORDS

Modern Portfolio Theory (MPT); Covid-19 crisis; Investing; Stock markets; Stock index

JEL CLASSIFICATION

O16; C18; G32; G11; G17



Leadership in Politics and Public Administration

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* 1. *Introduction*

For two years now, the whole world, and unfortunately especially the so-called old continent, i.e. Europe, has been struggling with the consequences of one of the biggest pandemics in history. After the recent global economic crisis, which took place between 2008 and 2012, this is the second global catastrophe in a short space of time that has upset the existing way of life and, above all, the systems that were supposed to guarantee stability and at least some kind of order on a global scale. Both of these events, together with the advent of the fourth industrial revolution, have, moreover, made it clear that the previous development of globalisation, which had envisaged ever greater integration of states, nations, companies and individuals on a global scale, has been reversed. Large supply chains scattered literally all over the world are collapsing and failing, international transport is stalling and becoming more expensive, and trade wars – see, for example, the United States versus China – or threats of such trade conflicts are becoming more frequent. A world that we thought was governed by a certain system and was therefore predictable and at least partly stable is becoming a place dominated by one essential characteristic: uncertainty. The radical changes to which we have

hitherto been accustomed, mainly in the sphere of technology, are now affecting all areas of life, including the economy, but also politics.

The old world order, as it emerged at the turn of the 1980s and 1990s, no longer exists. Among other things because it was based on the world dominance of liberal democracy as the winning and above all universally valid ideology – see the famous article (Fukuyama, 1989) and later the entire book by the American political scientist Francis Fukuyama, *The End of History* (Fukuyama, 1992). It was to become the global norm and the ultimate goal for all countries, even if they temporarily lived under authoritarian dictatorships – and this included China.

The second constant was the unipolar structure of international relations – both political and economic – in which the United States has clearly dominated the last 30 years as the unchallenged, largest and most powerful country in the world, setting its rules and order. The coronavirus epidemic symbolically – and definitively – ended this 30-year period. Although the virus itself was born in China and even named after the place of its first appearance (Wuchan), the communist dictatorship was able to radically eliminate its occurrence in a historically rapid period of time and was the only great power to profit from it economically.

This has allowed it, among other things, both to continue its economic growth and to further increase the rate at which it will become the world's largest economy by 2028 (Reuters, 2020) at the latest, surpassing the current leadership of the United States by almost 130. The latter, on the other hand, is losing the battle against coronavirus, with the number of infections and deaths reaching record levels. Not to mention the devastating impact of coronavirus on the US economy, especially in 2020.

The world is thus returning from the era of Pax Americana and the domination of a single superpower — the USA — to the traditional scheme of governance characterised by polycentrism, multipolarity. There are several major world centres that balance each other's power. However, there are also several concepts of thought and values that compete with each other. Democracy in its liberal form thus becomes just one of several forms and possibilities of political organisation. Its global victory has not taken place and, on the contrary, a number of states that originally sought democratic transformation — Russia, Turkey, etc. — are returning to their original rather authoritarian arrangements, which may be better suited to the centuries-old traditions of these countries. This decline of democracy internationally is further fuelled by the general economic decline of the West, whose economic power and share of world manufacturing and services has been steadily declining for at least the last two decades. This is despite the fact that, so far, all the major centres and virtually the whole world are not challenging the dominance of the Western mode of economic organisation — capitalism. But it has been successfully adopted by countries other than the West, and it is China that seems to have overtaken its masters. But the problem is also the internal organisation of Western states, which, even with globalisation, are experiencing an increasing polarisation of their societies. These are characterised by the dizzying enrichment of a very narrow economic elite and, conversely, the stagnation or rather decline in the economic level

of the middle and lower classes. This social disruption and instability brings the question of leadership to the fore more than ever. It is precisely in these difficult and high-risk conditions that real leaders are needed who, with their charisma, experience and moral qualities, can bring confidence to society, outline new visions and realistic goals and, above all, lead society as a whole out of this “dark” period. It is precisely the political and public sphere that needs this type of leaders as salt if the existing social, political and economic systems are not to collapse and create a real danger of the rise of a new generation of political elites who would break with democracy as the — so far — unquestioned starting point of our social system. This would not be the first time — recall the rise of Adolf Hitler in the early 1930s as a direct result of the unmanaged world economic crisis, or the rise of communist elites in the 1940s in the Eastern Bloc. Yet the list could be long and goes beyond the boundaries of one continent or one ideology — it includes the communist leader Mao Tse-Tung in China as much as the semi-fascist dictators Franco and Pinochet in Spain and Chile.

Today, too, there is a call for strong personalities to lead their nations back onto the path of prosperity and order. And they are all the more desperately in short supply. This applies, among other things, to European politics and to the EU itself, as evidenced by the recently published articles by Milan Balabán (Balabán, 2022) and Ivo Budil (Budil, 2022), who attribute the disintegration of the European idea, its over-centralisation and complete disinterest in the real problems of the inhabitants of the old continent to the complete absence of real leaders. They warn of the real threat of the disintegration of the European Union, as if foreshadowed by the Brexit that has already taken place. However, even these processes require leaders who know what they want and, above all, who are able to convince the whole or at least a large part of society of this with the weight of their personality.



2. Leadership, management and Dwight D. Eisenhower

Yet Western democracies also have a positive experience with elites – leaders who, in turn, put their skills at the service of freedom and democracy. It is no coincidence at all that probably the most succinct definition of leadership was provided by the 34th American President Dwight D. Eisenhower: *“Leadership is the art of getting someone else to do something you want done because he wants to do it”*. Eisenhower was the personification of these words. As a soldier, he spent his entire life in high managerial positions – first in the military, where he rose to become a five-star general and commander-in-chief of Allied forces in Europe. In this role, he was also responsible for the largest landing operation in history to date – Operation Overlord, which saw the Allies land in Normandy in June 1944. Although he achieved the highest military honours, he never fought himself. The key to his success was precisely his managerial skills – to organise and direct, that is, to command. But the way in which he did this went well beyond managerial skills (see below for the difference between management and leadership). He was successful precisely because he could win his subordinates to his idea and goal. And also his superiors and partners. As the highest military commander in Western Europe, he was forced to convince such original and distinctive personalities as British Prime Minister Winston Churchill, British Marshal Bernard Montgomery and French President Charles de Gaulle of his ideas. He showed diplomatic mastery in reconciling the completely different ideas and temperaments of his American and British generals, who differed completely in their views on the conduct of the struggle against the Germans and the specific objectives of the advance. And his star lesson was his very successful “cultural” communication with the Soviet marshals and Joseph V. Stalin, thanks to which it was possible to successfully agree on the cooperation of the military operations of the Allies in Europe and finally defeat Nazi Germany.

He made full use of his extraordinary ability to lead people, coordinate their efforts, overcome mutual obstacles and find a common goal even after his election as President of the USA. In this new life role (he held the presidency twice between 1953 and 1961), which he assumed at the height of the Cold War, he managed to end the Korean War without communist North Korea conquering the South, and at the same time began a gradual warming of relations with the Soviet Union, culminating in both the meeting of the former victorious powers of World War II in Geneva (1955) and the personal visit of Soviet leader Nikita S. Khrushchev to the USA at Eisenhower’s invitation in September 1959. The escalated phase of the Cold War thus became a period of largely peaceful competition. This was Eisenhower’s masterstroke, and it was a feat that made the history of world diplomacy. (Perlmutter, 1997) All this was accompanied by the unprecedented development of the US economy and the growing prosperity of its people.

Moreover, during his presidency, Eisenhower also entered the ground of management theory when he formulated the so-called Eisenhower Principle of Importance and Urgency. In which he capitalized primarily on his military experience in crisis management. The author himself put it in the words: *“I have two kinds of problems: the urgent and the important. The urgent are not important, and the important are never urgent.”* Eisenhower’s principle is generally defined as follows: *“Eisenhower recognized that great time management means being effective as well as efficient. In other words, we must spend our time on things that are important and not just the ones that are urgent. To do this, and to minimize the stress of having too many tight deadlines, we need to understand this distinction: Important activities have an outcome that leads to us achieving our goals, whether these are professional or personal. Urgent activities demand immediate attention, and are usually associated with achieving someone else’s goals. They are often the ones we concentrate on and they demand attention because the consequences of not dealing*

with them are immediate. When we know which activities are important and which are urgent, we can overcome the natural tendency to focus on unimportant urgent activities, so that we can clear enough time to do what's essential for our success. This is the way we move from 'firefighting' into a position where we can grow our businesses and our careers." (Eisenhower's Urgent/Important Principle, 2022)

Eisenhower is thus a great but relatively uncommon example of a successful combination of leader and manager. Classical management theory strictly separates these categories: "A manager is a person who is in charge of the management of an enterprise, team or department. His or her main role is usually to divide the work, set the plan, monitor the execution of the plan, do strategic and operational planning, and make profits. A leader, on the other hand, takes care of people and their needs. His job is to motivate, support, inspire and show others the way. He helps others to grow and develop, thus contributing to the achievement of set goals or obtaining optimal results for the whole organization. It is said that managerial skills can be learned and mastered based on external stimuli, whereas one must grow into a leader internally. Thus, a leader and a manager may or may not be the same person." (What is leadership and who is a leader?, 2022)

This brings me to the very definition of leadership. A number of disciplines across the social sciences participate in its definition. Most often management and economics, but also sociology, philosophy or political science. The question of leadership and its activities is one of the key issues in the social sciences, and it is far from being just about activities aimed at economic profit. Equally important – at least – are the problems of its political or value management, which will be another subject of our interest.

But let us begin with a definition from theory of management of Mary K. Patt: "Leadership is the ability of an individual or a group of individuals to influence and guide followers or other members of

an organization. Leadership involves making sound – and sometimes difficult – decisions, creating and articulating a clear vision, establishing achievable goals and providing followers with the knowledge and tools necessary to achieve those goals. Leaders are found and required in most aspects of society, from business to politics to region to community-based organizations. An effective leader possess the following characteristics: self-confidence, strong communication and management skills, creative and innovative thinking, perseverance in the face of failure, willingness to take risks, openness to change, and levelheadedness and reactivity in times of crisis." (Patt, 2017)

The basic question that is directly offered in leadership research and which is the subject of numerous studies is whether one is born a leader or whether it is possible to learn this art. Rather, the famous German sociologist Max Weber, with his concept of charismatic leadership, supported the theory that one must be born with leadership skills. This concept then led to a series of theories that see the history of humanity and individual nations as a sequence of rise and fall determined precisely by the presence or absence of strong leaders. They elevate, even create, their nations and empires. With their end comes a time of stagnation and crisis. Alexander of Macedon, Julius Ceasar, Charlemagne, Napoleon – these are just some of the brilliant leaders who made history.

3. Leadership, elite theory and psychology

In the twentieth century, elite theory joined this concept. This was based on the premise that there may not be just one leader, but that societies, states and history are influenced by a small group – the elite – who are absolutely crucial to their operation and management. One of the main theorists of elites, the Italian sociologist Vilfredo Pareto, argues that "Societies are controlled by elites and their own (particularistic) 'enlightened' interests (which are usually presented as the universal interests of the whole society) and therefore funda-



mental change is always a change of elites, which is realized as its circulation, its rotation, its circulation.” (Petrusek et al, 2011, p. 81) On the contrary, people themselves, i.e. society as a whole, cannot govern themselves.

Even nascent democracies end up as elite-dominated organizations. The German-Italian sociologist Robert Michels, among others, was convinced of this and formulated his key idea in this regard – the so-called iron law of oligarchy: *“In all human organisations there are mechanisms and tendencies at work that necessarily lead to the emergence of oligarchy as a power structure. By oligarchic tendencies or oligarchization of organizations he meant that every organization is divided into a leading minority and a leading majority, with all key issues decided by the minority over which the majority has no significant influence, and the leaders cease to be servants of the mass. According to Michels, that tendency, as a deeply aristocratic trait, is an inseparable, immanent characteristic of every organization.”* (Sedláček, 2017)

And it is Michels, in formulating his law, who states that the masses can easily be manipulated – to attack their feelings, their irrationality, especially by arousing fear and hope. All it takes are capable demagogues (translated from the ancient Greek as *“leaders of the common people”* – originally, unlike aristocrats who inherited their power, demagogues came to power through democratic elections and themselves came from the popular classes), literally capable of anything, who thus gain power to promote their own goals – economic (money and property) and political (power), which are often contrary to the interests of the people who elected or otherwise chose them. The issue of crowd control by one or a few individuals who lead their fellow citizens astray with skillful rhetoric goes back to the beginnings of democracy in ancient Greece. There was even a whole group of philosophers – the sophists – who taught future demagogues how to argue properly, how to improve their rhetoric and many other practical skills (Valeš, 2013).

Thus, modern democratic governance, which uses elections as the main tool by which – temporarily – the leaders of a given country or city are chosen, still faces the fundamental question of the abuse of power and, above all, the danger that people who are „unworthy“ of their offices and who abuse them to pursue their own interests or the interests of those who stand behind them and support their desire for power (for example, economic entities) with money or other methods of manipulation, attacks on emotions, political marketing or other methods. In this context, psychology, psychiatry and nowadays political science point to the existence of so-called social psychopaths.

Psychologists have found that it is precisely the sphere of power – political and economic – the desire to control and dominate that is inherent in a specific group of people with a certain type of clinically demonstrable psychological indisposition (dissociative personality disorder). The term psychopath was introduced into psychology and psychiatry by the German physician and philosopher Karl Jaspers. (Honzák, 2019)

The eminent Canadian psychologist Robert D. Hare, who has been researching psychopaths for more than forty years, especially in prisons, and who, together with his colleague Paul Bobiak, is the author of a successful book on the subject, *Snakes in Suits. Psychopaths Go to Work*, defines them as follows: *“Psychopaths are disturbed personalities with an antisocial lifestyle. They are criminal people who destroy your life without blinking an eye, who lie, steal, cheat or kill with the same ease with which the rest of us brush our teeth. They are shallow, self-centered, emotionally completely flat. They are utterly incapable of respecting other people, admitting guilt, empathizing with their victim, or reproaching themselves for their heinous actions. They are impulsive, incredibly irresponsible and unable to control themselves, they get a thrill out of committing evil and their deviance manifests itself from an early age. Unfortunately, they can disguise themselves well in the field – they are charming in company and great to*

talk to, although, admittedly, they can be somewhat aggressive on closer inspection. And they are great manipulators. After one or two encounters with a psychopath, you may come to feel that he is a wonderful person.” (Hare, 2016)

This is often aided by their high intelligence, charm, pleasant appearance, and ability to communicate well, even in foreign languages. The problem is the goal of their endeavors — it is only their benefit and profit. They are focused on constant performance and reaching new and new boundaries. Other people (but also, for example, nature) serve them only as tools to achieve their own goals. And when they are fully exploited, they are sacrificed.

Their problem is, among other things, the complete absence of basic social feelings — compassion, empathy, solidarity. On the contrary, predation, arrogance, disrespect for social norms (Koukolík, 2020) and inability to maintain long-term social contacts, including amorous ones, prevail. They have a huge ego and a feeling of complete uniqueness and irreplaceability. Why this is so and where this disorder comes from is explained by psychosomatic Jan Hnízdil in his book *Everybody is a Psychopath, Only I am an Airplane* (2020, with Michal Tříška): “*The brain of a psychopath is flawed. It does not have sufficiently developed centres responsible for shame, conscience, compassion, cooperation. He behaves accordingly. A psychopath is a mental invalid. In the same way a person can be born with an underdeveloped limb,*

a person can be born with a defective character. It can be detected objectively by functional nuclear magnetic resonance imaging. The psychopath’s emotional center is not functioning sufficiently.” (p. 19)¹

Psychopaths can be very simply classified as social failures — they are mostly in prison. Or the socially successful — they occupy leading positions in politics and economics. It’s these two people-management-based fields that attract them the most. It is here that they can best evaluate both their material interests and let their personality traits shine through — manipulating people, controlling their emotions, gaining power. All this in an outwardly democratic guise. Moreover, their potential competitors are unable to compete with them — precisely because they have a conscience, a compassion, a level of judgment beyond which it is no longer possible to go. Paradoxically, it is democratic elections — from those within political parties, where the first selection of candidates for public office takes place, to national elections — that greatly facilitate this group’s path to power and benefits.

The eminent Czech psychiatrist Radkin Honzák points out this danger well in his book on psychopaths. In a newspaper interview, when asked: “*To enter politics — especially high politics — you probably need specific qualities. What, in your professional opinion, should such a politician not lack?*” He replied, “*I think he should not lack character, but most people who enter politics in our country*

¹ See also Fallon, 2019. When asked why politics is full of psychopaths, psychiatrist Radkin Honzák answers simply: “Because they are not afraid.” “People who have no fear are socially extremely attractive and savvy, and thus automatically get into leadership positions everywhere. That’s why you find them everywhere where decisions about power, about money, about rules and so on are made. On the other hand, you find the least of them where you are supposed to help others. In the helping professions, these people don’t apply themselves very much. By not having fear, psychopaths cannot understand well enough what fear actually is and why people have it. They find ordinary livelihoods boring. And they naturally become leaders because they have no fear. Our brains are built to register danger, which these people lack. But when people don’t have fear, they behave like predators and parasites... Plus, they have predatory and parasitic adaptability, so they have amazing behavior and are considered role models. Among other things, because they tend to be very meticulous. They’re creative, they can play brilliantly, and they’re flawless in their performance. But the interesting thing is that it’s not hereditary... Our upbringing is very much fear-based, so we don’t do a lot of things because we’re preemptively afraid, whether of a spanking, a note, or any consequence. And we gradually integrate that into our behavior. Psychopaths, however, have it different from childhood. They soon develop pathological lying, truancy, bullying, stealing and so on. While the average person only needs to go to a haunted castle when feeling bored, this is not enough for them. They need to be hyper-stimulated, and often get into trouble with the law” (Honzák, 2019; see also Honzák and Honzák, 2018).

do not count on that at all, or even know what the word means.” And to the question: “You once said that the Czech political scene is full of psychopaths. Do you agree with that statement today? Does one really have to be a psychopath to become a good politician?” He said, “I still agree with that. Politics should be a service to the citizens, in reality it is a battlefield sometimes with completely different goals.” (Honzák, 2018)

Psychopaths have always been a part of human society — it is generally considered that they consistently make up 4% of the general population. However, it is the current era, full of constant change, uncertainty, emphasizing performance and competition, that creates specific conditions that significantly improve the application of psychopaths in leadership positions. Klára Ponczová in her article *How to safely detect a psychopath* adds: *“Today, cultural elements such as materialism, social intolerance, suppression of one’s own sensitivity and violence encourage psychopathic behaviour.” (Ponczová, 2021)*

4. The ideal of the political leader

But let us return to the question of how far leadership is a quality that people are born with and how far it can be learned. This, too, has been a subject of concern since ancient Greece. One of the most important figures of that time who addressed this issue was Xenophon, a pupil of Socrates. He was himself a philosopher, historian, military commander and businessman. Among other things, he was the author of *Oikonomikos* — *On Economy* (or also *On the Rules of Economy*), which gave birth to the name of a new science — economics and one of the first two textbooks on economics (the first one was actually Hesiod’s book *Work and Days* — see Valeš, 2013). As both a soldier and an economist, Xenophon dealt extensively with the very issues of leadership — the role of the leader and his relationship to the people he is supposed to lead. He even regarded leadership as *“the most important thing in any operation that makes demands on the work-*

ers.” John Adair, in his book *Leadership*, captures Xenophon’s view that the germs of leadership are in all of us and need to be cultivated, as follows: *“It is necessary to start from the assumption that a person has a certain degree of leadership ability within him. Many people are not even aware of this fact. Give them a need or opportunity to lead, some encouragement and perhaps a direction or program of leadership, and most will develop this ability. Those with more natural potential can become better leaders, provided, of course, that they work on themselves.” (Adair, 2006, p. 27)*

The question of leadership and the characteristics of a proper leader then winds like a red thread through ancient history, which gave birth to three types of leaders, which were then claimed by the Middle Ages. Two were warlords and politicians — Alexander the Great, the founder of the first global empire, and Gaius Julius Caesar, the father of the Roman Empire. But a very different type of leadership, one that has transcended the ages and is still present two thousand years later, was offered by another of this trio — Jesus of Nazareth. He showed, among other things, that the word is mightier than the sword. While the great empires of Alexander, Caesar and their successors have long since been covered by the dust of history, the teachings of a man who preached love, humility, forgiveness and non-violence have endured literally for ages. (see Machovec, 1990)

It is no coincidence, therefore, that his legacy was also the basis for Christian theorists of the Middle Ages who believed that only secular power backed by Christian virtues had a chance to succeed in the long run. And that morality was worth more than power. The prototype of the Christian ruler was born, and at its birth stood — not coincidentally — the last ancient and first medieval thinker, Augustine Aurelius. He saw the ruler as, among other things, a good servant and shepherd of his subjects, upholding law and justice. Let us quote from his most famous work, *On the Community of God*: *“We call Christian rulers happy when they rule justly, when they have no fondness for speech-*

es that praise them to the skies and root them, knees beating in the dust, when they are conscious of their humanity, when they use their power to spread God's honor and glory, making it the handmaiden of God's supreme majesty, when they fear God, love and honor him, when they love the kingdom more, where there is no need to fear any rivals, when they are not revengeful and easily forgiving, when they punish for the defence and protection of the state and are not satiated with anger against the adversary, when they are meek not to leave iniquity unpunished but in the hope of the betterment of life, when they sometimes have to enjoin something harshly, they temper harshness by kindly condescension and the bestowal of favours; the more they abstain from pleasures, the more amenable they are, when they rather restrain their lusts than foreign nations, and when they do all this, not for the sake of vain glory, but for the love of eternal happiness, and also when they do not forget to offer to the true God the sacrifice of humility and contrition for their sins." (Augustine, 1948, p. 159) Virtue and justice, then, adorn the Christian ruler. Conversely, "He who puts the desire for power above the glory of virtue is capable of any evil; he is a tyrant." (Augustine, 1948, p. 133)

The image of the ideal ruler that Augustine attempted is not new in the history of political thought. Think of Plato's Statesman or the ancient Indian text The Textbook of Worldly Affairs, in the original Arthaśāstra, attributed to the sage Kautilya, the alleged minister of King Chandragupta Maurya (Charvát, 2011, p. 296). The latter depicts the virtues of the ruler somewhat more realistically, but no less nobly: "He is from a large family, endowed with destiny and truthfulness, he is fond of seeing the aged, he is pious and truthful, he does not break his vows, he is grateful, generous, very energetic and ungenerous... eager to be educated, without vices, capable of commanding troops and rewarding the good and the bad, chaste... far-seeing and far-seeing" (Zbavitel, 2001, pp. 201–202).

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cially successful — they occupy leading positions in politics and economics. It's these two people-management-based fields that attract them the most. It is here that they can best evaluate both their material interests and let their personality traits shine through — manipulating people, controlling their emotions, gaining power. All this in an outwardly democratic guise. Moreover, their potential competitors are unable to compete with them — precisely because they have a conscience, a compassion, a level of judgment beyond which it is no longer possible to go. Paradoxically, it is democratic elections — from those within political parties where the first Nevertheless, Augustine's description of them gave rise in the Middle Ages to a whole series of writings about ideal Christian rulers worthy of emulation, a genre of so-called mirrors, officially called "*the mirror of the Christian ruler*." (Karfíková, 2011, p. 120) And he also created the first "template" — a model of what such a mirror should look like and what virtues best adorn a Christian ruler. Including, of course, the depiction of their strife with the devil and sin, repentance, and humble search for God's grace, as we witness in Augustine's own biography, the Confessions. This concept also includes the well-known to Czech readers biography of the emperor and king Charles IV. Vita Caroli, or Erasmus of Rotterdam's interesting treatise On the Education of a Christian Ruler, which shows, among other things, how Christian virtues distinguish the rule of a Christian and a pagan ruler. Incidentally, the Roman Emperor and Bohemian King Charles was by no means the only European monarch who left his successors an image of the ideal government and ruler. Similar writings come from the pen of Jaime I. Aragon, Louis IX. of France, Sancho IV. of Castile and Pedro of Aragon. As the Czech historian Zdeněk Kalista shows, their purpose is clear: "*They are meant to place before the eyes of their readers a kind of living command of Christian life, bequeathed by these rulers to their successors. Everything they report from the concrete political actions of the rulers is placed in the perspective of the Abso-*



lute, evaluated above all in relation to the firm and clear commands of the teaching of Christ, and is intended to be a proof and admonition to 'virtue' in the Christian sense." (Kalista, 1969, p. 160) Let us add that this genre was deeply rooted in European literature, and one of its late manifestations is the writings of the French King Louis XIV. *Memoirs of the Sun King – Reflections for the edification of the Dauphin*.

But the most important guide on how to rule properly saw the light of day in 1513 and is aptly named *Il Principe – The Prince*. Its author is the famous Florentine diplomat and politician Nicolo Machiavelli. He wrote a very practical guide to becoming a successful leader in politics. Unlike the previous medieval era, however, it is not based on Christian virtues and does not paint a picture of a politician – a leader as he should be, but one who will be successful in practice, basing his actions on the reality of the world – the way it is and the people in it. Politics and leadership are first and foremost a matter of the actual state of the human psyche, and therefore, quite irrational and subjective components and ideas play an equal or even more significant role than reason or morality. To put it in classical terms, man thinks of himself as a rational being, endowed also with emotions. In reality, he is an unstable being, tormented by his emotions, who uses his reason now and then. That is why it must also be seen as an art – a creative activity that must respond to the constant changes that are common to politics, because the world is also constantly evolving. What does not change, on the other hand, is human nature, which is the stable component of things. But Machiavelli is under no illusions about it, and he recommends the same for all rulers: "*Let us leave aside the ideal human qualities which a ruler should possess and consider the practical side of life... It would certainly be desirable that every ruler should be endowed with only the most beautiful qualities which are generally considered good. But we know that it is against human nature that he should have all of them and always follow them. Therefore, if a man would be a*

good and successful ruler, he must first of all avoid those qualities which threaten his power, and must not heed the language of men. For nobleness might, in a certain situation, plunge him into ruin, and, on the contrary, what at first sight looks like wickedness may mean benefit and security for the whole country." (Machiavelli, 2001, pp. 52–53) The great Florentine is even more disdainful of "ordinary" people: "*People will readily harm the one they love, because love is a moral obligation, and they will readily violate it for their own benefit. Precisely because they are bad and weak. But fear of punishment keeps them in line.*" (Machiavelli, 2001, p. 55) "*We all know that men are ungrateful, hypocritical, cowardly, and covetous, and if the hand of the Lord be open, they will break their good will, they will promise mountains of mines – their whole fortunes, the lives of their own sons, their blood. But as soon as it comes to the breaking of bread, on all fours they turn. And if the ruler relied on them, he will meet with evil.*" (Machiavelli, 2001, p. 55).

Machiavelli's main ambition and the basic idea of *The Ruler* are best expressed in these words: "*I consider it preferable to look at things as they really are, rather than as they appear from the outside. For there is a great difference between what life is and what it ought to be. He who is oblivious to reality and does not want to see how people are, and builds more on his wishes and ideas of how the world should be, will not do well.*" (Machiavelli, 2001, p. 52). These words should be part of the basic equipment of every successful manager and leader – not only in politics. Machiavelli pays considerable attention to the political mistakes that stemmed from the false and unrealistic perceptions of his actors. He does not look for transcendent reasons for what happens, he does not strive for the image of politics as it should be – he is the founder of political realism and the grandfather of the realist approach in international relations.

The ideal ruler and, in our case, leader, according to Machiavelli, is typologically a combination of a fox and a lion. "*The lion will not perceive an*

ambush and the fox will not deal with wolves. He should therefore be as clever as a fox and as strong as a lion. Whoever thinks he can make do with strength does not hold the scepter." (Machiavelli, 2001, p. 56). *"Whoever wants to be a good ruler must be as cunning as a fox, but he must be able to disguise this and deceive his opponent. People are so naive that they are happy to believe what they want to hear."* (Machiavelli, 2001, pp. 56–57) A ruler does not and, given human nature, cannot be the embodiment of all virtues, but he should give the appearance of having them (the world wants to be deceived), he should spare human goodness, which people might perceive as weakness, and, on the contrary, make his subjects constantly aware of the presence of his rule and its strength. He should not resort too much to violence, only to the extent strictly necessary, and if possible only at the beginning of his reign. Machiavelli rightly says: People remember only the good things of the past and quickly forget the bad. A good ruler should also take the time to study the history and deeds of his predecessors. In this way, he will avoid their mistakes and learn lessons for successfully dealing with similar situations in life. His essential quality is flexibility — he should be able to discern exactly how to act, whether to strike or retreat, according to the situation — and also decisiveness, nothing is worse than hesitation and vacillation. This is a sure way to lose allies and power.

Niccolo Machiavelli thus entered history as a teacher of rulers — political leaders. His influence continued into the 20th and 21st centuries, making him the most influential political scientist of all time. Modern Italian sociology has again updated the theory of elites outlined by Machiavelli, even using his terminology. The aforementioned Italian elite theorist Wilfredo Pareto adopted Machiavelli's classification of rulers as foxes and lions. But Machiavelli's ideas were also successful with Italian politicians — Benito Mussolini, the founder of Italian fascism, read Machiavelli with pleasure and even wrote a short introduction to Machiavelli (*Preludio al Machiavelli*). Mussolini considered his

Ruler to be *"the supreme guide of the statesman"* and his inspiration in thought. He clearly said: *"I want to maintain a direct contact between Machiavelli's doctrine and my life... between his and my practice of government."* He saw himself as the ideal embodiment of Machiavelli's Sovereign — a man of action, strong and decisive, able to win Fortune with his exceptional abilities, and moreover endowed with the right instinct for politics. Moreover, in his Introduction, he shows that Machiavelli's ideas on government are still valid today because, despite radical social changes, the essence of man on which Machiavelli built is unchanging.

This almost uncritical and highly utilitarian conception of Machiavelli and his teachings, which were compressed into the slogan *"State and country are above all else"*, resonated strongly in the other great nation that originally lived without its state — Germany and the Germans. See the opinion of the philosopher Arthur Schopenhauer, who compared *"Machiavelli's lessons in political science to those of a master swordsman, who teaches the art of killing and not being killed, but does not teach the art of becoming an insidious murderer."* (Krsková, 2003, p. 216).

5. Conclusion

Leadership theory — as we have outlined it at least in this brief overview — is therefore also very applicable in the field of politics and public administration. However, it is opposed by another theoretical framework that denies the role of strong personalities as key history-making agents and sees impersonal, structural and collective principles as key. Its typical representative is the teachings of Karl Marx — Marxism. Yet it is clear that the role of distinctive leaders in the management of politics is crucial, and their ability to motivate those around them, implement their vision and win others to it is a key competence that determines the success of politics and governance.



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Leadership in Politics and Public Administration

ABSTRACT

This study will focus on the possibilities and limitations of applying leadership theory in the public sphere – politics and public administration. In addition to the definitional and theoretical definition of the issue, it will also use successful historical cases. The role and significance of leadership in history and contemporary politics will also be an integral part of the study. Recent psychological theories of leadership will also be used, including the danger of the rise of deviant personalities to top political positions – the so-called dissociative personality disorder theory. Sociological theories of leadership (Weber, Michels, Pareto, etc.) will also be discussed.

KEYWORDS

Leadership; Politics; Public Administration; Machiavelli; Weber

JEL CLASSIFICATION

F15; G18; H7; H83; L88



Characteristics of Business Angels Investment in the Czech Republic: The Current Stage of Development

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* 1. Introduction

Experts generally agree with the need to invest in the crisis. In this case, investors expect higher returns on investments than not investing. And it is no different in the unprecedented coronavirus crisis. As in most developed countries of the world, small and medium sized enterprises (SMEs) make up more than 99% of total business entities (Filipe et al., 2016), it is obvious to focus on this area when rebuilding affected economies. SMEs have difficult access to external equity financing, such as bank loans (Sonius et al., 2015; Reverte and Badillo, 2019; Glücksman, 2020), and business angels (BAs) play an important role as a source of financing for these enterprises, especially seeds, start-ups, or later-stage ventures (Cosh et al., 2009; Invest Europe, 2019).

However, the coronavirus crisis raised concerns as early as 2020 that the resulting economic uncertainty could cause the business angels market to collapse. BAs investment activity fell sharply between the second and third quarters of 2020. Activity stabilized in the fourth quarter of 2020 and reached a higher level during 2021 than before covid-19, but it should be noted that the characteristics of venture and development capital investment by business angels have changed. For

example, angels have increased interest in the next rounds of financing the companies in which they have invested in the previous period, creating a potential problem for entrepreneurs who want to start the first round of financing. The change also occurred within the sectoral focus of investment (Mason and Botelho, 2021). The authors Mason and Botelho (2021) emphasize that there should be a response to current changes by national policy-makers; it is important to map the current situation in the business angel market, primarily the supply side of venture and development capital.

The evaluation of the effects of the coronavirus crisis on business angel investments is usually realized with a focus on the demand side, entrepreneurs or companies requesting venture and development capital (e.g., Dvouletý et al., 2022). According to the findings, there are no scientific sources on the characteristics of business angels in the Czech Republic, both with respect to the change in the coronavirus period. The characteristics of BAs investments in the Czech Republic were evaluated, for example, by the World Bank Group study (2018), using secondary data sources from the Invest Europe database and applying the results to private equity, not business angels. There is a potential to build on this study and exclude only business angels from private equity with the

help of secondary data obtained from the Pitchbook database, which provides data on venture and development capital (Pitchbook, 2022), including BAs. In evaluating the investment characteristics of BAs, World Bank Group (2018) relies only on qualitative research, specifically semi-structured interviews with selected BAs.

Significant constraints can also be identified in connection with the database, characterizing the supply side of the business angels (Mason et al., 2021), because secondary data sources contain different information. As Provorovs and Fainglozs (2014) state that each database defines and classifies an informal venture and development capital investor slightly differently (e.g., Invest Europe, Pitchbook, Global Entrepreneurship Monitor). Prohorovs and Fainglozs (2014) further add that it is necessary to investigate the same problem in relation to business angels based on multiple databases and thus avoid bias in the results.

The purpose of this article is to map the development of business angel investments in the Czech Republic. Research questions include the following: (1) What is the characteristic of angel investments in the Czech Republic? (2) What measures to support angel investment in the Czech Republic can be recommended to government policy makers?

For the conceptual side, a literary review is first created, followed by a methodological framework, which is followed by the results. Finally, a discussion of the findings and conclusions is made, including recommendations for further targeting of angel investor research.

2. Business Angels

Business angels operate in the venture and development capital market, which is an important source of capital financing for start-ups in the SMEs sector, as the approach for bank loans of these companies is problematic (Glücksman, 2020). Within Europe, venture and development capital is generally perceived as a form of private

capital (Invest Europe, 2021; Sincerre et al., 2019). In general, private equity (PE) is a type of investment in which an investor provides financial capital in the medium to long term, that is, 3–5 years and more (World Bank Group, 2018; Invest Europe, 2021). Invest Europe (2021) divides PE specifically into venture capital, growth / buyout capital, rescue / turnaround capital, and replacement capital, where all these forms of PE could be described, but this paper deals with the area of venture capital (VC) market; therefore, only VC is considered. Venture capital is based on the definition of PE and is primarily a specification of investment in a certain stage of development of the company, specifically in seeds or start-ups, where these companies basically have no other financing option (Invest Europe, 2021; Iyer, 2020; Sincerre et al., 2019).

The definition of the angel investor has evolved over forty years; the person of a noninstitutionalized investor, i.e., a business angel, is currently changing from the original definition of a middle-aged middle-aged man (Freear et al., 1994) to individual investor, who is more and more institutionalized (Mason et al., 2019). Business angels are individuals with high net worth who invest in start-ups with an increased degree of investment risk (Akhmejanova et al., 2015), when there are no family connections with the founders (Mason and Harrison, 1996; Chanine et al., 2007). On the other hand, these companies have a high growth potential and thus a higher return on the investment itself (Becker-Blease and Sohl, 2007; Freear et al., 1994).

Business angels form an extension of the “3F” capital financing — friends, founders, and family (Sohl, 1999) and are usually former successful entrepreneurs or high-ranking managers of national and multinational corporations (Sohl, 1999; Becker-Blease and Sohl, 2007; Wetzels, 1981). However, the supply of business finance in Europe is limited by the geographical fragmentation of venture capital, which is why the possibility of cross-border BAs investment as the main source of early-stage



financing should be facilitated (Mason et al., 2021). Mason et al. (2021) identified three key constraints on cross-border investment, namely the lack of information on cross-border investment, the preference of BAs to invest locally, and the tax incentives that usually operate for investments in the country of an angel investor. In view of this, support for cross-border investment by national policy makers should be adjusted (Mason et al., 2021; Mason and Botelho, 2021). Botelho et al. (2021) complement the area of interest to support policy makers in the education of business angels. However, it is important to note that the impact of interventions is difficult to measure due to insufficient data on BA investment, so it would be appropriate to focus primarily on developing appropriate methodologies that identify early-stage investment trends requiring venture capital (World Bank Group, 2018).

BAs provide companies with their knowledge, skills, network of contacts, and are actively involved in the management of the company (Harrison et al., 2010; Politis, 2008), which distinguishes them from venture capitalists, who are also individuals or noninstitutionalized investors in the venture and development capital market, but they only invest financial capital in the company and do not actively participate in the management and development of the company; in addition, they usually invest in the development of existing companies, not seeds or start-ups, as in the case of business angels (Sudek, 2006). Participation of BAs in the company also increases the likelihood of implementing another round of venture capital financing (Capizzi et al., 2022).

2.1 Deal Type of Business Angels Investment

As already mentioned, business angels operate in the venture capital market, so the deal type of business angel investment is based on the division of VC itself. Invest Europe (2021b) divides venture capital investments into seed, start-up, and later-stage ventures. Under seed capital or pre-start fi-

nancing, the investor or BAs usually provides capital financing to technology companies, for example, to complete market analysis, complete research, and product completion, including market tests and prototype production. In general, pre-start financing brings the investor the highest level of risk about the three types of venture capital; however, with a higher level of investment risk, it also brings a possible higher level of appreciation. In addition to preparatory activities, the company uses financial capital to start production or distribute the product in bulk (Herber et al., 2017; Invest Europe, 2021b).

Start-up is the financing that is most often analyzed in the scientific literature (Giaquinto and Bortoluzzo, 2020). It follows that companies have been on the market for some time but have not yet sold the product or service commercially, and therefore, such companies will not generate a profit yet. As part of their participation in the venture and development capital market, start-up companies are more likely to obtain a bank loan in the future (Invest Europe, 2021b, Cole and Sokolyk, 2018).

The last type of venture capital is later-stage venture, which in the case of business angels accounts for the smallest share of the total number of investments made. In this case, angel investor financing is provided to companies at the operating costs of a company that may or may not be profitable. Investors usually include later-stage venture financing of companies that are already supported by venture and development capital and are typically successive rounds of venture capital financing, the third and fourth (Invest Europe, 2021b; Pitchbook, 2021).

3. Methodology

The methodological framework of this article is based on an extensive review of the literature, including content analysis and subsequent synthesis of scientific resources. According to Turner (2018), the literary review technique serves to create a the-

Table 1 » Methodology of the Literature Review

Source	Literature review		
	WOS		
Technique	logical operators (AND, OR)	abbreviated symbols (*)	CPY, YEAR
Inclusion	author's decision		
Keywords	Private equity, venture capital, informal venture capital, venture capitalist, non-institutionalized venture capital, business angels, angel investor, Czech Republic, Czechia, policy, government, seed, start-up, later-stage venture		

Source: Own elaboration

oretical basis for possible future research, when completely new findings are often discovered, and the research is subsequently adjusted based on the findings (Imel, 2011). Within the scientific community, the technique of literary review is used most frequently for this purpose. However, it is not always performed correctly (Torraco, 2016). According to Leedy and Ormrod (2004), the correctness of the implementation is ensured primarily by the analysis of the texts selected by the author and the subsequent synthesis of the information obtained with a special focus on the key topics of research and the context of the whole paper.

In this case, scientific articles were selected from the Web of Science database for the purpose of creating an extensive literature review, where articles were searched using a combination of relevant keywords using logical operators (AND, OR) and abbreviated keyword symbols (*). The evaluation of the “quality” and inclusion of the article in the literature review was made based on an expert decision by the author, considering the year of publication and the average number of citations per year (CPY). The following Table No. 1 clearly shows the methodology of data acquisition to create the theoretical background of this article, including a list of selected keywords, for example, venture capital, business angels, informal venture capital, start-up, and others.

The research follows a study by the World Bank Group (2018), which conducted quantitative research in the form of a descriptive analysis of sec-

ondary data (PE from the Invest Europe database). The research of this article will perform a similar secondary analysis of data from the Pitchbook database directly within the investor of noninstitutionalized venture capital, i.e., business angels. This corresponds to the conclusions of the authors Prohorovs and Fainglozs (2014), when it is necessary to investigate the same problem based on multiple databases to avoid bias. Secondary data from the database provide easy access to data that have been collected by someone in the past (Kotler and Keller, 2007).

To answer the research questions defined in the introduction, secondary data was collected in December 2021 from the Pitchbook database, which became the database for subsequent empirical research. The resulting data were filtered with respect to the categorization of the investor and his location, specifically, a private investor in the form of an angel investor (filtering: angel / accelerator, angels individual; location, Czech Republic, only headquarters) was allocated from the overall venture and development capital investment. A total of 99 business angels emerged from this filtration, whose headquarters are the Czech Republic. The resulting number of BAs was further adjusted by filtering Czech nationality, and finally investors who do not have active investments were removed from the total. After these adjustments, 65 business angels with at least one active investment, headquarters in the Czech Republic and Czech nationality, became the research sample for the sub-



sequent analysis of the obtained secondary data.

The selected research sample was subjected to quantitative content analysis, the aim of which was to convert the obtained data into measurable units and to affect constructs that cannot be captured directly (Trommsdorf, 2009). For this reason, the “cards” of all BAs in the research sample were transferred to Microsoft Excel software, where the following information became key information about investment categorization: (1) location, (2) deal date, (3) deal type, (4) deal size, (5) primary industry, and (6) industry group.

The data obtained, which were converted into quantitative form within Microsoft Excel for the purpose of conducting a statistical survey, were subsequently evaluated using tabular expression of absolute and relative frequencies, including descriptive analysis using the method of position description, such as average or median. The reason for the use of descriptive statistics is the fact that it captures the characteristics of available data, including their development (Schels, 2008).

4. Results

As the following Table no. 2 shows that the development of venture capital investment by private investors in the Czech Republic, respectively, business angels can be recorded according to the Pitchbook database since 2011. However, the number of investments in individual phases of the company’s development was negligible. The turning point did not occur until 2018, as the number of total investments increased significantly to 18 completed business transactions at all stages of the company’s development. The volume of total invested amounts also started to grow. The highest amount for seed and later-stage venture was invested in 2020, namely 7.76 and 4.14 million US dollars; on the contrary, the start-up recorded the highest amount in 2021 at 8.20 million US dollars, which is also the highest total amount invested for the entire period 2011–2021. A total of 36 seed investments were identified during the period 2011–2021, totaling 21.82 million US dollars. There

Table 2 » No. of Deal Type and Total Investment of BAs in the CZ

Year	No. of Deal Type and Total Investment (million US dollars)					
	Seed	Total Investment	Start-up	Total Investment	Later-stage Venture	Total Investment
2021	6	4,62	10	8,20	0	0
2020	5	7,76	8	4,62	1	4,14
2019	4	2,06	6	4,40	0	0,00
2018	8	1,08	3	0,44	7	-
2017	0	0,00	1	-	0	0,00
2016	7	2,29	0	0,00	0	0,00
2015	2	2,35	4	1,76	0	0,00
2014	1	0,24	4	5,30	0	0,00
2013	2	0,12	2	-	0	0,00
2012	0	0,00	1	3,82	0	0,00
2011	1	1,30	0	0,00	0	0,00
Total	36	21,82	40	28,54	8	4,14

Source: Own elaboration from the Pitchbook (2021)

Table 3 » Descriptive Statistic of the Deal Size of the BAs in the CZ

Year	Deal Size (million US dollars)					
	Seed	%	Start-up	%	Later-stage Venture	%
Maximum	7,76	35,56 %	8,20	28,73 %	4,14	100 %
Minimum	0,12	0,55 %	0,03	0,11 %	0,00	0 %
Median	1,30	5,95 %	3,82	13,38 %	0,00	0 %
Average	1,98	9,07 %	3,17	11,11 %	0,38	9,18 %
2011–2021	21,82	–	28,54	–	4,14	–

Source: Own elaboration from the Pitchbook (2021)

were 40 investments in start-up companies totaling 28.54 million US dollars, and eight investments totaling 4.14 million US dollars were made in the later-stage venture.

In the case of evaluation based on absolute or relative frequencies, as you can see in Table no. 3, the highest amount of 7.76 million US dollars was invested in seeds in the reference period 2011–2021, which is 35.56% of the total amount invested, while the lowest investment was 0.12 million US dollars (0.55% of the whole). The average amount invested was 1.98 million US dollars (9.07% of the total) and the median 1.30 million US dollars (5.95% of the total).

For start-ups, the highest amount invested in the period under review was even 8.20 million US dollars, which is 28.73% of the total amount invested. The minimum was 0.03 million US dollars (0.11% of the total), the average was 3.17, and the median was 3.82 million US dollars, respectively, 11.11% and 13.38% of the total. The investment of business angels in later stage ventures shows that the highest amount invested was 4.14 million US dollars, but in this case, it should be noted that incomplete data in this category has become a limit, so the amounts will no longer be evaluated for elimination of misleading data.

It is evident from the results that business angels invest in start-up companies more often in smaller amounts and in the highest amounts,

about the three mentioned categories. The highest financial amounts flowing into start-ups can be explained by the balance between riskiness and return on investment; start-ups are less risky than seeds, on the other hand, with a lower rate of return on investment (Cole and Sokolyk, 2018; Gi-aquinto and Bortoluzzo, 2020).

Regarding the characteristics of BAs' investment in the Czech Republic about the specifications of the primary industry or industry group, investors carried out the most transactions in the field of information and communication technologies (ICT), and then in consumer goods and services (B2C), and finally in merchandise and services (B2B). The health area was not implemented at all for seeds for the entire period 2011–2021. In start-up companies, the largest number of investments was also made in the ICT sector, compared to seeds, the B2B sector came second, followed by B2C, and finally healthcare. An exception in the distribution of sector categorization is later-stage ventures, where most investments went to healthcare, with only one investment in ICT.

The specific numbers of investments made in the primary industry and the categorization of the industry groups in the three forms of venture and development capital investment are given in Table No. 4.

A total of 22 investments in ICT were made of 36 seeds, which corresponds to 61% of the total



Table 4 » Categorization of the primary industry of BA investments in the CZ

Primary Industry	No. of Total Deal Type		
	Seed	Start-up	Later-stage Venture
B2B	3	8	0
Aerospace and Defence	0	5	0
Logistics	0	1	0
Media and Information Services	3	1	0
Production	0	1	0
B2C	11	7	0
Clothing	1	0	0
Food Products	0	1	0
Information Services	7	4	0
Other Consumer Non-Durables	3	0	0
Other Services Non-Financial	0	2	0
Healthcare	0	2	7
Monitoring Equipment	0	2	0
Other Healthcare Services	0	0	7
ICT	22	23	1
Application Software	7	2	0
Business Software	4	10	1
Educational Software	1	2	0
Electrical Equipment	1	0	0
Entertainment Software	4	7	0
Financial Software	3	0	0
Multimedia and Design Software	1	0	0
Network Management Software	1	1	0
Other Software	0	1	0
Total	36	40	8

Source: Own elaboration from the Pitchbook (2021)

number of BA investment plans in the Czech Republic in this category. The results are similar in the case of start-ups, where out of the total number of 40 investments, 23 investments are based on the ICT sector, i.e., 58% of the total. In the last category of later-stage ventures, out of the total number of eight investments, the most plans were invested

in healthcare, that is, 7 investments, that is, 87% of the total. All results of absolute and relative frequencies of the primary industry are shown in Table no. 5.

It is evident from the results that seeds, and start-ups invest most often in ICT, while in the case of later-stage ventures most investments go to

healthcare, which can be explained by the fact that later-stage venture investments are not as risky as earlier stages.

Based on the findings of the characteristics of BA investments in the Czech Republic, government policy makers in relation to the supply side of the business angel market can be recommended primarily to support the promotion of the possibility of becoming BAs or the creation of a national BAs association led by the state. The reason is the fact that despite the growing number of investment transactions, it is appropriate to support the growth of BAs in the Czech Republic, as BAs are an important source of financing for start-ups (Reverte and Badillo, 2019; Glücksman, 2020). Related to this is the transparency of angel investors, who often operate “covertly” (World Bank Group, 2018). In this case, there is space to support angel networks. The significant riskiness of the investment, especially for seeds (Herber et al., 2017) shows the suitability of the organization of BA training or mentoring in the Czech Republic. (World Bank Group, 2018). The results also showed that the primary choice of the investment sector is ICT, which can be problematic as a result, as other sectors will lag in venture and development capital financing. In this area, it is obvious to offer investors tax incentives to encourage investment in other investment sectors (World Bank Group, 2018).

5. Discussion

The results of the World Bank Group’s secondary research (2018) showed that the largest amount of venture and development capital is invested in later-stage ventures, then start-ups, and finally seeds, within the entire capital market. Here, the results of this article differ, as BAs invest the most in start-ups and seeds, and finally the lowest volume of transactions goes to later-stage ventures. This again confirms the importance of this source (Sonijs et al., 2015; Reverte and Badillo, 2019; Glücksman, 2020). The distribution is the same in the case of the average size of the investment, where later-stage ventures (World Bank Group, 2018) dominate within the VC and start-ups for BAs again. However, in relation to the total number of transactions, the results of the World Bank Group study (2018) and this article identified the start-up category in the first place.

Significant differences in the results of this investigation and the study of the World Bank Group (2018) appeared in the sectoral distribution, when the World Bank Group (2018) included all VC investments in ICT for the observed period 2007–2017. The research of this article for the period 2011–2021 identified several other categories in BAs, primarily ICT, which are supplemented by B2B, B2C, and healthcare, respectively.

In contrast, the results correspond to the re-

Table 5 » Absolute and Relative Frequencies of BAs Investments in the CZ

Primary Industry	No. of Total Deal Type					
	Seed	%	Start-up	%	Later-stage Venture	%
B2B	3	8 %	8	20 %	0	0 %
B2C	11	31 %	7	17 %	0	0 %
Healthcare	0	0 %	2	5 %	7	87 %
ICT	22	61 %	23	58 %	1	13 %
Total	36	100 %	40	100 %	8	100 %

Source: Own elaboration from the Pitchbook (2021)



search of Mason and Botelh (2021), who stated that the investment activity of BAs fell sharply between the second and third quarters of 2020. However, activity stabilized in the fourth quarter of 2020 and reached a higher level during 2021 than before covid-19, but the characteristics of venture and development capital investment by BAs have changed, or interest in further rounds of financing has increased (Mason and Botelho, 2021). In the Czech Republic, BAs in 2020 focused their area of interest on later-stage ventures and the healthcare category.

6. Conclusions

Venture and development capital in the form of non-institutionalized or informal venture capital, i.e., business angels, is undergoing a significant transformation, not least about the effects of the covid-19 pandemic, which brought a change in BA investment characteristics (Mason and Botelho, 2021). However, despite this transformation and the importance of equity financing, the informal venture capital market is not sufficiently researched worldwide (White and Dumay, 2020) but also in the Czech Republic (Zinecker et al., 2021a, 2021b). This is due, among other things, to the fact that BAs often invest covertly (World Bank Group, 2018).

The results of the research show that BA capital financing has a growing trend in the Czech Republic in the period 2011–2021, where angels invest primarily in start-ups, then seeds, and finally in the later-stage ventures. The impact of the pandemic affected the characteristics of BA invest-

ment in that a significant amount of funds were invested in later-stage ventures in 2020, which shows efforts to reduce the risk of BA business, as seed or start-up brings this considerable risk (Herber et al., 2017). Within the sectoral distribution, it turned out that the key area is ICT, where most seed and start-up investments go, as well as in B2B and B2C, respectively. However, the coronavirus crisis has also provided BAs with the investment in healthcare. Regarding the results of the analysis of secondary data from the Pitchbook database, it is appropriate for government policies or programs to focus their support on helping other sectors. Tax incentives can be a solution in this case.

The limiting element of this article is the sources of secondary data obtained from the Pitchbook database, as business angels often invest covertly and the data obtained are not complete (World Bank Group, 2018), and different databases provide different data for further processing. However, this is a worldwide problem in focusing on quantitative or qualitative research of business angels.

Future research should focus on areas that have not yet been analyzed in the Czech Republic in connection with BA investments, such as BA exit strategies, determinants of decision making throughout the investment life cycle. Furthermore, it can also be recommended to analyze the investment characteristics of business angels using a different database. As already mentioned, different databases may provide different results, so it is obvious to find a certain “middle ground” within the database.

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Characteristics of Business Angels Investments in the Czech Republic – The Current Stage of Development

ABSTRACT

The coronavirus crisis has raised concerns about a dramatic decline in the business angel investment market. Surprisingly, after a brief market downturn, a stabilization phase ensued, but according to global data, the basic investment characteristics of business angels have not remained the same. The purpose of this article is to map the development of angel investments in the Czech Republic on the change caused by the coronavirus crisis. The source of data for the analysis is the Pitchbook database, which contains data on the characteristics of 65 business angels and their investments located in the Czech Republic. The data obtained are evaluated using selected descriptive statistics methods. The results of the statistical analysis of the data are the starting point for the formulation of recommendations to state institutions on how to support angel investment. The conclusion of this article also deals with the issue of possible promising research topics.

KEYWORDS

Business Angels; Venture Capital; Private Equity; Government Interventions

JEL CLASSIFICATION

L26; G24

x

The crisis as an opportunity for a return to the sustainable country self-sufficiency

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* 1. Introduction

The global economy is currently facing economic, social as well as global environmental challenges, to which several factors have contributed. One of them is the increase in the volume of international trade due to the increase in consumption. Almost a third of everything consumed in the world comes from imports, and almost a third of all products produced and services provided are exported. Over the last three hundred years, trade has been driven by America and Europe, which has gradually changed, and the economic power of China, India, and other countries is growing rapidly. The production of industrial products was gradually relocated to these countries, to the electrical and textile industries. The main goal of moving production to peripheral countries, with low labor or raw material costs, was to reduce costs. Employment in these countries has risen sharply, which has been most reflected in the textile, clothing, and footwear industries. Rising demand for unskilled labor has led to low urban unemployment and widespread rural-urban migration in China. Unemployed women with low wages were mainly employed. According to Jha (2006), the number of employed women increased, especially in the clothing industry, but did not improve working conditions. Gradually re-

ducing costs, China and other major countries have gained the necessary technologies and skills and have significantly reduced the ability of other countries to compete successfully. In addition, the volumes of exports, and international trade, increased mainly due to the increase in consumption and the reduction of textile production in the old European, which contributed to the deterioration of the environment. According to Remy et. al., 2016, the textile industry can be described as one of the sectors that have the most impact on the environment. The negative impact is in the creation of CO₂ emissions, which will increase by up to 77% by 2025 compared to 2015, water consumption in this sector will increase by 20% by 2025 compared to 2015 and land use will also increase by 2025, increase by 7%. Businesses should therefore look not only at profits, but also take social and environmental measures into account and offer consumers products made from quality materials. The negative impact on the environment is also with the consumption of various chemicals. Consumers, on the other hand, should buy products that are of good quality. However, this in turn is related to their economic potential. It follows that sustainability is in the hands of both businesses and consumers (Huang and Rust, 2011; Ramirez, 2013; Sheth, 2011). The aim is also to focus on sustaina-

ble fashion, which can eliminate the negative impact on the environment. Sustainable fashion is characterized by greener production at all stages of the product life cycle. It also respects values, including good working conditions and reducing environmental burdens (Henninger, et. al., 2016)

2. Textile industry in the world and in Europe

The textile and clothing industry covers a wide range of activities, from the transformation of natural or man-made fibers into yarns and fabrics to the production of a wide range of products such as high-tech synthetic yarns, bed linen, industrial filters and clothing and fashion. The corona-crisis confirmed the strategic importance of the sector: the safety of health professionals and the population as a whole depends on textiles, but their importance goes far beyond them. Without textiles, no cars, planes, or buildings can be built, nor can agricultural workers, defense and security forces or craftsmen do their full work. Textile and clothing products are among the most sensitive commodities due to their high share in exports and employment in developing countries. The WTO agreement on textiles and clothing aimed to bring the textile and clothing industry under GATT rules, as much of the textile and clothing trade was subject to the 1976 MFA textile agreement, which dates back to 1960, when developed countries requested derogations from GATT rules. Quantitative restrictions have been applied under this agreement for more than 20 years. Member States have committed themselves to phase out all quantitative restrictions by 1. 1. 2005, in four stages.¹

As of 1 January 2005, quantitative import restrictions have been completely removed and imports of textiles and clothing into Europe have

been increasing at dumping prices, mainly from China. Following the abolition of these quotas, safeguard proceedings against excessive imports and anti-dumping proceedings have been initiated in several countries.² The European Parliament adopted a resolution on the future of the textile and clothing industry after 2005 (2004/2265 (INI)).³ It was also important to address this issue because the EU's textile and clothing industry was largely composed of small and medium-sized enterprises (SMEs), with a strong concentration of labor. At the same time, the abolition of quotas had a major impact on the least developed regions, as employment and GDP per capita in the region fell because companies could not compete with Chinese products, as there was no free market in China and most textile companies were still state-owned and profitless from state banks loans to support production, exports, hidden state aid and free electricity supplies.

In the context of new global challenges, textile and clothing companies have sought to significantly reduce mass production and the production of simple fashion products, and have sought to produce higher value-added, design-oriented products. In 2004, the textile and clothing industry in the European Union had a turnover of around EUR 200 billion. €, about 177,000 companies, employed more than 2 million people.

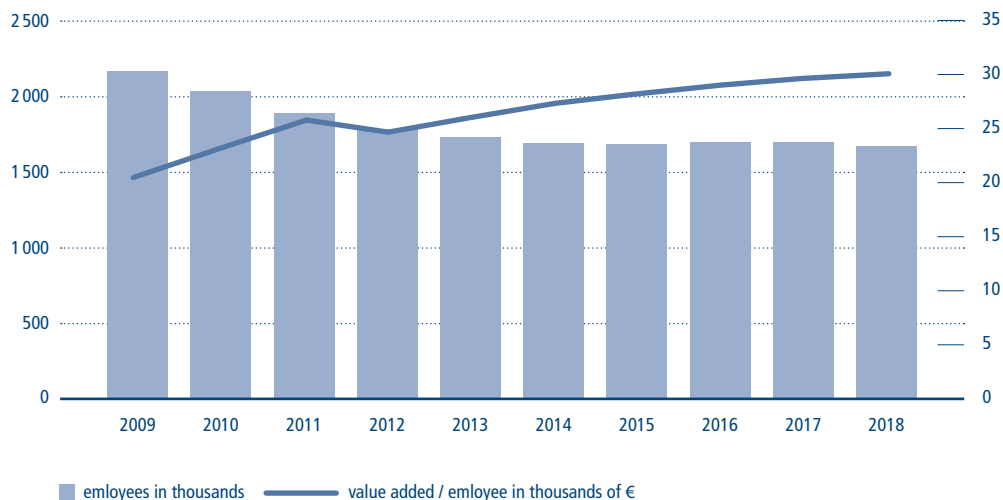
Its share in the total value added of the manufacturing industry was 4% and its share in employment was almost 7%. In 2020, the number of enterprises in the textile and clothing industry in the EU decreased to 160,000 companies (of which 99.8% were micro and small enterprises), had 1.5 million employees and a turnover of 162 billion. €. In the third quarter of 2021, textile activity continued to expand, albeit at a slower pace than in the same quarter of 2020. EU production and exports in the

¹ The first stage until 1 January 1991 concerned 16% of the total imports in 1990, the second stage until 1 January 1998 concerned 17% of the total imports in 1990. Until 1 January 2002, 18% and until 1. 1. 2005 49%.

² <https://www.mhsr.sk/obchod/multilateralne-obchodne-vztahy/wto/textilne-vyroby>

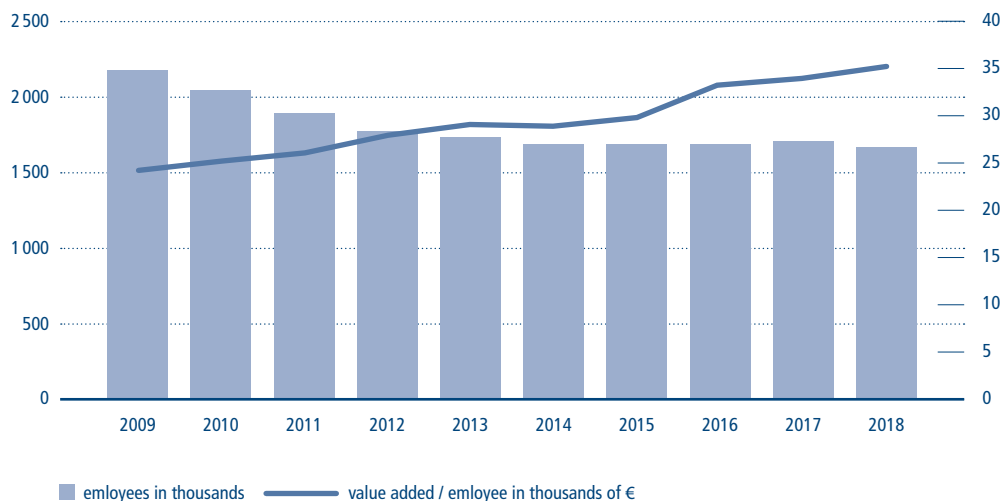
³ <https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:193E:0110:0116:SK:PDF>

Figure 1 » Development of employment (in thousands) and productivity per employee (€) in the textile industry EU



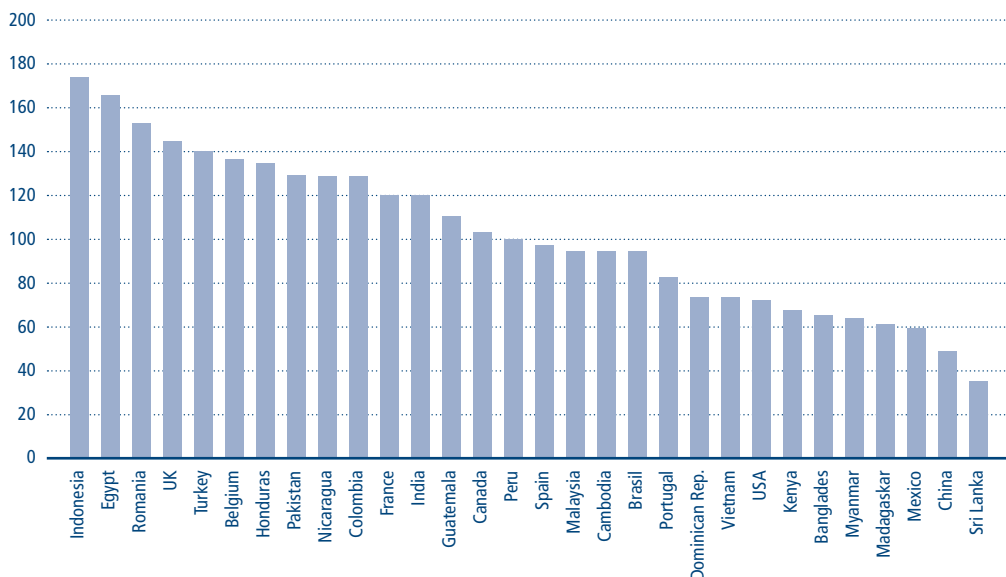
Source: processed according to EURATEX

Figure 2 » Employment development (in thousands) and share of employees over 50 (%) in the textile industry EU



Source: processed according to EURATEX

Figure 3 » Minimum wage of garment workers as a percentage of local living wage (%)



Source: compiled on data collected from www.minimum-wage.org, tradingeconomics.com

clothing industry fell by 4.4 and in the textile industry by 23.8%. Retail sales in clothing stagnated despite rising consumer spending.

The EU's business confidence indicator is stable in the textile industry, while it has lost momentum in the clothing industry. Employment fell in both sectors, in the textile industry by 2.8% and in the clothing industry by 3.8%. In addition, consumer confidence has declined due to deteriorating household expectations due to the economic situation and shopping uncertainty. 2022 is expected to be a particularly challenging year for the sector, in terms of environmental protection, rising commodity and energy prices, supply chain disruptions and other hygiene constraints associated with the Covid-19 pandemic.

Although the European Union, together with China and India, was the world's three largest exporters of textiles in 2020 (65.8% of world textile

exports in 2020, 66.9% before the pandemic (2018–2019)), the European textile and clothing industry will also face strong competition from the Regional Comprehensive Economic Partnership (RCEP) states in the future.⁴

In 2019, RCEP members accounted for almost 26.2% of world GDP, 29.5% of world goods exports and 25.9% of world goods imports. On 1 November 2021 the agreement has been ratified by Laos, Brunei, Cambodia, Singapore, and Thailand (ASEAN members), as well as China, Japan, New Zealand and Australia (entered into force on 1. 1. 2022). According OSN statistics from 2019 fifteen RCEP members has 50% share on export of world textiles and clothing worth \$ 374 billion and imported \$ 139 billion (20% of world imports) In 2019, almost 60% of 2005. In 2019, 32% were clothing imported into the EU from countries, an increase of 28.1% compared to 2005 (Lu, 2021).

⁴ Participants RCEP ASEAN (China, Japan, South Korea, New Zealand and Australia).

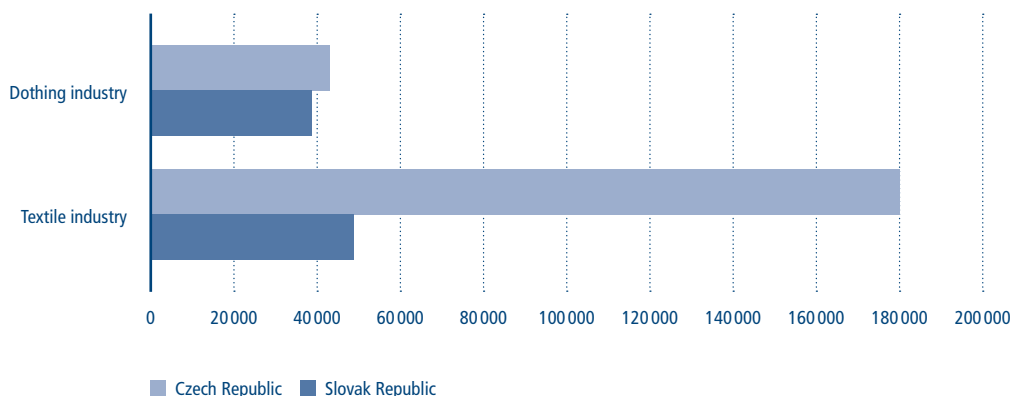
China and Vietnam saw a significant increase in textile exports in 2020, by 28.9% compared to 10.7% in 2019, mainly due to the pandemic. Labor costs are also a factor that has contributed to export growth. According to wage figures, these countries have some of the lowest in the textile and clothing industry. According to the monthly minimum wage for clothing workers, it is \$ 26 in Ethiopia, up to \$ 1,764 in Belgium in 2019. The world averages this year was \$ 470 per month. As for the minimum wage of workers in the clothing industry as a percentage of the local subsistence minimum in%, the graph shows – (e.g., China 49%, Vietnam 74%).

2.1 Textile and clothing industry in Slovakia

The textile and clothing industry in Slovakia has a long tradition. In the years 1987–1990, goods from Czechoslovak textile factories were worth more than € 500 million worldwide. According to 1989 figures, the textile and clothing industry employed 90,000 people and was then a European textile power.⁵

After 1990, the industry underwent a major transformation, but this did not affect its competitiveness. The reason was also the stagnation in this area in the previous period, as companies did not focus on innovation in machinery, equipment and technology and the industry began to gradually disintegrate, as new brands, cheap goods from Asia, came to market quickly. As a result, unsaleable goods accumulated in the companies and the support of the textile and clothing industry gradually ceased (Píhová and Thomas, 2019). Gradually, large companies became abandoned islands in cities that are either dilapidated to this day or buildings are being built in their place for other purposes, which at least eliminates the negative effects of unused buildings. As textile and clothing production was concentrated in smaller production cooperatives in addition to large enterprises, the sector is still mainly dominated by small enterprises, some of which are successors to production cooperatives and create around 20,000 jobs. Although there is an effort to develop this sector, the biggest problem is filling new jobs.

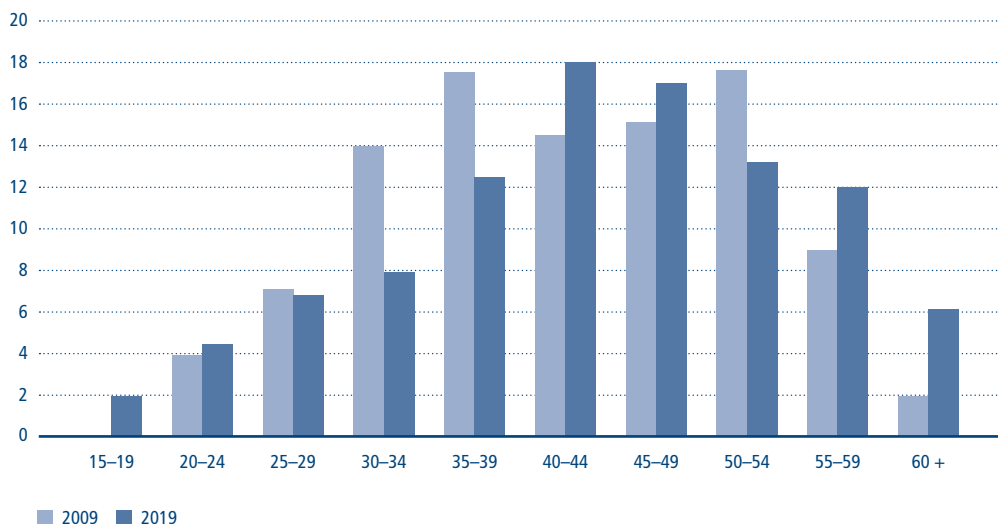
Figure 4 » Number of employees in the textile and clothing industry in Czechoslovakia



Source: processed according to Textile production before the onset of globalization in the Czechoslovak Socialist Republic: Textile Ružomberok — textile virtual museum (webnode.sk)

⁵ Textile production before the onset of globalization in the Czechoslovak Socialist Republic. webnode.sk

Figure 5 » Age structure of employees in the total number of employees in the textiles, clothing, footwear and leather processing sectors in individual years 2009 and 2018 (%)



Source: processed according to TREXIMA data Bratislava, ISCP (MoLSAEO SR) 1-04

This is due to a lack of staff with the necessary skills, as education has failed to adapt to current needs and at the same time unions do not open, on the one hand because of low student interest and because parents do not recommend their children to study these unions. options and low rating. The average monthly gross wage in the sector in 2018 was € 799 and the median monthly gross wage was € 673. This creates a disparity between the additional labor needs and the number of graduates entering the labor market in this sector.⁶

The age structure of workers in this sector documents that they are at least 15 to 24 years old and most between 35 and 54 years old. Approximately 1,900 graduates are expected to enter the labor market by 2024, completing their education in one

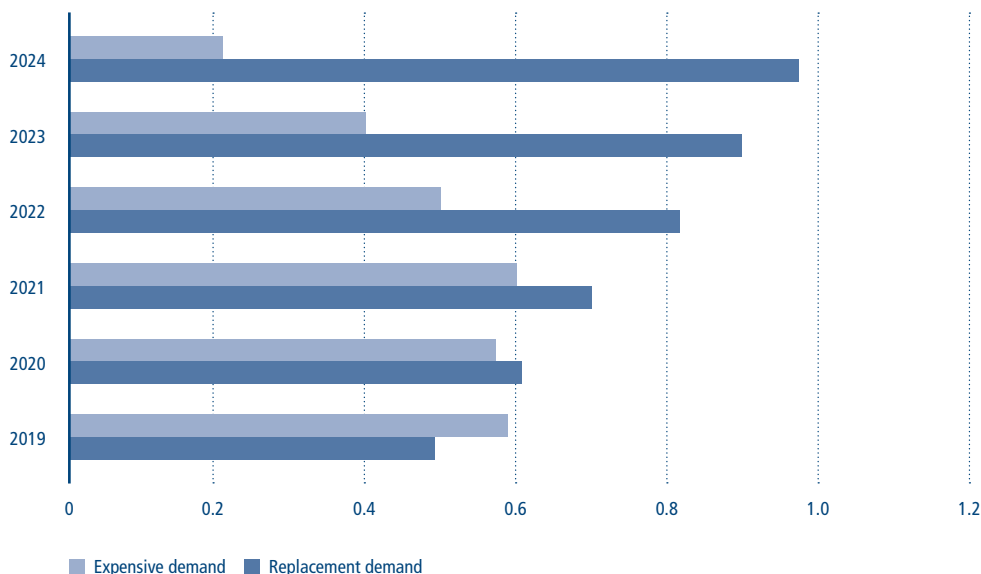
of the corresponding fields suitable for employment in the textile and clothing industry. The total additional need in the sector for textiles, clothing, footwear, and leather processing will be at the level of approximately 7,000 people by 2024.⁷

The textile and clothing industry in Slovakia, in addition to the lack of necessary skills, must also respond to new challenges. These are mainly innovative and technological changes in the context of environmental impact. The pandemic crisis has also revealed new opportunities for the industry. Businesses in Slovakia were faced with a difficult situation. The impact of the pandemic was reflected in particular in the cancellation of orders and thus an increase in unemployment. From January 2019 to March 2020, sector-specific unemployment

⁶ The additional labor demand is the sum of the expansion demand for labor and the substitute demand for labor. he additional need for employees in the future is a requirement to supplement the workforce with jobs that will not be possible to fill the current number of employees.

⁷ Development trends in the field of human resources. <https://www.sustavapovolani.sk/>

Figure 6 » Development of replacement and expansion demand in the sector for textiles, clothing, footwear and leather processing in the period 2019–2024



Source: processed according to TREXIMA data Bratislava

was significantly higher than the national average. Since April 2020, because of the pandemic, there has been a change in the labor market throughout the Slovak Republic, with specific unemployment in this sector increasing by 2.2 percentage points from March to December 2020. b. The highest difference compared to the Slovak Republic was in August 2020, at the level of 9.2 pp. b. On the other hand, the lowest difference can be seen in April 2019, namely 6.8 pp. b.

The most significant monthly increase in sector-specific unemployment occurred between March 2020 and April 2020 and amounted to 1.2 pp. b. A relatively significant monthly increase in sector-specific unemployment was also recorded between June 2019 and July 2019, at 1.1 pp. b. On the contrary, the highest decrease in monthly unemployment in the sector (by 0.7 pp) occurred between September 2020 and October 2020.

Note: replacement demand represents jobs that

are made redundant as a result of employees leaving the labor market (especially in retirement). Expansion demand is the difference between jobs created and lost, which is expressed in terms of expected employment growth.

In order not to have to stop production completely, many companies have focused on the production of protective equipment, especially drapes. The pandemic thus presented companies with the need to react quickly to the current situation and market requirements. The pandemic period has examined and continues to verify the limits of companies in this sector. Their strengths and weaknesses have been revealed, so that they can prepare for how to address their weaknesses in the future, especially dependence on specific customers, vulnerabilities in the supply chain and also offer quality goods that will be made from ecological materials, production will be based on environmentally friendly technologies

3. Textile and clothing industry and circular economy

The circular economy is characterized by a closed-loop flow of material and energy, taking into account natural and human resources, science and technology. The beginnings of the concept of the circular economy date back to 1960, when there was an increased interest in environmental protection and several environmentalists, economists and other experts began to address this issue. The priority of the circular economy is the saving and efficient use of limited natural resources, streamlining the production of products with high efficiency and low resource consumption, and reducing waste production. The circular economy is based on resource efficiency and possible reuse. The textile and clothing industries are considered to be the biggest polluters and their products, often new and unused, accumulate in landfills. Precisely because of their affordability and the loss of any empathy to those who produced them.

The result is today's fast-paced fashion, which is characterized by relatively cheap, mass-produced and mass-marketed clothing of medium to low quality, which follows artificially created fashion trends. The profit of the manufacturers of clothing, footwear and accessories is based on this system of overproduction and overconsumption. Fast fashion works on the typical principles of the current economic model – the linear economy, with complex global supply chains and profit maximization for a narrow group of shareholders instead of a broader view for all parties involved (shared value). This industry makes a living for many people, but fashion brand owners make incomparably more money on it. Cheap clothing brings the exploitation of workers and poor working conditions, the suffering of large numbers of animals, the accumulation of waste in landfills and in the wild, the release of pollutants into the environment, or the production of greenhouse gases associated with climate change. So, it's time to change this business and make it more sustaina-

ble. It is time for ambitious goals in line with the Sustainable Development Goals by 2030.

Since 1996, as a result of a sharp fall in prices, the amount of clothing purchased per person in the EU has increased by 40%, reducing the lifespan of clothing. Every European consumes almost 26 kg a year and throws away about 11 kg of textiles. Used clothes can be exported outside the EU, but most of them (87%) are incinerated or landfilled. In total, less than 1% of clothing is recycled as part of clothing, partly due to insufficient technology. The EEA report points out that the production of clothing, footwear and home textiles for Europeans has caused an estimated 654 kg of CO₂ equivalent per capita in the EU, making textiles the fifth largest source of CO₂ emissions, linked to private consumption. About three quarters of these emissions came from outside the EU. Current EU policies require Member States to introduce separate textile collection by 2025 and to ensure that waste collected in this way is not incinerated or landfilled.

In 2019, the European Commission identified textiles (clothing and textiles) as a “priority category of products for the circular economy”. In March 2020, the European Commission (EC) adopted a new circular economy action plan, which includes an EU textile strategy, to develop innovation and promote re-use in the sector. The aim of the new strategy is to address fast fashion and provide guidelines for achieving a high level of separate collection of textile waste. Under the Waste Directive, approved by the European Parliament in 2018, it will ensure for the first time that textile products are collected separately in all Member States by 2025 at the latest. EU countries will be required to apply separate textile collection. The strategy also includes measures to support circulating material and circulating production processes, address the presence of hazardous chemicals and assist consumers in choosing sustainable textiles. This strategy will help the EU move towards a climate-neutral circular economy, in which products that are more durable, reusable, repairable and recyclable →

and that are energy-efficient will be designed and manufactured.

It aims to ensure that the textile sector recovers from the COVID-19 crisis and becomes sustainable by ensuring greater competitiveness. It is also necessary to apply the principles of the circular economy and, above all, to invest in research and innovation, which has a direct link to the education system. However, it is also very important to educate young consumers and not lead them not to buy cheap clothes with a short life and also a higher content of chemicals.

The chemicals used in the textile industry are considered to be some of the worst in the world when it comes to pollution. The textile industry is making a significant contribution to the deterioration of surface waters. The most important environmental problem associated with the textile industry is the use of water, its subsequent treatment and disposal of wastewater (Khan, 2014).

Conclusion

Waste prevention is the most effective way to improve resource efficiency and reduce the environmental impact of waste. It is therefore important that Member States take appropriate waste prevention measures and monitor and evaluate the progress made in implementing such measures. As part of such measures, Member States should promote innovative manufacturing, business and consumer models that reduce the presence of hazardous substances in materials and products, increase product life and promote reuse, including through the establishment and promotion of reuse and re-

pair networks such as, which operate social enterprises, repayable advance and reimbursement systems, and by stimulating refurbishment, refurbishment and, where appropriate, by changing the purpose of product use as well as platform sharing. Common indicators and targets should be set to ensure a uniform measurement of overall progress in the implementation of waste prevention measures.

The issues of the textile, clothing and industry are complex and complex, but it gives us the opportunity to create a number of new jobs. With the right set of education, we will educate skilled and conscious people who want to live in an ecological country and with decent work. It's up to us what decisions we make. We have learned to support and buy homemade food, we have learned to spend a holiday in Slovakia, we will try to dress at home. We really have a lot of options. We need to think about the sustainability and carbon footprint we are leaving. The need for slow fashion is just the answer to fast fashion — fast-moving, often low-quality and cheap clothes from distant countries. We need to change our habits and produce less waste. It is the quality of domestic production that is the answer to all the mentioned problems. Therefore, it is necessary to involve schools in the process of creating clothing so that technological innovations can take place. At the same time, it is necessary to reflect on the requirements of consumers and their behavior related to environmental challenges. Initiatives in the Slovak fashion industry are a sufficient impetus for the resumption of textile production, which will be accepted by consumers in Slovakia.

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The crisis as an opportunity for a return to the sustainable country self-sufficiency

ABSTRACT

The current period is affected by an economic and health crisis. Many of the problems related to states' strategies are uncovered, focusing only on sectors that have made higher profits for domestic businesses. Traditional production has shifted to less developed countries, gradually subduing the primary and secondary sectors and the emphasis has been on imports. Covid-19 has exposed the problem in global value chains, and global production has become a in serious risk to disrupting supply relationships. Countries need to rethink their approach to world trade. They must rely less on international production and be more self-sufficient. As a first step, this may increase costs for businesses and prices for consumers, but it will certainly help to return to some traditional sectors that have been severely subdued by the global approach. In the contribution, we will focus on one of these sectors, the textile industry, which has been subdued in some countries by the high imports of cheap textiles from third countries. An example is also the Slovak Republic, where the textile industry was one of the main sectors. The crisis is expected to help revive it, speed up the return to domestic production of quality textile products, and create new jobs. At the same time, the problem of liquidation of imported low-quality textile goods will be avoided, dependence on its imports will be reduced, which will help to speed up the transition to the circular economy.



→ **KEYWORDS**

Circular economy; Crisis, new jobs; Sustainability; Textile industry

JEL CLASSIFICATION

P36; O25; Q01; Q56



New forms of employment in the context of the development of the digital economy and under the influence of the Covid-19 pandemic

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* 1. Introduction

The advent of Industry 4.0 and the development of the digital economy are creating the conditions for completely new flexible forms of employment. In addition to the already traditional flexible forms, such as shorter working hours, fixed-term contracts, agency work etc., entirely new ones can increasingly be found in the labour market.

All new forms of employment, such as working from home and job sharing, are characterized by high flexibility, but at the same time lower protection of workers, and thus a greater risk of job loss, as there is an insufficient or unsatisfactory legislation. Labour law is often considered to be rigid, unable to respond to these changes (Bellace, 2020).

This article deals with these new forms of employment in the context of the amendment to the Czech Labour Code and the covid-19 pandemic. The aim of the article is to describe new forms of employment, to perform a related analysis of labour law legislation and to point out possible problems of their use in labour law practice.

In order to achieve the set goal, a critical analysis of related legislation, deduction, induction and synthesis will be used.

2. Flexicurity and new forms of employment

In the last decade, especially since 2008, when European countries were forced to face the consequences of the economic crisis and subsequent recession, the use of flexible adaptation mechanisms has increased. Flexible forms of employment can also be an effective tool for work-life balance, which means creating a certain balance between work and private life.

However, for the concept of flexicurity to work as an effective tool for balancing labour markets, balancing flexibility and security, it is important that workers with different types of employment contracts and working hours have *de facto* (not just *de iure*) the same position in the company. However, the situation is often more complicated.

Employees with fixed-term contracts and part-time jobs are very often at a disadvantage compared to employees with permanent and full-time contracts. They are more at risk of losing their job, usually being fired first if necessary; they often do not achieve all the corporate benefits; are not included in educational development programs; their work is mainly associated with less important jobs, their autonomy of work is therefore less; they have very limited or no career opportunities, etc. →

Part-time work is also very often associated with lower financial rewards. Fixed-term employment contracts are mainly associated with young employees (up to 24 years), part-time work with women. Both groups have long been among the most vulnerable segments of the labour market. Greater flexibility but less security in the labour market threatens, in particular, individuals with a low level of education, women and young people.

According to the author of the article, the same problems may be related to new forms of employment, which will be described in this article.

The concept of flexicurity arose as a tool for maintaining the balance of labour markets within the EU. It is a combination of flexible forms of employment and work organization, social policy, active employment policy and lifelong learning. The flexicurity concept combines a more flexible labour market with good social protection, offering high income protection accompanied by active labour market policies (Cazes and Nešporová, 2007).

3. Transformation of the labour market in connection with new forms of employment

Labour markets have undergone a fundamental change in recent years. The advent of Industry 4.0 and the development of the digital economy are accompanied by the spread of IT technologies and the extensive use of social networks. Members of generations Y and Z who enter into employment relationships often have a different value orientation than previous generations. All this leads to a gradual transformation of the labour market, one of the features of which is that both employers expect more flexibility from their employees and employees from their employers (Mandl et al., 2015).

Subsequent developments in the sharing economy and in particular the relational capacity of technologies have had unprecedented consequences on the labour market, ranging from the modification of the characteristic of work performance, up to the birth of the completely new forms of employment (Allocoa, 2020). Most of these

forms of employment contribute to the innovation of the labour market, to its attractiveness both for employers and a wider range of potential workers. However, as mentioned above, some of them are associated with a higher degree of uncertainty for employees.

The rapid expansion of new forms of employment raises several problems. First, little information is yet available on their specific features and impacts on working conditions and the labour market. Secondly, there is usually no legal framework and therefore it depends solely on the agreement between the employer and the employee. In time, there is also a certain shift in the content of flexible forms of employment. While relatively recently, part-time, fixed-term contracts, agency work, flexible working hours, etc. have been considered flexible forms of employment. These forms of employment are based on a standard employment contract which establishes an employment relationship between employee and employer according to the labour legislation. New forms of employment may no longer meet this characteristic.

4. Working from home

In working from home, the employee performs work from home up to 80 and more percent. Until a few years ago, this form of employment was used mainly by women on maternity leave or in pre-retirement age, or people with disabilities. Today, working from home is widely used in a number of professions, such as graphic designers, programmers, translators, sales representatives, insurance agents, accountants, etc. The expansion of working from home was caused mainly by the pandemic. During the pandemic, the number of corporations announced their remote work plans for the future (Cenkci, 2021).

Working in a place agreed with the employee than the employer's workplace, for example working from home, is nothing new in labour legislation. Act No. 262/2006 Coll., Labor Code, regulates working from home in the provision of § 317.

Working from home cannot be ordered by the employee, but can only be agreed with the employer; this agreement can be concluded both with an employee performing work on the basis of a concluded employment relationship.

The basic attribute of working from home is the fact that the employee schedules working hours himself. This means that the employer agrees with the employee on the scope of working hours, and it is up to the employee at what time to perform the work for the employer. Thus, one of the basic features of dependent work, which is the performance of work according to instructions of the employer, who continuously manages and controls the work, is suppressed (Jouza, 2008).

The employer's frequent request that the employee be available to him at a certain time seems to be somewhat contrary to the meaning and nature of working from home, but this approach must also be taken into account if the parties agree to it. However, it is recommended that the employer determine in advance the appropriate work procedures, work rate or labour consumption standards and adjust the place, time and method of transmission of work results, as well as the method of subsequent control of the quantity and quality of work performed (Bělina et al., 2019).

The reason that moves the regime of work from home to a new position is undoubtedly the fact that during the time that this institute is known, the nature of work performed from home has changed. Whereas in the past it was usually a matter of the employee making certain simple products at home, now it is, for example, computer work.

4.1. Costs of performing work from home

In connection with the amendment to the Labour Code, which was drafted in 2017 and whose legislative process was not completed with regard to the results of elections to the Czech Parliament, it was considered to legislate an explicit obligation for employers to contribute to employees who work from home.

Given that the provisions of § 2 para. 2 of the Labour Code include among the conditions under which dependent work is performed, the fact that dependent work is performed at the employer's expense, it is possible to consider the enactment of this explicit obligation of the employer to be superfluous.

In addition, the calculation of the employer's contribution to the performance of work from home is very individual. In order for the employer to be able to quantify the incoming contribution, it is also necessary for the employee to cooperate in order to prove, among other things, the status of previously incurred expenses (for electricity consumption, etc.).

4.2. Ensuring safe and non-hazardous working conditions

If the employee works under an agreement with the employer from home, the employer is in no way relieved of his legal obligation to ensure safe and non-hazardous working conditions, even though he has very few options to ensure or influence these conditions.

The employer's obligations in the area of safety and health at work are not limited in any way in relation to working from home, many of them also in this case concern risk prevention. These include the obligation to identify hazardous factors and work environment processes, to identify the causes and sources of risks, to identify and assess the risks of potential health hazards, as well as to take measures to eliminate the identified risks.

In order for the employer to fulfill these and other obligations and to get as close as possible to the legal regulation, it is up to him to agree with the employee on other conditions under which he will work from home. This includes, for example, the employer's right to adequately control the workplace where the employee will perform the work in agreement with the employer or the employee's obligation to maintain this workplace in a condition that corresponds to the type of work performed and others.



The procedure in case an employee has an accident while performing work for the employer cannot be neglected — the employee's legal obligation to immediately notify his / her superior of his / her work accident and to participate in clarifying its causes also applies when working from home. Pursuant to the provisions of § 273, Paragraph 2 of the Labour Code, the performance of work tasks means, *inter alia*, activities performed for employers on their own initiative, unless the employee needs a special authorization or performs it against the employer's explicit prohibition.

4.3. Protection of personal data

From the employer's point of view, the protection of personal data with which the employee handles work from home is also a very risky area. In this context, it may not only be the case that personal data (reported on the computer on which the employee is working) is unlawfully disclosed to a third party, but also the risk that this third party will permanently delete the relevant personal data.

Thus, the following may come into consideration:

- breach of confidentiality of personal data
- breach of the availability of personal data
- breach of personal data integrity.

Considering that the employer is obliged to carry out an impact assessment of the intended processing operations before starting the processing of personal data, if a certain type of processing is likely to result in a high risk to the rights and freedoms of individuals, it is up to him, to consider whether or not to carry out an impact assessment in the light of all the circumstances of the working from home. Important measures include adequate access to the facility (its contents) to other family members of the employee (Úřad pro ochranu osobních údajů, 2020).

5. Job sharing

Job sharing is a modern flexible form of work organization. It consist in dividing the work position, i.e. entrusting the performance of tasks assigned to basically full-time position to two or more persons (Wratny and Ludera-Ruzsel, 2020).

In practice, one job is most often divided by two employees (there may be several employees) who work part-time. By mutual agreement, they must cover all the obligations associated with the job and the entire working time. The job sharing institute was enacted by an amendment to the Labour Code implemented by Act No. 285/2020 Coll., amending the Labour Code, with effect from January 1, 2021.

The employer may enter into agreements with two or more employees with shorter working hours and the same type of work, according to which the employees will schedule their working hours into shifts, so that each on the basis of a common working time schedule fulfilled the average weekly working time in the four-week compensation period at the latest.

Agreements must be concluded in writing with each employee and must include more detailed conditions for scheduling working hours. Employees participating in a shared workplace are required to submit a joint written schedule of working hours at the shared workplace to the employer at least 1 week before the beginning of the period for which the working hours are scheduled. If the employees do not submit a joint working time schedule, the employer shall determine the working time schedule without undue delay. Employees are obliged to inform the employer in writing of any changes to the schedule at least 2 days in advance, unless they agree with the employer on another time of acquaintance. The employer may require the employee to represent an absent employee in the same shared job only if the employee has given his or her consent in the agreement or for a specific case.

The obligation under the agreement can be ter-

minated by a written agreement between the employer and the employee on the agreed date; this obligation may also be terminated in writing by the employer or employee for any reason or without giving any reason, giving 15 days notice beginning on the date on which the notice was delivered to the other party.

If the obligation under the agreement of at least one employee expires, the working regime of the shared job will apply to the other employees in the same shared job (only) until the end of the current compensation period.

5.1. Type of work

As follows from the legal diction, in order for an agreement on a job sharing to be concluded with employees, the same type of work must be agreed with them. However, it must not be overlooked that each individual type of work performed for the employer is carried out under specific working conditions, which may not be identical for all employees. This can be, for example, consent to posting on business trips (the provisions of § 42 or § 240 para. 1 of Labour Code).

Selecting employees who will be able to work in a shared workplace in the future cannot be a formal process. The employer will have to take into account, in particular, a number of contexts and conditions expressed in the employee's consent, if such consent is required by law.

5.2. Shared job administration / costs

The application of the legislation on the shared workplace will represent an increased administration compared to the standard situation. A job-sharing agreement must be concluded with all participating employees (instead of one employment contract with one employee in the case of a fixed-week employment relationship). As stated above, each employment contract concluded with the participating employees must take into account the specific working conditions under which they

are to work in the shared workplace. It will therefore not be possible to use the standardized text of the employment contract, but it will be necessary to draw up ad hoc employment contracts with the participating employees.

The administration / costs in relation to the processing of the personnel and payroll agenda will increase – this will be reflected not only in the external processing of the personnel and payroll agenda if the supplier charges a price according to the number of employees to whom it processes the personnel and payroll agenda exclude an increase in the number of employees of the employer, and thus an increase in wages and other personnel costs spent on them.

The costs of ensuring safe and non-hazardous working conditions will increase – for example, costs for initial, periodic and other prescribed medical examinations; for the provision of personal protective equipment for regular training in legal and other regulations on safety and health at work, and others.

5.4 Transfer of work / workplace / information

The method of transferring work / workplace / information between the participating employees can also be considered a certain negative.

In the case of information, it may be, for example, the transmission of information from meetings organized by the employer, in which only the employee taking part in the work at the time the meeting is held. The method of passing on information can of course be agreed with all participating employees, but for employees who pass on information from meetings, it will be extra work, ie work at the expense of performing the work that was agreed with him in the employment contract.

If there were considerations that all interested employees would take part in the meetings, then such a procedure is possible, but it cannot be overlooked that this procedure will reduce the time that employees could devote to the work for em-



→ employers agreed with them in the employment contract.

5.3. *Termination of the obligation of one of the participating employees*

If one of the participating employees terminates the job-sharing agreement, it will be up to the employer to decide whether he will be interested in replacing that employee and to continue in the shared job regime. It cannot be overlooked here that if the obligation under the agreement of at least one employee expires, the working regime of the shared job will apply to the other employees in the same shared job (only) until the end of the current compensation period.

In this context, the following basic options may arise:

- The employer will be compensated for the employee who terminated the agreement. In such a time horizon that this “new” employee is available before the agreed compensation period expires. In this case, the shared job mode will continue.
- The employer will not be able to replace the employee who terminated the agreement by the end of the compensation period.

As mentioned above, the shared job regime in such a case will end at the end of the compensation period, ie. that the employment of all participating employees (including the employee who terminated the shared job agreement) continues.

This means that it is up to the employer to determine the time during which the employees originally participating in the shared job will take place, which may be contrary to their interests (employees could enter into an employment relationship with the employer precisely so that they can shared workplace).

It cannot be overlooked that the will of one of the employees can significantly affect not only the legal status of the other participating employees, but also the organization of work, which is the exclusive competence of the employer.

6. *Summary*

Work in another place agreed with the employee than the employer's workplace (so-called working from home) can only be agreed with the employee, it cannot be ordered.

The rules on working time and rest periods do not apply to working from home, however, the performance of work may not exceed 12 hours in 24 consecutive hours.

Agreed working from home does not release the employer from the obligations in the area of safety and health at work and protection of personal data with which the employee works.

The employer bears the costs of performing the work, and these costs may not be passed on to the employees. Although the legislation does not explicitly state this, the employer is obliged to co-finance the costs incurred by the employee. In order to fulfill this obligation, it is necessary for the employee to provide co-operation to the employer.

If the employer orders the employee to come to the employer's workplace, the employees are entitled to travel allowances under the conditions of the Labour Code.

Only employees with shorter than specified weekly working hours may share a job, and their total working hours may not exceed the specified weekly working hours. The job sharing regime can be agreed in an employment contract or in a separate agreement; if the duration of this regime is not defined, it is valid that it has been agreed for an indefinite period.

The basic attribute of performing work within a shared job is the fact that the participating employees will schedule their working hours into shifts by mutual agreement; this agreement must be in writing and must be submitted to the employer no later than 1 week before the start of the compensation period. The compensation period is a maximum of 4 weeks.

Only employees with whom the same type of work can share one job.

The job-sharing agreement may be terminated

by agreement, or it may be terminated without giving any reason or for any reason; the notice shall be subject to a 15-day notice period beginning on the day on which the notice was delivered to the other contracting party.

If the obligation under the agreement of at least one staff member ceases to exist, the shared employment scheme shall apply to the other employers in the same shared employment until the end of the current compensation period.

The employment of the participating employee (employees) does not end with the termination of the obligation or the termination of the shared job regime.

Ordering an employee to replace an absent employee is only possible if this option has been agreed with the employee or if the employee gives *ad hoc* consent. If there is a change of competent entity (or entities), in other words, if the employee in question is immediately replaced by another employee (although the implementation of such a procedure is considered to be very problematic in

application practice), the current shared job regime can be in principle to continue unchanged (Zapletal, 2021).

By applying the shared job regime, the competence to schedule working hours is transferred from the employer to the participating employees, on the other hand, it can be expected to increase its operating costs in several ways.

An employee whose commitment to the shared job ceases under the originally concluded agreement will find himself in a precarious legal position, especially if the employer replaces him with another employee. The employment of this employee will continue, respectively, does not end, but the employee may become redundant for the employer.

As can be seen, new forms of employment carry a number of legal obstacles. Whether these obstacles will be overcome and new forms of employment will be further developed will only be seen by developments in practice and judicial interpretation.

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New forms of employment in the context of the development of the digital economy and under the influence of the Covid-19 pandemic

ABSTRACT

Labour markets have undergone a fundamental change in recent years. The development of the digital economy is accompanied by the spread of IT technologies and the extensive use of social networks. Members of the generation who enter into employment relationships often have a different value orientation than previous generations. All this leads to a gradual transformation of the labour market, one of the features of which is that both employers expect more flexibility from their employees and employees from their employers. One form of these changes is the move away from standard employment to atypical flexible forms of employment. Most of these forms of employment contribute to the innovation of the labour market, to its attractiveness for employers and a wider range of potential workers. However, some of them are associated with a higher degree of uncertainty for employees. The rapid expansion of new forms of employment raises several problems. So far, little information is available on their specific features and impacts on working conditions and the labour market. There is often no legal framework and therefore the working conditions depends solely on the agreement between the employer and the employee. The new flexible forms of employment (working from home, job sharing etc.) in some fields can have a positive effect on employment. The current situation of the Covid-19 global pandemic has also helped to speed up the advent of these various forms of alternative work, and it turns out that these tools will be considered in the future if the situation recurs. In particular, this contribution is intended to address the legal aspects of these new forms of employment.

KEYWORDS

Labour market; Flexible forms of employment; Working from home; Job sharing

JEL CLASSIFICATION

K20



Access to the Czech ICT labor market for the Third Country Nationals before and during the COVID-19 Pandemic (difficulties, challenges and the new opportunities)

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* 1. Introduction

Over the last few years, the Czech Republic economics was performing very well showing stable economic growth. The COVID-19 pandemic is undoubtedly affected the situation bringing dramatic changes as well as new challenges to all the spheres of life. One of the biggest challenges was a move towards economics digitalization and the development of Information and Communication Technologies.

The following article gives an overview of the Czech Economics before and after COVID-19 pandemic, describes the role foreigners, and especially Third Country Nationals play on a Czech labor market and the opportunities this labor market offers.

2. The Czech Republic economics overview

Over the last few years, the Czech Republic economics was performing very well showing stable economic growth in terms of real Gross Domestic Product (GDP) with a growth rate of 3.5% per year on average since 2014 (European Commission

(2018): Country Report Czech Republic 2018). In 2019 the GDP growth showed downward tendency, however it stayed around the 2.5% (Kamenický, 2019). The COVID-19 pandemic expectedly had a huge impact on the Czech economy, the year 2020 was the worst in the history of the independent state existence. The GDP fell by 5.6% in real terms last year, which even overtook the deep slump of the crisis year 2009. The downturn affected all GDP components, the investment activity and the household consumption as well recorded a steep fall. Specifically, mainly the reaction of both domestic and foreign businesses to the spring wave of covid-19 infection impacted the foreign trade balance (Kamenický, 2020). However, in the second half of 2021 the GDP started to rise again mainly influenced by domestic household spending and gross capital formation (Fiscal Outlook of the Czech Republic, 2021).

3. Czech economics digitalization

Czech Republic is part of the group of medium-performers among EU Member States when it comes to digitalization. On the Digital Economy →

and Society Index (DESI), Czech Republic ranks 19th in 2021 (Monitoring progress in national initiatives on digitizing industry. Country Report, 2019). Over the last year, the Czech Republic progressed in line with both the EU average and the cluster of medium performing countries. The country achieves good results in terms of Connectivity but performs below the EU average in terms of Digitalization for Public Services. Moreover, the Czech Republic is among the weakest countries in European Union on using such public service tools as eGovernment, submitting filled forms to public authorities over Internet etc. At the same time the Information and Communication Technologies (ICT) industry has transformed into one of the most important sectors of the Czech economy over the past few years. According to the report, published in 2019 by McKinsey & Company, The Czech Republic is considered to be one of ten Digital Challenger markets based in Central and Eastern Europe. In 2016, the digital economy in the Czech Republic already accounted for 7.8% of GDP. Moreover, the Czech digital economy grew by 6.6% during 2012–2016, more than twice as fast as that in the EU Big 5 (France, Germany, Italy, Spain and United Kingdom). In some sectors, such as financial services and manufacturing, the Czech Republic achieved higher digitization rates than the EU Big 5 (McKinsey & Company. The rise of Digital Challengers, 2019). More than 35 thousand ICT enterprises in the country are employing around 150 thousand workers. However, over the past few years ICT businesses face increasing difficulties finding applicants and fill open positions. According to Eurostat data, 79% of Czech companies that recruited or tried to recruit ICT specialists had trouble filling those vacancies. This is the highest rate in the EU and nearly 30 percentage points higher than the European average (53%) (Eurostat, 2021). The main reasons for these disproportions are the current structure of the Czech education that gives too much focus on fitting a specific occupation rather than developing cross-sectoral skills and the shortage of human resources (educated

ICT professionals who are willing to work and live long-term in the Czech Republic) (Monitoring progress in national initiatives on digitising industry, 2019). Moreover, there is a significant difference between business digitalization in the big cities such as Prague and Brno (where big IT companies such as IBM, Amazon, eBay etc. are located) and the rural areas, where the demand for digital skills is still not as big. For example, according to DESI report, almost 10% of Czech citizens have never used Internet (Digital Economy and Society Index (DESI), 2020).

4. Digital skill demand on the Czech labor market

Software skills are becoming a prerequisite for entry into many jobs across European Union. According to DESI, the largest skills deficit, both among the active labor force and the population in general, is in the use of software for content manipulation. However, around 63% of Czechs have at least basic software skills, which is a bit higher than Europeans in general (around 61%).

According to the web portal Expats.cz, during COVID-19 pandemic many companies in the Czech market that adapted to the digital world “have not only managed to successfully navigate these turbulent times but have also utilized their digital transformations to vault themselves to the next level”. Among the digital skills which are in high demand on the Czech labor market there are:

- *User experience (UX) and User interface (UI) design*: creation of the user-friendly interfaces that enable users to understand how to use complex technical products by using graphic design tools.
- *Digital Marketing*: understanding analytics to evaluate and optimize digital campaigns.
- *Data Analytics + Data Science*: analysis of the information collected about customers; suggestions on improvements — whether advising a new product launch or suggesting a change to an existing process.

- *Software Engineering*: front-end and back-end development.
- *Product management*: product planning and execution throughout the Product Lifecycle (Neumanova, 2020).

5. The migration situation in the Czech Republic

The migration situation in the Czech Republic has been undergoing significant progress since the 1990s, when the Czech Republic became a destination country for foreigners. Immigration to the Czech Republic began to increase and since 1989 the number of foreigners has increased more than thirteen times. In the year 1989 the number of foreigners in the Czech Republic was around 35 000, by the year 2000 it increased over 200 000 and by the end of 2020 it reached 634 000 people (Statistická příloha ke čtvrtletní zprávě o migraci, 2020). According to Czech Statistical Office the Czech Republic by the end of 2021 has an estimated 10,7 million residents. The international migrant stock as a percentage of the total population being 4,8%. Nearly half of all the foreigners have permanent residency. European Union citizens and members of their families form around 42% of all the foreigners and the rest 58% belong to Third Countries Nationals (TCNs) (Czech Statistical Office, 2019).

As migration rate increased, some serious problems in the coexistence of Czech citizens and foreigners started to appear and could be solved by creating an effective system of integration of foreigners into society. The Ministry of the Interior of the Czech Republic responded to the increasing number of foreigners by creating an integration policy for foreigners in the late 1990s, before joining the European Union. Current Czech integration policy aims to support foreigners' self-sufficiency so they are able to live in the country and be able to perceive themselves as part of this society, know their rights and obligations, orientate in tradition, culture and way of life in a new environment, be socially and economically independent

and have sufficient information on where to find help and support when needed. The main objective of the Concept of integration is to maintain and further develop a proactive integration policy at national, regional and local levels, as well as strengthening the awareness of foreigners and the majority, and deepening communication with the general public on migration and integration issues in relation to citizens and foreigners (Concept of Integration of Foreigners, 2016).

By the end of 2020, employment offices of the Czech Republic registered a total of 741,967 foreigners (61% were EU nationals, including their family members, and 39% TCNs, more than 50% of these were foreign workers entering the labor market on the basis of a work permit) (Zpráva o situaci v oblasti migrace a integrace cizinců na území České republiky v roce 2020, 2020).

The largest group of TCNs by nationality is traditionally Ukrainians (126 thousand or 22%), followed by citizens of Vietnam (60 thousand or 11%) and Russia (35 thousand or 6%). Moreover, citizens of the United States (6.5 thousand or around 1%) and Mongolia (6 thousand or around 1%) also possess long-term or permanent residence in the Czech Republic. The complete data on TCNs by nationality can be found on the web page of Czech Statistical Office.

As regards categories of jobs performed by TCNs in the Czech Republic, a majority fall into the category of semi-skilled occupations, with a growing prominence of both high and low-skilled occupations. According to the Ministry of Labor and Social Affairs the majority of TCNs are working in the following sectors of economy: Manufacturing (33 thousand, or 7%), Construction (17 thousand, or 3,5%), Accommodation and food services (14 thousand or 2,7%), Repair of vehicles and motorbikes (16 thousand or 3,1%) (15). These sectors of economics generally do not require from employees specific knowledge, high level of education and developed technical skills. However, many TCNs working in the Czech Republic have limited opportunities to apply for better jobs due to



several reasons, such as language barrier, lack of education and training, social background etc.

6. Obstacles and problems foreigners face while their integration and possible solutions

According to Tomas Jungwirth, policy officer of Consortium of NGOs working with foreigners, among the primary obstacles for fully successful integration of TCNs there are:

- The legislative framework on migration addresses little more than regulating the entry and residence of foreign citizens in the Czech Republic and related matters. However, this legislation is extremely complicated and often even experienced lawyers face challenges navigating in it.
- The current Czech migration situation reflects the idea that foreigners coming for work are merely substituting for a temporary reduction in the domestic workforce, and that the foreigners would leave the country once work opportunities ran out. This also includes the false perception of foreign workers as just a cheap workforce willing to do dull, dirty, degrading and dangerous jobs.
- Foreigners' labor rights remain an area of particularly serious concern. It is common practice for foreigners to work long hours, to be housed in overcrowded dormitories, facing exploitation by employers and in many cases, not even receiving the agreed wages or compensation.
- In both European and international comparison, the Czech Republic nowadays stands among the least tolerant and most prejudiced countries towards foreigners (Jungwirth, 2019).
- At present, there are still problems with sending foreign workers, especially Ukrainian workers, to work in the Czech Republic after having been issued a visa in another EU Member State. Employment in the Czech Republic always requires the approval of the state office of the Czech Republic. Unfortunately, there is a lot of

ignorance on the part of potential workers that is easy to abuse by anyone (recruitment agencies, intermediaries, future employers) on their way to the Czech Republic.

According to the report, published in the end of 2018 by the Consortium of NGOs Working with foreigners in the Czech Republic, among the barriers on the side of foreigners can be included mainly:

- Limited knowledge of Czech language required for a particular position. With higher qualification requirements, the requirements for knowledge of Czech are increasing, and good written Czech may be necessary.
- The internal factors that influence job search include the ability to orientate in ways to find a job, flexibility and mobility, as well as soft skills in the selection process. To develop such skills TCNs can get a support from non-profit organizations working with foreigners and the Labor Office of the Czech Republic (Integrace cizinců v Česku z pohledu nevládních organizací, 2018).

However, despite all the above-mentioned problems, the migration situation in the Czech Republic is considered rather positive. Immigration has been an engine of substantial economic growth, and many of its effects have improved the lives of the local population.

One of the main tools created for overcoming above-mentioned obstacles is the joint effort of local governments, public administration and developed system of non-governmental and nonprofit organizations which focus on migration and offer various services to foreigners, such as legal and social counseling, Czech language and social adaptation courses etc.

Nevertheless, according to Czech Statistical Office, only 9 527 (around 2%) TCNs are employed in ICT industry (15). There might be several reasons why the Czech Republic as a country with developed economy and high demand of ICT specialists has relatively low rate of TCNs employed in ICT industries. Among these reasons are:

- ICT professionals are a high-skilled occupation. As it was mentioned earlier, the majority of jobs performed by foreigners in the Czech Republic fall into the category of semi-skilled or low-skilled occupations. However, the new programs (such as Program “Highly qualified employee”) introduced in the end of 2019 aim to change the situation in the near future.
- ICT industry as a general rule requires higher education and university degree together with strong knowledge on languages (English, Czech etc.). There are no data on the level of TCNs education coming to Czech Republic, however as it was mentioned above, many of TCNs do not possess high level of language knowledge.

One of the solutions can be requalification or retraining courses. For successful selection of retraining, the knowledge of the labor market in the Czech Republic as well as experience with retraining course providers are necessary for TCNs. Career guidance should therefore precede or accompany the selection of a retraining course. One of the services provided by Labor Office is advising about retraining. However, according to practical

experience it is much more recommended to TCNs to use the services of career counseling of a non-profit organization that has been involved in this area (Integrace cizinců v Česku z pohledu nevládních organizací, 2018).

Conclusion

The Czech Republic labor market shows a very high demand as well as deficit of professionals working for ICT sector of economy. The economic and social development will definitely make both these demand and deficit even higher in upcoming months and years. As the Czech Republic nowadays cannot provide enough ICT professionals Czech authorities together with NGOs working with migrants and policy makers should give more opportunities for TCNs coming to the country. Retraining courses, educational programs as well as raising awareness could give TCNs a chance to build a stable life in the Czech Republic. It can also provide the Czech Republic with new skilled professionals which in future can help Czech economic digitalization and progress.

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Access to the Czech ICT labor market for the Third Country Nationals before and during the COVID-19 Pandemic (difficulties, challenges and the new opportunities).

ABSTRACT

Over the last few years, the Czech Republic economics was performing very well showing stable economic growth. The COVID-19 pandemic is undoubtedly affected the situation bringing dramatic changes as well as creating new challenges for the labor market, financial markets and economy in general. In the first part of the article author provides an overview of the economy, public and private sector digitalization and main features of the digital job market and its requests in the Czech Republic for the past years. Moreover, the first part reflects the significance of ICT sector for the Czech economic growth and development before and after the COVID-19 pandemic. The second part of the article analyzes the position of migrants (Third country nationals) on the Czech labor market (especially ICT sector) and their importance for the Czech economy. It reflects the difficulties migrants face and the opportunities they are provided by the Czech Republic while seeking employment and accessing to the ICT labor market.

KEYWORDS

Digitalization; Labor Market; Migration.

JEL CLASSIFICATION

J21; J40; O52



Space tourism in the midst of the Covid-19 epidemic

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* 1. Introduction

Space, the final frontier, offers another step for the human evolution and its expansive tendencies. We were able to witness an enormous development towards space exploration and space travel in the last seventy years or so. From one small satellite launched in October 1957 to the first set of footprints on the Moon just twelve years later. Since then, progress in human spaceflight has taken a more cautious road.

Space has become a new place for economic, technological and security interests of many countries. New private companies are being founded to accommodate rising needs for transportation and services related to space industry. Services in this sector are divided into communication, weather observation, surveillance, space exploration and much more. As the name of this article suggests, the primary focus is set on the current space tourism industry.

Space tourism may sound like another science fiction idea, but actual progress in technology enabled new possibilities of travel and leisure outside our own world. There are many definitions for space tourism industry. Johnson and Martin (2016) state that this sector represents efforts for advancements of space related technologies for leisure and

recreational purposes. Henderson and Tsui (2019) characterised this industry as: “...*niche segment of the aviation industry that seeks to give tourists the ability to become astronauts and experience space travel for recreational, leisure, or business purposes.*”

Space tourism differs from “traditional” forms of tourism in many ways. Noticeable differences are the destination, time for preparation, risk involved and of course the cost. These factors contribute to the fact that space tourism can be classified as a risky business opportunity. Through modern history, several projects were considered to start off the official space tourism industry. Megalomaniacal architectures around our planet or even near the Moon were considered – from space stations where people could experience weightlessness for long periods to luxurious space hotels with breath-taking views. Especially during so-called space race to the Moon and right after successful landing by American astronauts, the general public thought that space is in reach and the space tourism will soon be available for ordinary people.

As interest in space exploration gradually declined, possibilities of space tourism for everyday people diminished as well. Lack of a sounding technological framework and economic resources caused demand for space tourism to be unfulfilled. →

However, with a recent technological development and significant private investment, several private entities are now in this high-risk business and offer a range of experiences for their potential customers. This can be described as the dawn of a new tourism industry.

Aim of this article is then to examine a recent progress in this rapidly evolving industry and evaluate the opportunities and challenges for their providers. Structure of this article is as follows. The second chapter offers main characteristics and brief overall development of space tourism industry. The third chapter provides recent development during Covid-19 epidemic and presents list of critical private companies active in this industry. The fourth chapter contains an analysis of risks, challenges and opportunities for these private service providers. The fifth chapter concludes.

2. Characteristics of the space tourism

A comprehensible classification is needed to better understand what is hidden behind the term space tourism. There are many activities, which can be described using this term, however we can use a specific typology to classify all forms of the space tourism, according to Cater (2010). This is visible in the table 1, which uses a similar terminology.

As you can see from table 1, the space tourism is much broader term than one might expect. Soleimani et al. (2018) describe three main themes for space tourism such as location, events and activities. This article does not follow on all mentioned forms of space tourism as the focus is set on the spaceflight tourism form. This does not mean that the other forms are not interesting on their own, however they did show a similar pattern during Covid-19 as other forms of tourism.

The line around 100 km above sea level is important for spaceflight as this designates difference

Table 1 » Typology of the space tourism

Specific form	Destination	Type	Examples
Spaceflight Tourism	Beyond earth orbit	Lunar and interplanetary voyages	Not available yet
	Space near earth	Orbital flights	Trips to ISS Inspiration 4
		Sub-orbital flights (around 100 km)	Blue Origin Virgin Galactic
Atmospheric Space Tourism	Atmospheric flights ¹	High altitude flights	Mig-31 flights
		Weightless Flights	Zero G corporation
Terrestrial Space Tourism	Space Tourism sites	Tours of space facilities	Kennedy Space Centre
	Non-specific sites for space tourism	Space Tourism related travel	Eclipse tours, stargazing tours, meteorite collecting

Source: Cater (2010) and own specification

¹ Henderson and Tsui (2019) show examples of providers for atmospheric space tourism with their respective costs.

between atmosphere and space. There is some controversy around this boundary as ultra-thin atmosphere can be found also above this line as mentioned in Spector et al. (2017).² Hence, trips above this line and not reaching orbit are called sub-orbital flights. Experience for tourists aboard sub-orbital spaceflights contains of a period of high acceleration followed by weightlessness. This can last several minutes for which passengers can observe star field or the curvature of our planet. After this period, the spacecraft returns to the low atmosphere and lands.

Orbital flights also fly above this line but are much harder to achieve. For spacecraft to reach the orbit, it requires to speed up to around 7.8 kilometres per second.³ To obtain such velocity, requirements are significantly higher than those for sub-orbital flight. Once the spacecraft reaches orbit, it may stay there for a long period. This brings a need for another layer of protection and facilities to support crew for a prolong exposure to the hostile environment of space. However, this also offers much more opportunity for passengers to enjoy weightlessness and admire the vastness of space. Orbital spaceflight is also a gateway to reach orbital stations such as the International Space Station (ISS) presently or the Mir space station in the past. In the future, it will be also a gateway to private space stations or as a pit stop for travels to Moon and beyond.

Currently, there are no cases for beyond earth tourism, as only people who embark on such journey were Apollo astronauts. Although this may change in near future with planned private missions.

2.1 Brief development of the space tourism

The title of the first space tourist belongs to Dennis Tito thanks to his weeklong visit of ISS in 2001.

The cost for Tito's trip was around \$20 million. In following years, six other space tourists visited ISS for short period of time.⁴ Charles Simonyi even completed the trip to ISS twice, first in 2007 and then in 2009 according to Cater (2010). Price range for these seven trips were in range \$20–\$35 million dollars according to Cole (2015). This price tag shows that at the start of the new millennium, orbital space tourism was not in realm of possibility for regular people but only for the most fortunate ones.

Because of retirement of NASA's space shuttle fleet, Russian Soyuz spacecraft was only vehicle capable to reach ISS with human crew aboard. This meant that NASA had to use this system of transportation for their own astronauts, as they did not have any alternative option at that time. This situation has caused a pause in private visits to ISS since 2009. This vacuum for reliable space transportation opened a door for private companies to fill the gap.

Space travel was a domain for government space agencies and was highly regulated as mentioned in Zimčík (2021). Changes in legislation, decentralization for space industry and government contracts allowed private space companies to develop new means for space travel, which can be also used for the private space tourism. The third chapter offers the most recent development in space tourism with current achievements, however for detailed overview regarding the space tourism development see Chang (2015).

Johnson and Martin (2016) states that deregulation and competition are the key to shape a future of space tourism. This market is driven on technological and innovation development, which is perfect for private space tourism oppose to publicly regulated one. Government programs are no longer needed for transport people in outer space. →

² This boundary is often called the Kármán line.

³ This is called the first cosmic velocity and it is needed to obtain circular orbit around our planet.

⁴ Duration of standard missions on ISS for astronauts and cosmonauts are around six months.

2.2 Demand and motivation for space tourists

Space tourism offers a different experience than other forms of current tourism, which is a positive feature for any provider as there is no close substitute for such activity. This whole new business model must calculate with enormous potential investment and high operational expenses. Such costs are then reflected into ticket prices. Private companies must look for potential customers prior to such monetary commitment. Several academic studies were made to assess volume of demand for space tourism among population.

Crouch et al. (2009) made a comprehensive study to check demand for various form of space tourism among high income Australians. Results of the study showed a significant portion of high income or high-net-worth individuals to be favourably inclined to some form of commercial space tourism activity, however evidence also shows that even these individuals are highly sensitive to price for such activity. They identified several key factors contributing to overall decision-making regarding participating in the space tourism. Besides the price, the next factors are the nationality of operator⁵, physical requirements, extent of pre-flight training and preparations, and passenger space. This study suggests that private companies will need to develop a competitive business model for space tourism with an ideal trade-off between desired activity of tourists and the technology capable to deliver it, at given cost (and price).

Cole (2015) mentions a survey for potential space travel from Japan, which showed that 70 percent of respondents would embark on space travel. Almost half of respondents would pay three-month's salary for it. A second survey was performed in USA on 1500 people. Almost half were interested in a spaceflight, and they were willing to pay \$11 000 on average for this trip. There was a common feature regarding the demographics of

space tourism participants. The biggest interest comes from men between 20 and 40 years of age. The income distribution is also an important factor for potential demand as countries such as USA, Russia, China and some emergency markets showed unprecedented rise in income for the richest few percent of individuals. These individuals are then primary candidates for space tourism considering affordability in early stages. A strong interest in space tourism can be seen from these academic studies, however a real demand is (and will be) forming based on actual offered services.

Motivation to participate in space tourism will differ among population and will be a key factor to the willingness to pay necessary expenses. Johnson and Martin (2016) distinguish three types of space tourism motivation within potential tourists.

The first motive is to emancipate person from any restrictions or boundaries. Same as the reason why some people go on vacation, to travel to some exotic location and set themselves free from their everyday life, at least for a week or two. Space tourism expands this emancipation even further as people are set free also from physical boundaries such as gravity. Furthermore, it provides opportunity for individual to explore outer space as a part of a social space. This option will no longer be a privilege for astronauts.

The second motivation may be seen in individualist position of people regarding their lifestyle and prestige. This can be seen among wealthier portion of population as they give evidence of their wealth on portrait in numerous ways. Expansive cars, yachts or houses will no longer be only thing to boast about, as there is possibility to be among an exclusive group of people who participated in space tourism. Another sense of this motivation may not be linked to greed but to push oneself to another limit. This is common among top athletes or adventurers. Space is then another "mount Everest" to conquer and space tourism is the mean to conquer this challenge.

⁵ Crouch et al. (2009) comment on this factor as this may be proxy for overall quality, convenience and risk involved.

Last motivation is very pure in nature of human being. It is simply the wish to see something new, which can be defined as tourist gazing. Space tourism offers a great sight-seeing and experience potential. A new perspective is what people would want from space travel and why they are motivated to pursue this option. Individuals usually do not have only one of the mentioned motivations but rather a combination of all three types.

Understanding these motives is important for providers of space tourism, as it may lead their efforts to optimize and expand their services, looking for new ways of space travel and innovate their technology for better and cheaper performance. Space tourism is still a nascent industry, so it is imperative to listen to potential customers.

3. Space tourism during Covid-19 pandemic

Aim of this article is to provide examples of a recent development of the private space tourism. Several private companies are listed in this section. There are other companies planning and building infrastructure for space tourism in the future. However, only current space tourism providers are examined in this article. First, we take a closer look on providers of sub-orbital space tourism. This is followed with orbital space tourism providers.

3.1 Sub-orbital providers

Currently only two private companies were able to successfully embark tourists on sub-orbital flights – Blue Origin⁶ and Virgin Galactic⁷. Both companies were founded by billionaires and both companies have their own transportation system. These sub-orbital vehicles have a long history of development, but both are reusable, which is arguably the most important feature for economically sound business model in space flight. The reusability of

transport vehicles diminishes cost for each flight, which otherwise would be astronomical. This is explained in Zimčík (2017) with an example of cost saving achieved with this innovative feature.

Reusability means that vehicle is fuelled, launched, landed and after necessary inspection and refurbishment can be used again. Cost for such launch can get down solely to fuel expenses, control service expenses and ground logistic expenses. This brings sub-orbital space tourism near to ordinary air travel as these types of expenses are similar. Both companies have chosen a different concept for their vehicles as Blue Origin uses a small sub-orbital rocket called New Shepard⁸ and Virgin Galactic uses a small space plane called SpaceShipTwo (SS2). As these companies offers a different space tourism experience, below is provided a separate overview for each company.

Blue Origin was founded in 2000 by billionaire Jeff Bezos, who entered billionaire's club of space company pioneers. There was a long development of the New Shepard rocket as the first flight did not happen before 2015. This mark only the test flight without any crew aboard. New Shepard spacecraft was designed for total of six passengers without need of pilot or any other personnel on board. Starting from launch complex, total duration of flight is about 10 minutes. This includes a rapid acceleration followed by capsule separation from the booster. Passengers can experience weightlessness for about four minutes and then the capsule will safely land using parachutes.

First crewed mission happened on 20th July 2021 with four passengers including the founder of Blue Origin, Jeff Bezos. Year 2021 marked a true beginning of sub-orbital space tourism for this company as two more missions were successfully performed later that year, totalling 14 passengers. Among them were other public figures such as William Shatner who played a main role in popular

⁶ See <https://www.blueorigin.com/>

⁷ See <https://www.virgingalactic.com/>

⁸ This is to honor the first American in space Alan Shepard who later walked on the Moon during Apollo program.

tv show Star Trek or Laura Shepard Churchley, daughter of Alan Shepard. Price for tickets is not yet public, however according to Roulette (2021a), Blue Origin already received \$ 100 million in sales. Blue origin did not disclose price tag but according to Shen (2021), we can assume it to be in a ballpark between \$ 250,000 and \$ 500,000. Clarendon (2021) reminded the previous report of Blue Origin where company estimated the price for first spaceflights to be between \$200,000 and \$300,000.

Only current competitor for Blue Origin in the area of sub-orbital space tourism is Virgin Galactic. This company was founded in 2004 by Sir Richard Charles Nicholas Branson. Virgin Galactic has a very different concept for their services as they use a specialized space plane called SpaceShipTwo, see the picture 1 for comparison. SS2 has a rocket motor but does not launch from a ground like New Shepard. It is carried under the center of double plane and is launched from a certain altitude. Overall flight duration aboard SS2 is much longer than New Shepard, but time spent in space is also limited to few minutes. Virgin Galactic also needs pilots to fly SS2 and land it safely like a normal plane. Maximum capacity for this vehicle is eight people — two pilots and six passengers.

SS2 has a turbulent development because the

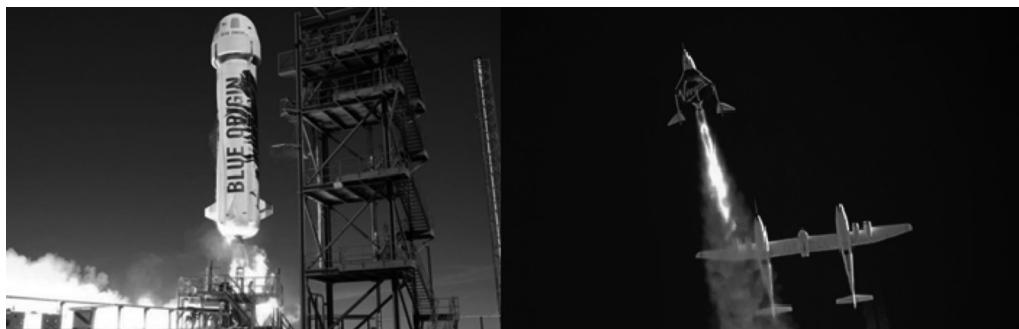
prototype has crashed, and the pilot Michael Alsbury was killed during this accident. After successful testing of a new prototype, Virgin Galactic made the first sub-orbital flight with passengers on 11th July 2021. Besides two pilots, flight had four passengers including the founder of Virgin Galactic.⁹ Original price tag for sub-orbital flights was \$ 250,000 but in February 2022 a new sale has started with almost doubled price of \$450,000 with \$ 150,000 deposit according to Hagerty (2022).

Comparing both providers, we see a different concept with similar price. Both companies have successfully launched their first passengers in last year and have already sold additional tickets for their future passengers.

3.2 Orbital spaceflight providers

Soyuz spacecraft was used for transportation of cosmonauts and astronauts to ISS but as mentioned in section two, it was also used to carry first private tourists there as well. A significance of this vehicle slowly declined as SpaceX's Crew Dragon is now also capable to safely ferry people to ISS and back to earth. Also, the future of the Soyuz transportation operation is now at stake because of geopolitical issues and the conflict in Ukraine. Last

Picture 1 » *New Shepard and SpaceShipTwo sub-orbital vehicles*



Source: Blue Origin and Virgin Galactic

⁹ Notice the similarity between maiden flight of both companies. Both founders were passengers and both flights happened only nine days apart.

Picture 2 » *Inspiration4 Crew Dragon render*



Source: NASASpaceFlight.com

orbital spaceflight of Soyuz for civilian was not a long ago. In October 2021 two space tourists used Soyuz to embark on ISS. Roulette (2021b) describes the journey of two filmmakers – Yulia Peresild, the actress, and Klim Shipenko, a film director. They have spent 12 days aboard ISS making a new Russian movie from the space environment. In December 2021 Japanese billionaire Yusaku Maezawa also flown to ISS with his assistant making them the last private visitors to the ISS so far as mentioned in BBC News (2021).

Currently the only private company with capability to take people to orbit is Space Exploration Technologies Corp. (SpaceX)¹⁰. SpaceX was founded in 2002 by billionaire Elon Musk. SpaceX has a rich history in rocketry development and innovation. It has a fleet of Falcon 9 rockets, which are capable to put over 20 000 kg payload to low earth orbit and Falcon Heavy rocket with almost the triple capacity. SpaceX developed a dragon capsule to

deliver cargo and supplies to ISS and back. This company is the one, which pioneered the concept of reusability for orbital rockets.

SpaceX also developed Crew Dragon spacecraft, which is now being used as an alternative to Soyuz to bring astronauts to ISS. Crew Dragon is a reusable capsule capable to transport up to seven people. Her maiden flight with crew was in 2020 with two astronauts aboard. Twelve astronauts were carried to ISS aboard this vehicle since this demo flight. Furthermore, in September 2021 a specially modified Crew Dragon Resilience carried the first all-civilian mission to orbit. This mission was named Inspiration4¹¹. Four space tourists reached orbit with max altitude around 585 km above sea level making them the furthest human mission in space in the last fifty years.

Price for this mission was not made public but Wall (2021) suggests a price for all four space tourists to be around \$200 million. This means a price

¹⁰ See <https://www.spacex.com/>

¹¹ See <https://inspiration4.com/>

tag for a seat on the orbital spaceflight around \$50 million. Inspiration4 flight lasted three days without the need to dock at ISS. This was a pioneered voyage, and we can expect a drop in expenses on future orbital spaceflights Wall (2021) argues.

Another company Axiom will be using services of Crew Dragon to transport private passengers and own astronauts to ISS, see Foust (2020). This first mission (Ax-1) is scheduled to launch on 30th March 2022. The Axiom company¹² has an ambition to expand ISS with commercial modules and ultimately build a new commercial space station in orbit, which will be a next step in orbital spaceflight tourism.

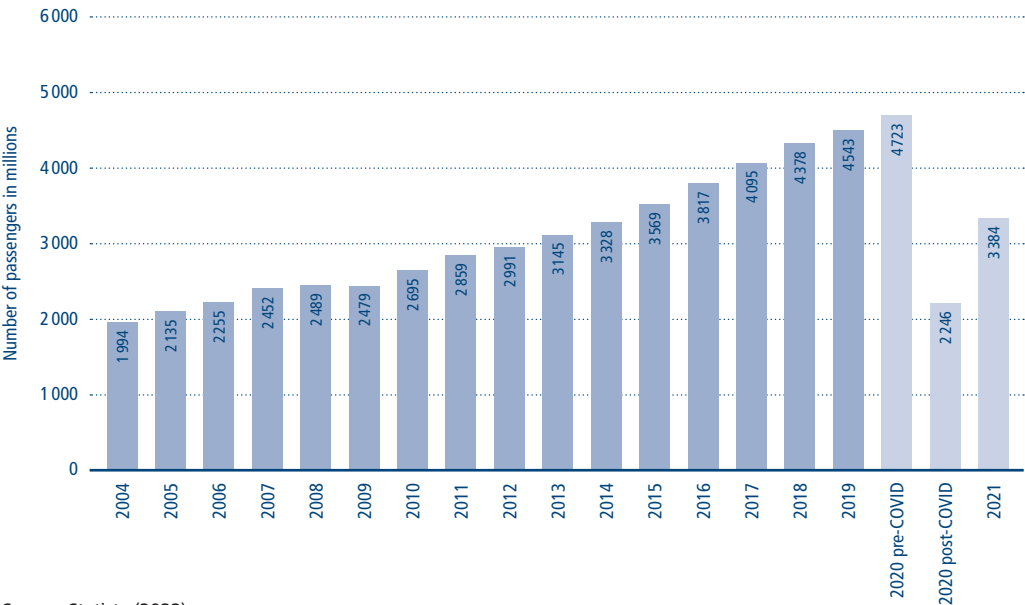
SpaceX itself started a new venture called Polaris program. It is a set of commercial flights to test new technologies and procedures. First mission, Polaris Dawn, is not yet scheduled but has an objective to test new spacesuit during first commercial spacewalk according to Gohd (2022). Polaris

missions, which consists of four flights, are supposed to finish with a first human test flight test of the Spaceship vehicle – a new massive rocket in development capable of carrying up to 100 passengers to orbit, Moon and beyond.

The space tourism industry is truly a dynamic environment with a necessary development, changing conditions and many possibilities. As Covid-19 and government restrictions crippled other tourism industries, you can see that during pandemic, private space tourism companies experienced a boom. This can be illustrated on comparison between airline travels and private spaceflights.

Figure 1 contains a count for passengers boarded by the global airline industry. It also contains estimate how this would progress if year 2020 was not affected by Covid-19 epidemic and various government restrictions. You can see that actual count for year 2020 is less than half. Year 2021 marks a recovery but still not close to passenger levels prior 2020.

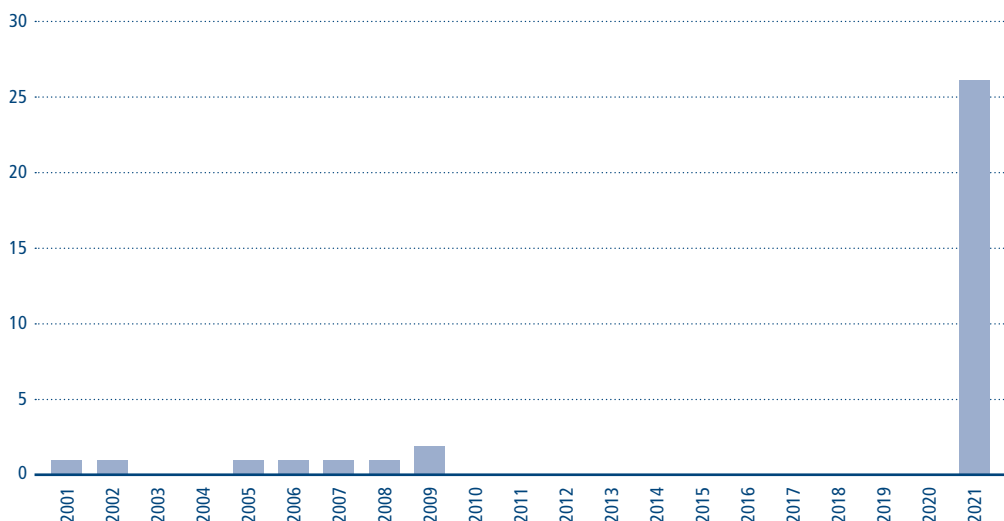
Figure 1 » Number of scheduled passengers boarded by the global airline industry



Source: Statista (2022)

¹² See <https://www.axiomspace.com/>

Figure 2 » Number of space tourists (2001–2021)



Source: Own calculation¹³

Count of space tourists on the other hand shows a different trajectory. This is visible in figure 2, which shows number of space tourists in period from 2001 to 2021. Until year 2009 we could see only one to two spaceflights per year. After that, number of space tourists was zero until year 2021. This year can be labelled as the dawn of space tourism because it shows an incredible impulse with many launches of different providers.

2021 is also a year with the most people in space at the same time according to Guinness World Records (2022). It happened on 20th July 2021 with 14 people in space for a few minutes.¹⁴ It is only a matter of time, when this record will be broken, and we will see many more individuals reaching for space.

4. Challenges and future opportunities

Even when space tourism providers had a record year, there are still many challenges, obstacles and risks ahead. However, this also means a new opportunity once these challenges are overcome. This section of article points out to some factors, which may cause a significant damage to the space tourism industry.

A primary concern for any spaceflight provider should be the safety of passengers. This is one reason for a lengthy period of development and testing. Each spacecraft needs to be certified before it can take any human into or near space. Any negligence, intentional or unintentional, during the development, tests or inspections may cause a disaster. Hence, private providers must be vigilant as

¹³ Count for years 2001–2009 consists of paid tourists aboard ISS using Space Adventures company with Soyuz as a transport vehicle. Count for year 2021 consists of 14 passengers of Blue Origin, 4 private crew members of Inspiration4, 4 tourists aboard ISS and 4 passengers of Virgin Galactic. Last mentioned did not pass the Kármán line, so technically, they did not reach space using this methodology, but they are included as space tourists in this article.

¹⁴ 7 people were aboard ISS, 3 taikonauts aboard Chinese Tiangong-1 space station and 4 passengers of Blue Origin.

there is no room for errors. Any accident would mean a huge impact on the overall industry. People still have in their memory accidents of space shuttles Challenger and Columbia, which resulted in the loss of 14 people. Both accidents also meant hard stop for space shuttle launches for several months. Any possible fatal accident would mean a critical setback for a private provider, which may not be possible to overcome.

Another concern would be any changes in regulation and legislation, which would mean additional costs, certifications and delays for space tourism providers. Chang (2015) lists main regulations and legislation changes in this industry. Legal aspects of space tourism can be also found in Hobe (2007). Main issues are legal regimes of air-space and outer space as there is a missing connection. This may not be issue for a government agency, but new private space tourism providers in different countries may be affected.

Section 2 listed examples of studies regarding a possible demand for space tourism. Among key factors, the price has a big significance. Private companies already have customers who booked their flights. This is not surprising as there are always many “first customers” when a new service or product is made available. A future challenge for these private companies is to keep the demand for their services. There is a parallel with air travel where ticket prices for brand new flight options were considerable in history. However, thanks to innovation and technology changes, air tickets are now available for a broad population. Space tourism providers need to keep this in mind and push the price down in the long-term otherwise they could run of customers.

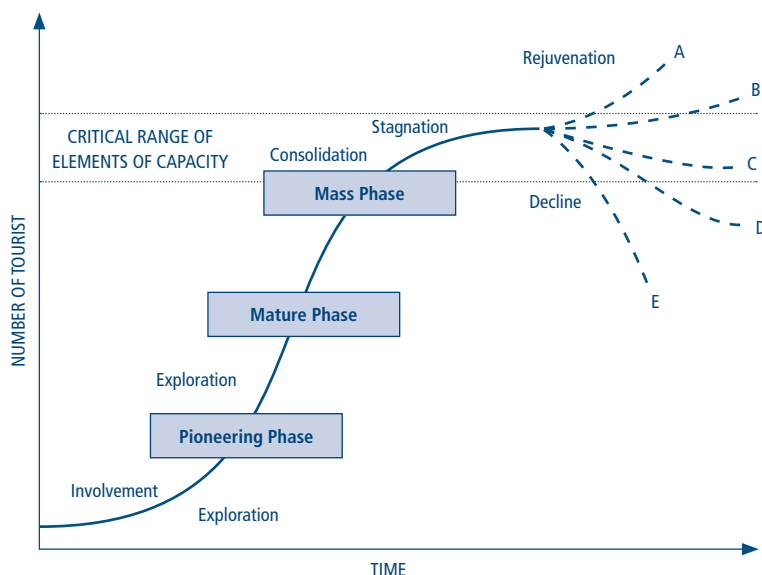
Another challenge, which can seriously jeopardize the orbital space tourism, is a problem with space debris. Decades of space activities left a mark in earth’s orbit. Over 27,000 large pieces of space junk are being tracked but there are also hundreds of thousand smaller pieces according to NASA (2021). Each of them is a potential risk for orbital spaceflights. Even ISS had to execute over

30 evasive manoeuvres to avoid a collision with larger pieces of space debris. There is a potential hazard when a larger space debris collides with satellites in low earth orbit. It could create a “cloud” of thousands smaller projectiles hitting everything in its path. This means a higher probability of an unstoppable chain reaction polluting a large portion of the orbital space. Some events contributed to this hazard, such as the recent Russia weapon test on an inactive satellite which happened on November 2021, see Drake (2021) for more information. Above is a list of few examples of situations, which can be seen as a potential challenge for a whole space tourism industry.

However, this industry offers new opportunities, not only for the companies and customers themselves, but also for a much broader population. First opportunity for commercial spaceflight providers is to fully benefit from economies of scale and economies of scope. Space shuttle program ended as it was not able to fully benefit from this concept, hence it was not economically sound. Private providers can use an initial demand for their services for a rapid cadence of spaceflights. Price for tickets should go down and attract another interested people. Benefits from economies of scale in commercial spaceflight are broadly discussed in Weinzierl (2018). SpaceX is an example of a company, which uses economies of scale to lower prices for customers regarding payload launches. This offers a substantial competitiveness advantage. Similar concept then can be used for space tourism to mitigate some challenges mentioned in this section. This can be illustrated using Butler’s tourist area life cycle, see Cole (2015).

Figure 3 shows the potential for the space tourism industry in the future. The Pioneering Phase consists of relatively few passengers (from dozens to hundreds per year). Prices in this first phase are relatively high. In the Mature Phase, tickets will be much cheaper and demand will rise. We are still far from the second phase, but we can observe a similar trend from other types of tourism in past.

Figure 3 » *The tourist area life cycle in space*



Source: Cole (2015, p. 135)

Private space tourism can also create positive externalities from their activity, which can be beneficial to other industries and to unintended population. Companies interested in space tourism must have significant research expenses. This is to ensure viability for competitiveness, which can be labelled as the technological determinism. Johnson and Martin (2016) describe this as technological advancement to lower the price for end customers. However, from R&D perspective, new technologies may be invented for a broader spectrum of use, even outside space tourism industry. New materials, navigation tools, safety features and much more can be used for benefit of ordinary people.

Weinzierl (2018) stated that space tourism can eventually create a new space industry with a self-reinforcing virtuous cycle. Cheaper and more frequent spaceflight facilitating space tourism can also host industrial or scientific experiments aboard. This may become routine and demand for commercial spaceflight will boom to support longer spaceflight, commercial habitats and other op-

portunities. This may begin an era of workers and residents to be located in space. Creation of new job opportunities is also a logical economical factor, which can bring monetary support from governments and can be met with a great level of enthusiasm from ordinary people. Permanent space habitats, shops, recreational centres will then mark the accomplishment of the space tourism industry.

5. Conclusion

The space tourism is still a nascent industry but has an enormous potential. There is a rapid development visible in this industry during recent years. Enormous investment and technological advancements opened a door for private companies to offer spaceflights services to regular citizens. Currently there is only a few private companies, which have already proven their position, as they were able to send people to visit space. However, other companies are already planning to expand this base of



providers and build new projects and infrastructure within the space tourism industry.

Getting ordinary people to space is a noble cause, but for this industry to flourish, this cause must have a sounding economical plan. Private companies already invested billions of dollars in research and development to be able to carry cargo and people to space. A price for such journey is affordable only to the luckiest few so far. Next challenge for these companies and all that follows will be to use economies of scale, rapid reusability and quick cadence of flights to push ticket prices lower. When sub-orbital flights or even orbital flights will be affordable to the wider public, the space tourism will attract crowds of paying customers. Once these commercial space companies are self-suffi-

cient from these revenues, they can shift focus to longer orbital flights and building new infrastructure in space.

Aim of this article was to examine a recent development during Covid-19 epidemic. Year 2021 was groundbreaking from this point of view as it holds many records in private spaceflight. It also shows that long-term ambitions of private companies are starting to bear fruit. Companies had to overcome initial failures, and in some cases disasters, to be in their current position. We can now expect progressively more people in space with new private projects and facilities. The space tourism will no longer be some sci-fi invention, but rather a starting industry able to provide extraordinary experiences.

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Space tourism in the midst of Covid-19 epidemic

ABSTRACT

This paper investigates a specialized branch of tourism – the space tourism. As tourism in general was heavily affected by the Covid-19 epidemic, this particular sector has seen a remarkable development in recent years. The aim of this paper is to examine a recent progress of space tourism and their providers and evaluate the opportunities and challenges for this sector of specialized services. The focus is set on the sector with a limited number of private companies, which are developing a wide range of possibilities for their customers. The paper provides a comparison of space tourism in pre-covid era with the current development and introduces new achievements. It also highlights the role of price and cost cutting for future phases of the space tourism.

KEYWORDS

Space Tourism; Covid-19; Private Spaceflight; Technology

JEL CLASSIFICATION

D40; L22; O30

Proceedings of the
15th International Scientific Conference:

European Forum of Entrepreneurship 2022

“Coronavirus Pandemic Effects
on the Economy in 2022:
A Challenge or New Opportunities?”

ISBN 978-80-87325-58-2

Publisher: NEWTON College, a. s.,
Politických vězňů 10, 110 00 Praha 1, Czech Republic

Published on April 2022.

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Proceedings of the 15th International Scientific Conference:

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