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SADRŽAJ

**SVET NAKON KORONAVIRUS PANDEMIJE:
PROMENA RAZVOJNE PARADIGME ILI PERPETUIRANJE KRIZA**

**THE WORLD AFTER CORONAVIRUS PANDEMIC:
CHANGING THE DEVELOPMENT PARADIGM OR PERPETUATING THE CRISIS**

6

24

**EKONOMSKE POSLEDICE PANDEMIJE
VIRUSA COVID-19 I KRIZNI MENADŽMENT**

**ECONOMIC CONSEQUENCES OF THE COVID-19
PANDEMIC AND CRISIS MANAGEMENT**

**ANALIZA SISTEMSKOG RIZIKA
ELEKTROPRIVREDE REPUBLIKE SRPSKE**

**SYSTEMIC RISK ANALYSIS OF ELECTRIC
POWER INDUSTRY OF THE REPUBLIC OF SRPSKA**

44

72

**UTICAJ NEJEDNAKOSTI NA EKONOMSKI RAST:
PRIMJER SJEDINJENIH AMERIČKIH DRŽAVA**

**INEQUALITY INFLUENCE ON ECONOMIC GROWTH:
AN EXAMPLE OF THE UNITED STATES**

**UPUTSTVA
AUTORIMA**

88

POZDRAVNA RIJEČ



**Saša
GRABOVAC,**
glavni i odgovorni
urednik

Poštovani čitaoci,

Sigurno plovimo u drugoj godini postojanja Udruženja ekonomista Republike Srpske *SWOT - Journal of Contemporary Economics*. Zaista sam presrećan što ponovo hvatamo redovan ritam djelovanja, a time i izlaženja časopisa, i na taj način pružamo uslugu kakva se očekuje od naučnog časopisa koji izdaje udruženje poput našeg.


Kao i prethodnih godina, svi objavljeni tekstovi su dostupni na web stranici časopisa bez ikakvih provizija za preuzimanje radova. Naše opredjeljenje je da olakšamo pristup objavljenim naučnim informacijama za cijelu stručnu i akademsku zajednicu.

U fokusu ovog broja su nejednakost i posljedice izazvane virusom korona.

U prvom od četiri rada koja objavljujemo...

Autor istražuje uticaj rastuće nejednakosti na ekonomski rast na primjeru SAD, koje karakteriše velika dohodovna disproporcija između različitih grupa stanovništva. U radu tražimo odgovor na pitanje "Kakav uticaj rast nejednakosti ima na ekonomski rast?". Rezultati istraživanja pokazuju da rastuća nejednakost ima značajan uticaj na ekonomski rast u SAD i da će se u budućnosti povećavati ukoliko se ne sprovedu sveobuhvatne reforme političkog i ekonomskog sistema. Autor zaključuje da tendencije redistribucije dohotka, poreske politike, sistema obrazovanja i zdravstvene zaštite djeluju u pravcu divergencije dohodaka od rada i kapitala u korist grupa s najvišim dohotkom.

Autori definišu i iskazuju sistemski rizik svih zavisnih preduzeća koja ulaze u sastav Elektroprivrede Republike Srpske i ispituju njegov uticaj na cijenu kapitala i vrijednost zavisnih preduzeća MH Elektroprivrede Republike Srpske. Pokazuju da sistemski rizik posmatranih preduzeća zavisi od izloženosti makroekonomskim događajima i kao takav može biti izmjeren kao osjetljivost prinosa koji ostvaruju zavisna preduzeća Elektroprivrede



Republike Srpske na fluktuacije prinosa koji ostvaruje privreda Republike Srpske. Bez sumnje, tvrdnje, činjenice i dokazi prikazani u ovom radu biće od koristi kako studentima, tako i akademskim istraživačima, teoretičarima i investitorima.

Autori u radu "Ekonomске posljedice pandemije virusa COVID-19 i krizni menadžment" na kvalitetan i razumljiv način, uz primjenu relevantne literature, obrađuju postavljenu temu, prezentuju najnovija istraživanja u oblasti kriznog menadžmenta, ističući da nastala ekonomska kriza zahtijeva, pored kriznog menadžmenta preduzeća, i primjenu kriznog menadžmenta na nivou države. U radu se analitički pristupa u pojašnjenju posljedica pandemije virusa COVID-19 u poslovnoj sferi, koje se odlikuju svojom sveobuhvatnošću i brzinom, kao što su kriza na strani ponude i tražnje, nelikvidnost privrede, negativni psihološki efekti, negativan uticaj na budžet, a posebno na preduzetnike, mikro, mala i srednja preduzeća. Autori predlažu niz državnih mjera za prevazilaženje krize, koje se u osnovi odnose na povećanje likvidnosti privrede, bankarskog sektora i, s tim u vezi, formiranja garantnog fonda, koji će služiti za održavanje likvidnosti finansijskog sistema i privrede. Pritom, na analitičan način prikazani su prijedlozi u vezi s kriterijumima pri odlučivanju u radu ovog fonda. Autori posebno izdvajaju neophodnost fiskalnih olakšica države, pri čemu naglašavaju potrebu da država nađe balans priliva i odliva finansijskih sredstava uz obazrivost u njihovom odmjerenju u smislu efekata preduzimanja pojedinih mjera. Na kraju svog rada autori izvode zaključak da je brzina odgovora u trenutku krize jedan od najvažnijih faktora koji može uticati na preživljavanje preduzeća i obezbjeđivanje kontinuiteta poslovanja nakon prestanka krize. Pritom, autori naglašavaju da individualne mjere na nivou preduzeća ne mogu dati efikasne rezultate bez integralne, sveobuhvatne i brze podrška države.

Rad pod nazivom "Svijet nakon pandemije virusa korona: promjena razvojne paradigme ili perpetuiranje kriza" predstavlja analitički pogled autora na odnos urbanizacije, globalizacije, maksimizacije profita i rastuće nejednakosti sa jedne strane i pojave krize usljed pandemije virusa korona i sličnih pojava u budućnosti. Relativno je mnogo literature koja se bavi uzrocima i posljedicama virusa korona, ali rijetki su izvori koji na način kao što je u ovom radu analiziraju uzroke i posljedice pandemije virusa korona i moguće slične pojave u budućnosti ukoliko se ne otklone nedostaci koji su u radu predstavljeni. Autori analiziraju uzroke krhkosti globalnog politekonomskog sistema stavljajući u odnos kretanje nadnica i profita od Velike depresije tridesetih godina prošlog vijeka do danas, promjene razvojne paradigme kroz sveobuhvatnu politiku poreskih rezova u korist bogatih, smanjenje državne potrošnje, razbijanje radničkih sindikata, deregulaciju finansijskih tržišta i privatizaciju. Autori zaključuju da je uvođenjem progresivnog globalnog poreza na bogatstvo, uz usporavanje globalizacije i urbanizacije, te zaštitu ekosistema, neophodno da odustanemo od cilja maksimizacije profita i posegemo za pravičnijom raspodjelom svjetskog dohotka i bogatstva. Takođe, autori zaključuju da je u budućnosti država važno povjerenje građana u institucija, koje se gradi i održava kada se građanima govori istina.

Dozvoliću sebi da vam poželim ugodno i korisno čitanje ovog broja časopisa, ali i da vas pozovem da sopstvenim autorskim člancima pomognete afirmaciju i ekonomske misli po istim načelima po kojima smo objavili radove u ovom i prethodnom broju. Nadam se da će čitaoci časopisa pronaći stručne i naučne informacije korisne za njihova svakodnevna istraživanja.

Srdačan pozdrav,

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SVET NAKON KORONAVIRUS PANDEMIJE: PROMENA RAZVOJNE PARADIGME ILI PERPETUIRANJE KRIZA

THE WORLD AFTER CORONAVIRUS PANDEMIC: CHANGING THE DEVELOPMENT PARADIGM OR PERPETUATING THE CRISIS

Rezime: Svet se još jednom suočio sa pandemijom nepoznatog virusa. Za razliku od ostalih, barem kada je ovaj vek u pitanju, nijedna pandemija nije u toj meri izazvala strah i dovela do velikih turbulencija u proizvodnim i finansijskim tokovima. U kratkom roku je moguće stabilizovati sistem kroz primenu makroekonomskih stimulativnih mera. Ipak, ukoliko se nastavi sa globalnim ekonomskim politikama koje dovode do snažnog društvenog raslojavanja, pa samim tim i prigušenog i nestabilnog privrednog rasta i perpetualnih finansijskih kriza, globalni šokovi, poput ove pandemije, će biti sve češći čime će se problemi samo produbljivati. Održiva i stabilna putanja privrednog rasta i pripremljenost za sistemске šokove zahtevaju pravedniju raspodelu svetskog dohotka i bogatstva, očuvanje životne sredine i intenzivnu, konstruktivnu i funkcionalnu saradnju na relaciji međunarodne institucije, države, privatni i civilni sektor i građani.

Ključne reči: pandemija, nejednakost u raspodeli, privredni rast, finansijska tržišta, životna sredina

JEL klasifikacija: D63, I14, I15, O10, O16

Summary: The world has once again faced a pandemic of an unknown virus. Unlike the others, at least when it comes to this century, no pandemic has caused such fear and led to great turbulence in production and financial flows. In the short term, it is possible to stabilize the system through the application of macroeconomic stimulus measures. However, if global economic policies continue, leading to strong social stratification, and thus subdued and unstable economic growth and perpetual financial crises, global shocks, such as this pandemic, will become more frequent, which will only deepen the problems. Sustainable and stable paths of economic growth and preparedness for systemic shocks require a fairer distribution of world income and wealth, preservation of the environment and intensive, constructive and functional cooperation between international institutions, the state, the private and civil sector and citizens.

Keywords: pandemic, distribution inequality, economic growth, financial markets, environment

JEL classification: D63, I14, I15, O10, O16

1. INTRODUCTION

Since the beginning of this century, that is, the millennium, the world has been hit by several dangerous pandemics. SARS 2002-2003 (770 deceased); Swine flu 2009-2010 (200 thousand deceased); MERS 2010 - still in force (850 deceased); Ebola 2014-2016 (11.3 thousand deceased). This year, in 2020, the world faced the most virulent pandemic so far - a pandemic of a novel, SARS mutated version, the coronavirus (LePan, 14th March 2020). Its specificity is that it is extremely contagious, while its mortality rate is ten times higher than the seasonal flu. According to the latest data, in a period of about five months, a total of 3,596,142 infected people were registered, of whom 251,718 died (mortality rate of 7%) and 1,170,779 recovered. These figures continue to change rapidly on a daily basis (Johns Hopkins Coronavirus Resource Center, 5th May 2020).

The pandemic broke out in China in the province of Hubei, the city of Wuhan, which has over eleven million inhabitants. The disease was first registered in late November, early December last year, but China has carefully kept this news out of the public eye for about a month. Until then, it closed the entire province of Hubei and claimed before the World Health Organization that the virus was not transmitted from person to person, while international flights and travels were allowed. The virus then spread rapidly across the planet.

In March, the most critical month, the speed at which the coronavirus was transmitted was frightening. According to the then calculations of the Australian professor of economics Steve Keen, the number of infected people doubled every six days. Under the conditions at the time, if this rate of spread of the infection continued and if we count only the registered cases, the en-

tire planet would be infected within three months. If we introduce preventive measures such as increased hygiene and avoidance of closed space and mass gatherings into circulation at this rate of virus spread, the entire planet would become infected within five months. If measures were further introduced to limit social interaction and significantly raise hygiene in public spaces, the rate of spread of the infection could be slowed down so that the number of infected people doubles every month, which would take a year and a half to infect the whole planet. Finally, with the drastic measures introduced by China, the number of infected people would double every two months, i.e. the entire planet would be infected in three years (Keen, 4th March 2020).

In other words, restrictive measures were necessary - we bought time to relieve hospital capacities and come up with an effective drug and vaccine that is estimated to be available within 18 months. There are now several problems. First, from the perspective of infection transmission, the analysis so far is a mitigated version because the spread rate of infection is calculated only on the basis of the number of registered cases - there is a large number of unregistered cases with mild and asymptomatic manifestations. Unfortunately, until we realize the extent to which the virus has spread, we cannot fully understand it or, in other words, one of the preconditions for fighting the virus is that the number of registered cases coincides with all patients. Second, the question is whether the herd immunity approach is effective because there is no answer to the question of whether the person who contracted the disease acquired immunity, especially since there are indications that the coronavirus mutated into several dozen versions through the spread process. Third, there is no evidence that



warm weather slows the spread of the virus. Moreover, the World Health Organization is of the view that the corona is transmitted equally efficiently in warm and humid parts of the world (World Health Organization, 4th May 2020). In other words, effective pandemic control means that restrictive measures will be in force for a year and a half, because if they do not, during the summer, due to the restrictions in the public space, there will be only a temporary slowdown in the pandemic, which will flare up again in autumn. Fourth, restrictive measures potentially lead to major economic problems - according to some authors, if the pandemic does not last too long, a combination of expansionary monetary policy (lower interest rates) with fiscal stabilizers should be sufficient to address this crisis, whose recovery, similar to the case of the SARS pandemic in 2003, will take the form of the Latin letter "V" (Sell, 7th April 2020). Again, if the crisis lasts and if it erupts again in the fall, production chains and profit margins will be seriously jeopardized. In that case, in addition to the policy of lowering reference interest rates, central banks will be forced to pump liquidity into the system while fiscal authorities will have to significantly increase their spending and make significant efforts to further stimulate free trade flows and foreign investment. In that case, the recovery would take the form of the Latin letter "U" (OECD, 2nd March 2020).

In our view, the coronavirus-related crisis is less

dependent on how long it will last from the profound consequences it will produce thanks to the fragility of the global political-economic system. In short, the coronavirus pandemic once again brings into focus the ideological and structural political-economic changes that took place in the late 1980s. These changes have led to deep global social stratification, environmental catastrophe and lasting economic instability. As such, this system in the long run leads to perpetual social stratification, economic stagnation, environmental destruction and an essential inability to withstand systemic shocks, such as the coronavirus pandemic. The key to the problem lies in the ever-growing global inequality in the distribution of income and wealth, both at the domestic, national level, and at the global level, and ideology and, inherently, the economic policies that have led to this outcome. Of course, a pandemic is just a manifestation that exposes the deep structural fragility of the world economic and social system. This problem, therefore, cannot be solved solely by applying stabilizing macroeconomic policies - we can only buy time with them, but only for a short time. What is needed is to establish a stable, equitable and environmentally sustainable economic trajectory that we see as the most important factor that can help reduce both the frequency and likelihood of economic shocks. On this task, it is crucial to find the causes of subdued and unstable economic growth, frequent financial crises and growing social inequalities.

2. CAUSES OF FRAGILITY OF THE GLOBAL POLITICAL-ECONOMIC SYSTEM

After the Great Depression of the 1930s and World War II, the basic characteristics of the American economy and Western countries are state interventionism, strict regulation of corporate and financial sector operations, strong labor

unions, progressive income taxation, high property and inheritance taxes, fixed exchange rates (gold-dollar standard) and strict restrictions on international capital movements.

2.1. Great compression

During that period, Western countries experienced a boom - until the 1970s, wages grew in real terms and in line with productivity growth. Corporations were no longer able to speculate on the stock exchanges and due to strong labor unions were forced to focus on innovation and increased productivity because there was no possibility of profits increasing at the expense of wages. Also, due to the devastating World War II, they did not have real competition on the world market, which is why they were not overly interested in conflicts with workers, nor to challenge the welfare state that was committed to social security, health care and education programs. Similarly, given that the memory of the financial collapse of the 1930s was still fresh, the rich did not oppose the significant role of the state in regulating the economic system. The financial sector was relatively stable and was mainly focused on financing the companies' operations, and to a much lesser extent on financing the consumption and purchase of real estate. This period is also remembered for the significant reduction of social inequalities. The purchasing power of workers really grew and pushed them into the middle class, the welfare state was developed and health care and education became available to broad strata of society. Of course,

inequalities existed, but they were not so pronounced. The rich continued to get rich, but at a slower rate. The state squinted at their coping in the form of finding loopholes in the law to reduce their tax liabilities and contrivances in order to get their tax incentives. Civic movements aimed at defending basic human rights, gender equality and the fight against racism were also in full swing. Historians Goldin and Margo (1991) called this period The Great Compression (Goldin & Margo, 1991).¹

However, as early as the end of the 1950s, much earlier than expected, the currencies of the member states of the European Economic Community (EEC)² became convertible. Last but not least, during the 1960s, the EEC and Japan experienced significant economic prosperity through the development of trade, industry and advanced technologies.³ On the other hand, America's position in the global market began to weaken, which is why its most important economic partners began to look at the dollar as an overvalued currency. The hunger for dollars is disappearing and central banks are starting to convert their dollar claims more and more into gold. American corporations lost their advantage in the international market and were under strong pres-

¹ In America, in the period 1950-1980, the share of the poorest 50% of the population in national income increased from 17.5% to 19.9%, the middle 40% from 43.5% to 45.9%, while the share of the richest 10% fell from 39% to 34.2% and the richest 1% from 15.8% to 10.7%. In the same period, the share of wealth of the richest 10% fell from 68.3% to 64% and the richest 1% from 28.5% to 22.3% and the poorest 50% from 1.6% in 1962 to 1.3% in 1980. In the period 1962-1980, only the share in the wealth of the middle 40% increased from 27.8% to 34.6%. (World Inequality Database, 4th May 2020).

² The European Economic Community was established by the signing of the Treaty of Rome in 1957 and consisted of France, Germany, Luxembourg, Belgium, Italy and the Netherlands.

³ The average annual rate of economic growth during the 1960s in the EEC was 5%, which was twice as high as in the United States and the United Kingdom. (Đokanović, 1996).



sure from trade unions to increase wages. Corporations that had market power, in order to maintain profits, shifted the cost of increased wages to consumers, which further fueled inflation (cost-push inflation). Those corporations that could not do that, suffered pressure on their own profits. Another important cause of inflation was the large government spending caused by the Vietnam War. Finally, due to external pressures on the dollar and a massive outflow of gold, on 15th August

1971, US President Richard Nixon abolished the dollar's external convertibility into gold, bringing the Bretton Woods system to a standstill. Then, two oil shocks caused by OPEC (Oil Producing Exporting Countries) in 1973 (oil prices quadrupled) and 1979 (oil prices quadrupled) inflicted an additional blow to corporate profits and contributed to further inflation which ruthlessly carried out redistribution in favor of debtors which caused great damage to the owners of the capital.

2.2. Changing the development paradigm

The conditions for changing the development paradigm were fulfilled with the coming to power of Ronald Reagan in America in 1980 and Margaret Thatcher in the United Kingdom in 1979. In the next decade, there will be a complete dismantling of post-depressive regulatory reform through a comprehensive policy of tax cuts in favor of the rich, reduction of state spending, the breakup of trade unions, deregulation of financial markets and privatization. These policies, in conjunction with trade and capital account liberalization, through the significant acceleration of the globalization process, have found their expression in the Washington Consensus, that is in the neoliberal

doctrine that, along with changes in the United States and the United Kingdom and, in cooperation with the International Monetary Fund, fund and the World Bank, becomes an export product to developing countries. Developing countries have embarked on eliminating inflation, reducing government spending, tax cuts in favor of the rich, privatization, deregulation and liberalization of trade and labor and capital movements. Of course, such policies did not come without a political cost - democracy became the prey of right-wing politicians and, in poor countries, dictators who enjoyed external support due to neoliberal economic reforms.

2.3. The rise of speculative financial markets

All these changes, as expected, led to a dynamic rise of speculative financial markets and more frequent financial collapses. The deregulation of financial markets was accompanied by a very dynamic inflow of funds for several reasons. First, obvious, are the growing profits of corporations, which are largely the result of lowering real wages, which have been growing at a rate lower

than productivity since the 1980s. By breaking up the labor unions, American corporations came into a position to dictate the pace. On the one hand, corporations were enlarged and the market was monopolized, which was largely made possible by the issuance of highly speculative junk bonds and accompanying mergers and acquisitions on the financial markets, while on the other

hand, due to the breakup of trade unions, Marx's "law of the growing industrial reserve army" came into force, which significantly improved the negotiating position of corporations. Two factors further increased this industrial reserve army in the domestic market, which further positively affected the negotiating position of corporations. First, in order to maintain the level of consumption or at least amortize its decline, the number of family members, primarily women, who joined the labor market increased. Second, globalization has opened up opportunities for corporations to export production to poor countries, while liberalization of migrations, also as a consequence of globalization and the spread of neoliberal doctrine, has increased competition in domestic labor markets, contributing to a dramatic escalation of social inequalities.

The reverse of the reduced share of labor and the growing share of capital in the distribution of world income is the concentration of wealth in the hands of a small number of people, institutions and sovereign wealth funds of fast-growing economies.⁴ As the wealthy in both rich and poor countries have a declining propensity to spend and a growing propensity to save with rising incomes, this surplus had to be reinvested because at the root of neoliberal dogma is not consumption but investment - thousands of billions of dollars are circulating in global financial markets at any moment in search of higher yields. To meet this explosion in demand for investment, financial markets have constructed a number of speculative, highly risky financial instruments and institutions such as junk bonds, leverage buy out, mortgage-backed securities - MBS), collateralized debt obligations (CDOs), collateralized loan obli-

gations, collateralized bond obligations, credit default swaps, Special Investment Vehicles, Special Purpose Vehicles, etc. The other side of this dynamic inflow of liquidity and the creation of highly speculative financial instruments and institutions is the dynamic growth in indebtedness of households and corporations. The explosion of household borrowing is actually the other side of growing inequalities - households, in order to maintain their standard of living in the circumstances of the constantly declining share of labor in income distribution, have resorted to borrowing in the form of consumer and housing loans. Of course, in order for the wheel to continue to turn, the deregulated financial institutions lowered the borrowing standards so much that those who knew they would not be able to repay those loans had the opportunity to raise loans.

At the same time, there was massive speculation in the market of developing countries on exchange rates and real estate investments. In this way, the business of the financial sector was completely separated from the business of the real sector - for example, the ratio of the value of global financial assets and annual world gross domestic product increased from 109% in 1980 to 316% in 2005 and 374% in 2017. In terms of value, global financial assets in 2017 were worth about 300 trillion US dollars, global debt was 233 trillion dollars, while the value of world GDP was 80.3 trillion US dollars (Galbraith, 21st April 2017; World Economic Outlook Database, April 2020). It is estimated that in 2019, the amount of global debt reached the amount of 255 trillion US dollars, of which 70 trillion US dollars in the form of public debt. The debt of fast-growing markets alone amounts to 71.4 thousand billion US dol-

⁴ It is estimated that the sovereign wealth funds of fast-growing economies, primarily oil exporters and South Korea, Singapore and China, have investments in financial markets worldwide in the amount of several thousand billion US dollars (Lim Mah-Hui, 2008).



lars, which is equal to 220% of their combined GDP (Srivastava, 15th November 2019). In the literature, an increasingly pronounced separation between the real and financial sectors is called financialization. In short, financialization is the name for the increasingly pronounced emergence of the growing importance of financial markets, financial motives and financial participants in the daily functioning of developed world economies. In short, financial markets, financial institutions and the financial elite have an increasing influence on economic policy and economic outcomes. The consequences of financialization are an increasingly pronounced transfer of income from the real to the financial sector, increasing income inequality and an increasingly pronounced impact of speculative motives on financial decision-making (Palley, 2007).

Dominant speculative investment leads to periods of unsustainable ups and downs, which through pessimistic expectations and a drop in investment spending on a systemic scale activates a vicious circle in which a drop in investment leads to a drop in employment, consumption and financial problems of indebted business units and households. In these circumstances, in order to prevent a total economic collapse, central banks have been lowering reference interest rates for

decades and massively pumping liquidity into institutions that have previously led to overheating of the system, which is why moral hazard is growing. In other words, those who brought the system to the brink of collapse not only do not suffer any consequences, but privatize profits, while, on the other hand, the costs of economic collapse, through their socialization, are transferred to the citizens. In this way, after each financial collapse, there is a new redistribution in favor of the rich strata of society. Profits have been privatized, while rehabilitation costs are reflected in a significant increase in budget deficits and public debt and the bankruptcy of households or the confiscation of real estate purchased on credit. After rehabilitating those who caused the crisis, as a rule, we move on to fiscal austerity measures that most severely affect the poor and the middle class - raising taxes, reducing pensions, laying off or lowering labor costs, cuts in spending on health, education, social programs, etc. When the system stabilizes, due to the lack of responsibility and the accompanying moral hazard, the conditions are established for another unsustainable rise of financial markets. As a result, globally, economic growth has been sluggish and unstable since the 1980s, with occasional phases of rising unemployment, financial crises and recessions.

3. GLOBAL SOCIAL LAYERING, UNSTABLE AND DAMPED ECONOMIC GROWTH AND FINANCIAL CRISES

A comprehensive analysis of the growing economic and social tensions in the last four decades comes in 2016 from the International Monetary Fund, the central institution of the Washington Consensus. Ostry, Loungani & Furceris (2016) analyzed the impact of two neoliberal policies - deregulation of international capital movements (so-called capital account liberalization) and fiscal consolidation, i.e. fiscal austerity measures aimed at reducing the fiscal deficit and government debt levels - on economic growth and inequality in the distribution of world income and wealth. There have been several major financial crises in developed countries since the 1980s: the Wall Street collapse of 1987, the crisis of savings and loan associations during the 1980s, the crisis of the European Monetary Mechanism in 1992, the dot-com speculative bubble of 2000, the Global Financial crisis of 2008, and the eurozone crisis of 2009. At the same time, after the liberalization of the capital account, Ostry et al. in more than 50 fast-growing markets recorded about 150 episodes of intensive capital inflows which, in 20% of cases, ended in a financial crisis. The authors point out that the positive side of capital account liberalization is that it allows free movement of long-term-oriented capital such as foreign direct investment, while its downside is the free movement of short-term (speculative) capital, most often in the form of portfolio investments (investment in securities) or short-term bank lending, which often results in a financial crisis in the host country with long-term negative effects on economic growth, employment and equality in the distribution of income and wealth. Based on an analysis of

224 cases of capital account liberalization in 149 countries, the authors conclude that after the financial crisis, the Gini coefficient of income inequality increased by an average of 2.2% within two years and by 3.5% within five years since the outbreak of the crisis.

Elsewhere, the authors see no reason for fiscal tightening in non-indebted economies, as fiscal austerity has negative effects on citizens' well-being and demand leading to declining output and consequently rising unemployment and inequality in income and wealth distribution. On average, fiscal consolidation of 1% of GDP leads to a growth of long-term unemployment by 0.6% and, within five years, to the growth of the Gini coefficient by 1.5%. Global financial liberalization and insistence on fiscal austerity lead to growth in social inequalities, but growing social inequalities have a reciprocal negative impact on economic growth - social inequalities significantly reduce the level and sustainability of economic growth (Ostry, Berg, & Tsangarides, 2014).

Thus, according to research by Oxfam (2016) in the period 1988-2011 total world income increased from 13.7 to 26.3 trillion US dollars, which is the total increase of 12.7 trillion. Of this growth, those in the 50% of the poorest (3.1 billion in 2011) accounted for only 9.9% of world income, while the 10% of the richest (620 million in 2011) appropriated an incredible 45, 7% and 1% of the richest (60 million in 2011) 11.8% of this growth (Chart 1).



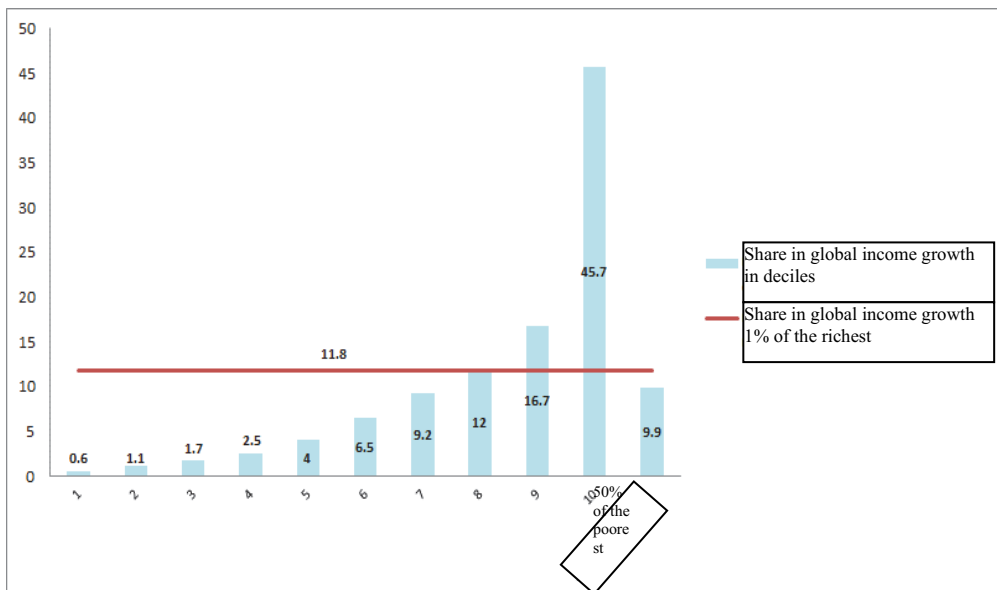


Chart 1. Share in global income growth in the period 1988-2011 in deciles (in%)
Source: Oxfam (2016)

So, in the observed period, the share of 10% of the richest in the newly created income is more than four times higher than the share of 50% of the poorest inhabitants of the world. To make the comparison even more picturesque, the share of 10% of the world's poorest inhabitants in the newly created income in the observed period was

only 0.6%. Their annual income per person in the observed period grew by an average of 2.8 US dollars per year (Chart 2), while the annual income per person of the 10% of the richest grew by an average of 142 US dollars (50.7 times more) and of the 1% of the richest for 511 US dollars (182.5 times more).

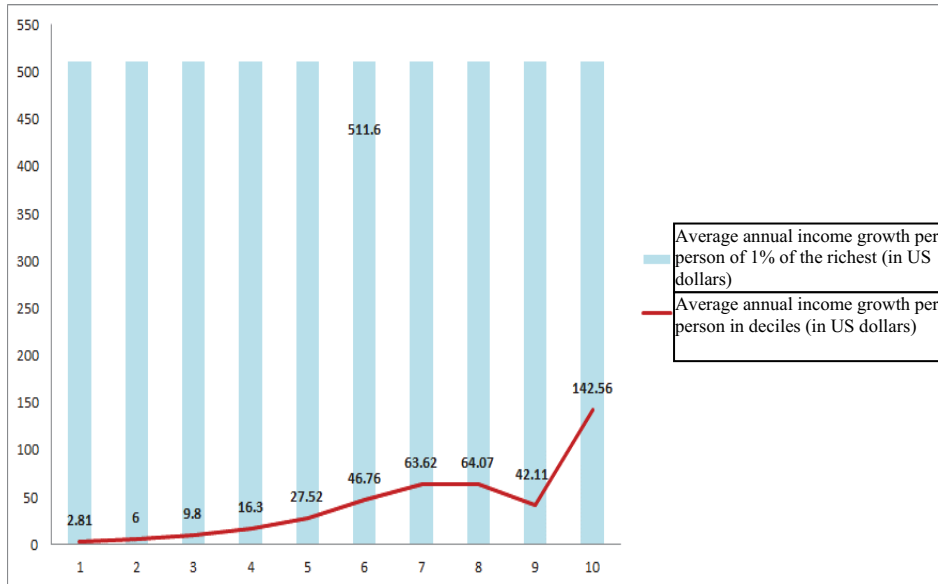


Chart 2. Average annual income growth in the period 1988-2011 per person in deciles (in US dollars)
 Source: Oxfam (2016)

Of course, the ultimate instance in which these huge inequalities in the distribution of world income are reflected to the extreme is inequality in the distribution of world wealth. In the period 2000-2015, the poorest 50% of the world's population appropriated only 1% of the total growth in world wealth, while the richest 10% appropriated as much as 87%.

The data on the distribution of the total growth in wealth among the richest inhabitants of the planet is also interesting, on the basis of which it is clear that even within the 10% of the richest, the world's wealth is extremely unevenly distributed. Within the total wealth that was appropriated by

10% of the richest in the observed period, 86% was appropriated by 5% of the richest and 57.5% of those 1% of the richest. Now we come to the extreme data - in 2015, 1% of the world's population owns wealth that is equal in value to the wealth of the remaining 99% of the world's population. Therefore, it is not surprising that in the same year, the richest 62 people in the world have wealth equal to the wealth of 3.6 billion people on the globe (50% of the poorest). In the period 2010-2015 the wealth of the 62 richest people in the world increased by 45%, i.e. by 542 billion US dollars, while the wealth of 3.6 billion people fell by 38%, i.e. by slightly more than a trillion US dollars (Chart 3).⁵

⁵ No less important, the wealth of the richest people in the world is significantly underestimated. The rich hide a large part of their wealth in offshore zones, that is, tax havens. According to Reuters' estimate, in tax havens around the world, the rich hide from 21-32 trillion US dollars, which is equal to one-sixth of the world's total private wealth (Vellacott, August 22, 2012).



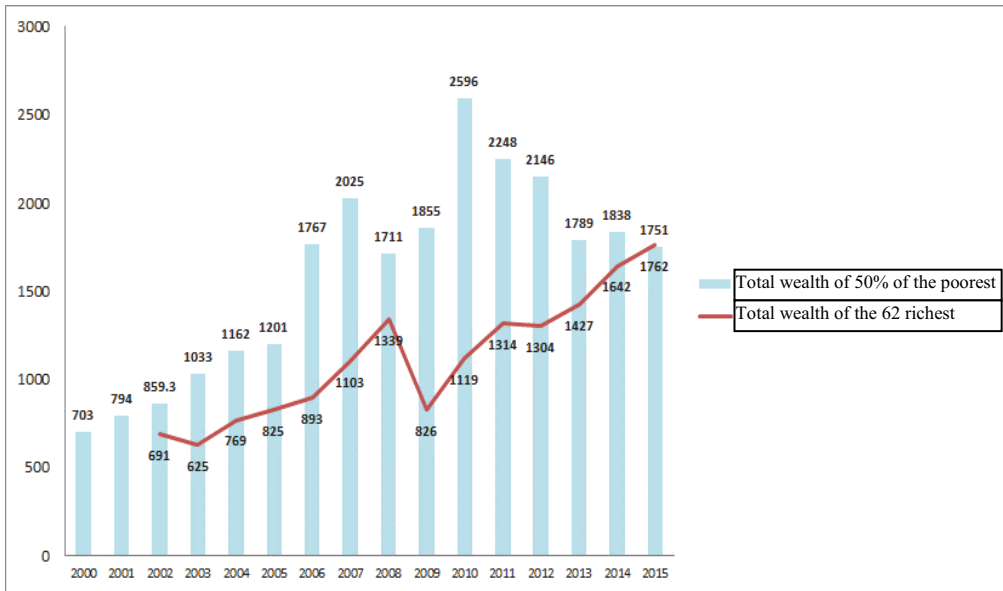


Chart 3. Total wealth in the period 2000-2015 (in billions of US dollars)
Source: Oxfam (2016)

In the years that followed, inequalities in distribution only grew. Thus, for example, in 2017, the wealth of the world's billionaires increased by 12%, that is, it increased by 2.5 billion US dollars per day, while the wealth of the poorer half of the world fell by 11% in the same period (Oxfam, 2018). In 2019, 2,153 billionaires possessed twice the wealth of 4.6 billion people. Nearly half of the world's population lives on incomes of up to 5.5 US dollars a day, while the rate at which poverty is reduced has halved compared to 2013. At the same time, in the period 2011-2017, in the G7 countries, workers' wages increased by 3%, while dividend income appropriated by shareholders increased by 31% (Oxfam, 2020).

The other side of growing inequality is frequent financial crises and unstable economic growth (Chart 4).

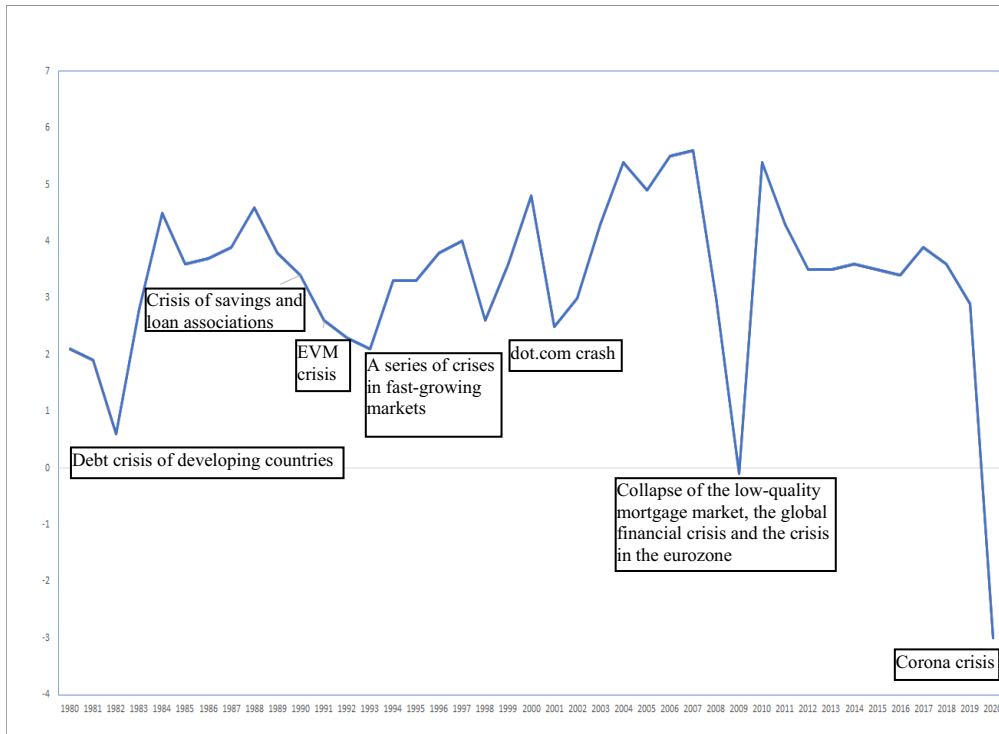


Chart 4. Real GDP growth rate of the world (in%)
 Source: World Economic Outlook Database (April 2020).
 Note: estimates are given for 2019 and 2020.

4. THE VICIOUS CIRCLE OF PROFIT MAXIMIZATION, ENVIRONMENTAL DEGRADATION AND PANDEMICS

As we have explained, the global system is aimed at profit maximization. This goal leads to accelerated globalization (and thus human mobility) and urbanization on the one hand and the eternal desire to reduce costs on the other, which leads to the exploitation of labor and natural resources and significant growth in inequality in the distribution of world income and wealth.

In this way, we enter a vicious circle - acceler-

ated urbanization leads us to untouched parts of the planet, which is why we are increasingly coming into contact with plant and animal species that are natural hosts of viruses completely unknown to us. Also, due to the accelerated urbanization, cities, especially in Asia and Africa, are becoming overcrowded, which is why many people share a small space, often with animals, which affects the spread of the infection. On the other hand, the

vast majority of the world's population, due to growing inequality (although the diet is also religiously and culturally conditioned), is forced to eat available food that is inconceivable for the richer Western world - snakes, frogs, rodents, scorpions, monkeys, bats, pangolins, dogs, insects, etc.

Degradation of the natural ecosystem leads to a double danger - viruses are transmitted through contact with animals that have not been in contact with humans before, but also through food. Due to the acceleration of globalization, urbanization and growth in inequalities, these processes are also accelerating. The problem is that there are still millions of undiscovered pathogens in our rather unknown natural ecosystem. Globalization, through a significant acceleration in mobility, and thus interactions between people, leads to the accelerated spread of these pathogens to the world population.

As we degrade the ecosystem and pollute the environment, extinction and endangerment of various animal species occur (biodiversity is reduced). Unfortunately, the fewer animal species, the smaller the number of species that are potential hosts of pathogens, which makes it easier to transmit the infection among the species that still exist. To make the problem bigger, the researchers found that in degraded ecosystems, there is a proliferation of animal species that are the most common natural hosts and carriers of the virus - bats and rodents (Vidal, 18th March 2020).

Since pathogens are just looking for a way to

survive, they will attack the dominant species. On our planet, they are humans. Of course, when migrating to new species and trying to ensure their survival through the spread, viruses mutate, which makes them unpredictable.

In China, one of the solutions adopted is the abolition of markets where different types of wild animals are traded (wet markets). This measure cannot be effective unless the ruthless destruction of the environment is renounced and a system that will lead to a reduction in inequalities in the distribution of world wealth and income is established - poor people will have to continue to eat food that is affordable to them, so the effect achieved may be even worse - a flourishing black market that will be even harder to control.

We return to the beginning - since we pollute the environment and break through to parts of ecosystems that have yet to be destroyed, nature defends itself from us with pandemics - it is impossible for ecosystem degradation not to return like a boomerang for the simple reason that we are an integral part of it. Unfortunately, nature responds in the same way that we have organized our global social system - the newly created value is mostly produced by 90% of people, while it is mostly appropriated by the 10% of the richest. Reciprocity is noticeable in pandemic retaliation - the virus does not choose, but the poorest will go through the worst due to inadequate living conditions (existential, hygienic, etc.), job loss and inadequate access to health services.

5. INSTEAD OF CONCLUSION: WHERE NEXT?

The coronavirus has again, in a cruel way, confronted us with facts that are more or less known. Urbanization, globalization, profit maximization, and growing inequalities make us increasingly ex-

posed to episodes like this. There is no free lunch in life - to reduce the risk of pandemics, it is necessary to slow down globalization and urbanization and protect our ecosystem. Also, it is necessary to

give up the goal of profit maximization and reach for a fairer distribution of world income and wealth, invest more in people, their education, green technologies and the health system. In order to achieve this, an international agreement and far more intensive, functional and constructive cooperation between international institutions, states, the private sector, the civil sector and the citizens themselves are needed.

Picketty's proposal for the introduction of a progressive global wealth tax seems quite acceptable. He believes that the most important mechanism for reducing inequality should be changes in tax policy, which is why he advocates the introduction of a global annual wealth tax. According to him, it would be possible to introduce this type of tax regionally on the territory the size of Europe or America, and that these revenues in the European Union would not be negligible and would reach the amount of 2% of GDP. At the same time, it is necessary to work on harmonizing tax regulations in different economies and eliminating tax havens (Piketty, 2014). According to Oxfam, only 4% of the world's total tax revenue comes from wealth taxes, while the estimated tax evasion rate by the richest people on the planet is 30%. On the other hand, Oxfam (2020) estimates that an additional 0.5% wealth tax on the richest 1% over a ten-year period would generate revenues sufficient to cover the creation of 117 million new jobs in the education, health and nursing elderly people sectors as well as to cover all deficits of this last sector.

Also, Picketty proposes the program "inheritance for all", according to which every citizen of France would receive 120,000 euros from the state when he turns 25. The program would be financed on the basis of the application of a very progressive tax rate on wealth of, say, 0.1% on wealth below the level of the French average of 200,000 euros to 90% for the richest. This would also ensure that the huge accumulated wealth is

only temporary - these taxes would be bearable for those whose wealth is several million or several tens of millions of euros, but would be difficult to bear for those whose wealth is measured in hundreds of millions of euros (Horbin, 12th September 2019).

A fairer distribution of income and wealth, a global wealth tax, increased tax collection efficiency and progressive taxation could serve to finance a global fund that would allow the world's poorest countries to gain access to health and other social programs. Unfortunately, today, 4 billion people live in the world without any form of social protection, which makes up 55% of the world's population and only 29% have access to a complete social protection program. In short, as many as 71% of the world's population either does not have access or has only partial access to the social protection program (International Labor Organization, 2017).

No less important, these are situations when it becomes clear again how important institutions and the trust of citizens in institutions are for democratic societies. Managing the state is a serious business, which is why societies headed by charlatans and incompetent people are especially vulnerable in the event of extreme events. Experience shows that such leadership will be inclined to undermine institutions by appointing party henchmen to the detriment of expertise, thought and knowledge. Citizens' trust in institutions is also important, and it is built and maintained when citizens are told the truth. It is therefore not surprising that societies in which there is no trust in institutions face the widespread problem of undisciplined citizens who do not follow the recommendations of the authorities in these extraordinary circumstances. As a result, in large part as the pandemic intensified, some countries, including developed ones, gave up trying to cooperate with citizens and resorted to drastic coercive measures such as restricted movement or curfew.



However, the facts show that in the past twenty years, pandemics have not fundamentally changed our way of thinking. The reason is simple - our preventive and follow-up reactions are slow because people linearly extrapolate the future which makes us unprepared and poorly responsive to exponential events. In this sense, it seems that the world would react correctly in the future only in the event of an extreme event - for example, bubonic plague killed half the population in infected countries, which forced serfs to gradually free themselves from the feudal system (Acemoglu & Robinson, 2012). Again, swine flu affected about 60 million people and about 200,000 died between April 2009 and April 2010, and nothing special has changed in the world since then.

Geostrategically speaking, it is very likely that

the world will change - it is not surprising that Donald Trump renamed the virus to Chinese. Namely, this is a gain for China, which, so to speak, went from the role of someone who covers up the problem and then a drowning person to the role of a world savior. But with China may come a new contagion, this time political - the spread of a totalitarian way of thinking for which the introduction of a state of emergency is a fairly fertile ground. Simply put, we may be more willing to give up our freedoms in exchange for continuing the process of destroying our environment and a system that is better able to cope with a pandemic. Of course, this solution is only short-term, because nature will defend itself with all its might from the destruction carried by the existing model.

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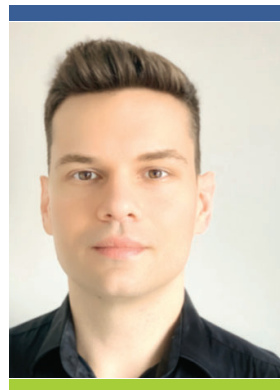




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ECONOMIC CONSEQUENCES OF THE COVID-19 PANDEMIC AND CRISIS MANAGEMENT

EKONOMSKE POSLEDICE PANDEMIJE VIRUSA COVID-19 I KRIZNI MENADŽMENT

Rezime: Rad se zasniva na analizi posledica aktuelne ekonomske krize izazvane pandemijom COVID-19. Pre svega analizirana je uloga kriznog menadžmenta sa praktičnog i teorijskog aspekta. Identifikovane su ključne ekonomske posledice pandemije po pojedinačna preduzeća i privredu kao celinu. Dat je predlog ključnih potrebnih mera na nivou države za prevazilaženje uočenih ekonomskih poremećaja. Pored toga predstavljen je set pitanja iz osam poslovnih oblasti koja služe kao osnova za utvrđivanje jaza u potrebnom i aktuelnom setu preduzetih mera kriznog menadžmenta na nivou pojedinačne organizacije.

Ključne reči: krizni menadžment, krizne mere, COVID-19, ekonomska kriza

JEL klasifikacija: H12, M21

Summary: The paper is based on an analysis of the consequences of the current economic crisis caused by the COVID-19 pandemic. First of all, the role of crisis management from the practical and theoretical aspect is analyzed. The key economic consequences of the pandemic for individual companies and the economy as a whole have been identified. A proposal of key necessary measures at the state level for overcoming the observed economic disturbances is given. In addition, a set of questions from eight business areas was presented, which serve as a basis for determining the gap in the necessary and current set of crisis management measures taken at the level of an individual organization.

Keywords: crisis management, crisis measures, COVID-19, economic crisis

JEL classification: H12, M21

1. CRISIS MANAGEMENT

Crisis management is one of the vital functions of the organization because failure to achieve the goals of this function can be far-reaching and very negative for all stakeholders. First of all, the consequences of the crisis are manifested through a decline in financial performance, jeopardizing liquidity and disrupting the financial stability of companies. After the crisis grows from a tactical to a deep strategic crisis, the consequences are far more radical and can lead to bankruptcy and liquidation of companies. Given that the consequences of the crisis change over time and become more comprehensive and serious, crisis management cannot be viewed as a precision plan prepared in advance with a clear set of commands but as a set of iterative steps and recommendations. Fink (1986) states that crisis planning is the art of reducing risk and uncertainty with the goal of achieving greater control over the future. Robert and Lajtha (2002) also conclude that effective crisis management is based on a structured and continuous learning process that allows managers to deal with unexpected situations, rather than a rigid crisis plan. Coombs (2007) states that crisis management is a process consisting of three phases: pre-crisis period, response to the crisis, and post-crisis period. The pre-crisis period is based on the preparation of a preventive response, a crisis plan, and the determination of a crisis team. The response to the crisis is realized through concrete measures and guidelines envisaged by the plan. The post-crisis period is characterized by learning activities and the creation of organizational knowledge, which is the basis of future crisis plans.

Coombs (2006) and Barton (2001) in their work conclude that organizations are more prepared and easier to overcome the crisis if they have prepared crisis plans that are regularly updated on the basis of acquired knowledge, have a defined crisis management team, conduct crisis exercises to improve plans and responses in times of crisis and periodically test crisis plans, and have prepared forms of crisis information. Paraskevas (2006) points out that effective crisis planning is aimed at identifying early crisis signals, however, signals can often be hidden and difficult to spot. The same author states that when moving from the pre-crisis phase to the acute crisis, the management rarely manages to return the company to a stable path, and the magnitude of the damage is proportional to the organization's readiness for the crisis and the effectiveness of crisis measures taken.

In accordance with the previous, the recognition of early crisis signals has a decisive influence on the size of the damage caused, and the flexibility of the crisis plan and the comprehensiveness of crisis measures affect the effectiveness of implemented activities to combat the consequences. Depending on the depth of the current crisis, the measures taken at the level of an individual company are not enough to give the desired result. The deep economic crisis caused by the COVID-19 pandemic requires the application of crisis management at the state level as well, as a kind of organization. By combining measures at the company level and at the state level, it is possible to mitigate the consequences of the deep economic crisis and create a comprehensive crisis plan.

The first step in defining crisis measures is the analysis of the current situation in terms



of identifying the consequences of the crisis in order to mitigate and eliminate its causes. In the following, the basic trends caused by the acute economic crisis are identified, and

after that, basic guidelines are formulated, in the form of questions from several business areas, for understanding the crisis management gap.

2. ACUTE CONSEQUENCES IN THE BUSINESS SPHERE CAUSED BY THE GLOBAL COVID-19 PANDEMIC

The scale of the global crisis caused by the COVID-19 pandemic cannot yet be fully understood. It is certain that the damage inflicted on the economy already exceeds the scale of the global financial crisis that occurred in 2008, and some sources state that the crisis is greater than the Great Depression (Roubini, 2020). These two crises were accompanied by a 50% decline in financial markets, a contraction in demand, a freeze on credit activity, accelerated growth in unemployment, a significant decline in domestic GDP, a rapid decline in corporate income, and the final consequence was the bankruptcy of many companies. The dynamics of manifestation of previous crises was incomparably slower. Namely, the effects of the mentioned crises were manifested for three years, while the manifestation of the effects of the current global pandemic is three weeks. Local economies have been affected to a greater or lesser extent, but overall, due to global connectivity, in a very short period of time, the economy is facing extremely large losses and a potential recession in the coming quarters. The Western Balkans region is no exception, including the Croatian economy. Market signals clearly indicate several negative trends:

1. There is a crisis of demand on the market, which is a direct consequence of the ban on the movement of people, but also the perception of the population that monetary reserves are not

spent on discretionary spending. The drop in demand caused a drastic drop in the companies' turnover in the last two weeks. In some industries, such as sports shoes or branded textile products, the decline is up to 90%. At the same time, there is an additional problem of the collection of receivables based on previously sold (invoiced) goods, because many companies stabilize their liquidity by prolonging the payment of obligations.

2. The illiquidity of the economy is increasingly manifesting itself, due to the application of the strategy of preserving the existing liquidity by individual companies. By limiting payments and completely stopping the settlement of obligations, except for the most urgent ones, a chain of illiquidity is created, which is spreading at a high speed throughout the entire economic system. In this way, liquidity flows are completely frozen.

3. Negative psychological factors dominate among the population and the economy. Namely, there is great uncertainty regarding the duration of the global pandemic and the measures taken to prevent it, which further worsens the economic situation and creates negative expectations in the short term. The companies' crisis and planning teams have been making stress tests and crisis plans for a period of 60 days, and they are already being prepared for a period of 90 days. In addition, an increasing number of

businessmen perceive that the new (in)normalcy will last for some time until the end of the current year due to the measures taken by the governments of certain countries. For example, the Government of Hungary introduced a moratorium on the payment of obligations based on loans to businesses and households until the end of the year. Shifting the perception of the duration of the black swan creates additional fear that maximizes the company's desire to preserve and strengthen the liquidity reserve at the expense of other participants in the value chain.

4. Most economic entities, especially micro, small and medium enterprises, do not have sufficient liquidity reserves, and where they exist, it is very uncertain whether they can last longer than 30 days with the existing level of regular costs. Numerous companies, especially in Serbia, have optimistically initiated new investment cycles due to the period of previous prosperity, thus consciously straining their liquidity position. Such business decisions have brought businesses into negative scissors because they do not have a satisfactory liquidity reserve, which increases the risk of rapid and certain bankruptcy. Faced with a constraint on the side of sources of funding for regular operations, many private sector companies are already making decisions about significant reductions in employee salaries. In some industries that have been particularly affected by the crisis, reductions in employee wages are drastic and range at the level of 60% of previous wages.

5. In addition to the problem of maintaining liquidity, which is the most acute, the business activities of companies are accompanied by a number of other restrictions. Namely, the supply side is also facing a decline unless companies do not have several months of stocks of inputs for production and finished products; logistics supply chains have been disrupted due to restrictions on movement; the organization of

telework is not fully organized and is largely inefficient; a new concept of physical production has been objectively imposed due to strict hygiene and protective measures that cause new operating costs; numerous business contracts have been terminated due to the manifestation of force majeure risks; there is uncertainty in the insurance business as well as numerous other problems.

6. Indirectly, it can be concluded that public companies prolong or completely stop paying their obligations to companies in the private sector. This further creates panic among medium and large private systems that rely heavily on the public sector. It is not entirely clear whether the public sector's delays in payments are a consequence of the intention to preserve its own liquidity or a consequence of a new organization of telework that reduces the capacity of public companies to carry out their operational processes on time. On the other hand, the Tax Administration regularly blocks companies that are late with the payment of tax liabilities, which creates a system of asymmetric behavior of the public sector and the perception of additional fear among privately owned business entities.

7. Slowed economic and cash flows will very quickly jeopardize the expected inflows of the state budget, which will be formally visible in mid-April when the next calculation and declaration of value-added tax is made. According to the official data of the Ministry of Finance of the Republic of Serbia (2020), the income from value-added tax, in the first two months of 2020, makes as much as 49% of tax revenues, i.e. 44% of the total budget revenues. Although there is an evident jump in the turnover of basic foodstuffs, it is not enough to compensate for the lost inflows, but it only partially reduces the negative effect of the reduced turnover of other goods and services. In addition to the expected lower inflow into the state budget on the basis of value-



added tax, there is a certain chain of layoffs in the private sector conditioned by the cessation of economic activity. For example, the Austrian economy has faced the highest unemployment since World War II (Xuequan, 2020). The unemployment rate increased by 52.5% compared to the same month last year, and it is estimated that at the end of March the number of unemployed in Austria was 12.2%. The wave of the expected reduction of the labor force in Serbia, but also in the countries of the Western Balkans, will lead to a decrease in the inflow based on taxes and contributions on salaries. Reduction of employment on the one hand and postponement of payment of taxes and contributions on wages by the economy, according to the Ministry of Finance of the Republic of Serbia, will lead to a drop in revenues on this basis in the amount of 161 billion dinars, i.e. 1.3 billion euros (Ministry of Finance of the Republic of Serbia, 2020). The decline in economic activity is directly reflected in the decline in inflows from other public revenues - corporate income tax, excise duties, customs revenues, fees, taxes and others. However, the increase in unemployment and the reduction of wages will also limit the liquidity capacity of the population on the other hand.

8. There is a visible decline in revenues and inflows in the public sector, which is partly due to the non-payment of utilities by the population and reduced demand due to less mobility of citizens and the economy, on the other hand. Representatives of the authorities of the Republic of Serbia, in order to preserve social stability and standards of citizens, made a decision that vulnerable categories of the population do not pay utility bills, which started a wave of non-payment of any obligations to the state during the crisis, even by the liquid part of the population. There was no precise definition of the endangered category of the population by the representatives of the authorities - whether they are

pensioners, one-member households, households with a certain level of income, families with a larger number of children, and the like. It is certain that the countries in the region have a certain short-term liquidity reserve, but it is clear that the reduced inflows in the previous and next period will reduce the liquidity capacity of the state to pay its obligations.

9. The greatest pressure of the current crisis will be exerted on entrepreneurs, micro, small and medium enterprises (SMEs) which participate with 33.6% in the gross value added of Serbia, i.e. in 28% of the gross domestic product and employ 44% of registered employment (Ministry of Finance of the Republic of Serbia, 2020). Given the high level of participation of the SME sector in economic activity, their preservation in times of crisis is becoming one of the basic tasks of government officials. It is expected that the consequences of the crisis will be manifested in reduced employment in this sector and the bankruptcy of a large number of entrepreneurs and micro-enterprises. In the "frozen economy", it is not possible to pay salaries from the existing reduced inflows and accumulated reserves, and social (and security) tensions will be manifested in proportion to the duration of the overall situation and the reduction of personal savings of dismissed people. Professor Milanović argues in his work that one of the key dangers of the pandemic is social collapse, and a large number of dissatisfied people can be expected who will feel unjust losers of the pandemic (Milanović, 2020).

10. Due to the protectionist attitude of the state and the protection of the public sector, a general feeling can be created that employees in the public sector are favored in relation to employees in the private sector. First of all, this is a consequence of state guarantees regarding the preservation and security of jobs and the level of earnings in the public sector, while employees in

the private sector are left to a high level of uncertainty and the ability of the private owner to ensure business continuity.

11. The dynamics and organization of work is greatly influenced by the measures taken to prevent the pandemic. Dismissal prevention is a collective holiday already adopted by a number of firms, followed by management's perception that losses can be partially offset after the lifting ban during the summer months ends. The second step, up to the terminal phase, is the implementation of a salary reduction plan in the range of 50 to 70% of the previous salary, depending on the work intensity in a particular company and the share of the salary fund in the structure of total company costs on a monthly basis. The next step is to lower salaries to the level of minimum wages. The terminal phase is forced unpaid leave, non-renewal of fixed-term employment contracts and dismissal of workers in order to ensure the survival of economic entities.

12. The banking sector is under great pressure. There is an outflow of liquidity from the banking system due to the irrational withdrawal of funds by the population and the economy caused by uncertainty, fear of the population, the need to spend the accumulated reserves and to create "reserves in straw mattresses". The moratorium measure adopted by the National Bank of Serbia and other central banks in the region directly affected the inflow of funds to the banking sector in the next 90 days, and in some countries by the end of the year. The consequence is the inability to continue lending, approving bank guarantees and drastically changing the appetite to take on additional credit risk. In other words, banks in this situation, without external liquidity support, cannot be expected to provide an additional lending activity that would stimulate the liquidity of the economy and enable faster development of economic flows after the crisis.

13. In addition to the undoubtedly negative consequences for the economy, there is also a certain part of the economy for which the cost-benefit analysis will show that it is profitable to initiate intentional bankruptcy and liquidation of the company. At the peak of undeserved liquidity accumulated by non-payment of loans to banks, operating liabilities, full salaries of employees, liabilities to the state, etc., the owners withdraw liquid assets and declare bankruptcy using the entire economic situation to preserve the future reputation. In addition to the closure of these companies, it is possible to expect a high risk of bankruptcy of related companies in the value chain of these companies.

Given the aforementioned negative trends, the seriousness of the situation and the potentially devastating effects of the pandemic on the economy of Serbia, the Western Balkans and the whole of Europe and the world, it is extremely important to adopt a package of coordinated and comprehensive measures to support economic entities in order to overcome the already present and evidently coming liquidity crisis on the market. In addition to state measures, measures are needed that are adopted at the level of individual economic entities, which would create an integral and comprehensive package of crisis management measures.



3. PROPOSAL OF STATE MEASURES FOR OVERCOMING THE CRISIS

The measures introduced and announced so far, and above all the moratorium on loans and certain fiscal policy measures, represent a partial relief for economic entities. However, in the current situation, which is characterized by the paradigm of a dramatic drop in turnover, i.e. income, and then the inflow of money, state measures will not be nearly enough. Namely, if we keep in mind the very low level of liquidity reserves in the economy, especially in the SME segment, the complete absence of inflows in the short term leads to a lack of money to cover basic operating costs, including primarily wage costs, suppliers and tax costs. Following the economic logic, companies will very soon start reducing all controllable costs.

Having in mind the above, it is necessary to adopt urgent measures aimed at intervention increase of the economy's liquidity, the implementation of which must be inevitably fast in order to avoid the first wave of bankruptcies and layoffs. The Federal Government of the Republic of Germany has announced economic measures worth 500 billion euros, which consist of 100 billion euros of direct investments in the equity of companies affected by the crisis and 400 billion euros of guarantee schemes for future credit activity of the economy. Besides that, additional funding of € 100 billion has been provided for KfW - Germany's development bank, which would provide liquidity to companies in crisis. All these measures account for more than 10% of Germany's GDP (Chazan, 2020). The Spanish authorities announced measures worth 200 billion euros to help the economy, the Portuguese government announced a package of economic measures worth 9.2 billion euros, and the French government provided funds to help

SMEs worth 60 billion euros (Martyr & Mukhopadhyay, 2020). The most valuable package of measures to help the economy has so far been announced by the United States, worth more than one trillion euros (Higgins, 2020).

One of the basic steps is the establishment of the Guarantee Fund by the Republic of Serbia and relevant international institutions, such as the European Investment Bank, USAID and the like, which would, through guarantee schemes with commercial banks, provide the much-needed new liquidity to the economic system interventionally and non-discriminatory through liquidity loans.

A prerequisite for the success of the previous model is adequate liquidity of the entire banking sector. The National Bank of Serbia has multiple mechanisms for raising the level of bank liquidity, such as lowering the reserve requirement rate, repo transaction rates and others, which would spill over through loans to the economy. Thanks to the results achieved so far in the field of fiscal and monetary consolidation policy, as well as stable economic growth in the previous period, the public debt of the Republic of Serbia has been significantly reduced - from the former level of 70% of GDP in 2015 to about 49% of gross domestic product (Ministry of Finance of the Republic of Serbia, 2020). The above means that the Republic of Serbia currently has at its disposal 8 to 10% of GDP (worth 3 to 5 billion euros) for intervention in the economic system. Also, the level of foreign exchange reserves is extremely high with almost twice the amount of the dinar money supply - M1, covering the six-month amount of imports of goods and services (National Bank of the Republic of Serbia, 2020). Having a satisfactory level of security in foreign

exchange reserves, Serbia can prevent the bankruptcy of the economy through monetary relaxation. At the same time, through interventions in the foreign exchange market, the state can guarantee the stability of the exchange rate, which would also eliminate the pressure on prices.

Another assumption is that a significant part of the credit risk is taken over by the Guarantee Fund (from 70 to 80%), in order to enable banks to approve loans with a lower level of risk (given the currently declining risk appetite) and thus increase the likelihood of survival of their existing clients.

These measures should be aimed at entrepreneurs, micro, small and medium enterprises, regardless of the industry in which they operate, as well as large enterprises that are directly affected by the current crisis.

During the fourth quarter of 2019, the volume of newly approved loans to the Serbian economy was 274.8 billion dinars (about 2.33 billion euros), of which 60% was approved to the segment of micro, small and medium enterprises. In the same period, working capital loans were approved in the amount of 129.7 billion dinars (about 1.1 billion euros). Assuming that, according to the previous structure of approved loans, 60% of working capital loans were approved to micro, small and medium enterprises, the approved amount is 662 million euros. Guided by the principle that the newly approved loans represent the demand of the economy for credit funds in normal business conditions, it is concluded that the minimum amount of the required guarantee fund is the one that has just been mentioned. This amount needs to be further increased by the needs of large companies directly affected by the crisis, but also reduced by the effect of the moratorium on loan repayments, bearing in mind that under normal circumstances part of newly approved loans is used to refinance existing loan obligations. The total

amount of liquid funds that could be approved to the economy, without increasing the public debt by more than 10% of GDP, is up to five billion euros.

When approving intervention loans for liquidity, it is necessary to further specify and clarify the criteria. One of the basic conditions for approval is a non-discriminatory approach, i.e. the absence of customer favoring by commercial banks. On the other hand, in order to ensure the general stability of the economy, clients must commit themselves not to reduce the number of employees for a minimum period of 6 months, regular payment of wages, public revenues and the discipline of regular payment of obligations to suppliers. Furthermore, credit criteria should be as simple as possible with the aim of quick approval and in line with the minimum acceptable criteria uniform for all commercial banks: that the client's account was not blocked before the state of emergency, the fulfillment of certain standard criteria measured by ratio indicators, and the like. Having in mind the currently known projections of the scope and duration of the crisis, as well as the expected echo effect of the crisis on the economy, lending to the economy should be based on liquidity loans, with an average maturity of 36 months and a grace period of 12 months. At the same time, it is necessary to ensure the availability of loans even to those companies that are not currently in debt, because they currently do not benefit from the already implemented moratorium measure.

Complementary to the mentioned intervention increase in the liquidity of the economic system, the psychological aspect must not be neglected. It is necessary to ensure the raising of the trust of economic entities, which would consequently lead to the thawing of the flow of goods, services and money. A large part of the turnover of goods and services is realized with deferred payment, which leads to the conclusion



that a special guarantee fund should be formed aimed at insuring the claims of economic entities. This measure would reduce the economy's fear of credit risk and would more freely maintain the pre-crisis volume of turnover and business activities. Such secured receivables could play the role of collateral for financing, both with banks and in alternative financing options. The body that could implement and realize this form of guarantee is the Export Credit and Insurance Agency (AOFI).

In addition to the listed key measures, it is necessary to consider a number of fiscal reliefs that can form a set of accompanying measures, where a certain dose of caution is necessary for their measurement. For example, delaying the payment of advance tax on profits or property would not produce a significant effect on the liquidity of the economy. However, over-relief in conditions where rapid government borrowing is not possible can lead to government illiquidity in the very short term. The state must find a balance between the dosed tax relief of the economy and the protection of its own liquidity, and the right measure requires a precise cost-benefit calculation.

Theoretically possible fiscal and other benefits, if a detailed analysis of inflows and outflows of budget funds shows their financial expediency and reality, could be: relaxation of the burden on salaries (taxes and contributions) in all active private companies, relaxation of lump sums for entrepreneurs in the period duration of the state of emergency, relaxation of the amount of utility services in the period up to 3 months for micro and small enterprises, relaxation of the collection of advance income tax in the current year for all economic entities, refund (of the fiscal part) of fuel costs for companies engaged in transporting goods, relaxation of payments of the value-added tax, suspension of calculation of interest on due tax liabilities in the period of 90 days, sus-

pension of parafiscal levies in the period of 90 days, financing of salary compensations of all employees who will be absent from work due to COVID-19 disease, relaxation of customs duties for companies predominantly focused on the import of goods and as a measure to stimulate the demand of natural persons suspension of execution on the property of natural persons (or a significant restriction) for a period of 9 months.

Decisions at the state level are not easy and require coordinated calculations of implications by the National Bank of Serbia and the Ministry of Finance. It is important to point out that partial and delayed measures or the absence of additional measures will certainly lead to a liquidity collapse of the economy, which will bring with it irreversible structural effects in the coming period. A coherent set of previously proposed measures, implemented quickly, will provide the necessary liquidity and partially reduce the fear of non-payment that has produced the freezing effect of the economic system. When we look at the comparative practice, that is the economically leading countries in the world, we conclude that the focus of economic measures is on increasing the liquidity of the economy, which in turn protects the liquidity of the state and social peace in society. Speed in the implementation of measures is crucial in order to use the existing capacity of reaction reserves. With the passage of time and the reduction of reserves, the response capacity of the state will be smaller and smaller, and the effectiveness of aid to the economy will be lower. To ensure a quick response, complicated bureaucratic procedures need to be avoided.

The proposed measures have implications for increasing debt and/or reducing the level of foreign exchange reserves. It should be borne in mind that reserves and fiscal space for borrowing are basically public policy instruments whose primary purpose is to enable the state to intervene in such extreme situations.

4. IDENTIFICATION OF CRISIS MEASURES GAP AT THE COMPANY LEVEL

Given that the nature of a business crisis can be different, crisis management can, in a general sense, be defined as a set of special measures taken to address the problems caused by a crisis (Devlin 2007, p. 1). Large companies have pre-prepared crisis plans and crisis teams whose main role is to implement previously prepared plans at the time of the crisis. However, the existence of a crisis team is not always a guarantee of a quality and quick response to the crisis. Augustine (1995) states that crisis teams do not have much value in crisis situations if they are never tested. Mitroff, Harrington, and Gia (1996) specifically point out that crisis team training is extremely important so that team members can make quick and quality decisions when a real crisis manifests itself.

On the other hand, it is necessary to emphasize that entrepreneurs, small enterprises and many medium-sized enterprises do not have enough human, organizational and financial capacities, and experience that would help them to anticipatively prepare themselves for the crisis and provide a systematic response. At a time of deep economic crisis, such as the current crisis caused by the COVID-19 pandemic, all crisis measures, regardless of the size of the company, are aimed at surviving in the short term and preserving stability in order for business to continue after the end of the acute crisis.

In practice, it is very common for companies to view crisis situations separately. However, the paradigm of the crisis is such that companies face not only one type of crisis, but a number of different crisis situations, especially in a deep economic crisis. Therefore, the basic characteristics of a crisis plan must be the comprehensiveness, feasibility and inclusiveness of all members

of the collective, especially executive management. A crisis management plan is, by its nature, a set of guidelines instead of a completely precise action plan because no crisis has the same symptoms and consequences. Authors Barton (2001), Fearn-Banks (2001) and Coombs (2007) state that a crisis plan saves time during a crisis by proactively defining the tasks of team members, providing the necessary information, and providing guidance for action.

At the moment of the manifestation of the first consequences of the crisis, a quick reaction is necessary in the form of crisis measures that prevent greater consequences. Carney and Jordan (1993) point out that a quick response means that the organization is active and in control of the current situation. A similar conclusion was reached by authors Arpan and Rosko-Ewoldsen (2005) who state that a rapid and early response to a crisis enables a company to gain and maintain greater credibility among its stakeholders. However, it is a very common case in business practice that the managerial focus during the crisis is focused exclusively on finances and financial indicators, because the consequences of the deep economic crisis are effected exactly through a drastic drop in income and profitability indicators. In such circumstances, with a high degree of uncertainty, the integrated approach to crisis planning is completely neglected and many business areas remain outside the scope of crisis management. In order for crisis management and crisis planning to have a positive effect, an integrated approach to crisis planning and expanding the focus from finance to other related business areas is necessary.

In this context, it is necessary to identify a





comprehensive gap in crisis management practices and identify neglected crisis areas. The management team, based on the recommended self-assessment questions, can very quickly and easily test the application of existing crisis management practices in the areas of finance, leadership and organization, human resources,

marketing and sales, communication, procurement and logistics, production and law. In the following tables, based on many years of practical experience of the author, questions are given that can assess the quality of applied crisis management in the company or any organization.

Do you have an integrated crisis financial plan for the company?

Have you done a detailed financial stress test and defined red lines of financial sustainability?

Have you made an analysis of different financial scenarios in business, keeping in mind the different levels of activity affected by the crisis?

Have you made a financial risk register?

Do you have precise preventive strategies for financial risk management to protect the vitality of the business for the post-crisis period (in terms of budgeting, reporting, performance measurement, early warning system, financial leverage optimization, liquidity reserves, and communication with commercial banks)?

Have you made a cash flow plan on a daily, weekly and monthly basis?

Have you made a plan for working capital optimization?

Have you analyzed the existing and signed loan agreements and identified the existence of contractual clauses that would limit the possibility of further borrowing or withdrawal of additional funds under these agreements?

Do you have in use a payable bank guarantees that can potentially burden the cash flow in the short and medium-term?

Have you analyzed the portfolio of current investment projects and determined the priorities and the possibility of postponing individual projects?

Have you defined an internal rulebook on transfer pricing to reduce the tax burden?

Table 1. Assessment of the crisis response gap in the finance segment.

Source: Author's review

Do you have a crisis leadership system in place that knows who is doing what, with what resources, in what time frame?

Does the crisis leader have experience in running a company in crisis situations?

Have you singled out key goals and success indicators for the crisis period?

Have you clearly defined your priorities in the crisis period and directed all employees to work in this direction (are employees informed about priorities)?

Have you determined which level of operations in each of the business functions of the company is considered the minimum level of maintenance of the work process?

Do you have teams in charge of adequately responding to the crisis and are the roles of team members clearly defined?

Have you defined a model for ensuring business continuity in case of operational risks (e.g. central server shutdown, power outage, breakdowns and other escalations)?

Have you envisioned a way to provide critical inputs and raw materials to maintain a minimum workflow in the event of a crisis?

Do you take care to preserve the credibility and image of the company?

Table 2. Assessment of the crisis response gap in the leadership and organization segment.

Source: Author's review

Have you singled out priority work operations and employees who cover them during a crisis situation?

Is there a delegated person (or team) in the human resources sector who is active in the event of an escalation of the crisis situation and are the tasks and responsibilities known?

Do all employees have clear instructions on how to function during the crisis?

Have you defined priority "projects" and redistributed employees according to priority activities?

Have you considered alternatives to permanent employment (e.g. alternating unpaid leave, collective leave, dismissal of temporary and occasional employees, etc.)?

Have you defined a single contact list for all employees and provided a location that is accessible to human resources department and management?

Do you transparently inform employees about all important crisis management decisions?

Do you monitor the work engagement, motivation and loyalty of employees during the crisis?

Do you adequately have an accurate insight into the activities of employees and their daily agenda?

Have you analyzed the contracts with the employees and identified the risks that may arise in the case of some labor-legal activities on your part?

Have you assessed the risk of some key employees leaving during or after the crisis?

Do you have a crisis talent management plan that takes special care of employees who are key to the future development of the company?

Do you have a plan to inherit key positions?

Do you have a backup team plan in case of illness of individual team members?

Table 3. Assessment of the crisis response gap in the human resources segment.

Source: Author's review





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- Do you have a sales crisis plan that you have introduced to the sales team with corrected short-term targets and an active current sales team?
 - Do you have alternative models and sales channels?
 - Have you adjusted the portfolio of products/services, putting more focus on those products/services whose turnover is least endangered by the crisis situation or has the potential for growth due to the crisis?
 - Can you introduce a new portfolio that will suit the changed spending habits during and after the crisis?
 - Have you considered reducing the prices of products/services, in order to bring them closer to the reduced purchasing opportunities of customers in an emergency?
 - Have you considered helping vulnerable categories of the population as a form of social responsibility?
 - Have you contacted new distributors, who can make it easier for you to market goods/products on the market?
 - Have you updated your credit policy in the area of credit ratings, nominal exposures, credit limits, collection methods, and collateral instruments?
 - Do you follow the reactions of the main competitors to the new circumstances, in order to adapt in time?
 - Have you considered extending the deferred payment period to strategic customers if you have a liquidity reserve to provide additional credit to them?
 - Have you adapted to the new logistical and customs circumstances?
 - Have you comprehended the savings in marketing and sales activities during the crisis?
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Table 4. Assessment of the crisis response gap in the marketing and sales segment.

Source: Author's review

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- Have you created a crisis team that is responsible for internal and external communication?
 - Have you defined and communicated key messages to employees?
 - Have you determined the dynamics of informing employees and key stakeholders about the most important messages?
 - Have you provided employees with online access to emails and a server where they can share information?
 - Have you provided access to databases 1) to employees for the data necessary for uninterrupted work from home and 2) to key managers about the most important information about the company to ensure business continuity?
 - Have you backed up all your essential data?

Do you have a manual for a crisis situation or an internal document that describes the internal communication procedure during a crisis?

Have you provided a contact phone, website, social media profile and e-mail for emergencies that can be contacted by stakeholders, customers, the interested public and get relevant information?

Have you made a plan for offline communication in case of an interruption in the internet signal?

Have you communicated to the interested public precise information about the way companies work during the crisis and how they can buy a product or get a service?

Do you regularly update information on websites and social networks?

Have you defined a clear policy for employees as they represent the company in times of crisis?

Table 5. Assessment of the crisis response gap in the communications segment.

Source: Author's review

Have you ensured smooth communication between the planning sector and the sales sector on the one hand with the procurement and production sectors?

Have you defined the optimal stock of inputs and finished products?

Have you divided the product portfolio into key and ancillary products, if production has to be reduced and if work is shifted to priorities?

Have you defined daily, weekly and monthly procurement and production plans?

Have you defined and provided the required quantities of production inputs in the event of a complete disruption of logistics?

Have you asked suppliers to increase payment date and/or change other commercial terms due to an emergency on the market?

Have you made a plan for the use of alternative raw materials and packaging if some distribution chains between countries are interrupted?

Have you considered the possibility of reorientation to domestic producers?

Table 6. Assessment of the crisis response gap in the procurement and logistics segment.

Source: Author's review

Have you defined a work plan in production that contains health and hygiene measures recommended by the competent authorities?

Do you monitor the health and availability of production employees on a daily basis?

Have you redirected employees to work from home in situations where the nature of their job allows it?

Have you considered redeploying employees to other tasks in the production if there is currently no need for their positions?





Have you proactively identified potential problems in production processes that could be the result of an emergency and proposed preventive measures?

Have you provided all employees in the production function with instructions and preparation for reacting to the occurrence of a specific problem in the production process?

Have you mapped points in processes that in the greatest scope and most likely can be affected by an emergency and produce production bottlenecks (processes, technology, and employees)?

Have you identified key employees/positions in the production function and critical inputs, which are necessary to maintain production during an emergency?

Have you defined plans, scenarios and measures for recovery of production after the state of emergency?

Table 7. Assessment of the crisis response gap in the production segment.

Source: Author's review

Have you created a register of legal risks (list of legal risks, their assessment, strategies for treating legal risks) for an emergency?

Have you identified temporary restrictions on the transport of goods?

Have you comprehended the impact of regulatory price limitation on certain goods and services?

Have you identified labor-legal risks related to possible changes in the employment status of employees?

Have you identified the force majeure risk in key contracts and the potential implications of the provisions on business?

Have you identified legal risks in relationships with suppliers, customers and creditors?

Do you regularly monitor potential additional state measures and possible changes in relevant legal regulations derived from those measures?

Have you identified the limitations and consequences for the business that can produce the limited functioning of public services and courts?

Table 8. Assessment of the crisis response gap in the legal issues segment.

Source: Author's review

Based on the proposed questions and self-evaluation, it is possible to conduct a summary assessment of the quality of crisis management and identify a gap in the application of an integrated crisis management system. The practice of crisis management that is applied in the company and with which the management is satis-

fied is marked with the sign "ü", and the practice that is not applied, i.e. with which the management is not satisfied with the sign "x". Further, each of the above eight areas of crisis management is rated on a scale of 1 to 5. The summary assessment of the applied crisis management practice of crisis management is calculated as the

average score of eight given grades, with high weight given to areas 1, 2 and 3 (weight 2), medium weight for areas 4, 5 and 6 (weight 1.5) and low weight for areas 7 and 8 (weight 1).

A hypothetical example of calculating the quality of crisis management is given in the following table:

Areas	Finance	Leadership	HR	Sales	Communication	Procurement	Production	Law
Rating	4	5	3	2	5	4	3	2
Weight	2	2	2	1,5	1,5	1,5	1	1
Product of rating and weight	8	10	6	3	7,5	6	3	2
% of max	80%	100%	60%	40%	100%	80%	60%	40%
Sum of products	45,5							
Total % of max	$45,5/62,5=72,8\%$							

Table 9: Calculation of the quality of crisis management practice

Source: Author's review

The total percentage score of the applied crisis management practice is divided by the number 62.5 (maximum score if all grades were 5 for all eight areas of crisis management) by which the summary score of the quality of crisis management is calculated. According to the calculated summary score, the company can be classified into one of the five systems.

Level 1 - Ad-hoc system with a range of grades from 0 to 20%. Crisis management is not implemented or is implemented as an ad-hoc activity. The company is not familiar with good practice in this area or does not systematically apply crisis management tools.

Level 2 - Reactive system with a range of grades from 21 to 40%. Crisis management is not consistent, it is established at some levels and functions of the company. Responses to the crisis are reactive.

Level 3 - Managed system with a rating range

of 41 to 60%. Crisis management is being established as an integrated management system at the enterprise level. The processes and procedures of the crisis management system are created and a special function/body is established in the company with the responsibility for crisis management.

Level 4 - Proactive system with a range of grades from 61 to 80%. All operational elements of crisis management are applied in accordance with best practice. Strategic and operational planning is in direct connection with the crisis management system. In addition, regular evaluations and updates of preventive and reactive crisis measures are carried out. Employees proactively participate in reviewing the effectiveness of the proposed measures and provide quality bottom-up inputs and suggestions.

Level 5 - Optimal management system with a range of grades from 81 to 100%. The crisis





management system has become an integral part of the company and is incorporated into all decision-making, planning and control processes. The company actively works on improving crisis management, assessing the effectiveness of crisis measures and harmonization with best practices in the industry. The competent function/crisis management body has established de facto authority and managers at all levels proactively cooperate with it.

Based on the established maturity of the system and the shortcomings identified through the above questions, the management of the company should take appropriate actions to overcome the gaps and shortcomings of the cri-

sis management system. In other words, recognizing gaps and missed elements of crisis management allows management to proactively complete its system of crisis measures, assess the quality and comprehensiveness of crisis management, assess the maturity of the company in the field of crisis management and prepare all necessary decisions for survival during and after the crisis period. At the end of the crisis, the lessons learned and information gathered need to be integrated into the crisis plan, making them part of the corporate strategy, organizational knowledge and experience. Continuous improvement of crisis management practices should lead the company towards an optimal system.

5. CONCLUSION

The paper presents the consequences that the current crisis has caused on the Serbian economy. The key consequence is a drastically reduced liquidity of all market participants, and on that basis, financial stability. However, having in mind the global character of the crisis, all the countries in the region and most of the world are facing very similar consequences for the national economy. The differences stem from the size of individual economies, and thus the losses that economies record on a daily basis.

The speed of response in times of crisis is one of the most important factors that can affect the survival of the company and ensure business continuity after the end of the crisis. In a deep economic crisis, such as the current one caused by the COVID-19 pandemic, integral, comprehensive and rapid state support is primarily necessary because individual measures at the company level cannot give effective results. The state's response to the crisis must be primarily

aimed at significantly increasing the liquidity of the economy and restoring the confidence of participants in the stability of the economic system. State measures to support the economy must combine the mechanisms of fiscal and monetary policy in order to achieve an efficient and systematic result.

A comprehensive proposal for crisis measures at the state level is presented in detail in a previous paper. The monetary, fiscal and para-fiscal measures available to the state, the central bank and the competent ministries were discussed. The total package of measures exceeds the value of five billion euros, which proportionally corresponds to the size of the Serbian economy when we compare them with the value of economic packages of other countries in the region. However, the question is whether this package of measures will be sufficient to compensate for all the economic consequences caused by the crisis.

It is expected that entrepreneurs, small and medium enterprises, with the smallest liquidity reserves, will suffer the greatest consequences of the economic crisis. In addition, companies whose product portfolio consists of products and goods that do not include basic foodstuffs will also face significant consequences in the short and medium term.

Regardless of size, no organization is immune to the crisis and its consequences. Therefore, crisis management must provide a rapid response to the current crisis and crisis teams have a primary role in preventing greater damage and long-term consequences. The previous

paper presents a series of proposals in the form of questions that should encourage companies to create an integrated package of crisis measures. Based on the questions and evaluation of the readiness of the current management system, managers can assess the gap in the quality and comprehensiveness of the measures currently taken and make their company more agile and ready for a crisis response. The lessons learned from this crisis must be the subject of detailed study and translated into organizational knowledge, which would further improve the crisis management system of the company and prepare it for the new (in)normalcy.

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ANALIZA SISTEMSKOG RIZIKA ELEKTROPRIVREDE REPUBLIKE SRPSKE

SYSTEMIC RISK ANALYSIS OF ELEKTROPRIVREDA REPUBLIKE SRPSKE

Rezime: Promjene kamatnih stopa, javna potrošnja, cijena nafte, devizni kursevi i ostali makroekonomski događaji utiču na skoro sve kompanije i njihove prinose. U tom kontekstu, možemo procijeniti uticaj makroekonomskih promjena prateći stopu prinosa na tržišni portfolio. Ako je tržište određenog dana u porastu, onda neto uticaj makroekonomskih promjena mora biti pozitivan. Znamo dauspjeh tržišta odražava samo makroekonomske događaje, jer se događaji specifični za određene kompanije, odnosno nesistemske rizik, može eliminirati kroz proces efikasne diversifikacije.

U okviru ovog rada, naš zadatak je definisati i izmjeriti sistemski rizik svih zavisnih preduzeća koja ulaze u sastav Elektroprivrede Republike Srpske i ispitati njegov uticaj na cijenu kapitala i vrijednost zavisnih preduzeća MH Elektroprivrede Republike Srpske. Sistemski rizik posmatranih preduzeća zavisi od izloženosti makroekonomskim događajima i kao takav može biti izmjeren kao osjetljivost prinosa koji ostvaruju zavisna preduzeća Elektroprivrede Republike Srpske na fluktuacije prinosa koji ostvaruje privreda Republike Srpske. Prema tome, sigurni smo da će tvrdnje, činjenice i dokazi prikazani u ovom radu biti od koristi kako studentima, tako i akademskim istraživačima, teoretičarima i investitorima.

Ključne riječi: sistemski rizik, beta koeficijent, cijena kapitala i zaduženost.

Jel klasifikacija: G32

Abstract: Changes in interest rates, public spending, oil prices, foreign exchange rates and other macroeconomic developments affect almost all companies and their returns. In this context, we can assess the impact of macroeconomic changes by tracking the rate of return on the market portfolio. If the market is growing on a given day, then the net impact of macroeconomic change must be positive. We know that market success reflects only macroeconomic events, as company-specific events, that is, non-systemic risk, can be eliminated through the process of effective diversification.

As part of this paper, our task is to define and measure the systemic risk of all subsidiaries that are part of the RS Power Company and to examine its impact on the cost of capital and value of MH Elektroprivreda RS's subsidiaries. The systematic risk of the observed enterprises depends on the exposure to macroeconomic events and as such can be measured as the sensitivity of the yields generated by the subsidiaries of the RS Electric Power Company to the fluctuations in the yields generated by the RS economy. Therefore, we are confident that the claims, facts, and evidence presented in this paper will be of benefit to students as well as academic researchers, theorists, and investors.

Keywords: systemic risk, beta coefficient, cost of capital and indebtedness.

JEL classification: G32

1. UVOD

Racionalnim investitorima poznato je da investiranje svih raspoloživih sredstava u akcije jednog preduzeća ne predstavlja mudru investicionu alternativu, jer svako preduzeće može da doživi poslovni neuspjeh, te kao takvo u krajnjem slučaju doživi sudbinu stečaja ili likvidacije. U tom smislu, investitori mogu umanjiti takvu opasnost ukoliko raspoloživa sredstva za investiranje umjesto u jednu, rasporede u dvije, tri ili pak dvadeset slučajno odabranih akcija različitih preduzeća. Shodno tome, rizik investiranja će biti manji budući da je vjerovatnoća da će sva preduzeća emitenata zapasti u probleme značajno niža. Ovako raspoređivanje sredstava naziva se proces diversifikacije, koji kao takav utiče na smanjivanje nesistemskog rizika investitora.

Svjetska praksa pokazuje da je *Amazon* u jednom trenutku imao najvišu standardnu devijaciju prinosa, dok je *Eksonmobajl* (engl. *Exxon-mobil*) imao najnižu standardnu devijaciju. Investitori koji su posjedovali akcije *Amazona* imali su prinos koji je u tom trenutku varirao oko četiri puta više nego da su posjedovali akcije *Eksona*. U tom kontekstu mudri investitori "ne stavljaju sva jaja u istu korpu" jer smanjuju rizik kroz proces diversifikacije. Međutim, diversifikacija može da eliminiše rizik koji je specifičan za neku određenu kompaniju (nesistemski rizik), ali ne i rizik npr. pada cijena svih akcija na tržištu. Drugim riječima,

rizik koji utiče isto na sve akcije i zbog toga se ne može eliminisati kroz proces efikasne diversifikacije naziva se sistemski rizik. U tom kontekstu, sistemski rizik pokazuje stepen promjene (varijacije) prinosa pojedinačne HoV ili portfolija HoV u odnosu na promjenu prinosa koji odbacuje tržišni portfolio.

U okviru ovog rada ispitaćemo i analizirati sistemski rizik MH Elektroprivrede Republike Srpske, posmatrajući zavisna preduzeća koja ulaze u sastav MH Elektroprivrede Republike Srpske. Namjera nam je da analizirajući sistemski rizik Elektroprivrede Republike Srpske, ispitamo njegov uticaj na cijenu kapitala i vrijednost preduzeća koja ulaze u sastav Elektroprivrede Republike Srpske. Dakle, posmatrali smo deset zavisnih preduzeća koja ulaze u sastav Mješovitog holdinga Elektroprivrede Republike Srpske (pet proizvođača električne energije i pet distributera električne energije). Za potrebe rada pregledali smo ukupno 80 finansijskih izvještaja i 80 izvještaja nezavisnog revizora i izračunali preko 3.500 finansijskih, imovinskih i prinosnih pokazatelja u periodu od početka 2011. do kraja 2018. godine. Nakon računanja finansijskih koeficijenata i odgovarajuće statističke analize, izvršena je adekvatna analiza sistemskog rizika Elektroprivrede Republike Srpske iz čega su uočeni odguravajući trendovi i izveden zaključak.

2. METODE

Da bismo adekvatno izvršili analizu sistemskog rizika svih zavisnih preduzeća, u okviru teorijskog dijela istraživanja izvršili smo pregled domaće i strane literature kako bismo utvrdili rezultate skorašnjih

istraživanja u ovoj oblasti. Prilikom istraživanja prikupićemo podatke i o stanju u razvijenim privredama (SAD), kao i o mogućnostima primjene novih saznanja na privredu u Republici Srpskoj.



Takođe, pristupili smo metodološkom prikupljanju, obradi i analizi sekundarnih i primarnih podataka iz finansijskih izvještaja u posljednjih osam godina svih zavisnih preduzeća koja ulaze u sastav Elektroprivrede Republike Srpske. U tom kontekstu, da bismo ispitali sistemski rizik svih deset zavisnih preduzeća Elektroprivrede Republike Srpske, pregledali smo ukupno 80 finansijskih izvještaja i 80 izvještaja nezavisnog revizora i izračunali preko 3.500 finansijskih, imovinskih i prinosnih pokazatelja u periodu od početka 2011. do kraja 2018. godine. U okviru analize finansijskog položaja, za 10 posmatranih preduzeća, izračunali smo: koeficijent tekuće likvidnosti, koeficijent ubrzane likvidnosti, koeficijent finansijske stabilnosti, koeficijent solventnosti, koeficijent interne stope rasta, koeficijent maksimalno održive stope rasta, koeficijent zaduženosti i cijenu kapitala za 2011, 2012, 2013, 2014, 2015, 2016, 2017. i 2018. godinu. U okviru analize prinosnog položaja, za 10 posmatranih preduzeća koja ulaze u sastav ERS-a metodološki smo analizirali i izračunali sljedeće koeficijente: racio poslovnog rizika, racio finansijskog rizika, racio ukupnog rizika, racio marže pokrića, procenat iskorištenja poslovnog prihoda za ostvarivanje neutralnog poslovnog rezultata, stopu elastičnosti ostvarivanja poslovnog rezultata, procenat iskorištenja poslovnog prihoda za ostvarivanje neutralnog rezultata redovne aktivnosti, stopu elastičnosti ostvarivanja rezultata redovne

aktivnosti, pokrivenost rashoda kamata, finansijsku moć, rentabilnost ukupnog kapitala (ROI), analiza tržišne cijene akcije, odnos između tržišne cijene i zarade po jednoj akciji (P/E), zarada po jednoj akciji (EPS), prinos na sopstveni kapital (ROE) i prinos na imovinu (ROA), EBIT marža, EBITDA marža, bruto marža i neto marža za 2011, 2012, 2013, 2014, 2015, 2016, 2017. i 2018. godinu. U okviru analize imovinskog položaja, za 10 posmatranih preduzeća metodološki smo analizirali i izračunali sljedeće koeficijente: broj dana vezivanja stalne imovine, broj dana vezivanja tekuće imovine, broj dana vezivanja operativne imovine, broj dana vezivanja zalih i broj dana vezivanja potraživanja od kupaca za 2011, 2012, 2013, 2014, 2015, 2016, 2017. i 2018. godinu.

U okviru empirijskog istraživanja utvrdili smo i testirali uzorak od deset zavisnih preduzeća koja ulaze u sastav Elektroprivrede Republike Srpske na osnovu kojeg smo odgovarajućim statističkim metodama (regresije, korelacije itd.) sagledali međuzavisnost sistemskog rizika i cijene kapitala.

U procesu naučnog istraživanja, da bismo mogli upoređivati dobijene rezultate analize, koristili smo metode komparacije i klasifikacije, zatim metode analize i sinteze. Metodološki je neophodno utvrditi kakav je trenutni sistemski rizik posmatranih preduzeća i kakav je njihov uticaj na vrijednost preduzeća i mogućnost poboljšanja finansijskih "performansi" posmatranih preduzeća.

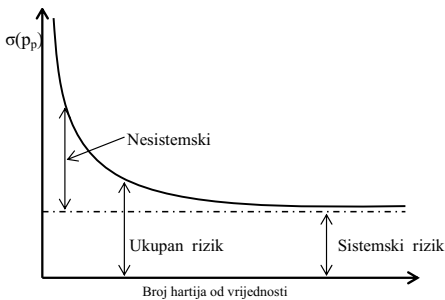
3. PREGLED LITERATURE

3.1. Beta koeficijent kao mjera sistemskog rizika

Moderna finansijska literatura polazi od toga da se ukupni rizik sastoji iz sistemskog i nesistemskog rizika. Prvi dio koji se odnosi na sistemski rizik nastaje zbog različitih faktora koji

utiču na cijelo tržište, a to su: inflacija, promjene kamatnih stopa, promjene u nacionalnoj ekonomiji, promjene u poreskoj politici, promjene deviznih kurseva itd. Drugim riječima, to su oni

rizici koji utiču isto na sve akcije i zbog toga se ne mogu eliminisati kroz proces efikasne diversifikacije. Druga komponenta rizika je nesistemski rizik, koji predstavlja rizik vezan za određenu kompaniju ili određenu djelatnost.¹ Kao takav nesistemski rizik se može smanjiti ili potpuno eliminisati kroz proces efikasne diversifikacije. Odnosno, kroz diversifikaciju neki od rizika koji je svojstven sredstvu se može izbjeći, tako da ukupan rizik očigledno nema relevantan uticaj na cijenu (Sharpe, 1964, pp. 426). Shodno tome, diversifikacija polazi od činjenice da se s povećanjem hartija od vrijednosti čiji je koeficijent korelacije prinosa izrazito nizak utiče na smanjenje rizika portfolija, što se može vidjeti na slici 1.

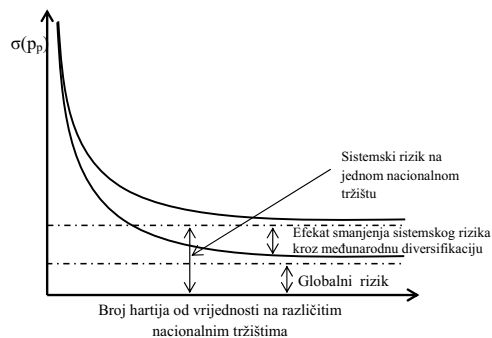


Slika 1 - Proces efikasne diversifikacije

Izvor: Bodie, Kane and Marcus, 2009, str. 163.

Uvidom u prethodnu sliku može se zaključiti da se s povećanjem broja hartija od vrijednosti smanjuje rizik portfolija, ali po opadajućoj stopi. To znači da doprinos dodatnih hartija od vrijednosti smanjenju rizika opada s porastom broja hartija od vrijednosti. Pored toga, možemo

uočiti da se rizik portfolija može smanjiti samo do sistemskog rizika, što znači da sistemski rizik predstavlja donju granicu do koje se rizik portfolija može umanjiti kroz proces efikasne diversifikacije na jednom nacionalnom tržištu. Međutim, ulaganjem u različite hartije od vrijednosti na dva ili više različitih nacionalnih tržišta može se uticati na smanjenje sistemskog rizika. Ovaj proces u finansijskoj literaturi se naziva *međunarodna diversifikacija*, što se može vidjeti na slici 2.



Slika 2 - Međunarodna diversifikacija

Izvor: Bodie, Kane and Marcus, 2009, str. 630.

Međunarodnom diversifikacijom² može se uticati na smanjenje sistemskog rizika, ali samo do donje isprekidane linije koja označava *globalni rizik*. Razlika između gornje isprekidane linije i donje crne linije predstavlja efekat smanjenja sistemskog rizika kroz proces međunarodne diversifikacije. Globalni rizik označava volatilnost svjetskih finansijskih tržišta i predstavlja donju granicu do koje se rizik portfolija može umanjiti kroz proces

¹ Eklatantni primjeri nesistemskog rizika preduzeća su: kvalitet menadžmenta, uspješnost istraživanja, proizvodnja istog proizvoda od strane konkurencije, štrajk zaposlenih, nova tehnološka otkrića itd.

² Praksa pokazuje da nesistemski rizik obuhvata od 60% do 70% ukupnog rizika. U okviru sistemskog rizika (na koji se odnosi od 30% do 40% ukupnog rizika) globalni rizik čini oko 56%, što znači da se međunarodnom diversifikacijom može maksimalno eliminisati oko 44% sistemskog rizika portfolija.

međunarodne diversifikacije na različitim nacionalnim tržištima. Prema tome, nesporno je da međunarodna diversifikacija pruža niz različitih mogućnosti i povoljnosti za investitore.

Međutim, vrlo važan rizik za svako preduzeće je sistemski rizik preduzeća, koji se mjeri beta koeficijentom (β), jer se nesistemski rizik može eliminirati kroz proces efikasne diversifikacije. Prema tome, model vrednovanja kapitalne aktive (engl. *Capital Asset Pricing Model-CAPM*) pretpostavlja da će investitori zahtijevati očekivani prinos kao kompenzaciju za sistemski rizik, kao dio ukupnog rizika. Ono što predstavlja problem za investitore jeste izračunavanje sistemskog rizika kao dijela ukupnog rizika za investitore. Dakle, hartije od vrijednosti koje imaju visok nivo sistemskog rizika (čiji je beta koeficijent visok), imaju veći očekivani prinos. Ali tražnja za hartijama od vrijednosti koje imaju visok sistemski rizik je veoma niska, pa je samim tim i cijena niža. Naravno, hartije od vrijednosti koje imaju izrazito nizak sistemski rizik (čiji je beta koeficijent nizak), imaju i niže očekivane prinose, tražnja za tim hartijama od vrijednosti je izrazito visoka, pa je i cijena tih hartija od vrijednosti visoka. Prema tome, osnovna tvrdnja CAPM modela jeste da hartije od vrijednosti, ili druge investicione aktive koje imaju isti sistemski rizik, moraju da imaju i iste očekivane stope prinosa.

Beta koeficijent je mjera sistemskog rizika i u finansijskoj literaturi se često definiše kao stepen promjene (varijacije) prinosa pojedinačne HoV ili portfolija HoV u odnosu na promjenu prinosa koji odbacuje tržišni portfolio. Ukoliko je stepen varijacije veći, samim tim veći je i sistemski rizik HoV i obrnuto. Beta koeficijent (β) se može matematički predstaviti na sljedeći način (Esch, Kieffer, Lopez, 2005, pp. 44 i 91):

$$\beta_i = \frac{\text{Cov}(r_i, r_t)}{\text{Var}(r_t)}, \quad \text{u} \quad \beta_i = \frac{\rho_{i,t} \cdot \sigma(r_i)}{\sigma(r_t)}$$

Gdje je: β_i - sistemski rizik HoV "i", $\text{Cov}(r_i, r_t)$ - kovarijansa između prinosa na HoV "i" i prinosa na tržišni portfolio "t", $\text{Var}(r_t)$ - varijansa prinosa tržišnog portfolija (tržišta) "t", $\rho_{i,t}$ - koeficijent korelacije između prinosa na HoV "i" i prinosa na tržišni portfolio "t", $\sigma(r_t)$ - standardna devijacija prinosa na tržišni portfolio "t" i $\sigma(r_i)$ - standardna devijacija prinosa na HoV "i".

Koeficijent korelacije je statistički model koji pokazuje u kom smjeru se kreću dvije veličine (u našem slučaju to je stopa prinosa na HoV "i" i stopa prinosa tržišnog portfolija "t") i koja je jačina veze između te dvije veličine. Koeficijent korelacije se kreće u intervalu od -1 do +1. Kada se veličine kreću u istom smjeru (raste jedna veličina i raste druga veličina), tada se koeficijent korelacije nalazi u intervalu od 0 do +1, a kada se veličine kreću u suprotnim smjerovima (jedna veličina raste, a druga opada) tada se koeficijent korelacije nalazi u intervalu od 0 do -1. Kada je koeficijent korelacije 0, tada se dvije veličine kreću nezavisno jedna od druge. Što je koeficijent korelacije bliži ekstremnim vrijednostima, odnosno +1 i -1, to je jača veza između dvije veličine (Fibel, 2003, pp 169). Shodno tome, beta koeficijent može da bude manji, veći ili jednak 1. Kad je beta koeficijent HoV "i" veći od 1 ($\beta > 1$), tada će povećanje ili smanjenje prinosa na tržišni portfolio "t" za jedan procenat, imati za posljedicu povećanje ili smanjenje prinosa na HoV "i" ili portfolio HoV za više od jednog procenta. U tom slučaju, prinos na pojedinačnu HoV ili portfolio HoV ima veće varijacije u odnosu na prinos koji odbacuje tržišni portfolio, što znači da je ulaganje u HoV rizičnije u odnosu na ulaganje u tržišni portfolio (tržište) i ima veći sistemski rizik. Sa druge strane, ako je beta koeficijent HoV manji od 1, tada će povećanje ili smanjenje prinosa na tržišni portfolio "t" za jedan procenat imati za posljedicu povećanje ili smanjenje prinosa na HoV "i" ili portfolio HoV za manje od jednog procenta. U tom slučaju će prinos na pojedinačnu HoV ili portfolio HoV imati

manje varijacije u odnosu na prinos koji odbacuje tržišni portfolio, što znači da će ulaganje u HoV biti manje rizično u odnosu na ulaganje u tržišni portfolio (tržište) i imaće manji sistemski rizik. Ako je beta koeficijent jednak jedinici, u tom slučaju prinos na HoV ili portfolio HoV i prinos tržišnog portfolija "t" imaju iste varijacije, odnosno isti sistemski rizik. Odnosno, kada je beta jednaka približno 1, to ukazuje da stopa prinosa fonda (u ovom slučaju to je prinos na HoV ili portfolio HoV) varira zajedno sa reperom - u ovom slučaju to je prinos koji odbacuje tržišni portfolio "t" (Fibel, 2003, pp 174). Da bi beta bila jednaka jedinici, koeficijent korelacije između prinosa HoV ili portfolija HoV i prinosa tržišnog portfolija "t" mora

da bude jednak jedinici (savršeno pozitivna korelacija), a pored toga mora da postoji jednakost između standardne devijacije prinosa na HoV ili portfolio HoV i standardne devijacije prinosa tržišnog portfolija "t" (tržišta), što je u praksi zaista rijedak slučaj. U tržišno orijentisanim i razvijenim privredama, za stopu prinosa na HoV ili portfolio HoV uzima se stopa dividende na obične akcije, a za stopu prinosa koju odbacuje tržišni portfolio najčešće se uzima stopa prinosa grupe preduzeća ili prinos grupe preduzeća koja su obuhvaćena indeksima S&P (Standard and Poor's) u SAD, FTSE (indeks koji objavljuje Financial Times) u Velikoj Britaniji, frankfurtskom DAX - u Njemačkoj itd. (Mikerević, 2009, str. 203).

3.2. Karakterističan pravac

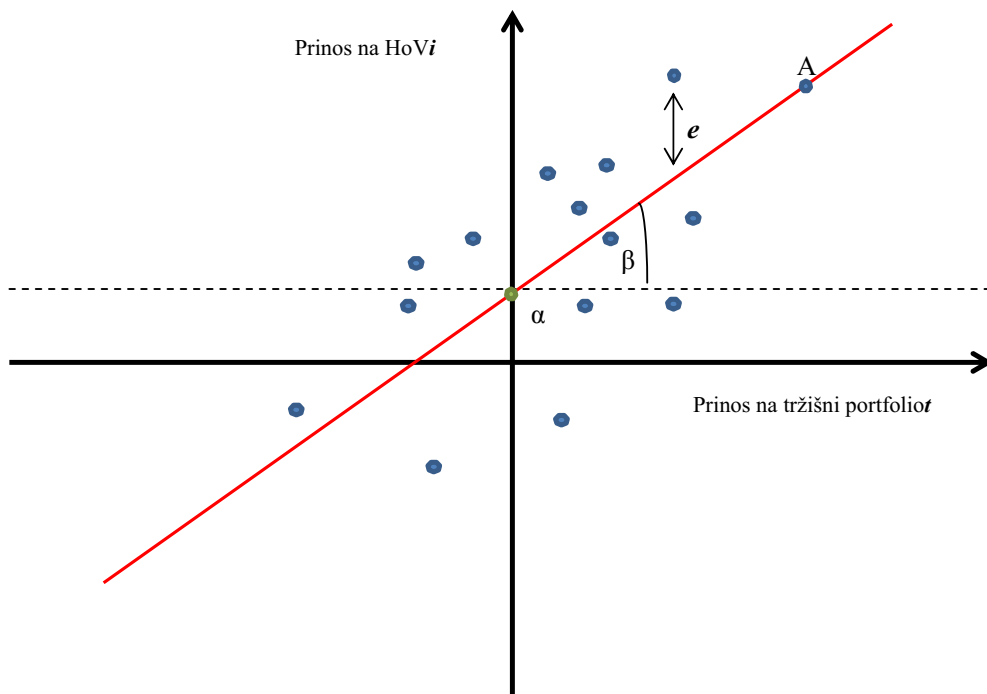
Beta koeficijent je moguće posmatrati sa aspekta analize linearne regresije prinosa na HoV ili portfolio HoV i prinosa koji odbacuje tržišni portfolio "t". Shodno tome, linija koja pokazuje prinos na HoV ili portfolio HoV, kao funkciju prinosa tržišnog portfolija "t" (tržišta), naziva se karakteristična linija (engl. *Characteristic Line-CL*). Karakterističnu liniju možemo matematički zapisati na sljedeći način (Jorion, 2003):

$$R_i = \alpha + \beta R_t + e$$

R_i je zavisna varijabla i predstavlja prinos na HoV ili portfolio HoV u posmatranom periodu. Alfa (α) predstavlja presjek linije regresije koji pokazuje koliki je prinos na HoV ili portfolio hartija od vrijednosti iznad prinosa koji odbacuje tržišni portfolio "t" (tržište), odnosno koliki je dodatni prinos na HoV ili portfolio hartija od vrijednosti.

Beta koeficijent pokazuje sistemski rizik i definiše nagib karakteristične linije. R_t je nezavisna varijabla i pokazuje prinos na tržišni portfolio HoV. Parametar e je rezidual, a definiše se kao odstupanje prinosa na HoV ili portfolio hartija od vrijednosti od regresione linije. Po definiciji, ovi reziduali su jednaki nuli. Karakterističnu liniju možemo vidjeti na slici broj 3.





Slika 3 – Karakteristična linija

Izvor: Sharpe, 1964, str. 439.

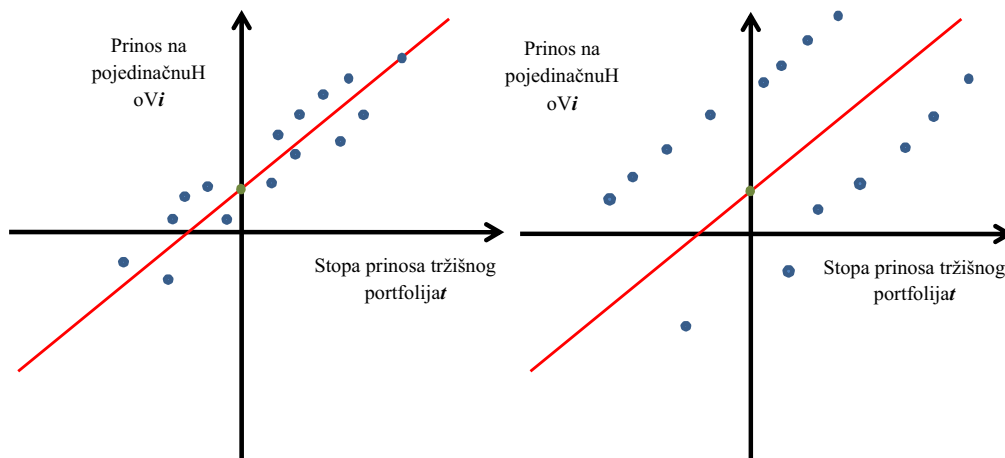
Beta koeficijent pokazuje vezu između prinosa na HoV³ i ili portfolio hartija od vrijednosti i prinosa na tržišni portfolio "t". Kada je beta koeficijent visok, tj. veći od 1, tada je i nagib karakteristične linije veći i obrnuto. Karakterističan pravac ne predstavlja stvarne veličine (prinose). Stvarne veličine predstavljaju tačke na dijagramu rasipanja, koje se gotovo nikada ne nalaze na karakterističnoj liniji. Udaljenost tačaka od karakteristične linije pokazuje reakcije prinosa na HoV³ i ili portfolio hartija od vrijednosti vezane na novosti i događaje koji su uticali na samu HoV, ali ne i na cjelokupno tržište. Odnosno, prinos na HoV³ i ili portfolio hartija od vrijednosti se može podijeliti na dva dijela: prvi dio

je objašnjen tržišnom stopom i beta koeficijentom, a dok drugi dio zavisi od novosti koje su specifične za samu HoV³ i. Fluktuacije u prvom dijelu odražavaju tržišni rizik, dok fluktuacije u drugom dijelu odražavaju specifični rizik koji je vezan za samu HoV. Dakle, karakteristična linije pokazuje sistemski rizik, dok tačke na dijagramu rasipanja predstavljaju specifični ili nesistemski rizik. Da bi se tačke nalazile na karakterističnoj liniji, kao što je npr. tačka A, koeficijent korelacije između stope prinosa na HoV³ i ili portfolio hartija od vrijednosti i stope prinosa koju odbacuje tržišni portfolio "t" mora da bude jednak 1.³ Budući da se tačke rasipanja gotovo nikad ne nalaze na karakterističnom

³ Kada je koeficijent korelacije +1, tada se radi o savršeno pozitivnoj korelaciji.

pravcu, ta razlika, odnosno to odstupanje se često naziva rezidualom, a u finansijskoj literaturi se označava sa e . Kada se tačka nalazi iznad regresione linije, tada je prinos na HoV^{"i"} ili portfolio hartija od vrijednosti bio bolji nego što se moglo predvidjeti regresionom linijom. U suprotnom slučaju, kada se tačka nalazi ispod regresione linije, tada je prinos na HoV^{"i"} ili portfolio hartija od

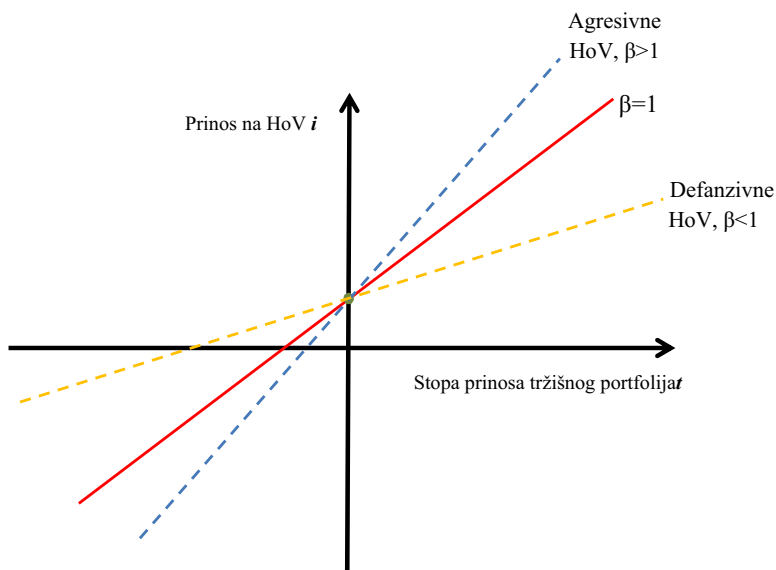
vrijednosti lošiji nego što se moglo predvidjeti na osnovu poznavanja tržišnog prinosa. Važno je još napomenuti da što je koeficijent korelacije bliži jedinici to su tačke na dijagramu rasipanja bliže karakterističnoj liniji. Dakle, što je manji raspon, korelacija je veća i obrnuto, a to se grafički može prikazati na sljedeći način.



Slika 4 – Karakteristična linija u zavisnosti od koeficijenta korelacije

Prema tome, što je udaljenost tačaka od karakteristične linije veća to je nesistemički rizik akcija veći, a to znači da prinos na HoV^{"i"} ili portfolio hartija od vrijednosti daje značajno manju korelaciju sa prinosom koji odbacuje tržišni portfolio HoV^{"t"}. Sa druge strane, što je disperzija manja, korelacija je veća, nesistemički rizik je manji. Međutim, model vrednovanja kapitalne aktive polazi od toga da se nesistemički rizik može eliminisati kroz proces efikasne diversifikacije. Već je konstatovano da kada je beta jednaka jedan, tada HoV ima isti sistemski rizik kao i cijelo tržište. Međutim, kada je beta koeficijent veći od jedan (nagib karakteristične linije je veći od jedan) to praktično znači da se dodatni prinos na HoV^{"i"} ili

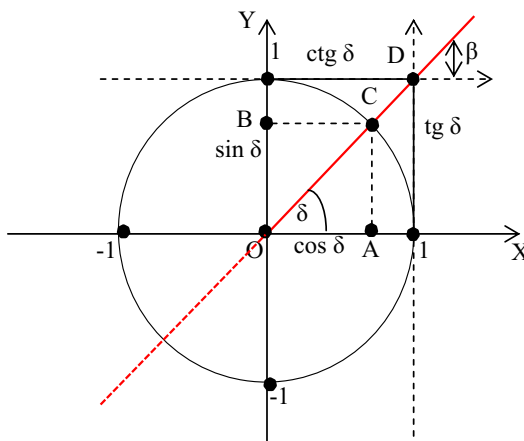
portfolio hartija od vrijednosti brže mijenja od dodatnog prinosa koji odbacuje tržišni portfolio HoV^{"t"}. U tom slučaju, HoV ima veći sistemski rizik nego cijelo tržište, a takve HoV se u finansijskoj literaturi nazivaju agresivne HoV. Sa druge strane, kada je beta koeficijent prinosa na HoV^{"i"} ili portfolio hartija od vrijednosti manji od jedan (nagib karakteristične linije je manji od jedan) to znači da se dodatni prinos na HoV^{"i"} ili portfolio hartija od vrijednosti sporije mijenja od dodatnog prinosa na tržišni portfolio HoV^{"t"}. U tom slučaju, HoV ima manji sistemski rizik nego cijelo tržište, a takve HoV se nazivaju defanzivne HoV. To se grafički može prikazati na sljedeći način:



Slika 5 – Nagib karakteristične linije
 Izvor: Van Horne, Wachowicz, 2002, str. 103.

Beta koeficijent, kao mjeru sistemskog rizika, matematički možemo izraziti i primjenom odgovarajućih trigonometrijskih funkcija,

odnosno funkcija uglova. Karakterističnu liniju u trigonometrijskoj kružnici možemo vidjeti na slici broj 6.



Slika 6 - Prikaz karakteristične linije u trigonometrijskoj kružnici⁴
 Izvor: Janjić, 2016, str. 203.

⁴ U trigonometrijskoj kružnici karakteristična linija je prikazana pod uglom od 45 stepeni ($\delta = 45^\circ$), isključivo zbog boljeg prikaza i lakše prezentacije podataka u okviru trigonometrijske kružnice.

Crvena linija u trigonometrijskoj kružnici predstavlja karakterističnu liniju.⁵ Prema tome, na osnovu slike 6 beta koeficijent možemo izraziti sljedećim trigonometrijskim oblikom:⁶

$$\beta = \frac{\sin \delta}{\cos \delta} = \operatorname{tg} \delta \quad \text{odnosno}$$

$$\beta = \operatorname{ctg} \varphi = \frac{\cos \varphi}{\sin \varphi} = \operatorname{ctg}(90^\circ - \delta)$$

Međutim, već je konstatovano da je beta koeficijent tržišnog portfolija jednak jedan, što znači da je ugao karakterističnog pravca tržišnog portfolija 45 stepeni, odnosno $\frac{\pi}{4}$.⁷ Shodno toj konstataciji, vrijedi sljedeći matematički oblik:

$$\beta = \frac{\sin 45^\circ}{\cos 45^\circ} = \operatorname{tg} 45^\circ = 1$$

Prema tome, analizom trigonometrijske kružnice možemo da zaključimo da će:

- beta koeficijent biti pozitivne vrijednosti kada se ugao karakteristične linije kreće u intervalu između 0° i 90° ,
- beta koeficijent biti negativne vrijednosti kada se ugao karakteristične linije kreće u intervalu između 90° i 180°

Visina beta koeficijenta je direktno uslovljena standardnom devijacijom prinosa na pojedinačnu HoV^{"i"} ili portfolio HoV, standardnom devijacijom prinosa tržišnog portfolija HoV^{"t"} i koeficijentom

korelacije prinosa. Ukoliko pođemo od teorijske pretpostavke da postoji savršeno pozitivna korelacija prinosa i ukoliko je standardna devijacija prinosa na HoV^{"i"} veća od standardne devijacije prinosa tržišnog portfolija^{"t"} (tržišta), tada će ugao delta biti veći od 45 stepeni ($\delta > 45^\circ$), a tangens ugla delta će biti veći od 1 ($\operatorname{tg} \delta > 1$). U tom slučaju, sistemski rizik HoV^{"i"} će biti veći od sistemskog rizika cijelog tržišta. Sa druge strane, ukoliko postoji savršeno pozitivna korelacija prinosa i ukoliko je standardna devijacija prinosa na HoV^{"i"} manja od standardne devijacije prinosa tržišnog portfolija^{"t"} (tržišta), tada će ugao delta biti manji od 45 stepeni ($\delta < 45^\circ$), a tangens ugla delta će biti manji od 1 ($\operatorname{tg} \delta < 1$). Saglasno tim pretpostavkama, sistemski rizik HoV^{"i"} će biti manji od sistemskog rizika cijelog tržišta.

⁵ Puni dio karakteristične linije predstavlja ugao od 45 stepeni, dok isprekidani dio linije predstavlja ugao od 225 stepeni. Podjela karakteristične linije je urađena zbog karakteristika trigonometrijske kružnice, iako je nagib ostao isti ($\beta=1$).

⁶ Pod uslovom da su imenioci različiti od nule.

⁷ Sinus i kosinus ugla od 45 stepeni iznosi $\frac{\sqrt{2}}{2}$, dok sinus i kosinus ugla od 225 stepeni iznosi $-\frac{\sqrt{2}}{2}$.



3.3. Izvođenje CAPM modela

Nakon kvalitativne i kvantitativne obrade beta koeficijenta možemo pristupiti izvođenju CAPM modela⁸ sa matematičkog i ekonomskog aspekta.

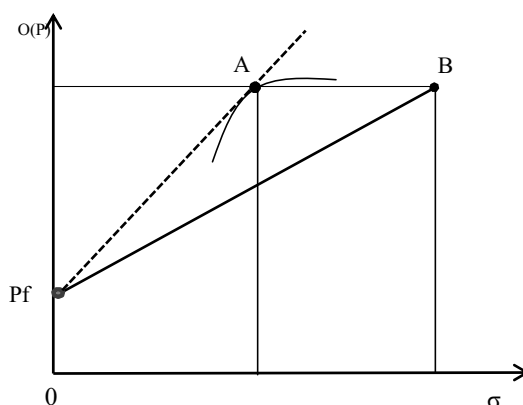
Matematička interpretacija CAPM modela.

Da bismo pristupili izvođenju modela vrednovanja kapitalne imovine matematičkim putem, potrebno je matematičkom formulom prikazati nagib linije tržišta kapitala. Nagib linije

tržišta kapitala možemo predstaviti sljedećim matematičkim oblikom:

$$S_B = \frac{O(P)_B - Pf}{\sigma_B}$$

Ovaj nagib je maksimalne vrijednosti kada je A jednako B, što možemo vidjeti na slici 7.



Slika 7- Linija tržišta kapitala

Izvor: Esch, Kieffer, Lopez, 2005, pp. 95 and 96.

Shodno tome, može se konstatovati da kada je $A=B$, u tom kontekstu, maksimalna vrijednost S_B^2 je S_A^2 . Dakle, ako različite akcije koje čine tržišni portfolio (na osnovu proporcija) izrazimo sa X_1 ,

X_2, \dots, X_{sn} , ($X_{si} = 1$), imaćemo (Esch, Kieffer, Lopez, 2005, pp. 95):

$$(S_A^2)_{Xk}' = 0 \quad k = 1, 2, \dots, N$$

⁸ Model vrednovanja kapitalne imovine CAPM (engl. Capital Asset Pricing Model-CAPM), temelji se na odnosu između rizika i očekivanih prinosa na rizičnu aktivu. Model vrednovanja kapitala polazi od toga da će se investitori odlučiti na ulaganje u bezrizičnu aktivu i u portfolio rizične aktive. Ulaganje u bezrizičnu aktivu nije ništa drugo nego kupovina hartija od vrijednosti koje su emitovane od strane države koja uživa visok kreditni rejting (AAA), a to su najčešće trezorski zapisi. Investitori ulaganjem u bezrizičnu aktivu ne preuzimaju nikakav rizik. Rizična aktiva predstavlja ulaganje u rizične hartije od vrijednosti, koje imaju odgovarajući stepen rizika u pogledu očekivanih prinosa. Na slici broj 1 prikazan je skup svih mogućih portfolija prilikom ulaganja u rizičnu aktivu.

Odnosno,

$$\begin{cases} O(P_A) - Pf = \sum_{j=1}^N X_j O(P_j) - \left(\sum_{j=1}^N X_j \right) Pf = X_j (O(P_j) - Pf) \\ \sigma_A^2 = \sum_{j=1}^N \sum_{i=1}^N X_i X_j \end{cases}$$

Na osnovu sljedećeg matematičkog obrasca, slijedi:

$$S_A^2 = \frac{(O(P_A) - Pf)^2}{\sigma_A^2} = \frac{\left(\sum_{j=1}^N X_j (O(P_A) - Pf) \right)^2}{\sum_{j=1}^N \sum_{i=1}^N X_i X_j}$$

Prema tome, u odnosu na X_k , slijedi naredni matematički oblik (Esch, Kieffer, Lopez, 2005, pp. 96):

$$\begin{aligned} (S_A^2)_{X_k}' &= \frac{2 \left(\sum_{j=1}^N X_j (O(P_A) - Pf) \right) (O(P_k) - Pf) \cdot \sigma_A^2 - \left(\sum_{j=1}^N X_j (O(P_A) - Pf) \right)^2 \cdot 2 \sum_{j=1}^N X_j \sigma_{kj}}{\sigma_A^4} \\ &= \frac{2 \cdot (O(P_A) - Pf) (O(P_k) - Pf) \cdot \sigma_A^2 - 2 \cdot (O(P_A) - Pf)^2 \sum_{j=1}^N X_j \sigma_{kj}}{\sigma_A^4} \\ &= \frac{2 \cdot (O(P_A) - Pf) \cdot \left((O(P_k) - Pf) \cdot \sigma_A^2 - (O(P_A) - Pf) \sigma_{kA} \right)}{\sigma_A^4} \end{aligned}$$

Odnosno, u konačnom obliku:

$$O(P_k) - Pf = (O(P_A) - Pf) \frac{\sigma_{kA}}{\sigma_A^2}$$

Stopu očekivanog prinosa HoV^{"k"} možemo zapisati i na sljedeći način:

$$O(P_k) = Pf + \beta_k (O(P_A) - Pf), \quad \text{gdje je: } \beta_k = \frac{\sigma_{kA}}{\sigma_A^2}$$



Gdje je: $O(P_k)$ – stopa očekivanog prinosa HoV^{"k"}, β_k – sistemski rizik HoV^{"k"}, P_f – stopa prinosa kod nerizičnih ulaganja, $O(P_A)$ – stopa prinosa tržišnog portfolija "A", σ_A^2 – varijansa prinosa tržišnog portfolija "A" i σ_{kA} kovarijansa između stope prinosa na HoV^{"k"} i stope prinosa tržišnog portfolija "A" (tržišta). Prethodni matematički izraz predstavlja model vrednovanja kapitalne imovine koji je izveden matematičkim putem.

Ekonomska interpretacija CAPM modela.

Nakon matematičke interpretacije modela vrednovanja kapitalne imovine, slijedi za nas ekonomiste, mnogo bitnija, ekonomska interpretacija modela. Dakle, polazi se od pretpostavke da se potencijalni investitor nalazi u stanju tržišne ravnoteže, gdje ima tri solucije. Prva solucija je da čitav svoj kapital uloži u tržišni portfolio HoV^{"t"} koji odbacuje očekivanu stopu prinosa $O(P_t)$ ⁹, gdje ćemo imati sistemski rizik jednak tržišnom sistemskom riziku, a to je jedan. Druga solucija je da investitor svoj kapital uloži u bezrizičnu aktivu, uz odgovarajuću stopu prinosa P_f , gdje nema sistemskog rizika. I treća solucija je da svoj kapital investitor jednim dijelom investira u tržišni portfolio HoV^{"t"}, a drugim dijelom u bezrizične hartije od vrijednosti. U tom slučaju, očekivana stopa prinosa će se kretati između vladajuće očekivane stope prinosa koju odbacuje tržišni portfolio akcija $O(P_t)$ i stope prinosa kod bezrizičnih HoVP_f.¹⁰ Ako se pretpostavi da je investitor Y kapitala uložio u tržišni portfolio

HoV^{"t"} i da je β_i sistemski rizik preduzeća "i", onda je:

$$\beta_i = Y \cdot \beta_t + (1 - Y) \cdot \beta_f$$

gdje je, $\beta_t = 1$, $\beta_f = 0$, slijedi da je:

$$\beta_i = Y \cdot \beta_t$$

$$\beta_i = Y$$

Prethodnom jednačinom je dokazano da sistemski rizik isključivo zavisi od ulaganja u tržišni portfolio HoV, jer ukoliko bi cjelokupni kapital investitor uložio u bezrizičnu aktivu, sistemski rizik bi bio jednak nuli, a očekivana stopa prinosa bi bila jednaka stopi prinosa kod bezrizičnih hartija od vrijednosti. Prema tome, očekivana stopa prinosa HoV i $O(P_t)$ se dobije kao ponderisana aritmetička sredina očekivane stope prinosa tržišnog portfolija HoV^{"t"} $O(P_t)$ i stope prinosa kod bezrizičnih ulaganja P_f , što se može prikazati na sljedeći način (Šoškić, 2006, str. 198).

$$O(P_i) = (1 - Y) \cdot P_f + Y \cdot O(P_t)$$

a iz prethodne formule je $\beta_i = Y$,

slijedi da je,

$$O(P_i) = (1 - \beta_i) \cdot P_f + \beta_i O(P_t)$$

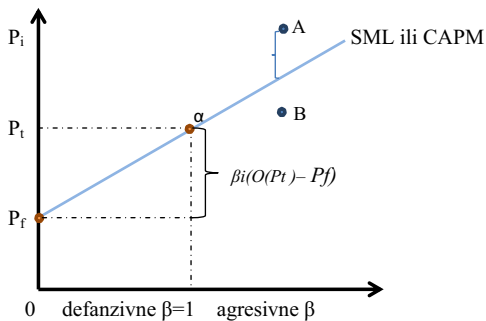
$$O(P_i) = P_f - \beta_i P_f + \beta_i O(P_t)$$

$$O(P_i) = P_f + \beta_i (O(P_t) - P_f)$$

⁹ U literaturi se često umjesto očekivane stope prinosa koju odbacuje tržišni portfolio može sresti naziv vladajuća očekivana stopa prinosa na tržištu kapitala.

¹⁰ OčekivanastopaprinosaHoViliportfolijaHoVće se kretatiizmeđuočekivanogprinosatržišnogportfolija i stope prinosa bezrizičnih hartija od vrijednosti, ukoliko je $P_f > O(P_t) - P_f$ i ukoliko je $\beta_i < 1$, a ukoliko je $P_f < O(P_t) - P_f$ ikada je $\beta_i > 1$, tada će očekivanastopaprinosaHoViliportfolijaHoVbitiiznadO(P_t).

Posljednji izraz predstavlja model vrednovanja kapitalne aktive, odnosno CAPM model, gdje je: $O(P_i)$ – stopa očekivanog prinosa HoV ili portfolija HoV "i", β_i – sistemski rizik HoV ili portfolija HoV "i", P_f – stopa prinosa kod nerizičnih ulaganja, $O(P_t)$ – očekivana stopa prinosa tržišnog portfolija "t". Grafički prikaz koji pokazuje odnos između očekivanog prinosa HoV ili portfolija HoV "i" i beta koeficijenta, kao mjere sistemskog rizika HoV "i", nazivamo linijom tržišta hartija od vrijednosti (engl. *Security Market Line* - SML). Linija tržišta HoV je prikazana na slici 9.



Slika 8 – Linija tržišta HoV-a ili CAPM

Izvor: Van Horne, Wachowicz, 2002, str. 108.

Plava linija je linija tržišta hartija od vrijednosti, odnosno linija modela vrednovanja kapitala. Na slici 9 se može uočiti da je nagib linije tržišta HoV određen riziko premijom $\beta_i(O(P_t) - P_f)$. Riziko premija predstavlja umnožak cijene rizika ($O(P_t) - P_f$) i količine sistemskog rizika koji je mjeren betom β_i . To praktično znači - što je veća cijena rizika, samim tim je i nagib linije tržišta HoV veći. U stanju tržišne ravnoteže sve HoV se nalaze tačno na liniji tržišta HoV. One HoV koje se nalaze iznad linije tržišta HoV su potcijenjene HoV, kao što je npr. HoV "A", jer pri istom sistemskom riziku HoV "A" nudi mnogo veći očekivani prinos nego što se može predvidjeti linijom tržišta kapitala. Ta razlika između stvarne i "fer" očekivane stope prinosa obilježili smo sa α . Sa druge strane, one HoV koje se nalaze ispod linije tržišta HoV su precijenjene HoV, kao što je npr. HoV "B", jer pri istom sistemskom riziku HoV "B" nudi mnogo manji očekivani prinos nego što se može predvidjeti linijom tržišta kapitala.

4. REZULTATI ISTRAŽIVANJA

Elektroprivreda Republike Srpske (ERS) je jedna od najvećih korporacija iz Republike Srpske, a osnovana je kao Javno preduzeće 2. juna 1992. godine Odlukom Narodne skupštine Republike Srpske. U cilju povećavanja efektivnosti, efikasnosti i produktivnosti u poslovanju, u ranijem periodu je bilo potrebno da se Elektroprivreda Republike Srpske organizaciono modernizuje i da svoje

poslovanje prilagodi preduzećima i korporacijama koje svoje poslovanje obavljaju u razvijenim tržišnim privredama. Shodno tome, Vlada Republike Srpske je odlukom broj 02/I-020-60/06 od 30.12.2005. godine, u skladu sa Zakonom o preduzećima i Zakonom o javnim preduzećima, organizovala Elektroprivreda Republike Srpske kao Mješoviti holding Elektroprivreda Republike Srpske

akcionarsko društvo Trebinje. Kao takav, MH Elektroprivreda RS se bavi djelatnošću proizvodnje električne energije i eksploatacijom sirovina koje su potrebne u proizvodnji električne energije, distribucijom i prodajom električne energije, upravljanjem elektroenergetskim sistemom Republike Srpske, rukovođenjem projektima i implementacijom projekata u energetske sektoru u Republici Srpskoj (Preuzeto 8.2.2020. godine, sa web sajta: www.ers.ba).

U sastavu Mješovitog holdinga "Elektroprivreda" Republike Srpske je 11 zavisnih preduzeća i matično preduzeće, koje permanentno kontroliše, odnosno prati i ocjenjuje uspješnost poslovanja svih zavisnih preduzeća. Od toga, pet preduzeća se bavi proizvodnjom električne energije, pet preduzeća se bavi distribucijom električne energije, dok se jedno preduzeće bavi istraživanjem, ispitivanjem i razvojem elektroenergetske opreme. Zavisna preduzeća koja se bave proizvodnjom električne energije su:

- ZP Hidroelektrane na Drini a.d. Višegrad (HEDR-R-A),
- ZP Rudnik i Termoelektrana Gacko a.d. Gacko (RiTE-R-A),
- ZP Rudnik i Termoelektrana Ugljevik a.d. Ugljevik (RTEU-R-A),
- ZP Hidroelektrane na Vrbasu a.d. Mrkonjić Grad (HELV-R-A),
- ZP Hidroelektrane na Trebišnjici a.d. Trebinje (HETR-R-A),

Zavisna preduzeća koja se bave distribucijom električne energije su:

- ZP Elektrodistribucija Pale a.d. Pale (EDPL-R-A),
- ZP Elektrohercegovina a.d. Trebinje (EKHC-R-A),
- ZP Elektrokrajina a.d. Banja Luka (EKBL-R-A),
- ZP Elektro Bijeljina a.d. Bijeljina (EJBj-R-A),
- ZP Elektro Doboja a.d. Doboj (ELDO-R-A),

Takođe, u sastavu MH ERS je i ZP Istraživačko-razvojni centar elektroenergetike IRCE a.d. koji se bavi istraživanjem, ispitivanjem i razvojem elektroenergetske opreme.

Mješoviti holding Elektroprivreda Republike Srpske je izuzetno važan faktor razvoja privrede Republike Srpske, te je u interesu svih građana Republike Srpske da Elektroprivreda bude kako tehnički, tako i finansijski stabilan sistem. Iz tog razloga u produžetku ćemo prikazati rezultate analize sistemskog rizika Elektroprivrede Republike Srpske.

U svrhu analize sistemskog rizika Elektroprivrede Republike Srpske, a u okviru istraživačkog dijela ovog rada, primijenili smo teorijske postulate koji su prikazani u prethodnom dijelu teksta. Kao stopu prinosa na vlastiti kapital tržišta (ili privrede Republike Srpske) koristili smo podatke o kretanju prinosa na vlastiti kapital preduzeća koja ulaze u sastav Berzanskog indeksa Republike Srpske (u daljem tekstu BIRS),¹¹ na dan 31.12.2019. godine. U ovom radu BIRS predstavlja tržišni portfolio i poslužiće pri formiranju stope prinosa na vlastiti kapital tržišnog portfolija.¹² Stopa prinosa na vlastiti kapital tržišnog portfolija u periodu od 2011. godine do 2018. godine, se može vidjeti u tabeli broj 1.

¹¹ BIRS je cjenovni indeks koji je kreiran 1.5.2004. godine. Početna vrijednost BIRS-a je 1.000 indeksnih poena i kao takav BIRS ne uključuje isplate dividende, a maksimalno učešće jednog emitenta na dan formiranja i revizije je 25% (težina komponenti u indeksu je ograničena na 25% u odnosu na ukupnu tržišnu kapitalizaciju indeksa). U sastav BIRS-a mogu biti uključene akcije od 5 do 30 emitentata, a trenutno ih ima 15. (Izvor: Banjalučka berza, 2020).

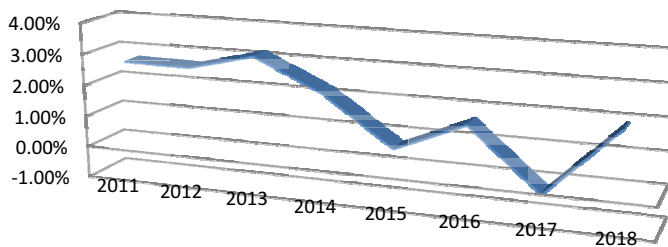
¹² Prilikom računanja stope prinosa na vlastiti kapital tržišnog portfolija, iz sastava BIRS-a su isključene akcije Nove banke a.d. Banja Luka, jer se radi o bankarskom sektoru (finansijski sektor).

Red. br.	Oznaka	PRINOS NA SOPSTVENI KAPITAL							
		2011	2012	2013	2014	2015	2016	2017	2018
1	EKBL-R-A	0,071%	0,027%	0,299%	0,261%	0,073%	0,079%	0,243%	0,585%
2	ELDO-R-A	0,407%	0,346%	0,340%	0,061%	0,125%	0,062%	0,175%	0,224%
3	HEDR-R-A	0,043%	0,676%	2,512%	0,717%	-0,319%	0,096%	-2,234%	1,388%
4	HELV-R-A	-1,543%	0,070%	0,487%	1,585%	0,229%	0,103%	-1,473%	0,744%
5	HETR-R-A	0,016%	-0,476%	1,401%	0,698%	0,135%	0,126%	-2,638%	0,595%
6	RiTE-R-A	0,354%	-1,091%	0,979%	-2,251%	-5,150%	-0,966%	0,404%	0,445%
7	RTEU-R-A	2,540%	2,840%	0,683%	-2,594%	-4,490%	0,641%	-7,090%	-0,807%
8	TLKM-R-A	15,45%	15,89%	14,56%	15,22%	11,34%	9,79%	8,52%	9,20%
9	BOKS-R-A	1,68%	1,68%	3,47%	4,29%	4,19%	4,12%	6,13%	1,90%
10	BVRU-R-A	3,06%	2,74%	2,83%	2,95%	3,22%	4,73%	6,31%	6,14%
11	CMEG-R-A	0,33%	0,35%	1,21%	0,11%	0,70%	0,84%	-25,03%	1,60%
12	DEST-R-A	1,07%	1,15%	0,27%	1,17%	1,18%	2,27%	2,62%	1,24%
13	KRPT-R-A	-1,37%	-5,72%	-3,57%	-3,63%	0,22%	0,35%	4,79%	3,78%
14	MRDN-R-A	1,53%	2,11%	1,58%	3,37%	4,10%	5,58%	5,29%	6,04%
Stopa prinosa na vlastiti kapital tržišnog portfolija [1]¹³		2,71%	2,67%	3,19%	2,20%	0,71%	1,65%	-0,23%	1,93%

Tabela 1 - Stopa prinosa na vlastiti kapital tržišnog portfolija

Izvor: Analiza podataka autora

Grafička ilustracija kretanja stopa prinosa na vlastiti kapital tržišnog portfolija se može vidjeti na slici 9.



Slika 9 - Kretanje stope prinosa na vlastiti kapital tržišnog portfolija u periodu od 2011. godine do 2018. godine

Izvor: Analiza podataka autora

¹³ Stopa prinosa na vlastiti kapital tržišnog portfolija se računa kao ponderisani prosjek stopa prinosa na vlastiti kapital svih preduzeća koja ulaze u sastav BIRS-a, gdje se kao ponder koristio vlastiti kapital.

Prema tome, prosječni ponderisani prinos na vlastiti kapital tržišnog portfolija u periodu od 2011. godine do 2018. godine iznosi 1,85%, uz rizik od 1,06%, koji je mjeran standardnom devijacijom prinosa. To praktično znači da će se očekivani prinos na vlastiti kapital tržišnog portfolija kretati u intervalu između 2,91% i 0,79% u 68,66% svih mogućih prinosa, odnosno između 3,97% i -0,27% u 95,44% svih mogućih prinosa.

Da bismo pristupili računanju i analizi sistemskog rizikazavisnih preduzeća koja ulaze u

sastav Elektroprivrede Republike Srpske, potrebno je posebno grupisati preduzeća koja se bave djelatnošću proizvodnje električne energije i preduzeća koja se bave djelatnošću distribucije električne energije. Prosječno ponderisana stopa prinosa na vlastiti kapital zavisnih preduzeća koja obavljaju djelatnost proizvodnje električne energije i zavisnih preduzeća koja obavljaju djelatnost distribucije električne energije se može vidjeti u sljedećoj tabeli.

Red. br.	DJELATNOST	PRINOS NA SOPSTVENI KAPITAL								Standardna devijacija prinosa
		2011	2012	2013	2014	2015	2016	2017	2018	
1	Proizvodnja	0,394%	0,273%	1,314%	-0,386%	-1,812%	-0,003%	-2,657%	0,478%	1,22%
2	Distribucija	0,149%	0,105%	0,227%	0,227%	0,077%	0,090%	0,192%	0,318%	0,08%

Tabela 2 - Prosječno ponderisana stopa prinosa na vlastiti kapital djelatnosti proizvodnje i djelatnosti distribucije električne energije

Izvor: Analiza podataka autora

Nakon izračunavanja prosječno ponderisane stope prinosa na vlastiti kapital djelatnosti proizvodnje i djelatnosti distribucije električne energije, može se pristupiti računanju koeficijenta korelacije između kretanja prinosa na vlastiti kapital tržišta i kretanja prinosa na vlastiti kapital djelatnosti proizvodnje i djelatnosti distribucije električne energije. Koeficijenti korelacije se mogu vidjeti u sljedećoj tabeli.

Red. br.	Korelacija	Tržište
1	Proizvodnja	0,95
2	Distribucija	0,17

Tabela 3 - Koeficijent korelacije

Izvor: Analiza podataka autora

Sada možemo pristupiti računanju beta koeficijenta (regresione bete) kao mjere sistemskog rizika djelatnosti proizvodnje i djelatnosti distribucije električne energije. Sistemski rizik djelatnosti proizvodnje električne energije u Republici Srpskoj računamo na sljedeći način:

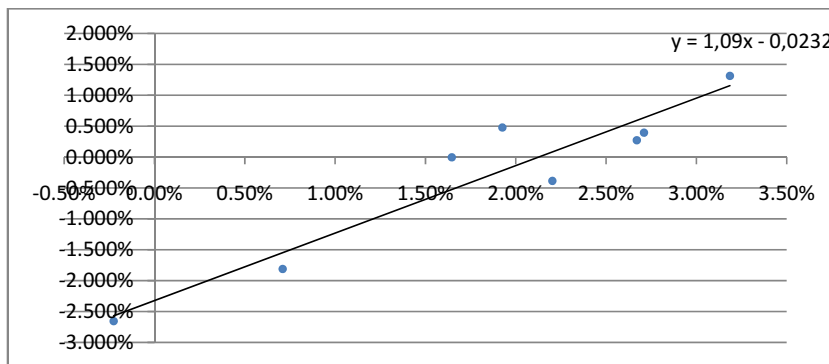
$$\beta_p = \frac{\rho_{p,T} \cdot \sigma(r_p)}{\sigma(r_t)} = \frac{0,95 \cdot 1,22\%}{1,06\%} = 1,09$$

Gdje je: β_p - sistemski rizik proizvodnje električne energije, ρ_{pt} - koeficijent korelacije između kretanja prinosa na vlastiti kapital tržišta i prinosa na vlastiti kapital djelatnosti proizvodnje električne energije, $\sigma(r_t)$ - standardna devijacija prinosa na tržišni portfolio "t" i $\sigma(r_p)$ - standardna devijacija prinosa na vlastiti kapital djelatnosti proizvodnje električne energije.

Sistemski rizik djelatnosti proizvodnje električne energije iznosi 1,09. **Beta koeficijent kao mjera sistemskog rizika djelatnosti proizvodnje električne energije pokazuje da kada se prinos na vlastiti kapital privrede Republike Srpske poveća za 1% stopa prinosa na vlastiti kapital preduzeća koja se bave djelatnošću proizvodnje električne energije će se u prosjeku povećati za 1,09% i**

obrnutu. Primjenjujući istu metodologiju, izračunali smo sistemski rizik djelatnosti distribucije električne energije koji iznosi 0,01.

Karakterističan pravac prinosa na vlastiti kapital djelatnosti proizvodnje električne energije se može vidjeti na sljedećoj slici.



Slika 10- Karakterističan pravac prinosa na vlastiti kapital proizvodnje električne energije

Izvor: Analiza podataka autora

Jednačina za karakterističnu liniju, koja pokazuje prinos na vlastiti kapital djelatnosti proizvodnje električne energije, kao funkciju prinosa na vlastiti kapital tržišta, prikazana je sljedećom matematičkom formulom:

$$O(P_P) = 1,09xO(P_T) - 0,023$$

Karakterističan pravac je pozitivnog nagiba isključivo zbog pozitivne vrijednosti beta koeficijenta, što je direktna posljedica pozitivnog koeficijenta korelacije od 0,95. To praktično znači da se prinosi djelatnosti proizvodnje električne energije i prinosi tržišta u prosjeku kreću u istom smjeru, odnosno da u posmatranom periodu rast prinosa djelatnosti proizvodnje električne energije prati rast prinosa tržišta i obrnuto. Jensenova alfa iznosi -0,023 i pokazuje da je prinos proizvođača

električne energije u prosjeku bio nešto niži od prinosa koji odbacuje tržište.

Kako bismo izračunali sistemski rizik za svako preduzeće koje se bavi proizvodnjom električne energije u okviru Elektroprivrede Republike Srpske, moramo da izračunamo *ukupan beta koeficijent bez poluge za djelatnost proizvodnje električne energije*. Izračunavanjem regresione bete, pristupamo računanju korigovane bete, odnosno ukupnog beta koeficijenta bez poluge za preduzeća koja se bave proizvodnjom električne energije na sljedeći način:

$$\beta_{Pc} = \frac{\beta_p}{\rho_T^2} = \frac{1,09}{0,95^2} = 1,07$$

Gdje je: β_{pc} – beta koeficijent bez poluge za djelatnosti proizvodnje električne energije, β_p regresiona beta djelatnosti proizvodnje električne energije, t -stopa poreza na dobitak, D -prosječno učešće obaveza u strukturi pasive, E -prosječno učešće vlastitog kapitala u strukturi pasive.

Izračunavanjem beta koeficijenta bez poluge za djelatnost proizvodnje električne energije, možemo pristupiti računanju beta koeficijenta sa polugom npr. zavisnog preduzeća Hidroelektrana na Vrbasu a.d. Mrkonjić Grad na sljedeći način:

$$\beta_{HELV-R-A} = \beta_{Pc} \left[1 + \left((1-t) \times \left(\frac{D}{E} \right) \right) \right] = 1,07 \left[1 + (1-0,10) \times \left(\frac{0,10}{0,90} \right) \right] = 1,17$$

Gdje je: $\beta_{HELV-R-A}$ beta koeficijent sa polugom Hidroelektrana na Vrbasu a.d. Mrkonjić Grad, β_{pc} - beta koeficijent bez poluge za djelatnost proizvodnje električne energije, t -stopa poreza na dobitak, D -učešće obaveza u strukturi pasive preduzeća Hidroelektrana na Vrbasu a.d. Mrkonjić Grad, E - učešće vlastitog kapitala u strukturi pasive preduzeća Hidroelektrana na Vrbasu a.d. Mrkonjić Grad.

Sistemski rizik preduzeća Hidroelektrana na Vrbasu a.d. Mrkonjić Grad koji se mjeri beta koeficijentom iznosi 1,17 i pokazuje sljedeće: kada se prinos na vlastiti kapital privrede Republike Srpske poveća za 1%, stopa prinosa na vlastiti kapital preduzeća Hidroelektrana na Vrbasu a.d. Mrkonjić Grad će se u prosjeku povećati za 1,17% i obrnuto. Primjenjujući istu metodologiju, izračunali smo beta koeficijent za sve proizvođače električne energije u okviru MH Elektroprivreda RS, što se može vidjeti u tabeli 4.

Red. br.	Oznaka	Beta koeficijent
1	HEDR-R-A	1,11
2	HELV-R-A	1,17
3	HETR-R-A	1,11
4	RITE-R-A	1,25
5	RTEU-R-A	1,53

Tabela 4 – Sistemski rizik proizvođača električne energije u Republici Srpskoj
Izvor: Analiza podataka autora

Primjenjujući istu metodologiju, izračunali smo beta koeficijent za sve distributere električne energije u okviru MH Elektroprivreda RS, što se može vidjeti u tabeli 5.

Red. br.	Oznaka	Beta koeficijent
1	EKBL-R-A	0,10
2	EJBJ-R-A	0.08
3	ELDO-R-A	0.06
4	EKHC-R-A	0.07
5	EDPL-R-A	0.10

Tabela 5 – Sistemski rizik distributera električne energije u Republici Srpskoj
Izvor: Analiza podataka autora

Uvidom u tabelu 4 i tabelu 5 jasno se nameće zaključak da se beta koeficijent, kao mjera sistemskog rizika, kod proizvođača električne energije u Elektroprivredi Republike Srpske kreće

u intervalu od 1,11 do 1,53, dok se beta koeficijent kod distributera električne energije kreće u intervalu od 0,06 do 0,10.

5. DISKUSIJA

Sistemski rizik zavisnih preduzeća Elektroprivrede Republike Srpske jasno pokazuje razliku između proizvođača i distributera električne energije. Dakle, proizvođači električne energije spadaju u tzv. grupu *agresivnih preduzeća* čiji je beta koeficijent veći od 1. To su preduzeća iz domena *ciklične grane*,¹⁴ koja su natprosječno osjetljiva na stanje u privredi, odnosno prodaja njihovih proizvoda posebno osjetljiva na makroekonomske uslove. Sa druge strane, može se očekivati da se distributeri električne energije nalaze u

tzv. *defanzivnoj grani*, jer je njihov beta koeficijent dosta manji od 1. Distributeri električne energije¹⁵ su *defanzivna preduzeća* koja kao takva nisu mnogo osjetljiva na promjene u privredi, odnosno čiji je prihod od prodaje manje osjetljiv na makroekonomske uslove.

Komparacije radi, pregled beta koeficijenta, kao mjere sistemskog rizika, nekih od svjetskih kompanija se može vidjeti u narednoj tabeli.

¹⁴ Pored proizvođača električne energije u ciklične grane spadaju i proizvođači trajnih proizvoda, kao što su automobili itd.

¹⁵ Pored distributera električne energije, u defanzivne grane spadaju i proizvođači i prerađivači prehrambenih proizvoda, proizvođači farmaceutskih proizvoda itd.



Red. broj	Naziv	D	E	MarketCap/ Total assets	Beta
1	Apple	73%	27%	3,61	1,23
2	Google	24%	76%	3,97	1,02
3	Amazon	73%	27%	5,34	1,52
4	Microsoft	64%	36%	4,04	1,23
5	IBM	86%	14%	0,96	1,34
6	AlibabaGroupHoldingLimited	49%	51%	0,55	2,25
7	Tesla	83%	17%	2,29	0,68
8	General Motors	83%	17%	0,22	1,39
9	General Electric	24%	76%	3,97	1,02
10	AmericanElectricPowerCompany	72%	28%	0,72	0,15
11	EmersonElectricCo	60%	40%	2,20	1,41
12	CocaCola	76%	24%	2,93	0,39

Tabela 6 - Pregled beta koeficijenta

Izvor: finance.yahoo.com

Da bismo ispitali zavisnost sistemskog rizika preduzeća, posmatraćemo sistemski rizik i fundamentalne finansijske pokazatelje poslovanjanpr. distributivnog preduzeća Elektrokrajinaa.d. Banja Luka. Vazu između

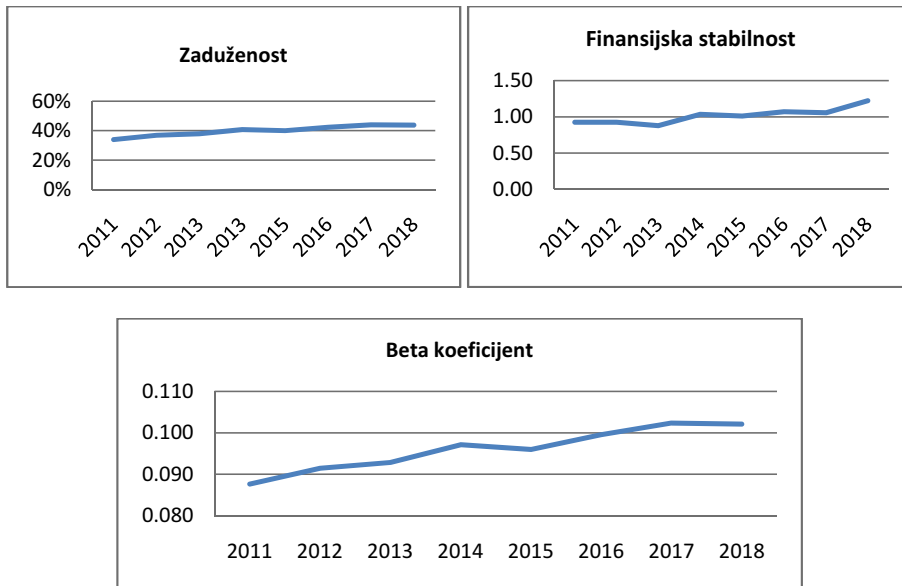
sistemskog rizika i fundamentalnih finansijskih pokazatelja poslovanja distributivnog preduzeća Elektrokrajinaa.d. Banja Luka ispitali smo preko koeficijenta korelacije, kao što je prikazano u sljedećoj tabeli.

OPIS	Korelacija
Zaduženost	0,998744035
Finansijska stabilnost	0,836507334
Likvidnost	-0,862132401
ROE	0,560817568
EPS	0,474353642

Tabela 7 – Koeficijent korelacije

Uvidom u prethodnu tabelu može se uočiti da sistemski rizik distributivnog preduzeća Elektrokrajinaa.d. Banja Lukanajviše zavisí od

zaduženosti i finansijske stabilnosti, što se može vidjeti i na sljedećoj grafičkoj ilustraciji.



Slika 11 – Zaduženost, finansijska stabilnost i beta koeficijent

Izvor: Analiza podataka autora

Prethodna slika ukazuje na to da se s povećanjem zaduženosti i koeficijenta finansijske stabilnosti povećava i beta koeficijent. Dakle, na beta koeficijent možemo uticati prvenstveno preko dugoročne finansijske ravnoteže, ali putem restrukturiranja pasive bilansa stanja. Takođe, zavisnost sistemskog rizika, koji se mjeri beta koeficijentom, zavisnog distributivnog preduzeća Elektrokrajina a.d. Banja Luka, možemo posmatrati i sa aspekta višestrukog linearnog regresionog modela. Matematički obrazac modela je:

$$\hat{Y}_i = 0,037 + 0,142X_1 + 0,002X_2$$

Gdje je: Y_i - sistemski rizik zavisnog preduzeća Elektrokrajina a.d. Banja Luka, X_1 - zaduženost i X_2 - finansijska stabilnost.

Postavljeni linearni regresioni model pokazuje da pri trenutnoj zaduženosti distributivnog zavisnog preduzeća Elektrokrajina a.d. Banja Luka od oko 44%¹⁶ i trenutnoj finansijskoj stabilnosti od 1,22¹⁷ Elektrokrajina a.d. Banja Luka ima sistemski rizik koji se mjeri beta koeficijentom od 0,10¹⁸. Smanjenjem zaduženosti na 0,30 i uspostavljanjem dugoročne finansijske ravnoteže, sistemski rizik bi se smanjio na 0,08.

¹⁶ Prema podacima iz finansijskih izvještaja za 2018. godinu.

¹⁷ Prema podacima iz finansijskih izvještaja za 2018. godinu.

¹⁸ Vidi tabelu 5

U okviru ovog poglavlja potrebno je razmotriti i uticaj sistemskog rizika na cijenu kapitala i vrijednost preduzeća. Da bismo ispitali uticaj sistemskog rizika na cijenu vlastitog kapitala, moramo poći od CAPM modela. Stopa prinosa tržišnog portfolija iznosi 4,70% (vidjeti: www.irbrs.org)¹⁹, dok stopa prinosa na nerizične

hartije do vrijednosti iznosi 2,30% (vidjeti: www.blberza.com)²⁰. Primjenjujući metodologiju CAPM modela, koja je prikazana u teorijskom dijelu rada, cijena vlastitog kapitala svih preduzeća koja ulaze u sastav MH Elektroprivreda Republike Srpske se može vidjeti u tabeli 8.

Red. br.	Oznaka	Beta	Cijena nerizičnih HoV	Tržišna kamatna stopa	Cijena vlastitog kapitala
1	EKBL-R-A	0,10	2,30%	4,80%	2,54%
2	EJBJ-R-A	0,08	2,30%	4,80%	2,49%
3	ELDO-R-A	0,06	2,30%	4,80%	2,45%
4	HEDR-R-A	1,11	2,30%	4,80%	5,07%
5	HELV-R-A	1,17	2,30%	4,80%	5,23%
6	HETR-R-A	1,11	2,30%	4,80%	5,07%
7	RiTE-R-A	1,25	2,30%	4,80%	5,43%
8	RTEU-R-A	1,53	2,30%	4,80%	6,13%
9	EKHC-R-A	0,07	2,30%	4,80%	2,47%
10	EDPL-R-A	0,10	2,30%	4,80%	2,55%

Tabela 8 – Cijena vlastitog (sopstvenog) kapitala

Izvor: Analiza podataka autora

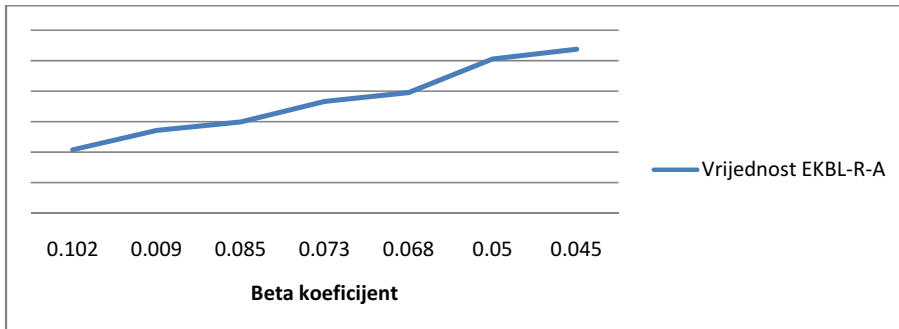
Uvažavajući pretpostavke i postavke CAPM modela, te uvidom u prethodnu tabelu, može se konstatovati da se sa smanjenjem beta koeficijenta smanjuje i cijena vlastitog kapitala. To će imati i reperkusije na vrijednost preduzeća, jer se sa smanjenjem cijene vlastitog kapitala smanjuje i prosječna ponderisana cijena kapitala (engl.

Weighted Average Cost of Capital - WACC)²¹, što dovodi u konačnici do maksimiziranja vrijednosti preduzeća. Vrijednost zavisnog distributivnog preduzeća Elektrokrajinaa.d. Banja Luka u zavisnosti od promjene beta koeficijenta možemo vidjeti na sljedećoj slici.

¹⁹ Kamatna stopa koju daje Investiciona razvojna banka na kredite za preduzetnike i preduzeća.

²⁰ Javni poziv za upis i uplatu trideset sedme emisije obveznica Republike Srpske javnom ponudom (preuzeto sa: <https://www.blberza.com/Pages/DocView.aspx?Id=80743>).

²¹ Pod pretpostavkom da su svi drugi parametri fiksni.



Slika 12 – Vrijednost preduzeća Elektrokraina a.d. Banja Luka u zavisnosti od promjena sistemskog rizika

Izvor: Analiza podataka autora

Prethodna slika jasno potvrđuje konstataciju da bi se kroz reorganizaciju i restrukturiranje distributivnog preduzeća Elektrokraina a.d. Banja Luka smanjio sistemski rizik, što bi dovelo do smanjenja cijene vlastitog kapitala i konačno

maksimiziranja (povećanja) vrijednosti preduzeća. Primjenjujući istu metodologiju, možemo izvršiti analizu sistemskog rizika za bilo koje drugo preduzeće u Republici Srpskoj i svijetu.

6. ZAKLJUČAK

Moderna finansijska literatura polazi od toga da se ukupni rizik sastoji iz sistemskog i nesistemskog rizika. Prvi dio koji se odnosi na sistemski rizik nastaje zbog različitih faktora koji utiču na cijelo tržište, a to su: inflacija, promjene kamatnih stopa, promjene u nacionalnoj ekonomiji, promjene u poreskoj politici, promjene deviznih kurseva itd. Druga komponenta rizika je nesistemski rizik koji predstavlja rizik vezan za određenu kompaniju ili određenu djelatnost. Međutim, vrlo važan rizik za svako preduzeće je sistemski rizik preduzeća, jer se nesistemski rizik može eliminisati kroz proces efikasne diversifikacije. Prema tome, investitori će zahtijevati očekivani prinos kao kompenzaciju za sistemski rizik, kao dio ukupnog rizika. Beta

koeficijent je mjera sistemskog rizika i predstavlja stepen promjene prinosa pojedinačne HoV ili portfolija HoV u odnosu na promjenu prinosa koji odbacuje tržišni portfolio. Beta koeficijent je moguće posmatrati sa aspekta analize linearne regresije prinosa na HoV ili portfolio HoV i prinosa koji odbacuje tržišni portfolio. Shodno tome, linija koja pokazuje prinos na HoV ili portfolio HoV, kao funkciju prinosa tržišnog portfolija, naziva se karakteristična linija.

U okviru istraživačkog dijela rada uradili smo analizu sistemskog rizika Elektroprivrede Republike Srpske. Kao stopu prinosa na vlastiti kapital tržišta koristili smo podatke o kretanju prinosa na vlastiti kapital preduzeća koja ulaze

sastav Berzanskog indeksa Republike Srpske, na dan 31.12.2019. godine. Daljom obradom i analizom podataka došli smo do zaključka da sistemski rizik djelatnosti proizvodnje električne energije iznosi 1,09, dok sistemski rizik djelatnosti distribucije električne energije iznosi 0,01. To praktično znači da kada se prinos na vlastiti kapital privrede Republike Srpske poveća za 1%, stopa prinosa na vlastiti kapital preduzeća koja se bave djelatnošću proizvodnje električne energije će se u prosjeku povećati za 1,09% i obrnuto. Kako bismo izračunali sistemski rizik za svako preduzeće koje se bavi proizvodnjom električne energije u okviru Elektroprivrede Republike Srpske, morali smo da izračunamo ukupan beta koeficijent bez poluge za djelatnost proizvodnje električne energije i ukupan beta koeficijent bez poluge za djelatnost distribucije električne energije. Izračunavanjem beta koeficijenta bez poluge za djelatnosti proizvodnje i distribucije električne energije, pristupili smo računanju beta koeficijenta sa polugom za svako zavisno preduzeće u okviru MH Elektroprivreda Republike Srpske, na osnovu čega smo zaključili da se beta koeficijent kod proizvođača električne energije u Elektroprivredi kreće u intervalu od 1,11 do 1,53, dok se beta koeficijent, kod distributera električne energije kreće u intervalu od 0,06 do 0,10. Shodno tome, sistemski rizik zavisnih preduzeća Elektroprivrede Republike Srpske jasno

pokazuje razliku između proizvođača i distributera električne energije. Proizvođači električne energije spadaju u grupu tzv. agresivnih preduzeća, čiji je beta koeficijent veći od 1. To su preduzeća iz domena ciklične grane, koja su natprosječno osjetljiva na stanje u privredi, odnosno prodaja njihovih proizvoda je posebno osjetljiva na makroekonomske uslove. Sa druge strane, distributeri električne energije nalaze se u tzv. defanzivnoj grani, jer je njihov beta koeficijent dosta manji od 1. Distributeri električne energije su defanzivna preduzeća, koja kao takva nisu mnogo osjetljiva na promjene u privredi, odnosno čiji je prihod od prodaje manje osjetljiv na makroekonomske uslove.

Takođe, u okviru rada smo ispitali i uticaj sistemskog rizika na cijenu vlastitog kapitala i na vrijednost preduzeća. Shodno tome, zaključili smo da se sa smanjenjem beta koeficijenta, kao mjere sistemskog rizika, smanjuje i cijena vlastitog kapitala, što ima reperkusije na vrijednost preduzeća u okviru MH Elektroprivreda Republike Srpske. To praktično znači da se sa smanjenjem cijene vlastitog kapitala smanjuje i WACC, što dovodi u konačnici do maksimiziranja vrijednosti zavisnih preduzeća u okviru MH Elektroprivreda Republike Srpske. Primjenjujući istu metodologiju, možemo izvršiti analizu sistemskog rizika za bilo koje drugo preduzeće u Republici Srpskoj i svijetu.

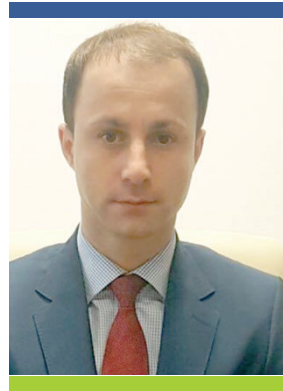
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UTICAJ NEJEDNAKOSTI NA EKONOMSKI RAST: PRIMJER SJEDINJENIH AMERIČKIH DRŽAVA

INEQUALITY INFLUENCE ON ECONOMIC GROWTH: AN EXAMPLE OF THE UNITED STATES

Rezime: U radu istražujemo uticaj rastuće nejednakosti na ekonomski rast na primjeru SAD, koje karakteriše velika dohodovna disproporcija između različitih grupa stanovništva. Okvir istraživanja odnosi se, osim istorijskog aspekta nastanka i razvoja nejednakosti, na koherentnu analizu rastuće nejednakosti u posljednjih 40 godina. Istraživanje smo sproveli opisivanjem, analizom literature, sprovedenih istraživanja i primjenom deskriptivne analize.

U radu tražimo odgovor na istraživačko pitanje "Kakav uticaj rast nejednakosti ima na ekonomski rast?" Odgovor će pokazati koji su osnovni uzroci nejednakosti i koje su tendencije u budućnosti. Rezultati istraživanja pokazuju da rastuća nejednakost ima značajan uticaj na ekonomski rast u SAD i da će se u budućnosti povećavati ukoliko se ne sprovedu sveobuhvatne reforme političkog i ekonomskog sistema.

U radu smo zaključili da tendencije redistribucije dohotka, poreske politike, sistema obrazovanja i zdravstvene zaštite djeluju u pravcu divergencije dohodaka od rada i kapitala, u korist grupa s najvišim dohotkom.

Ključne riječi: nejednakost, ekonomski rast, raspodjela dohotka

JEL klasifikacija: D63, I3, J3, O40, N32

Summary: In paper we research increasing inequality influence on economic growth, on the example of the United States, which characterizes big income disproportion between different groups of citizens. Research scope applies, except historical aspect genesis and evolution of inequality, on cohesive analysis growing inequality in the last 40 years. We implement research by describing, literature analysis, conducted research, applying descriptive analysis.

In paper we are looking for an answer on the research question "What is the influence of growing inequality on economic growth in the USA". Answers will show which one are basic causes of inequality and what are the tendencies in the future. Research results show that growing inequality has significant influence on economic growth in the USA and that will increase in the future unless comprehensive reforms of political and economic system are implemented.

In paper we concluded that tendencies income redistribution, tax policy, education and medical care system affect in direction of labor and capital income divergence, in favor of highest income groups.

Keywords: inequality, economic growth, income distribution

JEL classification: D63, I3, J3, O40, N32

1. UVOD

Nejednakost, posmatrano sa svih aspekata, predstavlja jedan od najvažnijih društvenih problema u XXI vijeku. Redistribucija dohotka i stvaranje nejednakosti sve više se ubrzava stvarajući veliki jaz između malog broja bogatih i velike većine siromašne svjetske populacije. Faktori divergencije koji su doveli do velikog raslojavanja društva na globalnom nivou su mnogobrojni.

Globalizacija u svim sferama značajno je doprinijela raslojavanju stanovništva i povećanju nejednakosti sa aspekta prihoda od rada i kapitala. Pored globalizacije, faktori koji su njen rezultat, kao što su finansijska deregulacija, proizvodna dislokacija, loše ekonomsko upravljanje, razvoj uslužnog sektora, migraciona politika, predstavljaju značajne sile divergencije koje su dovele do velikog jaza u strukturi prihoda stanovništva.

Faktori nejednakosti nisu nastali sami od sebe ili kao rezultat ekonomskih zakonitosti, već predstavljaju rezultat institucionalne strukture i političkog sistema, kao i mjere i politike koje su doprinijele nejednakosti u prihodima od rada i od kapitala.

Navedeni faktori predstavljaju najznačajnije uzročnike u koherentnom skupu faktora stvaranja i povećanja nejednakosti u SAD. Stoga će navedeni faktori biti cilj istraživanja i dokazaćemo osnovnu hipotezu kako rast nejednakosti u SAD doprinosi usporenijem ekonomskom rastu.

Predmet istraživanja predstavlja ispitivanje uticaja rastuće nejednakosti na ekonomske tokove. Geografski obuhvat istraživanja odnosi se na SAD, a vremenski period, osim istorijskog presjeka geneze nejednakosti, odnosi se na detaljnu analizu rastuće nejednakosti u posljednjih 40 godina.

Problem istraživanja sublimiran je pitanjem "Kakav uticaj rast nejednakosti ima na ekonomski rast?"

Da bismo dokazali glavnu hipotezu, koristićemo naučne metode. Analitičkim postupkom analiziraćemo sve faktore koji su doveli do rastuće nejednakosti i njihov uticaj na ekonomske parametre rasta u SAD. Metodom dedukcije, na osnovu svih opštih saznanja o nejednakosti, izvešćemo posebna saznanja o uzrocima rasta i uticaju nejednakosti na navedene procese s neuporedivo većim stepenom izvjesnosti i pouzdanosti.

Prvi dio rada sadrži pregled dosadašnjih teorijskih razmatranja i rezultata empirijskih istraživanja u vezi s predmetom istraživanja. Drugi dio istraživanja odnosi se na analizu nejednakosti i na faktore koji su rezultirali njenim nastankom i razvojem. U trećem dijelu analiziran je uticaj nejednakosti na ekonomske parametre, odnosno ekonomski rast.



2. PREGLED DOSADAŠNJIH ISTRAŽIVANJA

Teorijska razmišljanja i empirijska istraživanja identifikovala su većinu uzroka i posljedica nejednakosti od razvoja kapitalizma, kao dominantnog ekonomskog sistema, do danas. Istraživanje globalne nejednakosti predstavlja istraživanje ekonomske historije svijeta. Milanović (2016) globalnu nejednakost posmatra sa aspekta političkih odluka unutar zemalja i na globalnom nivou kao i divergentnim implikacijama globalizacije u dohodovnim disparitetima. Analizom promjena u distribuciji dohotka na globalnom nivou i unutar zemalja definisao je sile koje vode ka povećanju i smanjenju nejednakosti i koje bi politike trebalo da se realizuju kako bi se smanjila današnja galopirajuća nejednakost.

Analizirajući uzroke, posljedice i dimenzije nejednakosti, Stiglitz (2015) smatra da nejednakosti nisu isključivo rezultat ekonomskih zakonitosti, već političkih odluka. Centralno pitanje njegovog istraživanja odnosi se na jednakost mogućnosti. On smatra da danas, naročito u SAD, naslijeđene predispozicije imaju odlučujuću ulogu u šansama za uspjeh. Mladi i njihov budući uspjeh više nego ikada zavise od prihoda i obrazovanja njihovih roditelja. Bogati postaju još bogatiji povećavajući udio kapitala i nivo kapitalne dobiti.

Ulogu kapitala u multiplikovanju bogatstva kroz vijekove i stvaranju nejednakosti empirijski je istražio i obrazložio Piketty (2015). Centralna teza knjige *Kapital u XXI vijeku* je da kapitalizam karakteriše visok nivo nejednakosti, a izuzetak je period poslije Drugog svjetskog rata do polovine sedamdesetih godina XX vijeka. Piketty dokazuje da se od procesa prvobitne akumulacije kapitala kapitalista išlo u smjeru multiplikovanja njihovog bogatstva i stvaranja rastuće nejednakosti. Kapitalisti su reinvestirajući

najveći procenat svog bogatstva uvećavali svoj kapital. Prinosi na kapital kroz vijekove rasli su po višoj stopi od stope privrednog rasta. To znači da se udio njihovog kapitala u nacionalnom dohotku konstantno povećavao. Bogatstvo je, prema Piketty, prvenstveno rezultat nasljedstva, a znatno manje zavisi od rada. Stoga se zalaže za uvođenje jedne vrste globalnog poreza na kapital.

Za razliku od Pikettya, Stiglitz (2015) je uočio da je u ukupnoj nejednakosti značaj prihoda od rada rastući, iako još uvijek znatno manji od prihoda od kapitala. Enorman rast prihoda menadžera multinacionalnih kompanija u posljednjih 40 godina kreirao je grupu superbogatih, unutar grupe od 1% najbogatijih, nezabilježenih u historiji u tako kratkom vremenskom periodu.

Stiglitz (2018) iznosi zanimljivo razmišljanje o povećanju nejednakosti, a odnosi se na suštinsku manu kratkoročnog kapitala, koju on naziva bolest kratkoročnosti. Menadžeri većine multinacionalnih kompanija, s obzirom na kratkoročnost svog mandata (četiri-pet godina), stimulisani sistemom podsticajnog nagrađivanja, rade u sopstvenom i u interesu akcionara, ali samo kratkoročno. Na taj način imaju negativan uticaj na dugoročne investicije u ljudski i fizički kapital i tehnologiju.

Isto tako, Atkinson (2015) dijeli mišljenje Siglitz da je ulaganje u ljudski kapital jedan od glavnih uslova za borbu protiv rastuće nejednakosti. Međutim, on predlaže neke radikalnije prijedloge, odnosno prijedloge koji zahtijevaju od nas da razmislimo o fundamentalnim aspektima modernog društva i da odbacimo političke ideje koje su dominantne posljednjih decenija. (Atkinson 2015, p. 4).

XIX vijek, posmatrano sa globalnog aspekta, karakteriše intenzivan napredak industrijske proizvodnje i rast srednjih dohodaka u zemljama zapadne Evrope i Sjeverne Amerike. S druge strane, ostale zemlje, posebno Kina i Indija, bile su u fazi stagnacije ili pada ekonomske aktivnosti. Prema Bolt, & Luten van Zanden (2014), tadašnju globalnu ekonomiju karakteriše velika globalna nejednakost i disproporcija u realnim prihodima između zemalja zapadne Evrope i ostatka svijeta. Čak su i SAD sa 1,360 dolara znatno zaostajale za najrazvijenijom zemljom na svijetu, Velikom Britanijom, sa 2,075 dolara, koja je bila blizu četiri puta bogatija od Kine, Indije, Japana ili Indonezije.

Završetak Prvog velikog rata karakteriše intenzivan ekonomski rast i razvoj s malim disparitetima u pogledu nejednakosti, a zatim dolazi do rasta i globalne i unutrašnje nejednakosti. Drugi svjetski rat usporio je progresivan proces rastuće nejednakosti. Period poslije završetka Drugog velikog rata bio je obilježen velikim ekonomskim razvojem država devastiranih u ratu i rastom dohodaka srednjeg sloja stanovništva. Nakon početnog perioda prosperiteta i rasta, došlo je do velikog povećanja globalne nejednakosti. Time je značajno ograničena Kuznjecova hipoteza. Naime, Kouznets (1955) je smatrao da se s industrijalizacijom i rastom relativnih dohodaka nejednakost ciklično kreće, prvo raste, a poslije opada. To znači da rast nejednakosti u industrijski razvijenim zemljama nije trebalo da se dogodi.

Proces globalizacije rapidno je ubrzao stvaranje globalne nejednakosti. Komparativnim analizama BDP-a *per capita*, izraženim u internacionalnim dolarima, između industrijski razvijenih i nerazvijenih zemalja utvrđeno je postojanje značajnog globalnog dispariteta. Od 1950. do polovine sedamdesetih godina

američki BDP-a *per capita*, izražen u internacionalnim dolarima, premašivao je kineski u odnosu od približno 20:1. Na kraju prve decenije našeg XXI vijeka, taj odnos iznosi 4:1, isto kao 1870. (Milanović 2016, p. 130). Pad Berlinskog zida i velike društvene i ekonomske promjene u posljednjoj deceniji XX vijeka rezultirali su konstantnim nivoom globalne nejednakosti u vrijednosti oko 70 Đinijevih poena.

Međutim, bitno je naglasiti da je za nepromijenjen nivo, s tendencijom blagog pada, zaslužna Kina, a na početku novog milenijuma i Indija. Navedene zemlje, u procentualnom iznosu, značajno su doprinijele smanjenju globalne nejednakosti između država, dok se, s druge strane, povećavala nejednakost unutar država. Na osnovu istraživanja Lakner, & Milanović (2013), period između 1988. godine i početka svjetske ekonomske krize karakteriše blagi pad Đinijevog koeficijenta. Period svjetske ekonomske krize i period poslije 2008. godine karakterišu redistribucija dohotka i povećanje globalne i unutrašnje nejednakosti.

Prema analizama World Inequality Report (2018), u periodu 1980-2015, rast prihoda najbogatijih 1% stanovništva bio je od 16% u 1980. do 22% u 2007. Prihodi 50% stanovništva sa srednjim i nižim prihodima bili su aproksimativno 9% u navedenom periodu. U 2016. 20% svjetskog dohotka ostvarilo je 1% najbogatijih u odnosu na 10% dohotka ostvarenog od grupe 50% s nižim ili srednjim prihodima (World Inequality Report, 2018, p. 13).

Rast globalne nejednakosti između država direktna je posljedica globalizacije i neoliberalnog koncepta uređenja tržišne ekonomije, koji je nametnut prvenstveno od strane SAD postkomunističkim zemljama i zemljama u razvoju. Chang (2007) tvrdi da je rast BDP-a *per capita* na godišnjem nivou bio



3% sve dok su zemlje u razvoju šezdesetih i sedamdesetih godina prošlog vijeka koristile protekcionističke i intervencionističke politike. Napuštanjem sopstvenih politika i pravaca ekonomskog razvoja, nametnutih od većine visokorazvijenih zemalja uz asistenciju MMF, SB i STO, i prihvatanjem neoliberalnog

koncepta ekonomskog razvoja, navedene zemlje bilježile su značajan pad proizvodnje, tehnološkog razvoja, što je imalo za posljedicu pad životnog standarda stanovništva. To je rezultiralo stvaranjem većeg jaza između razvijenih i zemalja u razvoju.

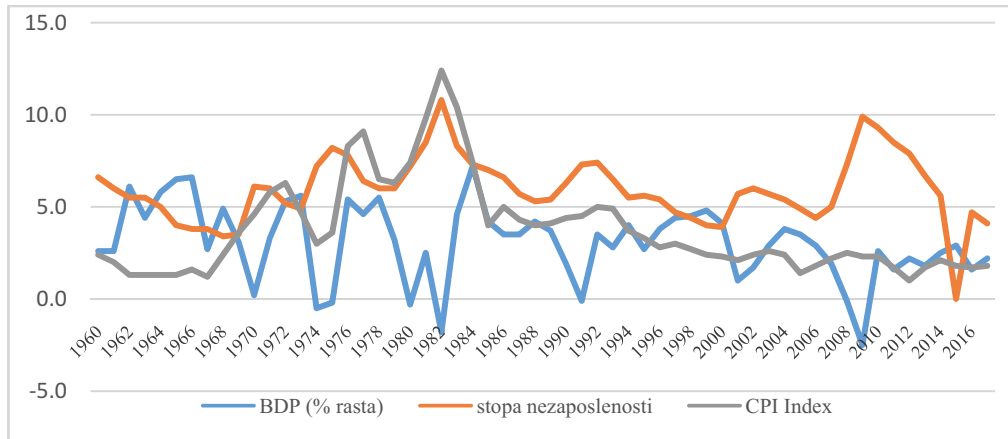
3. FAKTORI STVARANJA NEJEDNAKOSTI U SAD

Pored svih oblika nejednakosti, fokus istraživanja odnosi se na pitanje rastuće nejednakosti u SAD u posljednjih 30-40 godina. Rastuća nejednakost prvenstveno je posljedica politika koje su smanjile prava radnika i dovele do erozije pravične distribucije dohotka. S druge strane, ekonomske promjene i zakonitosti imale su zanemarujuću ulogu.

Globalizacija i procesi koji je slijede predstavljaju jedan od ključnih faktora rastuće američke nejednakosti. Proces globalizacije podrazumijeva liberalizaciju u svim sferama poslovanja, praćenu deregulacijom finansijskih tržišta i deindustrijalizacijom. Finansijski moćne, američke kompanije preuzele su primat u svjetskom trgovinskom bilansu, naročito s nerazvijenim zemljama. S druge strane, vodeći se osnovnim korporativnim motivom, odnosno maksimizacijom profita, nastojali su da minimiziraju troškove i time povećaju profitabilnost. Američke kompanije su, da bi povećale svoju profitnu stopu, morale dislocirati proizvodnju, prije svega u zemlje jugoistočne i istočne Azije, gdje su nadnice radnika, prema Dušaniću (2010), bile manje i do 35 puta od američkih.

Direktna posljedica deindustrijalizacije bila je dislokacija radnih mjesta. Zbog toga

prosječne plate u SAD već dugi niz godina stagniraju, pa su tako u periodu 2000-2007. plate rastle po godišnjoj stopi od samo 0,01% (Dušanić 2010, str. 4). Kao što je prikazano na grafikonu 1, početak nevedenog procesa, još od osamdesetih godina prošlog vijeka, karakteriše povećanje stope nezaposlenosti i smanjenje stope rasta BDP-a, što je rezultiralo padom realnih prihoda. Dislociranje proizvodnje dovelo je do značajnog gubitka radnih mjesta.



Grafikon 1: Makroekonomski indikatori SAD u periodu 1960-2017.

Izvor: Kalkulacija autora na osnovu Bureau of economic analysis. (2018). Percent change from preceding period, 2018.; Bureau of labor statistics. CPI-All Urban Consumers.; Bureau of labor statistics. (2018). Labor Force Statistics from the Current Population Survey.

Razvoj finansijskih derivata direktno je uzrokovao najveću ekonomsku krizu još od 1929. i značajno povećao nejednakost u Americi. Amandmanske promjene CRA i uklanjanje GSA¹ omogućile su velike špekulativne operacije na finansijskim tržištima.

Odobranje toksičnih kredita i njihova sekjuritizacija, stvaranje velikog hipotekarnog mjehura, a nakon toga i njegovo pucanje, rezultirali su velikom krizom u SAD i ostatku svijeta. Prema Stiglitzu (2010), plasiranjem navedenih kredita, banke su kreirale ogromnu aktivnu, čak i do 30 puta veću od vrijednosti nekretnina pod hipotekom, mjerene principom neto vrijednosti nekretnine. Analizom koeficijenta duga i pri-

hoda za grupu od 95% stanovništva, Kumhof, Ranciere, & Winant (2015) utvrdili su da se u periodu 1983-2007. koeficijent povećao sa 62,3% na 147,3%, što je direktna posljedica ekspanzivnog odobravanja kredita stanovništvu s niskim kreditnim rejtingom, unutar grupe 95%.

Razvoj finansijskih derivata ne bi bio moguć bez liberalizacije finansijskih tržišta i nepostojanja korektivnih tržišnih mehanizama. Regulatorna tijela su potpuno zakazala pred moćnim finansijskim lobijem, omogućavajući mu da kreira propise prema svojim potrebama, stvara virtuelne hartije od vrijednosti bez pokrića, kako bi korporativni menadžeri ostvarili milionske bonuse. Američke banke postale su

¹ CRA (Community Reinvestment Act) - Zakon čijim promjenama se nastojala stimulisati hipotekarna kreditna aktivnost stanovništva s nižim i srednjim prihodima i pristup malih lokalnih kompanija finansijskim sredstvima.

GSA (Glass-Steagall Act) - Zakon kojim je ukinuta razlika u poslovanju između investicionih i komercijalnih banaka.



previše moćne da bi propale i da bi se kontrolisale.

Paradoksalno, efektivna poreska stopa koju plaća 1% najbogatijih Amerikanaca se smaljila. Poreski sistem protiv 99% stanovništva omogućuje bogatima da ne plaćaju stvarni iznos poreza, a da neoporezovani dio reinvestiraju i time multiplikuju svoje bogatstvo. Pri tome treba naglasiti da se ovo odnosi samo na porez na ostvareni prihod. Međutim, 1% najbogatijih, pored prihoda, koji su obično mali u odnosu na ukupnu zaradu, imaju i dividende i kamate i time ostvaruju kapitalnu dobit.

Pošto većina 1% najbogatijih ima akcije i druge forme finansijskog vlasništva nad kompanijama, rastom berzanskih indeksa uvećava se i njihovo bogatstvo. Taj dio kapitalne dobiti nije oporezovan i može se generacijski prenositi.

Danas američki poreski sistem karakteriše umanjena progresivnost u odnosu na početak prošlog vijeka. Gornja granična stopa poreza na dohodak dostigla je vrhunac od 94% tokom Drugog svjetskog rata i zadržala se na 70% tokom šezdesetih i sedamdesetih godina, dok sada iznosi 39,6% (Stiglitz 2015, p. 183). Prema podacima Congressional Budget Office (2018), u periodu 1979-2015. svi federalni porezi su se minimalno smanjivali, od 22,5% iz 1979. do 21,1% u 2015, kao i porezi na dohodak fizičkih lica, sa 11% na 10,1%. S druge strane, porez na dobit preduzeća u navedenom periodu ostao je skoro isti, odnosno 2,5%.

Navedeni poreski dispariteti, prema analizama Congressional Budget Office (2018), omogućili su grupi 1% najbogatijih da u posmatranom periodu uvećaju svoje prihode (prije transfernih plaćanja i poreza) za 223%, u odnosu na 74% povećanja prihoda grupe od 80-99% i 32% povećanja grupe od dna ljestvice do 80%.

Obrazovna politika takođe je bitno uticala na stvaranje nejednakosti u SAD. Ulaganje u ljudski kapital predstavlja preduslov konkurent-

nosti i dugoročnog i održivog ekonomskog rasta. Trenutni studentski dug za studente završne godine koji se školuju pomoću kredita prelazi 26.000 dolara. Prosječna školarina sa smještajem i hranom za četvorogodišnji koledž iznosi malo manje od 22.000 dolara godišnje, dok je 1980-1981. iznosila 9.000 dolara (Stiglitz 2015, p. 157). Veliki studentski krediti, koji se vraćaju poslije završetka školovanja, predstavljaju značajno ograničenje za buduće planove.

Zaposleni studenti sa studentskim dugom teže se odlučuju za zasnivanje porodice i uzimanje hipotekarnog kredita. Time studentski dug destimuliše potrošnju i ograničava spori ekonomski oporavak poslije 2008. Stiglitz (2015) je navedenu tendenciju sublimirao kao začarani krug nedostatka tražnje za stanovima koja doprinosi nedostatku novih radnih mjesta, slabom formiranju domaćinstava i na kraju nedovoljnom hipotekarnom tražnjom.

Minimalne zarade imale su značajnu funkciju u povećanju nejednakosti. Minimalna zarada po satu u SAD imala je cikličnu tendenciju rasta od završetka Drugog svjetskog rata i maksimum je dostigla 1969, kada je iznosila 10,10 dolara (uzimajući u obzir inflaciju u periodu 1968-2013). Poslije dolaska Reganove i Bušove administracije, minimalne zarade po satu značajno su pale i smanjile kupovnu moć. Od devedesetih godina prošlog vijeka pa do 2013. minimalne zarade neprestano su fluktuirale, a u posljednjoj posmatranoj godini iznosile su, prema Piketty (2014), 7,25 dolara. Uzimajući u obzir vremensku vrijednost novca, vidljivo je koliko su se minimalne zarade smanjivale i značajno uticale na povećanje nejednakosti između radničke klase i grupe od 10% najbogatijih.

Pojava korporativnih menadžera u američkom društvu značajna je sa nekoliko aspekata. Prvi aspekt odnosi se na pitanje nejednakosti od prihoda od rada u odnosu na prihode

od kapitala, a drugi na dodatno raščlanjivanje odnosa unutar grupe 1% najbogatijih i u odnosu na 99% ostalih. Korporativni menadžeri čine 0,1% unutar grupe od 1% najbogatijih, odnosno 60%-70% unutar grupe od 0,1%. Prema Saezu i Zucmanu (2016), 0,1% čini malu grupu od 160.000 najbogatijih sa godišnjim prihodom u 2012. od iznad 20 miliona dolara.

Prema Milanoviću (2016), sve je više izražena tendencija da isti ljudi ostvaruju iste prihode i od rada i od kapitala i time se problem nejednakosti sve više pogoršava. Rast zarada i povećanje prihodovnog dispariteta između korporativnih menadžera i radnika bio je veliki u posljednjih 40 godina. Omjer kompenzacije nekog direktora i prosječnog radnika u Sjedinjenim Državama kretao se šezdesetih i sedamdesetih godina između 30-40:1. Taj omjer počeo se rapidno povećavati od osamdesetih godina, početkom devedesetih dosegnuo je nivo od oko 100:1, a dvijehiljaditih se povećao do 300-400:1 (Chang 2010, p. 149). S druge strane, prosječne plate radnika u posmatranom periodu smanjivale su se, posmatrano u realnim odnosima. Prosječna zarada po satu američkih radnika u 1973. (uzimajući u obzir inflaciju u posmatra-

nom periodu) narasla je sa 18,90 dolara na 21,34 dolara u 2006. Riječ je o povećanju od 13% u 33 godine, što predstavlja godišnji rast od oko 0,4% (Chang 2010, p. 149).

Ključni razlog velikog povećanja menadžerskih zarada predstavlja povećanje njihove ekonomske, ali i političke moći. Isprepleteni ekonomski i politički interesi, gdje menadžeri, posebno u SAD, odlaze na visoke pozicije u administraciji i obrnuto, posredstvom rotirajućih vrata značajno utiču na koncentraciju moći u uskom krugu. Političke strukture i regulatorna tijela nemaju dovoljnu snagu da zaustave povećanje moći korporativnih menadžera. Takođe, vlasnike kompanija interesuje samo povećanje profita kompanija pa i ne negoduju mnogo zbog velikih zarada i bonusa menadžera, dok im oni donose velike dividende. Asimetričnost informacija, u smislu manipulacija podacima između zamršenih menadžerskih interesa i akcionara, kao i preuzimanje kontrole rada u odborima takođe su doprinijeli usponu korporativnih menadžera. Navedeni faktori predstavljaju esenciju povećanja zarada korporativnih menadžera i stvaranju galopirajuće nejednakosti između 0,1% najbogatijih i 99,9% ostalih.

4. UTICAJ RASTA NEJEDNAKOSTI NA EKONOMSKI RAST

Preraspodjela dohotka, realno povećanje bogatstva 10% najbogatijih i stagnacija ili pad bogatstva 90% ostalih, predstavlja ograničavajući faktor rasta potrošnje, a time i ekonomskog rasta. Prihodi grupe 10% najbogatijih rastu brže nego prihodi srednje klase i najsiromašnijih. Prihodi 10% najbogatijih povećali su se sa 49,5% u 2016. na 50,1% u 2017, a prihodi 1%, unutar grupe od 10% najbogatijih povećali su se sa 20,7% u 2016. na 21,5% u 2017. (Saez 2018, p. 1).

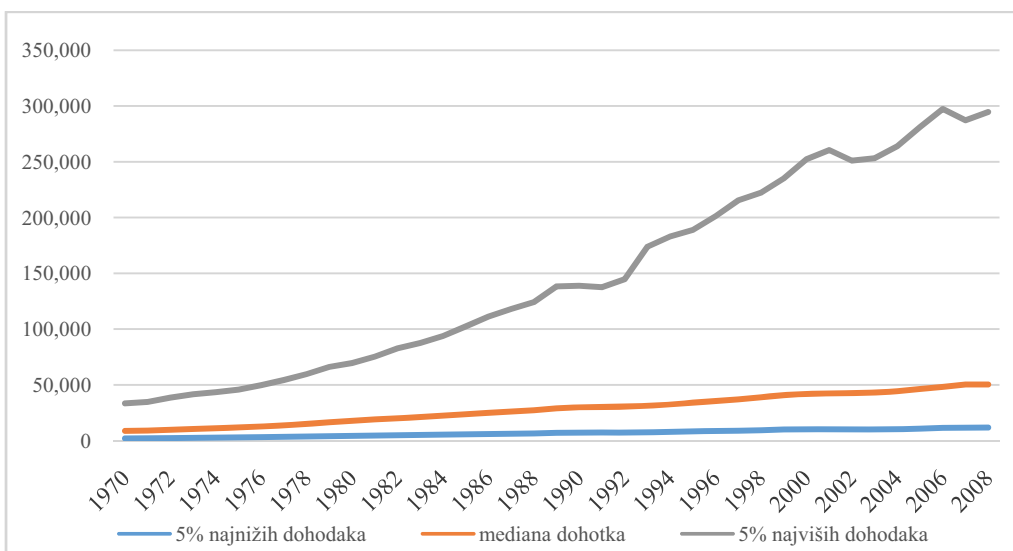
Podaci World Bank (2018) pokazuju da se BDP *per capita* u periodu 1970-2017. povećao 50,7%, dok je medijana dohotka imala stopu rasta 32,4%. Analizom makroekonomskih indikatora iz grafikona 1. dolazi se do zaključka da su BDP (u apsolutnom iznosu) kao i BDP *per capita* i stopa zaposlenosti konstantno rasli, a s druge strane smanjivao se prosječni dohodak svih grupa stanovništva osim 10% na vrhu. To dovodi u sumnju interpretacije BDP *per capita*



kao mjere blagostanja, a stavlja u fokus medijanu dohotka, kao preciznijeg pokazatelja blagostanja stanovništva, što je prikazano na grafikonu 2. Nacionalni dohodak u naznačenom periodu konstantno se povećavao, ali je grupa od 10% najbogatijih prisvajala najveći njegov dio, što je dovelo do povećanja nejednakosti.

Povećanje nejednakosti, odnosno povećana koncentracija novca na vrhu dohodovne ljestvice,

neminovno vodi ka smanjenju potrošnje ostalih kategorija stanovništva. Prosječna američka porodica u posljednje dvije decenije troši približno 118% prihoda. To nije moguće bez dodatnih finansijskih sredstava. Dugovi po osnovu kartica svih grupa stanovništva, osim 10% najbogatijih, rapidno su rasli zbog agresivnih aktivnosti banaka i ostalih kompanija koji su time stimulisali potrošnju i ekonomski rast.



Grafikon 2: Rast dohotka stanovništva SAD (po grupama) u periodu 1970-2008.

Izvor: Kalkulacija autora na osnovu US Census Bureau. (2018). *Mean Household Income Received by Each Fifth and Top 5 Percent; Household by Number of Earners by Median and Mean Income.*

Prema podacima Bureau of Labor Statistics (2018), prosječna medijana godišnjeg dohotka iznosi oko 74.000 dolara. Međutim, zanimljivo je analitički posmatrati strukturu potrošnje. Naime, u strukturi potrošnje dominira potrošnja egzistencijalnih dobara, za razliku od grupe 10% najbogatijih. Hrana i piće, troškovi prevoza i troškovi stanovanja čine 70% strukture dohotka.

Ostalih 30% raspoređeno je na troškove osiguranja, zdravstvene zaštite, obrazovanja i mali dio na kupovinu luksuznih i drugih neegzistencijalnih dobara.

Pad realnih prihoda grupe od 90% značajno je uticao na smanjenje potrošnje, ali i na promjenu obrazaca potrošnje. Povećanje koncentracije bogatstva grupe 10% smanjuje potrošnju

jer ljudi koji više zarađuju troše manji dio svojih prihoda za razliku od ljudi sa nižim prihodima. Na prvi pogled to ne izgleda tako jer je potrošnja kod grupe 10% izuzetno upadljiva, ali kvantifikovanje podataka pruža jasniju sliku. Grupa 10% posjeduje luksuzne vile, automobile, nakit i ostala luksuzna dobra, ali oni procentualno manji dio svojih prihoda troše nego ostalih 90%. Prosječni član grupe 10% svoj godišnji milionski prihod troši na luksuzan život, ali ukoliko se taj prihod podijeli na nekoliko stotina novoza-poslenih radnika s medijanom prihoda, dolazi se do zaključka da će skoro sav prihod novoza-poslenih radnike iz grupe 90% ostalih otići u potrošnju.

Takođe, pored apsolutnih iznosa potrošnje, bitna je i promjena u strukturi potrošnje, odnosno u obrascima potrošnje. Prema Milanoviću (2016), pad ekonomske moći srednje klase znači da roba i usluge koje srednja klasa konzumira gube na značaju kod proizvođača. Najbogatiji više troše luksuzna dobra i proizvođači će biti više motivisani da proizvode navedena dobra kako bi ostvarili profit. Primjer automobilske industrije najbolje ilustruje navedenu tvrdnju. U posljednjih 10 godina došlo je do promjene u preferencijama prosječne američke porodice u vezi s kupovinom automobila. To je rezultiralo povećanjem kupovine automobila s manjom zapreminom motora, a time i postepenim povlačenjem grupe automobila koji su bili statusni simbol srednje klase u SAD. Fokus je prebačen sa jedne strane na superluksuzne automobile, a sa druge strane na automobile za ostalih 90% koji više ne kupuju velike automobile, koji su ujedno i veliki potrošači.

Navedeni odnosi koncentracije bogatstva i pada prihoda grupe od 90% su u ekonomskom smislu egzaktni. Preusmjerenje novca sa dna ka vrhu rezultira padom ukupne tražnje, ukoliko nema dodatne intervencije. Dodatna intervencija predstavlja vještačko stimulisanje potrošnje,

a odnosi se na tehnološki i hipotekarni mjehur sa početka i sredine prve decenije XXI vijeka koji su rapidno povećali potrošnju.

Povećanje nejednakosti dovodi do toga da je agregatna tražnja u privredi manja od agregatne ponude, što rezultira neiskorištenim kapacitetima, rastom nezaposlenosti, padom realnih prihoda i dodatnog smanjenja tražnje. Ciklus se zatvara padom ukupne ekonomske aktivnosti, što ima negativne implikacije na nacionalnu ekonomiju. Grupa od 90% predstavlja generator ukupne potrošnje i svako smanjenje potrošnje unutar navedene grupe može imati dalekosežne posljedice na cjelokupnu privredu.

Trenutni ekonomski model koji omogućuje malom procentu da se sve više bogati i uzima veći dio nacionalnog dohotka za sebe na kraju sam sebe uništava. Niski prihodi 90% ostalih destimulišu tražnju u privredi, koja se prvenstveno fokusira na proizvodnju robe široke potrošnje. Na taj način potrošačka društva gube sposobnost trošenja, a time se ekonomski rast koncentriše samo na grupu od 10% najbogatijih i na taj način stvaraju se mjehuri na tržištu koji neminovno pucaju.

Progresivno oporezivanje rada i kapitala preusmjeriće dio bogatstva grupe 10% na ostalih 90%, a koji značajno neće uticati na nivo potrošnje najbogatijih jer oni ionako veći dio svog dohotka ne troše. Sa druge strane, pošto grupa 90% skoro sav dohodak troši, preusmjerenje dohotka najbogatijih stimulatивно bi djelovalo na ukupnu tražnju, a time i na ekonomski rast.

Povećana nejednakost, preko smanjenja potrošnje, sistemom spojenih posuda destimulatивно djeluje na ekonomski rast. Smanjenje potrošnje grupe od 90%, kao generatora konzumerizma, smanjuje agregatnu tražnju, a time i proizvodnju. Smanjenje tražnje smanjuje količinu proizvoda koji su proizvođači spremni da ponude na tržištu, što dovodi do povećanja



nezaposlenosti i smanjenja nadnica, zbog lošije pregovaračke pozicije radnika. Proizvođači s viškom kapitala ne ulažu u proizvodnju i inovacije zbog nedovoljne tražnje. Svoje viškove ulažu na finansijska tržišta, na kratak rok, i time nastoje da multiplikuju svoje prihode. Kratkoročno ulaganje na finansijskim tržištima motivirano je kratkoročnim profitima. To znači da se ulaže u tržište nekretnina i ostale finansijske derivate, a ne u sektore proizvodnje i inovacija. Na taj način se stvara još veći jaz između 10% najbogatijih i ostatka stanovništva.

Ključ ekonomskog oporavka predstavlja stimulisanje tražnje. Mjere štednje i smanjenje

deficita destimulativno djeluju na ekonomski rast i pogoršavaju položaj grupe od 90%. Najbogatijih 10% ne pogoršava svoju poziciju jer imaju različite oblike imovine i nastoje da diverzifikovanim ulaganjem povećaju svoje bogatstvo. Istovremenim povećanjem rashoda i poreza, djelovanjem multiplikatora uravnoteženog budžeta, na izbalansiran način povećava se i BDP. Politika javnih radova, državno stimulisanje potrošnje, progresivno oporezivanje predstavljaju mjere ekonomskog oporavka i nivelisanja rastuće nejednakosti kao posljedice negativnih ekonomskih kretanja.

5. DISKUSIJA

Holistički pristup nejednakosti uzima u obzir širi društveni kontekst istraživane ekonomske pojave. Ekonomska nejednakost predstavlja rezultat sila divergencije na polju politike, demokratije, obrazovnog i zdravstvenog sistema. Navedeni procesi predstavljaju osnovni uzrok dohodovnih disproporcija i rastućih nejednakosti u SAD. Istraživanje nejednakosti konzistentno je s većinom autora koji se dugi niz godina bave istraživanjem uzroka i posljedica ekonomske nejednakosti. Istraživanja Lanker, & Milanović (2013) i Milanović (2016) fokusirala su se na globalne aspekte nejednakosti i razlike između zemalja. Zaključak navedenih istraživanja je da je nejednakost između zemalja veća nego unutar zemalja, čiju tezu, kao i razloge, su potvrdila istraživanja Acemoglu, & Robinson (2012), koji su se bavili osnovnim uzrocima nejednakosti između država kroz vijekove.

Stiglitz (2015) iznosi moćnu tezu da je nejednakost posljedica ne samo ekonomskih, već

prije političkih odluka. U radu je naglašen značaj zakonskih rješenja, političkih odluka koje se tiču deregulacije i liberalizacije u sferi finansija, kao i uticaja lobističkih kuća u rastućoj nejednakosti. Takođe, Stiglitz je posebno potencirao značaj nejednakosti u mogućnostima, koje nastaju kao posljedica nemogućnosti pristupa obrazovanju i zdravstvenoj zaštiti. Navedeni uzroci značajno doprinose u stvaranju jaza u šansama za uspjeh, kao i prihodima, što je obrazloženo u radu.

Chang (2010) je u svom istraživanju naglasio veliku distinkciju između zarada menadžera i radnika, još od sredine sedamdesetih godina, kao i prosječnih zarada američkih radnika. Navedene razlike između prihoda zaposlenih i prosječnih prihoda radnika, i pored rastuće produktivnosti američkih radnika, direktno su posljedica zakonskih odluka i političkih odluka, koje su obrazložene u radu.

Saez (2018) je izračunao povećanje prihoda, po kriterijumu visine dohodaka, i njihov

uticaj na ekonomski rast i potrošnju. U radu je grafički prikazan konstantan rast prihoda najbogatijih i stagnacija ostalih kategorija, što je doprinijelo promjeni u strukturi potrošnje, s tendencijom negativnih implikacija na tražnju, a time i na proizvodnju i nacionalni dohodak u budućnosti. Navedene implikacije rastuće nejednakosti i uticaja na potrošnju i rast su također konzistentne sa zaključcima istraživanja Milanovića (2016).

Za razliku od Stiglitz, Piketty (2015) se fokusirao na uticaj kapitala kao bitne komponente rastuće nejednakosti. Piketty je izračunima potvrdio da je rast prinosa na kapital veći od globalne stope privrednog rasta, da navedena divergencija ima konstantan odnos dispariteta i da će se nastaviti u budućnosti. Zalagao se za uvođenje progresivnog poreza na globalnom nivou. Međutim, tendencije u razvijenim državama, posebno u SAD, od sedamdesetih godina pokazuju značajniju ulogu prihoda od rada u odnosu na prihod od kapitala, kao faktora rastuće nejednakosti. U radu su obra-

loženi faktori koji su odveli do dohodovne divergencije između menadžera, iz grupe 10% najbogatijih (a posebno grupe od 1% unutar nevedene grupe), u odnosu na radnike koji pripadaju grupi od 90% ostalih. Iako je prinos od kapitala značajan faktor rastuće nejednakosti, prihodi od rada u posljednjih 40 godina bitno određuju smjer rastuće nejednakosti, što je potvrđeno u radu.

Istraživanja navedenih autora, koji su imali značajan uticaj za razumijevanje ekonomske pojave koja predstavlja jedan od najaktuelnijih problema savremenog svijeta, predstavljala su podlogu za istraživački rad, čija je hipoteza potvrđena. Istraživanje je pokazalo da prihodi od kapitala i rada predstavljaju značajnu divergentnu silu rastuće nejednakosti. U pozadini djeluju, osim ekonomskih, i politički faktori, koji preko uticaja na obrazovanje i sistem zdravstvene zaštite značajno podrivaju ekonomski sistem i time utiču na rastuće razlike u prihodima između različitih grupa stanovništva, što je dokazao i Milanović (2016).

5. ZAKLJUČAK

Prvi aksiom nejednakosti odnosi se na to da je, posmatrano sa svih aspekata, ona uvijek postojala i uvijek će biti. Nejednakost se može posmatrati sa nekoliko aspekata. Ekonomska, politička i pravna nejednakost čine koherentnu cjelinu, koja se sve više povećava i destimulativno djeluje na društvene tokove savremene civilizacije. Prvobitna nejednakost bila je vezana za bogata evropska društva, da bi se s razvojem svjetskih ekonomskih odnosa sve više raširila i na ostatak svijeta.

Prema ekonomskim zakonima, postoje dva

načina stvaranja i multiplikovanja bogatstva. Prvi se odnosi na povećanje nacionalnog dohotka, a drugi na uzimanje većeg dijela postojećeg nacionalnog dohotka. Najbogatijih 10% steklo je bogatstvo većinom na drugi način, što je dovelo i do smanjenja nacionalnog dohotka. Čak i s povećanjem nacionalnog dohotka, neravnomjerna preraspodjela u velikom procentu ide u pravcu isisavanja bogatstva od 90% u korist 10%, ili čak unutar grupe 1% najbogatijih.

Ekonomska nejednakost kao *circulus vitiosus* dovodi do političke nejednakosti i na kraju rezul-



tira ekonomskom nejednakošću. Međutim, geneza i esencija nejednakosti ne odnosi se na ekonomske i političke procese i mjere. Nejednakost, kao proces, ne predstavlja rezultat ekonomskih procesa, već primjena politika i propisa. Poreski sistem u korist najbogatijih, izmjena propisa, deregulacija i liberalizacija, kratkoročni interesi vlasnika kapitala, samo su neki od bitnih faktora rastuće nejednakosti. Najvažnija komponenta nejednakosti u SAD odnosi se na nejednakost mogućnosti, koja rezultira nejednakost ishoda. Nejednakost mogućnosti, odnosno nejednakost pristupa školovanju, zdravstvenoj zaštiti i jednakosti pred pravnim sistemom, dovodi do nejednakosti ishoda, odnosno nemogućnosti ostvarivanja potencijala svih pojedinaca.

Kao posljedica javljaju se ekonomska neefikasnost i smanjeni ekonomski rast i razvoj. Nejednakost nije u interesu ni 10% najbogatijih, jer se povećanjem nejednakosti destimuliše agregatna tražnja i cjelokupna ekonomska aktivnost, što dovodi do smanjenja cjelokupnog nacionalnog bogatstva. Da

bi se trenutna situacija promijenila, SAD moraju da postanu zemlja mogućnosti, a ne zemlja u kojoj su više nego u bilo kojoj zemlji najbitniji akumulirano bogatstvo i stepen obrazovanja roditelja kao preduslov za ostvarivanje punog potencijala i doprinosa individualnom i nacionalnom bogatstvu.

Sadašnja nejednakost u SAD približila se istorijskom maksimumu neposredno prije Velike depresije. Rast nejednakosti predstavlja ekonomski, društveni i politički fenomen preraspodjele dohotka od rada i od kapitala u korist najbogatijih 10% stanovništva. Sile divergencije i danas su jake i sprečavaju uspostavljanje efikasnog sistema preraspodjele dohotka, prvenstveno od rada. Ukoliko se želi smanjiti rastuća nejednakost u preraspodjeli dohotka u SAD, potrebne su reforme obrazovnog i poreskog sistema, zdravstvenih usluga, infrastrukture i stimulisanje inovacija. Ukoliko se ne donesu i ne sprovedu, povećanje nejednakosti u budućnosti biće sve više izraženo, i pored ekonomskog rasta, koji ne ide u prilog svima, već samo 10% najbogatijih, ili čak 0,1% superbogatih.

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Naslovi i podnaslovi rada. U opštem je interesu da se u naslovu koriste riječi prikladne za indeksiranje i pretraživanje. Ako takvih riječi nema u naslovu, poželjno je da se naslovu pridoda podnaslov. Naslov se ispisuje na dva jezika i to: u datoteci priloga, na dva mjesta – na početku rada (na jeziku na kome je napisan rad) i u rezimeu (na jeziku na kome je napisan rezime). Naslovi se navode prema sljedećim kriterijumima:

- a) UVOD (TNR, 12, bold), tekst TNR 12, dva proreda poslije ključnih riječi.
- b) Glavni naslovi u radu treba da budu TNR 12, velikim slovima, bold, poravnato prema lijevoj margini. Između naslova u radu jedan prazan red. Glavne naslove označiti rednim brojem 1.; 2., itd.
- c) Podnaslovi, drugi nivo, TNR 12, bold, poravnato prema lijevoj margini.
- d) Podnaslovi, treći nivo, TNR 12, poravnato prema lijevoj margini.
- e) ZAKLJUČAK (TNR, 12, bold), tekst TNR 12.

Jezik rada i pismo. *Radovi se dostavljaju na engleskom i na jezicima u zvaničnoj upotrebi u Bosni i Hercegovini.*

Rezime na engleskom jeziku: U gornjem lijevom uglu navodi se ime i prezime autora (TNR, 12). Tri proreda niže **NASLOV RADA** na engleskom jeziku (TNR, 14, bold). Potom, dva proreda niže slijedi Summary (TNR 12, bold), pa tekst (TNR 11, italic). Poslije teksta, jedan prored niže **Key words** (TNR 12, bold): *key word 1, key word 2, ... key word 5* (TNR 11,

italic). Prored niže **JEL classification** (TNR 12, bold): *E04, B12* (TNR 11, italic).

Pozivanje na pojedince, članake i knjige u tekstu – Osnovna struktura citiranja u tekstu.

Citiranje predstavlja doslovno navođenje tuđih definicija, dokaza, mišljenja, otkrića, teorija, spoznaja, stavova, teza, podataka i sl. Citat u tekstu se obično pojavljuje u zagradi i obuhvata samo prva dva elementa navođenja u bibliografiji – autor i godina izdanja (otuda naziv sistema), sa zarezom između Pored toga, poželjno je da referenca sadrži broj stranice ili drugi lokator. Termini kao što su urednik ili prevodilac, navedeni skraćeno u bibliografiji, nisu uključeni u tekst citata.

Citati. Svaki citat, bez obzira na dužinu, mora biti naveden, kao i broj stranice. Za svaki citat duži od 350 znakova, autor mora imati pismeno odobrenje vlasnika autorskih prava kojeg treba priložiti uz rad.

Sadržaj naveden parafraziranjem treba da bude jasno i vjerodostojno naglašen ali sopstvenim stilskim izražajem. Parafrazirani tekst nije iste dužine kao izvorni, on može biti duži ili kraći u zavisnosti od cilja koji se želi postići, ali mora sačuvati suštinu izvornog teksta. Pozivanje na izvore parafraziranog teksta, označava se u zagradi na mjestu u tekstu gdje se on nalazi, navođenjem prezimena autora i godine izdanja djela iz kojeg je tekst preuzet u zagradi.

Tabele, grafikoni i slike. Tabele i grafikoni treba da budu u Word-u ili nekom formatu koji je kompatibilan sa Word-om. Sve tabele i grafikone iz programa za statistiku potrebno je konvertovati u format Word-a. Nje poželjno iste podatke predstavljati i u tabelama i u grafikonima. Tabela i grafički prikazi treba

da budu dati na jednoobrazan način. Poželjno je da tabele, grafikoni, ilustracije i slike moraju biti označeni brojem po redoslijedu navođenja u tekstu, s adekvatnim nazivom. Svaka tabela, grafikon, ili slika treba da budu označeni brojem i da imaju odgovarajući naslov, npr.: Tabela 2: Pouzdanost varijabli. Naziv tabele, grafika ili slike se stavlja iznad, TNR 11, normal, dva slobodna reda između tabele i teksta. Slike se potrebno dostaviti u elektronskoj formi sa rezolucijom od najmanje 300 dpi (najmanje 300 tačaka po inču u prirodnoj veličini). Ukoliko se koristi ilustracija iz štampanih izvora, potrebno je pismeno odobrenje vlasnika autorskih prava. Izvor treba navesti ispod tabele, grafikona i slike. Citiranja u okviru navedenog izvora se rade na isti način kao u tekstu. Ukoliko su tabele, grafikoni, i cifre rezultat proračuna, pregleda ili procjena autora, onda to takođe treba naglasiti.

Statistički podaci. Rezultati statističkih testova treba da budu dati u sljedećem obliku: $F(1,9) = 25,35$; $p < 001$ ili slično. Niže brojeve konvencionalnih nivoa P treba isto tako navesti (na primjer: ,05, ,01, ,001).

Prethodno istraživanje – prethodi istraživačkom dijelu, a pruža čitaocima i recenzentima pregled referentne literature s ključnim tačkama dosadašnjih spoznaja zasnovanih temeljenih na relevantnim rezultatima aktuelnih istraživanja. Pregled literature nije taksativno navođenje prethodnog naučnog doprinosa, već autori trebaju izvršiti sintezu dosadašnjih istraživanja kako bi dokazali opravdanost teorijskog i empirijskog doprinosa vlastitog rada.

Metodologija treba biti opisana radi eventualnog ponavljanja testiranja rezultata od strane zainteresovanih istraživača (to je jedno od osnovnih pravila znanstvene metodologije).



Empirijski podaci – sadrže osnovu i rezultate empirijske analize. Potrebno je opisati i prikazati uzorak podataka korišten u analizi te prezentovati karakteristike dobijenih rezultata uz tumačenje ekonomskog sadržaja.

Rezultati i rasprava – autor(i) objašnjava(ju) rezultate, njihovo značenje i poruke. U ovom dijelu očekuje se argumentacija naučnog doprinosa, povezivanje rezultata rada s rezultatima te zaključcima dosadašnjih empirijskih istraživanja te preporuke za promjene javnih i drugih politika.

Zaključak. Zaključak ne predstavlja tek sažetak rada već predstavlja originalno mišljenje autora o dobijenim rezultatima i obavezno sadrži:

izjašnjenje o polaznoj hipotezi (ili hipotezama), ocjenu rezultata istraživanja/analize, doprinos nauci, osvrt na ograničenja i probleme u istraživanju, smjernice za buduća istraživanja te utvrđivanje implikacija dobivenih rezultata istraživanja (kao npr. prijedlozi za promjene.

Bibliografija. Časopisa Journal of Contemporary Economic koristi **APA Style** pravila za bibliografiju. Dio koji se odnosi na bibliografiju mora biti kucan jednostrukim proredom, mora početi na novoj stranici iza teksta i pružiti potpune informacije

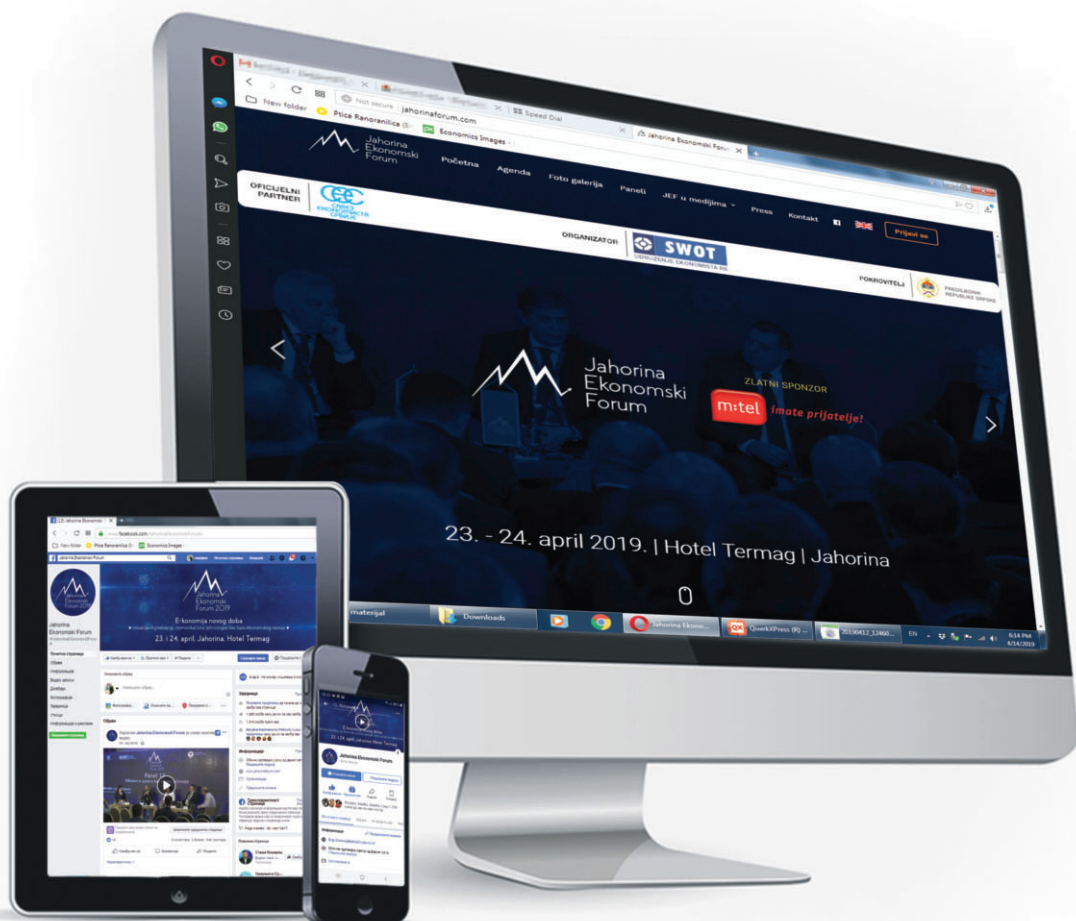
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Dodatak. U dodatku treba staviti samo one opise materijala koji bi bili korisni čitaocima za razumijevanje, procjenu ili pregled istraživanja.

Fusnote i skraćenice. Poželjno je da se ne navode fusnote. Uoliko je to neophodno, navođenja u fusnotama bi trebalo koristiti na isti način kao u tekstu. Takođe, poželjno je izbjegavati navođenje skraćenica, osim uobičajenih ili rethodno opisanih I objašnjenih.

Recenzije i objavljivanje. Svi radovi se anonimno recenziraju od strane dva anonimna recenzenta. Na osnovu recenzija redakcija donosi odluku o objavljivanju rada i obavještava.





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