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THE PANDEMIC CRISIS AND THE RESULTED RISKS FOR THE FULLY FUNDED PENSION FUNDS IN CENTRAL AND EASTERN EUROPE

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Abstract

The pandemic crisis strongly hit the capital markets at the beginning of 2020. The value of most of the financial assets dropped significantly in the first quarter of the year, which resulted in poor returns of the portfolios managed by the pension funds in Europe. However, the reaction of the central banks was immediate – the liquidity supplied to the financial markets was unique in its amount. The prices of most of the blue-chip equities and triple A bonds have been rising since the second quarter of the year. Did pension funds in Central and Eastern Europe manage to recover losses incurred at the beginning of the year and what are the main risks for them in the short and in the long term taking into account the monetary policy stance followed by the European central bank and The Federal Reserve? These are the basic issues on focus of the current research. The aim of the paper is to show that pandemic crisis has immediate and strong effect on the investment results of the pension funds but only in the short term. The policy followed by the central banks could have far deeper consequences on fully funded pension schemes and insured individuals.

Key words: pension funds, pandemic crisis, investment results, risks

JEL: G11, G12, G22, G23

Introduction

Following the recommendations of the World Bank, many countries in Central and Eastern Europe reformed their pension systems in the late 1990's and early 2000's (World Bank, 1994). As a result, they have established fully funded defined contribution pension schemes whose basic goal is to support the dominant pay-as-you-go pillar in the long term (Kirov, 2010). The state social security system is expected to have serious troubles because of the on-going processes of population aging and worsening demographic structure. The fully funded pension schemes may also be affected by these negative trends, but to a lesser degree. At the same time, insured individuals bear many other risks during both the accumulation and the pay-out phase of a defined contribution pension scheme (Blake, 2006). One of the most important risks is the investment risk. The investment decisions taken by the pension insurance companies directly influence the accumulated savings and thus affect the amount of the future pension benefit (Davis,

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1995). Many of the investment risks could be mitigated by using certain hedge strategies and techniques. However, there are some others, that cannot be avoided and surely cannot be managed by the pension funds. The coronavirus pandemic and the resulted reaction of the major central banks, which tried to address the economic downturn by using some well-known monetary tools are two examples of such risks. The emergence of COVID-19 and its global disperse strongly affected the financial markets all over the world at the beginning of the year. The stock prices plunged inducing severe losses for the pension funds in the first quarter of the year. As a result the European Central Bank (ECB) and the Federal Reserve (Fed) tried to supply enough liquidity to the markets and thus preventing the economy from a prolonged recession. The immediate outcome was positive for the markets, which were able to recover during the second and third quarter of the year. At the same time, this monetary policy stance could evoke negative consequences for the pension funds in the long term. The current article tries to put some light on the risks for the pension funds in Central and Eastern Europe in the short and long term. A research is made for the investment results of the pension funds in seven different countries in this region – Bulgaria, Romania, Slovakia, Lithuania, Latvia, Estonia and Poland. The article is divided into two parts. In the first part – an investigation is made on how the coronavirus pandemic affected the financial markets of these countries and the realized yield by the pension funds in each of them. In the second part – an analysis is made on the risks for the insured individuals in the short and long term. Some recommendations for future policy changes in this field are made in the conclusion.

The Pandemic crisis and its influence on the stock markets and the yield realized by the pension funds in Central and Eastern Europe

The pension systems in most of the countries in Central and Eastern Europe were reformed in the late 1990's and the early 2000's. The logic of the reforms was closely related to the financial troubles of the pay-as-you-go component of the pension systems at that time. The aging of the population and the resulted unfavourable demographic trends significantly deteriorated the ability of the governments to pay pension benefits adequate to the pre-retirement income of the elderly and the economic conditions (Gochev, Manov, 2003). The reformed pension systems in Bulgaria, Romania, Slovakia, Lithuania, Latvia, Estonia and Poland have many common features. First, all of them preserved the dominant character of the pay-as-you-go pillar. It would continue to be the column responsible for the payment of a significant part of the pension benefits in the coming years. Second, all of the countries introduced fully funded second and third pillars into their pension systems. The main purpose of these new structures was to

support financially the first pillar of the system in the middle and long term. The second pillar was established as a mandatory one and the third pillar, as voluntary one. The two new pillars incorporated the so-called defined contribution pension schemes thus transferring significant part of the risks to the insured individuals. Third, all of the countries adopted very strict investment rules that specify not only the allowed asset classes but also the maximum limits for investing in each asset class. Limiting the freedom of choice in portfolio construction, the governments hoped they would constrain possible misuses of funds. That was a significant risk, especially in countries with no tradition in pension fund management and with underdeveloped stock markets where trade activity was negligibly small. The fourth common feature regards four of the countries (Slovakia, Lithuania, Latvia and Estonia). They were able to continue the pension reforms introducing the so-called multi-fund system in pension insurance. They allowed insured individuals to choose the risk profile of the portfolio managed by the pension fund. That was an important reform because insured individuals within defined contribution pension schemes may have different investment horizons thus facing different risks during the different stages of the accumulation period (Daneva, 2018). The other three countries (Bulgaria, Romania and Poland) were not able to introduce in practice multi-fund system before the crisis, so that the pension insurance companies were able to structure and manage just one portfolio of assets.

The pandemic crisis strongly hit the values of the financial assets traded at the stock exchanges all over the Europe including the markets in Central and East European countries. The main stock indexes in Bulgaria, Romania, Slovakia, Lithuania, Latvia, Estonia and Poland plunged in the first quarter of the year, thus making all pension funds in these countries suffer and strive for yield.

Table 1: Main stock index changes for the period 01.01.2020 – 31.03.2020

Country	Stock exchange index	Change Q1 2020
Bulgaria	Sofix	-26.19%
Romania	BET	-23.57%
Slovakia	SAX Index	-7.29%
Lithuania	OMX Vilnius	-15.11%
Latvia	OMX Riga	-12.71%
Estonia	OMX Talin	-20.80%
Poland	WIG 20	-29.64%

Source: own calculations[2]

[2] Information about the values of an index is taken from the official website of the stock exchange in the researched countries. The change of an index for the specified period is calculated by the

Table 2: Yield realized by the pension funds for the period 01.01.2020 – 31.03.2020

Country	**Portfolio type**		
	Conservative	Balanced	Aggressive
Bulgaria	-5.83%	N.A	N.A
Romania	N.A	-5.04%	N.A
Slovakia	-3.62%	-14.05%	-16.04%
Lithuania	-4.92%	-11.62%	-17.33%
Latvia	-3.21%	-10.01%	-17.23%
Estonia	-4.72%	-9.61%	-19.36%
Poland	N.A	N.A	-24.63%

Source: own calculations[3]

It is easily seen from the tables above that there is a strong positive correlation between the performance of the main stock exchange indexes and the rate of return of the pension funds for the first three months of the year. These are the results of the second pillar pension funds. The portfolio structure of the Polish second pillar pension funds consists predominantly of private equities and other corporate instruments. That is the major reason why pension institutions in Poland are classified as aggressive ones. The current portfolios are structured in this way because of a controversial change in legislation adopted in the last years that prevents polish open pension funds to invest in government securities. On the other hand, Bulgarian universal pension

author. The official websites of the stock exchanges are: www.bse-sofia.bg (Bulgaria); www.bvb.ro (Romania); www.bsse.sk (Slovakia); www.nasdaqbaltic.com (Lithuania, Latvia, Estonia); www.gpw.pl (Poland).

[3] Information about the realized yield by the pension funds in the researched countries. for the yield realized by the universal pension funds, published on https://ekfn.fsc.bg/units.asp; Romania: https://asfromania.ro/informatii-publice/statistici/statistici-pensii/pilonul-ii/rate-de-rentabilitate; https://apapr.ro/utile/statistici/ and own calculations; Slovakia: https://www.adss.sk/zhodnotenie-vo-fondoch and own calculations; As representative for the market is taken the performance of VUB Generali with its three portfolio types – Klasik, Mix and Profit; Lithuania: https://www.lb.lt/en/pf-performance-indicators#ex-1-1 and own calculations; As representative for the market is taken the average yield of Asset preservation funds; Life-cycle pension funds 1961 – 1967 and Life-cycle pension funds 1996 – 2002; Estonia: https://www.pensionikeskus.ee/en/statistics/ii-pillar/funded-pension-daily-statistics/; and own calculations; As representative for the market is taken the performance of Luminor A pluss pension fund; Luminor B pension fund; Luminor C pension fund; Latvia: https://www.manapensija.lv/en/2nd-pension-pillar/statistics/; and own calculations; As representative for the market is taken the performance of Swedbank Conservative plan, Swedbank Active plan 50%, Swedbank Active plan 75%; Poland: https://www.knf.gov.pl/en/REPORTS_AND_ANALYSIS/Pension_system/Quarterly_data_ pension_funds_market; and own calculations.

funds could be denoted as conservative ones because in the period before the pandemic crisis they managed portfolios where the share of government bonds exceeded 60%. So, the investment results of the pension funds of the researched countries were strongly affected by the pandemic crisis. They were not able to preserve the value of the savings even in the conservative portfolio types. The losses for the first three months of the year were significant and ranged between -3.21% for the pension funds in Lithuania to -5.83% for the Bulgarian pension funds. It was well expected that the results of more aggressive portfolio types would be worse off in times of market turmoil. The balanced portfolio types lost between 5.04% and 14.05% and the aggressive ones lost between 16.04% and 24.63% in the different countries. The investment results for the first three months of 2020 showed that there is little protection for the savings of the insured individuals within defined contribution pension schemes. The market volatility could be severe in the short term so that even conservative portfolio types may lose significant part of their value in the course of weeks. The pandemic crisis also showed that the investment horizon of the insured is quite important. Those individuals whose retirement is expected to be in the next couple of months cannot afford to put their savings in portfolio of assets other than the conservative one. In any other case, they risk losing significant part of their money just prior to the period of retirement which means that they must postpone their retirement or accept significantly lower pension benefit. The universal pension funds in Bulgaria were able to limit their losses to just a little over of 5%, but the basic reason for this is that they invest predominantly in government bonds which means that they mostly neglect the interest of those individuals whose investment horizon is long and could accept more volatility in the short term for more expected yield in the long term. The Polish second pillar pension funds, on the other hand, realized huge losses for the first quarter of the year. The market volatility was disastrous for the savings of the insured individuals for the first three months of the year. They lost more than ¼ of their accumulated funds. It is worth noting that open pension funds in Poland are in a period of transformation after which they may cease to exist. The insured individuals are likely to have the option to transfer their funds into the voluntary third pillar. However, the crisis clearly demonstrated what could happen to the savings of those persons whose horizon is short and at the same time the investment strategy followed by the pension fund is aggressive. The insured individuals need certain protection when they put their money into defined contribution pension schemes. Life-cycle investing is a reasonable option because it gives opportunity to address the different types of risks to which are exposed the individuals with short and those with long investment horizon. The first group needs security in the short term and stable value of the savings. The second group needs yield in the long term which at least exceeds the inflation rate for the same period. From this point of view, the countries that were able to introduce multi-fund system are in better position. It could be presumed that individuals, at the beginning of their working careers, are those who form predominantly the group with

the aggressive portfolio type. The losses realized in the short term are not so detrimental for them. They are going to have enough time to recover the value of their savings. On the other hand, individuals whose retirement is close in time most likely form the group of those who have chosen the conservative portfolio of assets. The losses realized by them are limited in amount so that the recovery process would be much shorter. Life-cycle investing supposes the insured individuals will change the structure of the assets used as investment vehicles, every time they reach certain age. However, most of the insured persons are not quite familiar with the type of risks they bear during each stage of their life. A reasonable option here is automatic transfer of the accumulated resources when the insured reaches certain age. An exception could be made for those individuals who actively prefer some other portfolio of assets, different from the default option.

After the first quarter of the year the situation at the financial markets changed. First, the major central banks stepped in and started to supply enough liquidity to the markets. In this way, they tried to ensure some sort of critical level of confidence among investors. They managed to convince the public that the crisis is under control and there will be no massive sales of assets. The applied monetary policy measures were drastic, but they were effective at least in the short term to calm down the market participants and to recover the optimistic feelings among them. Second, towards the end of the second quarter of the year, the authorities of many of the states started to gradually ease the measures of public isolation, imposed with the initial spread of Covid-19. The economic activity began to normalize and the perception of risk among investors started to decline. The stock indexes bottomed out and towards the end of June 2020 they recovered much of what was lost during the previous quarter.

Table 3: Main stock index changes for the period 01.04.2020 – 30.06.2020

Country	Stock exchange index	Change Q2 2020
Bulgaria	Sofix	+8.09%
Romania	BET	+13.56%
Slovakia	SAX Index	+3.89%
Lithuania	OMX Vilnius	+22.48%
Latvia	OMX Riga	+17.47%
Estonia	OMX Talin	+21.25%
Poland	WIG 20	+16.26%

Source: own calculations[4]

The started recovery of the financial markets influenced immediately the performance of the pension funds in all of the researched countries. The yield realized during the second quarter of the year was positive.

[4] Information about the values of an index is taken from the official website of the stock exchange in the researched countries.

Table 4: Yield realized by the pension funds for the period 01.04.2020 – 30.06.2020

Country	Portfolio type		
	Conservative	Balanced	Aggressive
Bulgaria	+3.00%	N.A	N.A
Romania	N.A	+5.21%	N.A
Slovakia	+2.33%	+7.52%	+8.98%
Lithuania	+3.88%	+8.63%	+12.60%
Latvia	+2.69%	+6.29%	+11.95%
Estonia	+5.25%	+6.67%	+11.31%
Poland	N.A	N.A	+14.02%

Source: own calculations[5]

The data in the table above clearly confirms again the positive relationship between the change of the stock market indexes and the realized yield by the pension funds. The gradual recovery of the economic activity, supply chains and trade among the countries was crucial for the observed positive trend at the markets. The recovery processes continued during the third quarter of the year as well.

Table 5: Yield realized by the pension funds for the period 01.07.2020 – 30.09.2020

Country	Portfolio type		
	Conservative	Balanced	Aggressive
Bulgaria	1.67%	N.A	N.A
Romania	N.A	+3.57%	N.A
Slovakia	+1.12%	+1.44%	+1.77%
Lithuania	+1.70%	+3.10%	+4.12%
Latvia	+1.71%	+1.94%	+3.72%
Estonia	+1.24%	+1.60%	+3.36%
Poland[6]	N.A	N.A	N.A

Source: own calculations[7]

The investment performance of the pension funds in Central and Eastern Europe for the first three quarters of 2020 is quite similar among the different countries. The pandemic crisis strongly influenced the stock markets in each of the countries at the beginning of the year. However, most of the losses, realized at the start of 2020 were compensated towards the end of the third quarter of

[5] See note 3.

[6] No data available for the third quarter of 2020 at the time of writing the article (November 2020).

[7] See note 3.

the year. Although they are situated in different countries, pension funds in this region have similar structure and follow similar investment practices. All of them have built diversified portfolio of assets within strict investment rules imposed by the respective supervision authorities. The stock market performance in each of the countries is also similar as the main stock exchange indexes move in step with the change of the indexes of the main financial markets in Europe. So there is a strong evidence that the insured individuals within the second pillar pension funds in Central and Eastern Europe face very similar risks caused by the pandemic crisis and the resulted behaviour of the major Central banks (mostly ECB and the Fed). These risks are different in the short and in the long term and will be analysed in the next section.

Main risks for the insured individuals within second pillar pension funds in Central and Eastern Europe in the short and in the long term.

The second pillar pension funds in Central and Eastern Europe are still in their immature state (Blake, 2003). Those who receive pension benefits are insignificant part in comparison with the ones who contribute into the scheme. This means that currently insured individuals in these countries are exposed mostly to the risks inherent for the accumulation phase of a defined contribution pension scheme and not so much to the risks typical for the pay-out phase. However, the World pandemic crisis of 2020 is symptomatic for the future of this type of pension schemes because it discloses the mechanism by which short term shocks for the system could be transmitted into long term effects. The last could be much detrimental for the insured individuals. The pandemic crisis evolved quite fast worldwide. The potential problem with Covid-19 was first reported in China in December 2019. For a period of just a little over of three months the virus dispersed in most of the Asian countries and reached Europe. At the beginning of the second quarter of the year, the authorities of most of the EU countries announced strict measures of public isolation whose basic aim was to prevent the fast spread of the coronavirus. As a result, an economic downturn in Europe emerged. So Covid-19 has all features of a fast-external shock for the economic system. This is a stress factor that triggered a number of actions taken by the governments and the major Central banks. The measures implemented in an effort to mitigate the influence of the pandemic crisis on the economic activity in the short term can strongly affect the pension systems both in the short and in the long term. The short-term risks that came into surface are the following:

- Significant losses realized by the pension funds
- Weak protection of the accumulated funds of the insured individuals within the second and the third pillar

- Increasing possibility for implementing reverse reform by the governments so that to destroy the second pillar pension funds

The losses realized by the pension funds, as it was shown, are short term in character. They affect mostly those individuals whose retirement is soon. The investment results of the pension funds confirm that in case of external shock on the economy, the initial negative return could easily be compensated in a couple of months if the effect of the shock gradually starts to decrease. However, in case of pandemic crisis there is a possibility of a second wave of infection spread, thus causing new negative trend on the financial markets. In these circumstances, the individuals whose retirement is soon have little protection within defined contribution pension schemes. Pension funds like other portfolio investors cannot diversify these types of risks. In addition, the pension funds in all of the researched countries follow strict investment rules that, to a certain extent, prevent them to restructure their portfolio of assets, even if they have the possibility and wish to do that. The multi-fund system and life cycle investing is the only way to mitigate the investment risks for those insured whose retirement is in the very close future. The results of the conservative types of portfolio structures are far better than those that follow balanced and aggressive strategy in times of crisis. In this sense, the insured individuals in Bulgaria, Romania and Poland where there is no real option to choose the risk profile of the pension fund are in worse position. The negative results of the pension funds, even if short term in character, could trigger another unfavorable process. The so-called reverse pension reforms are not a precedent in countries in Central and Eastern Europe. This is a situation where governments stop to support the future strengthening of the funded component of the pension systems and begin to supply different incentives to the insured individuals to transfer their accumulated resources into the first pillar of the system. The lack of tradition in pension insurance of this type in all of the researched countries makes these structures quite vulnerable to government decisions. Historically, insured individuals are used to receive their pension benefits from the state. It could hardly be expected that they will defend enthusiastically the private pension funds even though they have their savings into them. The experience of Hungarian pension funds and to a certain extent of Polish and Bulgarian pension funds show that government could easily change the rules of the game and the public is little responsive to these reforms. The unfavorable investment results can supply the government with an argument to seize the savings of the insured individuals. In this way, it can support the state budget in the short term neglecting the financial needs in the long term. The negative trends in population aging are still valid in all of the researched countries. There is no doubt that deteriorated demographic structure will exert increasing pressure on the state pay-as-you-go pension system in more distant future.

Table 6: Projected old-age dependency ratio in selected countries

Country	2020	2050	2100
Bulgaria	33.8	55.0	58.2
Romania	29.0	54.5	57.8
Slovakia	24.5	51.4	59.1
Lithuania	30.7	56.5	58.6
Latvia	32.4	56.7	57.6
Estonia	31.6	49.1	57.5
Poland	27.5	52.2	63.2

Source: Eurostat (2020).

The long-term risks inherent for the fully funded second pillars in Central and Eastern Europe must not be underestimated as well. They are even more significant than the risks discussed so far. At least four such risks should be mentioned and analyzed:

- Low interest rate environment in the last decade
- Lack of fixed income government bonds with adequate yield
- Increasing number of zombie companies
- Inflation risk due to the monetary policy stance followed by the major Central banks

After the Global financial crisis of 2008, the major Central banks started unprecedented "quantitative easing" program aiming at supplying enough liquidity to the financial institutions and markets. The main idea was to support the level of confidence among the market participants so that to prevent serious plunge of the stock markets. As a result, the basic interest rate levels were pushed to zero. This type of monetary policy started to change (The Fed began to raise interest rates in the USA) just a few months before the World was hit by the pandemic crisis. The new external shock forced the monetary authorities to act simultaneously making predominant interest rates even negative. The idea was again to raise the trust of the public towards the World financial sector. The policymakers in the different countries tried to adopt measures whose basic aim was to prevent panic among the investors and massive sales of financial assets. Preserving the value of the financial assets was an utmost goal and the monetary instruments used were unique in their character. As a result, there was no prolonged decline of the share values and bond prices, but the low interest rate environment obsessed the markets. The financial institutions (mostly banks) got accustomed to receiving liquidity from the central banks and to channel it towards the financial markets thus allowing governments to finance their current needs without making any reforms. It looks like a self-sustaining but quite dangerous process, especially in the long term. Currently, banks are pleased to receive money without making any efforts to attract savers or individuals with

current financial surpluses, governments are satisfied to have access to resources to refinance their huge debts and central banks are happy to expand their power over the whole financial system. A few implications may be derived from the situation observed in the last years. First, the low interest rate environment exposes insured individuals to the so-called annuitization risk. Usually pension funds determine the amount of the pension benefit as annuity payment (Rocha and Vittas 2010). So, one must use annuity factor calculated for specific number of years and fixed interest rate. There is an inverse relationship between the annuity factor and the pension benefit – the higher the annuity factor, the lower the benefit. If current interest rates are low, all other things being equal, the annuity factor is going to be high and the pension benefit is going to be low. So, two persons with one and the same accumulated sum into the individual account and one and the same average life expectancy can receive significantly different pension benefits if retired in different years with different interest rates. Typically, the annuity markets are poor in products in each of the researched countries. The design of the pay-out phase is crucial for mitigating this type of risk. The policymakers in Central and Eastern Europe should address annuitization risk when determining the rules of the distribution phase of the defined contribution pension schemes in their countries. Second, one of the outcomes of the loose monetary policy followed by the major central banks in the last years is the disappearance of quality fixed income instruments with adequate yield (Nenovsky, 2020). Pension funds traditionally considered as conservative investors are forced to invest into risky assets looking for yield. Bonds issued by governments of G7 countries could hardly be found into the managed portfolios. At the same time, bonds issued by peripheral countries (Mexico, Indonesia, Brazil, Chile, Columbia etc.) become popular in the last years[8]. The changed structure of the managed portfolios exposes insured individuals to additional risks. By default, government bonds are those securities destined to stabilize the value of the investment portfolio. If life-cycle investing is used for managing the accumulated resources of the insured individuals, one would assume that this type of securities must be part of the portfolio structure of those individuals whose retirement is close or even has happened. This means that stability of the investment should be of primary concern for these persons. Unfortunately, if long term credit history is taken into account, one would see that the above-mentioned countries are far from being impeccable in servicing their debts. When major central banks change their monetary policy stance, the peripheral countries would be hit much stronger than the countries with developed economies. Pension fund managers must expect additional volatility, which under certain circumstances, may affect even the ability of the pension fund to pay the promised pension benefits of those individuals whose retirement has come into force. Third, the loose monetary policy followed by the major central

[8] The exact structure of the portfolio is researched for the Bulgarian universal pension funds.

banks creates specific environment where zombie companies may exist indefinitely long[9]. Having in mind the prolonged period of extremely low interest rates, one could guess that the number of this type of companies has increased significantly in the last years. Pension funds like any other portfolio investor must go deeper into their analysis when choosing the exact companies in which to put the money of the insured individuals. In an environment where all of the pension companies are pressed to look for additional yield, the possibility for adverse selection increases dramatically. Another long-term risk is related to the expected inflation in the next decades. The inflation risk is very important for all individuals who rely on long-term savings to finance their future pension benefits. There are at least two factors that make the possibility of observing significant inflation rates quite serious in the following years. First, the balance sheets of the major central banks continue to grow rapidly. Pumping liquidity into the financial system, monetary institutions around the World are trying to mitigate the short-term consequences of the pandemic crisis and the financial crisis before that. Currently, the inflation is channelled successfully to the financial markets where both bonds and shares are traded on extremely high values. However, the consumer markets can be infected easily in the next years if one takes into account the other factor – the enormous explicit and implicit debt accumulated by most of the countries in the World. The explicit debts could easily be seen by looking at the current debt to GDP ratio for different regions. Many of the EU countries have already accumulated debts of 70% and over their current GDP[10]. On the other hand, the implicit debts come under the form of future promises for payments within the dominant pay-as-you-go pension systems. The aging of the population is expected to put under increasing pressure public finances in most of the countries in Europe in the next couple of decades. The debt burden could leave not much space for manoeuvring and inflation could be the option chosen by the policymakers of the future. The lost purchasing power of money could be devastating for the fully funded pension systems not only in Central and Eastern Europe but everywhere in the World. Presumably, long-term risks are very difficult for addressing and managing. They require decisions that must be taken now but whose effect would be seen in the next decade. However, only by making efforts today could one see a brighter future tomorrow.

Conclusion

The pandemic crisis was able to disclose some of the most important risks inherent for the defined contribution pension schemes in Central and Eastern

[9] Zombie companies are companies which exist only to serve their debts and to pay their current expenses. They have no resources to grow and if interest rates rise, they would go bankrupt.

[10] The average percentage for the EU is 79.3%.

European countries. Some of them are short term in character such as volatility of the markets and the related weak protection of the insured individuals especially in those countries that have not established multi-fund system into their fully funded pension schemes. Others are long term in nature and stem mostly from the current monetary policy stance followed by the major central banks. Both types of risks must be addressed adequately now in order to strengthen the pillars based on a funded principle for a more distant future. Pension systems will continue to be important social security structures in 21st century on which a growing proportion of the population would rely on receiving certain income. The deteriorating demographic structures in all countries in Central and Eastern Europe bring to the fore the need of continuous pension reforms. In this sense the young generation needs to be made aware of the problems and risks that are expected to arise in pension systems in future. The long-term tradition in Central and Eastern Europe of viewing pension systems just as state structures must be changed. Insured individuals, especially those who start their working careers now must have the opportunity to take care of their own future. The pension systems of tomorrow need the efforts and knowledge of the whole population. They cannot stay within the state monopoly anymore.

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