The Evolution of Multi-Pillar Pension Systems: Balancing Between Necessity, Opportunity and Complexity

~ Ph.D. Professor **Dan Constantinescu** (Ecological University of Bucharest, Romania) **E-mail: dr.dconstantinescu@yahoo.com**

~ Ph.D. Student Marius-Robert Georgescu (Romanian Academy, School of Advanced Studies of the Romanian Academy, Doctoral School of Economic Sciences, National Institute for Economic Research "Costin C. Kiriţescu", Institute for Economic Forecasting) ORCID: https://orcid.org/0009-0001-1701-2636

E-mail: mariusrobertgeorgescu@gmail.com

Abstract: The evolution of Romania's pension system has followed a complex and often inconsistent legislative path, beginning with two unimplemented laws, and later progressing to the introduction of a multi-pillar system. Initially accompanied by optimism, the momentum behind pension reform soon faded, resulting in significant delays in implementing crucial regulations, such as the law on the guarantee fund. It was not until 2020 that substantial progress was made with the introduction of laws on occupational pension funds and the pan-European personal pension product (PEPP). This paper aims to assess the impact of Romania's evolving legislative framework, including secondary regulations, on the private pension market. Additionally, the paper examines the broader transformations and challenges facing the Romanian pension system, focusing on demographic shifts, socio-economic factors, and policy decisions that have shaped its current state. Key issues such as early retirement, the inclusion of low-contributory groups, and



untaxed activities are analysed alongside the supply side of the market, including public, mandatory, and voluntary pensions, as well as occupational schemes. The implications of PEPP and strategies for financing the transition to a more sustainable system are also explored. By addressing these critical aspects, the paper provides a comprehensive analysis of Romania's pension system and suggests actionable steps for improving its long-term sustainability and efficiency.

Key words: multi-pillar pension system, public policy, social contributions, pan-European personal pension product, adjustment policies, legislation and private pensions, guarantee fund.

JEL Classification: G23, G28

Introduction. Legislative Foundations for the Introduction of the Multi-Pillar Pension System

The introduction of the multi-pillar pension system in Romania was marked by numerous preliminary legislative attempts that struggled to establish a coherent framework for private pensions. One of the earliest initiatives was the 1999 (Government of Romania, 1999) draft law on universal pension funds, which aimed to expand the domestic financial market. However, the novelty of the field and the limited expertise of decision-makers led to complications. The draft was sent to the Committee on Labour and Social Protection for further deliberation, with only an advisory opinion requested from the Budget and Finance Committee, complicating the legislative process due to divergent views between the committees.

The Isărescu Government, to overcome the deadlock, intervened in 2000 with an emergency ordinance to expedite the process, yet political changes and a shift in parliamentary priorities led to the repeal of this ordinance shortly thereafter. Following the shift in parliamentary majority after the legislative elections, Emergency Ordinance No. 230 of 24 November 2000, concerning the organization and operation of universal pension funds (Government of Romania, 2000), met a similar fate. It was repealed just a month later "in order to bring certain regulations adopted by Government ordinances and emergency ordinances into line with the Government Program accepted by Parliament at its sitting of 28 December 2000" (Government of Romania, 2000).

Despite these setbacks, many provisions from the initial legislative efforts reappeared in the 2004 law regulating privately administered pension funds (Parliament of Romania, 2004), which eventually formed the foundation for Pillar II of the pension system. Key elements included compulsory participation, temporary accommodation based on proximity to retirement age, institutional roles, investment policies, pension annuities, and regulatory oversight.

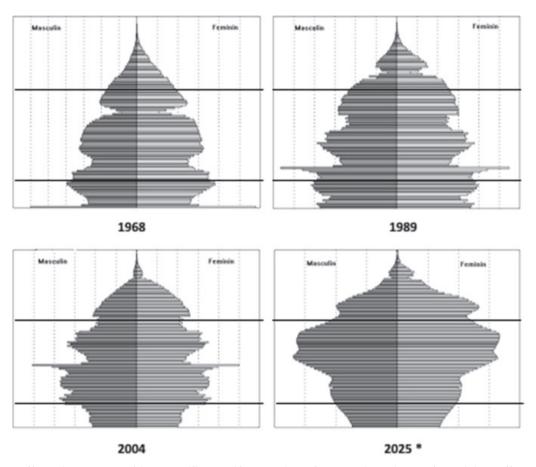
Nevertheless, early proposals for private pension contributions were notably higher than those in subsequent legislation, with contributions initially set at 10% of gross salary and management fees capped at 12%. The 2004 law on occupational pensions further illustrates the political challenges, with initial efforts to establish a supervisory framework being undermined by inconsistencies in regulatory design and political instability. The eventual repeal of this law in favour of new voluntary pension legislation highlights the difficulties in establishing a stable and sustainable private pension system (Parliament of Romania, 2005a).



1. Demographics and the Sustainability of the Public Pension System

The paradigm shift and challenges surrounding the sustainability of Romania's public pension system are deeply influenced by the country's evolving demographic trends. Romania is experiencing a significant decline in the younger population (under 20), a shrinking working-age population, and persistently low birth rates. These demographic changes have far-reaching consequences for the labour market, pension system, social services, and broader socio-economic structures, including family and community life.

Figure 1: Evolution of the age pyramid for Romania's population between 1968 and 2025 (for 2025, estimates)



Source: https://population.un.org/dataportal/home?df=39067d47-8f7a-47a5-b6a7-b58e3cf8a01d; https://insse.ro



33.4

The declining number of young people signals an aging population base, which could lead to a labour force shortage in the future. This trend is further exacerbated by low generational renewal rates. In a modern economy, this shrinking workforce could strain sectors that rely on youthful and dynamic labour. Moreover, the reduction in the working-age population (20-64 years) directly threatens the sustainability of the pension and social security systems. Fewer workers must support a growing number of retirees, increasing fiscal pressures on the state budget and potentially leading to deficits. Additionally, the aging population demands adaptations in healthcare and social services to meet the rising needs of elderly citizens.

To mitigate these demographic challenges, Romania must adopt proactive policies, including measures to boost birth rates, attract migrant workers to fill labour shortages, and implement reforms in the pension system. Investment in education and training is equally crucial to facilitate adaptation to these new realities. This paper examines these demographic shifts in detail and proposes solutions to ensure the long-term sustainability of Romania's socio-economic framework.

Age period 2000 2010 2020 2030 2040 23.1 21.8 20.7 19.8 19,5 20 - 5947.1 55.4 54.4 52.4 48.8

26.9

31.4

Table 1. Evolution of the age structure of the EU population (%)

Source: Eurostat

21.5

23.7

0 - 19

over 60

At the European level, similar demographic patterns are emerging, with decreasing proportions of younger populations (0-19 and 20-59 years) and increasing numbers of individuals over 60. This phenomenon, driven by declining birth rates and rising life expectancy, is further complicated by the outward migration of young people seeking better economic opportunities, exacerbating demographic imbalances. The pressure on pension and welfare systems is growing, as the ratio of contributors to beneficiaries becomes increasingly unsustainable.

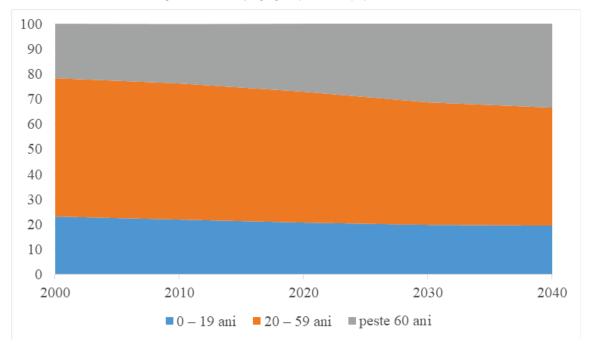


Figure 2: Share of age groups in EU population (%)

Source: Eurostat

Addressing these challenges requires comprehensive strategies, including family policies to boost birth rates, labour market reforms to increase participation and productivity, and adjustments to pension and health systems to ensure long-term sustainability. Public health campaigns promoting healthier lifestyles could also alleviate the burden of age-related diseases. At the European Union level, coordinated efforts are necessary to support member states in implementing effective reforms. Through collective action, Europe can ensure its social protection systems remain robust and adaptable to demographic and economic changes, securing a prosperous future for all.

2. The Fundamental Framework of Private Pension Legislation

Amidst the various challenges faced in establishing Romania's private pension system, consistent efforts by specialists and policymakers resulted in the adoption of key legislation during the 2004-2006 period. This legislation laid the foundation for the establishment, organization, and prudent supervision of private pension funds. The first significant step was the enactment of the law on privately managed pension funds (Parlamentul României, 2004). Although its title might be misleading, as it primarily focuses on universal pension funds (the mandatory Pillar II of the pension system), the law also introduces fundamental definitions and regulations for the broader private pension framework.

Key aspects of the law include provisions related to pension fund resources, management costs, participant rights, organizational structure, permitted investments, reporting obligations,



and transparency. It also addresses the roles and responsibilities of pension fund administrators, their authorization requirements, management contracts, conflict of interest regulations, and financial supervision mechanisms. Further sections cover the responsibilities of custodians and financial auditors, the marketing of pension funds, special supervision procedures, and the regulations governing private pensions and pension providers.

Subsequently, legislation was introduced to regulate the specific authority responsible for overseeing the private pension system (Government of Romania, 2005). This regulatory body, the Private Pension Supervisory Commission, was tasked with authorizing administrators, overseeing the system, and enforcing compliance. The commission was financed through fees for authorizations and approvals, as well as monthly operational fees, and had the authority to impose sanctions when necessary.

A year later, the Law on Voluntary Pensions was introduced (Parliament of Romania, 2006). This law, distinct from the legislation governing mandatory pensions, was primarily focused on voluntary pension funds (Pillar III), offering a more flexible regulatory framework. It expanded the range of entities that could act as pension administrators to include investment management companies and insurance firms. Additional provisions covered the authorization of voluntary pension schemes, participant contributions, fund transfers, and the valuation of participant accounts, among other key elements. Importantly, this law also reiterated the need for a Guarantee Fund, which would compensate participants in case of losses due to the inability of pension administrators or providers to fulfil their obligations.

However, despite the law's clear stipulations, the Guarantee Fund was not established until five years later, significantly delaying its protective role within the system. Similarly, the law concerning private pension payments remains in draft form over a decade after its initial proposal, leaving pension payments to be governed by fragmented and uncoordinated regulations.

In parallel, legislation covering occupational pensions (Parliament of Romania, 2020) (Parlamentul României, 2020) (often regarded as a variant of voluntary pensions) was also enacted. Although this law introduced specific regulations concerning the prospectus of occupational funds and cross-border activities, it received limited interest, with only a few entities applying for authorization. The claim that occupational pensions constitute a new pillar of the pension system has been met with scepticism, as many of its provisions could have been integrated into existing voluntary pension laws with minor adjustments.

Most recently, Romania adopted Law No. 65 of 27 March 2023, aligning national legislation with EU regulations concerning the pan-European personal pension product (PEPP) and sustainable investments. This marked another step towards harmonizing Romania's private pension system with broader European frameworks (Parliament of Romania, 2023). Over time, the private pension system has evolved through various amendments and regulatory updates, driven by practical experience, alignment with European Union law, and the emergence of new supervisory institutions, such as the Financial Supervisory Authority, which assumed the responsibilities of the former Private Pension Supervisory Commission.

The pioneering nature of Romania's primary legislation on private pension funds, coupled with the country's legislative tradition, necessitated the development of specific regulations

governing various aspects of the system's operation. For Pillar II, rules were initially established by the Specialized Supervisory Commission and later by the Financial Supervisory Authority (ASF). These regulations focused on the authorization of participating entities, covering areas such as the administrator's share capital, management structure approvals, prudential assessments of acquisitions, outsourcing of asset management, and the private pension scheme prospectus.

Additional regulations pertain to membership in private pension funds, record-keeping, contribution collection, and participant protection in cases of fund mergers, disability, death, or fund transfers. Prudential and transparency standards govern technical provisions, rates of return, advertising, and reporting obligations. Corporate governance measures, including internal control, audit, risk management, and the prevention of money laundering, are also established.

Similar regulations apply to Pillar III (voluntary pensions) and occupational pensions. However, these rules cannot compensate for deficiencies in primary legislation. In the absence of a comprehensive law on private pension payments, pension funds operate more like mutual funds, paying out accumulated contributions rather than life pensions. Payments from both compulsory (Pillar II) and voluntary (Pillar III) pensions are made either as a lump sum or in equal monthly instalments over a maximum of five years, with a minimum monthly payment of 500 lei, after deducting the administrator's fees.

3. The Need, Opportunity, and Complexity of the Pension Market

The World Bank introduced the concept of a three-pillar pension system in 1994, which has since gained international acceptance. Each of the three pillars serves distinct objectives, based on differing principles of contribution and benefit, and varies by its public or private nature as well as its optional or mandatory status. This diversity allows countries to create flexible pension systems tailored to their specific socio-economic circumstances and needs (von Gersdorff, 2004).

The first pillar is typically a mandatory, state-run public pension system, designed to provide basic financial security for retirees. It is funded primarily through payroll taxes from both employees and employers. This pillar ensures a minimum income level for pensioners and serves as the foundation of the pension system in many countries. The second pillar consists of mandatory or voluntary occupational pension schemes, often managed by private entities. These schemes supplement the public pension and are funded by contributions from both employers and employees. The third pillar comprises voluntary private pension plans, enabling individuals to save for their retirement through personalized and flexible investment options. This structure allows for a more robust retirement plan, providing additional financial security.

The configuration of a country's pension system depends on its social needs, financial capabilities, and policy priorities. For instance, countries with a strong social safety net may focus heavily on the first pillar, ensuring widespread coverage and basic retirement income. Conversely, nations with well-developed financial markets may emphasize the second and third pillars, leveraging private sector efficiency to encourage individual savings and investment.



Table 2. Multi-pillar pension market offer in Romania

Name	System	Obligatory	State / Private	Administrator / Supervisor	Law	
Pillar 1	Public pension	Mandatory	State- administered	CNPP - National Public Pension House. The de- cision is taken by the Ministry of Labour and Social Protection Law No 263/2010		No
Pillar II	Universal pensions	Mandatory	Privately administered	Autonomous administrative authority under the control of the Romanian Parliament		No
Pillar III	Optional pensions	Optional	Privately administered	Financial Supervisory Authority (FSA) through the Private Pensions Sector		No
Pillar IV	Occupational pensions	Optional	Privately administered	The initiative is of an entity that is authorised by the ASF		

Source: www.asfromania.ro; www.pensii.ro

The World Bank's three-pillar model provides a comprehensive framework to address various demographic and economic challenges. Countries are encouraged to adapt the system to their specific needs, creating a sustainable, equitable, and balanced pension system. In addition to these pillars, occupational pensions, often offered as employment benefits, can be mandatory or voluntary and provide further retirement support based on the employee's career and contributions. A recent European Union initiative, the Pan-European Personal Pension Product (PEPP), aims to create a personal pension product that can be used across EU Member States, promoting labor mobility and offering more retirement savings options.

Beyond these traditional pension systems, individuals can access various private pension-like products that contribute to their retirement savings. These include premium refund life insurance, which combines life insurance with a savings component, and annuities, which provide guaranteed regular income over a set period. Survivorship term insurance, pay-as-you-go savings accounts, and restricted withdrawal investment funds are other alternatives designed to promote long-term savings for retirement.

International practices in pension system management show considerable diversity in mechanisms, funding methods, and the relationship between contributions and benefits. Different countries adopt varying approaches, shaped by their socio-economic, political, and historical contexts. Common models include government-administered pay-as-you-go schemes focused on defined benefit or defined contribution plans, as seen in much of Europe and countries like

Name	Pillar I	Pillar II	Pillar III	Pillar IV
Participation	Mandatory	Mandatory	Optional	Optional
Administration	Publishes	Publishes, private	Private	Private
Organization	PAYG	PAYG, funding	Funding	Funding
Purpose	Poverty avoid- ance, income redistribution	Savings imposed	Individual savings	Individual savings
Contribution- benefit ratio	Defined benefits	Defined benefits, defined contributions	Defined contributions	Defined contributions
Funding	Contributions, taxes	Contributions	Contributions	Contributions

Table 3. General scheme of the multi-pillar pension system

Source: www.asfromania.ro; www.pensii.ro

Sweden and Italy. Some nations, such as Norway and the United States, operate government schemes based on current asset funding, while others, like France, rely on privately administered pay-as-you-go schemes with guaranteed benefits. Pre-funded accumulation schemes, such as those in Denmark, Poland, and some Latin American countries, are often supported by both private and governmental entities.

This diversity highlights the adaptability of pension systems to national contexts, reflecting the complexity of the global pension market. Regardless of the model employed, the success of a pension system hinges on its ability to strike a balance between the needs of society and available opportunities. Transparency, clear objectives, and a focus on economic resilience and the well-being of society (Aiginger & Guger, 2006) are essential for maintaining this balance. Policymakers play a vital role in ensuring that pension systems remain inclusive, fair, and sustainable, making informed, coordinated decisions to adapt to both demographic and economic changes.

4. Evolution and Trends in Pension Reform

The inefficiency of Romania's pension system has significantly impacted the standard of living for beneficiaries, as pensions have declined both in absolute terms (real value since 1989) and in relative terms (the ratio of the average pension to the average salary). While pension reforms share broad similarities across countries, the specific approaches and implementation strategies differ widely, shaped by national traditions, historical context, and the organization of social security systems.

Countries vary in their emphasis on universality versus need-based systems. Some prioritize universal coverage, while others tailor benefits based on income and individual needs. Funding sources also differ, with some pension systems relying on social contributions and others supported by the state budget. Additionally, the role of the private sector in providing social security services varies, with certain countries fostering public-private partnerships more actively than



others. These differences underscore how each nation adapts reforms to its socio-economic and political context, as well as societal values and expectations.

In Europe, pension reforms are aligned with common principles, such as Regulation 1408/71/ EC, which coordinates social security rights, and Directive 98/49/EC, which safeguards supplementary pension rights for migrant workers. Romania has opted for a gradual reform process, beginning with financial regulations to reduce system imbalances. Successive governments have increased contributions to mitigate budget deficits and indexed pensions to preserve their real value. Non-contributory expenditures, such as certain social assistance benefits, have been transferred from the social security budget to local councils.

Global pension systems face significant challenges, including aging populations, financial sustainability, and labor market shifts. Recent pension reform trends include raising the retirement age to reflect longer life expectancy, encouraging private savings through tax incentives, and promoting participation in private pension schemes. Other key reforms include enhancing flexibility in benefit calculations, strengthening labor market activation policies, and adapting occupational pension schemes to fit a more mobile and dynamic workforce.

Transitioning to a mixed pension system is costly, often requiring countries to borrow funds to cover the transition from pay-as-you-go systems while meeting ongoing obligations to existing beneficiaries. This challenge is especially pronounced in Central and Eastern Europe, where governments face pressure to reduce social contribution rates, which are higher compared to other regions.

Conclusions

In conclusion, the legislative path of private pensions in Romania has been shaped by a combination of political uncertainty, lack of political will, and underprepared decision-makers. Periodic public declarations by officials from the Ministry of Finance regarding the potential nationalization of Pillar II pension funds have added to the challenges, creating a sense of instability in the field. Despite these difficulties, including significant delays and regulatory bottlenecks, the legislative framework for private pensions has developed, albeit through a winding process marked by setbacks. One notable legislative gap that remains unresolved is the law on the payment of private pensions, which would enable the system to offer life-long private pensions alongside public pensions.

This regulatory evolution has been heavily influenced by past financial crises, including bank failures and the investment fund collapse in the late 1990s, which resulted in over-regulation aimed at protecting the system. However, these regulations required subsequent adjustments and relaxations to align with market conditions, domestic legislation, and European Union directives. Today, the regulatory framework for private pensions is, by and large, capable of ensuring proper market functioning. However, the system remains vulnerable to political and regulatory risks, which could lead to reputational damage for pension funds. The persistence of such risks underlines the importance of continued vigilance in maintaining the stability and sustainability of the pension system.

At the European level, pension reforms have been integrated into broader strategies for coordinating national policies, particularly through initiatives such as the Lisbon Strategy. Under Article 104 of the Treaty, the European Union monitors Member States' budgetary positions, emphasizing the allocation of pension funds as a crucial element for the long-term sustainability of public finances. Simultaneously, EU coordination of employment and social cohesion strategies (Jepsen & Pacual, 2005) is conducted with flexibility, allowing Member States to maintain responsibility for the design and implementation of their pension policies (Vignon, 2004). This approach ensures that pension systems are both sustainable and adequate, balancing national autonomy with broader European objectives.

Pension contributions, especially for old-age pensions, play a critical role in strengthening the European tax system and maintaining the quality and sustainability of public finances. As Europe grapples with demographic challenges, including aging populations, these contributions are increasingly vital for ensuring the financial stability of pension systems. In the long term, many transition economies have adopted gradual reforms to rationalize their pension systems, focusing on measures such as raising the retirement age, revising indexation formulas, reducing benefits, and improving tax collection mechanisms (Cangiano, Cottarelli, & Cubeddu, 1998). Additionally, there is a growing recognition of the need to implement multi-pillar pension systems, which include both publicly and privately managed funds, to enhance financial security in retirement.

Overall, the development of Romania's private pension system mirrors broader global trends, where the shift towards a multi-pillar system has been driven by demographic and financial pressures. Despite the obstacles faced, the legislative and regulatory framework has evolved to support a functioning private pension market. However, the system's continued success will depend on mitigating political risks, further aligning with European standards, and ensuring that the necessary legislative reforms, such as the law on private pension payments, are completed. Only through these efforts can Romania's pension system maintain its long-term sustainability and provide adequate retirement security for its citizens.

REFERENCES:

- 1. Acquier, A. et. al. (2017). Promises and paradoxes of the sharing economy: An organizing framework. Technological Forecasting and Social Change, 125, pp. 1 - 19. https://doi. org/10.1016/j.techfore.2017.07.006
- 2. Aiginger, K., & Guger, A. (2006). The Ability to Adapt: Why It Differs between the Scandinavian and Continental European Models. Intereconomics.
- 3. Barr, N., 2002, The Pension Puzzle. Prerequisites and Policy Choices in Pension Design, International Monetary Fund.
- 4. Bellotti, V. et.al. (2015). A muddle of models of motivation for using peer-to-peer economysystems 33rd annual ACM conference on human factors in computing systems. Proceedings of the (pp. 1085 - 1094). New York: ACM.



- 5. Berengaut, J. (1998). The Baltic Countries: From Economic Stabilization to EU Accession, Washington DC: International Monetary Fund.
- 6. Cace, C. (2004). Asigurările sociale management, evoluții și tendințe, București: Editura Expert.
- 7. Cangiano, M., Cottarelli C., Cubeddu L. (1998). Pension Developments and reforms in Transition Economies (ed. Working Paper 98/151), International Monetary Fund.
- 8. Cangiano, M., Cottarelli, C., & Cubeddu, L. (1998). Pension Developments and reforms in Transition Economies. International Monetary Fund.
- 9. Charles de Seconant, Baron de Montesquieu (1748). Spirit of Laws, translated by Thomas Nugent, 1752. Kitcherner: Batoche Books, 2001 edition.
- 10. Cocirla, C. (2018). Romania A Strategic Choice. Louxemburg: Ministry of the Business Environment, Commerce and Entrepreneurship of Romania.
- 11. Cohen, B.; Kietzmann, J. (2014). Ride On! Mobility Business Models for the Sharing Economy. Sage Journals, 27(3), pp. 279 296. https://doi.org/10.1177/1086026614546199
- 12. Constantinescu, D. & Constantinescu, M. (2005). Fonduri private de pensii, București: Editura Bren.
- 13. Constantinescu, D. (2007). Asigurările de sănătate între statul paternalist și responsabilitatea individuală, București: Editura Mustang.
- 14. Constantinescu, D. 2013, Sisteme de Asigurări de Sănătate și Pensii Private. Coordonate Europene și Particularități Naționale. București: Academia Română. Insitutul Național de Cercetări Economice "Costin C.Kirițescu".
- 15. Costescu, M. (2016). Romania A Strategic Choice. Bucharest: InvestRomania.
- 16. Davis, E. P. (1998), Policy and Implementation Issues in Reforming Pension Systems (ed. Working Paper No. 31), European Bank for Reconstruction and Development.
- 17. European Commission. (2016). Country Report Romania 2016 Including an In-Depth Review on the prevention and correction of macroeconomic imbalance, SWD (2016) 91 final. Retrieved from Commission Staff Working Document: http://ec.europa.eu/europe2020/pdf/c
- 18. European Parliament (2016) Directive 2016/2341/EC of the European Parliament and of the Council of 14 December 2016 on the activities and supervision of institutions for occupational retirement provision (IORPs), published in the Official Journal of the European Union (OJEU) L 354 of 23 December 2016
- 19. Fultz, E., Ruck M. (2001). Reforma pensiilor în Europa Centrală și de Est (O. I. Muncii, Ed.), Oficiul Internațional pentru Muncă Grupul de lucru pentru Europa Centrală și de Est.
- 20. Georgescu, R. (2015). Romania's Software Market & ITS Postion on the Global Map. Bucharest: Transfer Pricing Services.
- 21. Gersdorff (von), H. (2004). Public and Private Cooperation in Pension Systems. World Bank.
- 22. Government of Romania (2018). Departamentul pentru Dezvoltare Durabilă, Strategia Națională pentru dezvoltare durabilă a României 2030, București: Paideia.
- 23. Government of Romania. (1999). www.cdep.ro. https://www.cdep.ro/pls/proiecte/upl_pck2015.proiect?idp=939&prn=1

- 24. Government of Romania. (2000). legislatie.just.ro. https://legislatie.just.ro/Public/DetaliiDoc-ument/25869
- 25. Government of Romania. (2000). www.monitoruljuridic.ro. http://www.monitoruljuridic.ro/act/ordonanta-de-urgenta-nr-230-din-24-noiembrie-2000-privind-organizarea-si-functionar-ea-fondurilor-universale-de-pensii-emitent-guvernul-publicat-25343.html
- 26. Government of Romania. (2005) Emergency Ordinance No 93 of 18 December 2012 on the establishment, organisation and functioning of the Financial Supervisory Authority, as amended and supplemented. https://legislatie.just.ro/Public/
- 27. Government of Romania. (2005) Government Emergency Ordinance No 50 of 9 June 2005 on the establishment, organisation and functioning of the Private Pension Supervisory Commission, https://legislatie.just.ro/Public/DetaliiDocument/84140, approved with amendments and additions by Law No 313 of 10 November 2005, https://legislatie.just.ro/Public/DetaliiDocumentAfis/65898
- 28. Grigoras, V., Tanase, A., & Leonte, A. (2017). Studiu al evoluțiilor sectorului IT&C în România. Bucharest: BNR. http://www.bnr.ro/DocumentInformation.aspx?idInfoClass =8161&idDocument=26052&directLink=1
- 29. Hermann (von) G. (2004). Public and Private Cooperation in Pension Systems, Wold Bank.
- 30. Hirsch P. M. and De Soucey M. (2006). Organizational restructuring and its consequences: Rhetorical and structural (Vol. Volume 32). Annual Review of Sociology.
- 31. Insitutul European din România (2012). Analiza evoluțiilor politicilor sociale în EU în ultimii trei ani: pensii suplimentare/private și impactul îmbătrânirii populației, http://ier.gov.ro/wp-content/uploads/2018/12/Prezentare-_Valentina_Vasile.pdf
- 32. Institutul Național de Statistică (2023), ROMÂNIA DURABILĂ. Indicatori naționali pentru dezvoltare durabilă. ORIZONT 2030, București: Editura Institutului Național de Statistică.
- 33. Jepsen, M., & Pacual, A. (2005). The European Social Model: an exercise in deconstruction.
- 34. Jimmerson C, Weber D, Sobek DK. (2005). Reducing waste and errors: piloting Lean principles at Intermountain Healthcare. (PubMed, Ed.) J Qual Patient Care, pp. 249-257.
- 35. Jones D, Mitchell A. (2006). Lean Thinking for the NHS. NHS Confederation.
- 36. Karatzogianni, A.; Matthews, J. (2018. Ideological Production in Digital Intermediation Platforms and Structural Effectivity in the "Sharing Economy". Sage Journals, 21(1), pp. 95 114. https://doi.org/10.1177/1527476418808029
- 37. King DL, Ben-Tovim DI, Bassham J. . (2006). Redesigning emergency department patient flows: application of Lean Thinking to health care. Emerg Med Australasia, 4, pp. p. 391-297.
- 38. Koning H., Verver JPS., den Heuvel J., et al. (2006). Lean Six Sigma in healthcare. (PubMed, Ed.) J Healthcare Q., 2, pp. p. 4-11.
- 39. Lanham B, Maxson-Cooper P. (2003). Is Six Sigma the answer for nursing to reduce medical errors and enhance patient safety? Nurs Econ, pp. 39-41.
- 40. Oxford University Press. (2015). Definition of sharing economy. Oxfort: Oxford Dictionaries. Retrieved from https://en.oxforddictionaries.com/definition/sharing_economy
- 41. Parliament of Romania (2005b). Law No 411 of 18 October 2004 on privately managed pension funds, https://legislatie.just.ro/Public/DetaliiDocument/83682?isFormaDeBaza =True&rep=True



- 42. Parliament of Romania (2011). Law No 187 of 24 October 2011 on the establishment, organisation and functioning of the Guarantee Fund for private pension rights. https://legislatie.just.ro/
- 43. Parliament of Romania. (2004a). legislatie.just.ro. https://legislatie.just.ro/Public/DetaliiDocument/83682?isFormaDeBaza=True&rep=True
- 44. Parliament of Romania. (2004b). legislatie.just.ro. https://legislatie.just.ro/Public/DetaliiDocumentAfis/53218
- 45. Parliament of Romania. (2005a). Law No 141 of 17 May 2005 on the suspension of the application of the provisions of Law No 249/2004 on occupational pensions. legislatie.just.ro, https://legislatie.just.ro/Public/DetaliiDocument/61791.
- 46. Parliament of Romania. (2005c). Law No 141 of 17 May 2005 on the suspension of the application of the provisions of Law No 249/2004 on occupational pensions. https://legislatie.just.ro/Public/DetaliiDocument/61791
- 47. Parliament of Romania. (2006). Law No 204 of 22 May 2006 on voluntary pensions, https://legislatie.just.ro/Public/DetaliiDocument/72225
- 48. Parliament of Romania. (2020). Act No 1 of 6 January 2020 on occupational pensions, https://pensii.ro/legislatie/legea-1-2020-pensiile-ocupationale/
- 49. Parliament of Romania. (2023). ASF Romania. https://www.asfromania.ro/uploads/articole/at tachments/64255a0fbd1d2678251710.pdf
- 50. Porter, M. E.; Kramer, M. R. (2019). Creating Shared Value How to Reinvent Capitalism And Unleash a Wave of Innovation and Growth. In S. N. Lenssen G., Managing Sustainable Business (pp. 323 346). Dordrecht: Springer. https://doi.org/10.1007/978-94-024-1144-7_16
- 51. Puschmann, T., Alt, R. (2016). Sharing Economy. Bus Inf Syst Eng, 58, pp. 93 99. https://doi.org/10.1007/s12599-015-0420-2
- 52. Schor, J. B. (2016). Debating the sharing economy. Journal of Self-Governance and Management Economics, 3(1), pp. 7 22.
- 53. Seibel H.D., and Mayumi O. (2009). Restructuring of State-Owned Financial Institutions: Lessons from Bank Rakyat Indonesia. Asian Development Bank: Business & Economics.
- 54. Sewail L, DeToung C. (2003). Six Sigma in health care. Leadership in Health Services, 4, pp. 1-5.
- 55. Teubner, T.; Flath, Ch. M. (2019). Privacy in the Sharing Economy. Journal of the Association for Information Systems:, 20(3), p. Article 2. https://doi.org/10.17705/1jais.00534
- 56. Treapăt LM., Gheorghiu A., Ochkovskaya M. (2018). A Synthesis of the Sharing Economy in Romania and Russia. In P. F. Vătămănescu EM., Knowledge Management in the Sharing Economy. Knowledge Management and Organizational Learning, (Vol. 6). Cham: Springer. https://doi.org/10.1007/978-3-319-66890-1_4
- 57. Vignon, J. (2004). Pension developments in EU. Amsterdam: ING International Pensions Seminar.
- 58. Voicu, M. (2006). Dezvoltarea socială și legitimitatea politicilor sociale, în "Dezvoltarea socială: câteva elemente teoretice", în Zamfir, C., Stoica, L. (coord.), "O nouă provocare: Dezvoltarea socială", Collegium, Editura Polirom.

- 59. Womack J, Jones D. (1996). Lean Thinking, Banish Waste and Create Wealth in Your Corporationk. (S. &. Schuster, Ed.) pp. p. 15–16.
- 60. * * * https://insse.ro
- 61. * * * https://population.un.org
- 62. * * * https://www.populationpyramid.net
- 63. * * * legislatie.just.ro
- 64. *** www.asfromania.ro
- 65. * * * www.monitoruljuridic.ro
- 66. *** www.pensii.ro

Acknowledgement

An earlier version of this article was presented at the 12th International Multidisciplinary Academic Conference, EUB-2024: Economics of Sustainable Development. Economic Resilience to Global Climate Challenges, organized by the Faculty of Financial Management at the Ecological University of Bucharest. We extend our gratitude to the scientific reviewers and colleagues who participated in the conference's initial session for their valuable suggestions and comments, which contributed to enhancing this paper.