EDUCATION AND CREATIVITY
FOR A KNOWLEDGE BASED SOCIETY

ECONOMY PROCEEDING BOOK

Editor
Dean, Conf. Univ. Dr.
Ioana DUCA

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UNIVERSITATEA
# TITU MAIORESCU

The 19th International Conference

# EDUCATION AND CREATIVITY
## FOR A KNOWLEDGE BASED SOCIETY

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KNOWLEDGE • INNOVATION • IMPACT

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The legal and scientific responsibility of the manuscripts belongs to the authors.

International Conference **"**Education and creativity for a knowledge based society (19th edition)", Bucharest, Romania, November 20 - 22, 2025

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I am gratified to have the honour to put forward the vote of thanks to all the Congressional Coordinators, Congressional Committees, and Authors who provided intensive work performance for the Conference.

We aim to contribute international trade field through our International Conference **"**Education and creativity for a knowledge based society (19th edition)", Bucharest, Romania, November 20 - 22, 2025.

A beautiful congress with more than international Conference criteria is waiting for all of you. I wish to meet you all at these new international conferences…

**PhD University Professor Titi Paraschiv**

**Vicerector of Titu Maiorescu University**

International Conference **"**Education and creativity for a knowledge based society (19th edition)", Bucharest, Romania, November 20 - 22, 2025.


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## CONTENT




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# MICROENTERPRISE INCOME TAX

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*Abstract: In this article, we present the conditions that a company must meet in order to opt for the application of the microenterprise income tax, the taxable revenues and those that do not fall within the scope of this tax, the applicable tax rates, and the transition from the microenterprise income tax to the profit tax. To illustrate these aspects, we provide case studies regarding the determination of the tax, its recording in the accounting records, and the transition in the following quarter to paying the profit tax, as the entity no longer meets the conditions required to pay the microenterprise income tax. We also present the obligations owed by the company in cases where this tax is not paid on time or in the declared amount.*

Keywords: tax, microenterprise, income, quota, conditions.

## 1. INTRODUCTION

Commercial companies established in Romania carry out various economic activities. The purpose of a company's existence is to generate income and, implicitly, profit.

Romanian legislation stipulates that income obtained from economic activities is taxed quarterly, on a cumulative basis from the beginning of the year. For the income earned, companies may owe either:

• Profit tax, or

• Microenterprise income tax.

Profit tax may be owed by a company, regardless of the type of activity it performs and the level of its turnover.

To be classified as a microenterprise and subject to microenterprise income tax, a company must meet several conditions related to turnover, the nature of its activities, and the existence of employees.

Applying the microenterprise income tax is advantageous for companies that generate income, especially from providing services, but record expenses that are significantly lower than their revenues. Otherwise, when the difference between income and expenses is small, companies usually opt to pay profit tax.

When the conditions required to qualify as a microenterprise taxpayer are no longer met, the company will owe profit tax starting from that quarter or from January 1 of the following year.

## 2. CONDITIONS FOR APPLYING THE INCOME TAX ON MICROENTERPRISES

A microenterprise is a Romanian legal entity that cumulatively meets the following conditions as of December 31 of the previous fiscal year [4]:

• the income generated did not exceed the RON equivalent of 250,000 EUR, or 100,000 EUR starting January 1, 2026. To determine the EUR equivalent, the exchange rate valid at the end of the previous financial year is used. Thus, for the year 2025, the threshold in RON is 1,243,525 RON, respectively 250,000 EUR x 4.9741 RON/ EUR;

• the share capital cannot be held by the state and administrative-territorial units;

• it is not in dissolution followed by liquidation, registered in the trade register or in court;

• it has at least one employee. For newly established entities or those resuming activity after a temporary suspension, a 30-day period is granted to meet this condition;

• the income threshold is verified by summing the income of the Romanian legal entity with the income of related enterprises [6];

• it has submitted the annual financial statements by May 31 (inclusive) of the financial year following the reporting year;

• it has not been a payer of microenterprise income tax after January 1, 2023.

To determine the level of income, the same elements that constitute the taxable base will be considered.

The following entities cannot opt for the microenterprise income tax regime [4]:

• The Deposit Guarantee Fund in the banking system;

• The Investor Compensation Fund;

• The Private Pension Guarantee Fund;

• The Insured Persons Guarantee Fund;

• A fiscally transparent entity with legal personality;

• A Romanian legal entity conducting activities in banking, gambling, insurance and reinsurance or activities related to the exploration, development, and exploitation of oil and natural gas deposits.

The option to pay microenterprise income tax is exercised at the beginning of the year, by March 31 (inclusive) of the year for which the tax is paid, by submitting the declaration of mentions – Form 700 [4].

Newly established entities may opt to pay the microenterprise income tax starting from the date of establishment, if they meet the conditions regarding share capital ownership and related enterprises. This option is communicated to the tax authority at the time of registration by submitting the tax registration request.

## 3. TAX RATES AND CONDITIONS FOR THEIR APPLICATION

To determine income tax, microenterprises apply one of the following rates:

• 1% when the income earned does not exceed 60,000 EUR and the enterprise does not carry out any of the activities listed below;

• 3% when the income earned exceeds 60,000 EUR or the enterprise carries out primary or secondary activities such as:

-publishing computer games, other software products, or custom software development;

- other IT-related service activities;

- hotels and similar accommodation facilities;

- restaurants and other accommodation services;

- vacation and short-term accommodation facilities;

- catering services for events;

- other food service activities;

- bars and other beverage-serving activities;

- legal activities (only for legal entities with legal personality that are not fiscally transparent and are established by lawyers according to the law);

- general medical assistance activities;

- other specialized medical assistance activities;

- dental assistance activities;

- other human health-related activities.

Microenterprises that carry out one or more of the above activities must apply the 3% rate to all income, including income from other activities.

The 3% rate applies starting from the quarter in which the income exceeds 60,000 EUR or the microenterprise begins to carry out one or more of the listed activities.

The microenterprise may return to the 1% rate starting from the quarter in which it no longer carries out the listed activities and the cumulative income from the beginning of the fiscal year does not exceed 60,000 EUR. The exchange rate used to determine the income is the one valid at the end of the previous financial year.

## 4. TAXABLE BASE FOR MICROENTERPRISE INCOME TAX

To determine the taxable base, from the total quarterly income recorded by the microenterprise in Class 7 Revenue Accounts, the non-taxable income is subtracted, and the following are added [4]:

• The value of commercial discounts received after invoicing, recorded in account 609 „Trade discounts received'';

• In Q4 or in the last quarter of the taxable period (for microenterprises ceasing to exist), the favorable difference between income from exchange rate differences or financial income related to receivables and payables settled based on a currency exchange rate, results from their evaluation or settlement, and expenses from exchange rate differences or related financial expenses;

- Reserves (except for those representing tax facilities) reduced or cancelled, that

were deducted when determining taxable profit and were not taxed during the period when the microenterprise was subject to profit tax;

• Reserves representing tax facilities during the profit tax period that were used to increase share capital or cover losses.

**Non-taxable income** subtracted from the taxable base includes [4]:

• income related to the costs of product inventories;

• income related to the costs of services in progress;

• income from the production of tangible and intangible assets;

• income from subsidies;

• income from provisions;

• income from provisions or adjustments for depreciation or impairment losses that were non-deductible expenses when calculating profit tax or were created during the microenterprise tax period;

• income from expected loss adjustments for financial assets created by Romanian legal entities operating in banking, insurance, reinsurance, or capital markets, which were non-deductible expenses when calculating taxable profit or created during the microenterprise tax period;

• income from the refund or cancellation of interest and/or late penalties that were non-deductible expenses when calculating taxable profit;

• income from compensation received from insurance/reinsurance companies for damage to inventory or tangible assets;

• income from exchange rate differences;

• financial income related to receivables and payables settled based on a currency exchange rate, resulting from their evaluation or settlement;

• the value of commercial discounts granted after invoicing, recorded in account 709 "Trade discounts offered";

• income related to payment titles obtained by the entitled persons, according to the law,
initial holders registered with the Central Commission for the Determination of Compensation or their legal heirs;

• compensation received based on ruling of the European Court of Human Rights;

• income obtained from a foreign country with which Romania has a double taxation avoidance agreement, if taxed in that foreign country;

• dividends received from a Romanian legal entity.

• dividends received from a subsidiary of the microenterprise located in another EU member state.

The microenterprise income tax due is declared (Form 100 ,,Declaration regarding payment obligations to the state budget'') and paid quarterly, until the 25th (inclusive) of the month following the quarter for which the tax is calculated.

Starting with January 1, 2024, microenterprises no longer benefit from tax advantages for sponsorships or private scholarships. They also cannot deduct the purchase cost of fiscal electronic cash registers from the microenterprise income tax due.

## 5. MICROENTERPRISES THAT BECOME PROFIT TAX PAYERS (During the year)

Microenterprises may become subject to profit tax either after the end of the fiscal year or during the fiscal year.

After the fiscal year ends, a microenterprise that no longer meets the conditions set by the Fiscal Code is required to submit the declaration of mentions (Form 700 – "Declaration for the electronic registration/modification of subsequent mentions after tax registration, as well as for the cancellation of tax registration") by March 31 (inclusive) of the following fiscal year, to notify the tax authority of its exit from the microenterprise tax system.

Additionally, a microenterprise may choose to exit the microenterprise tax system and pay profit tax starting with the next fiscal year. This decision must also be communicated by March 31 (inclusive) of the following fiscal year by submitting Form 700.

A microenterprise must switch to profit tax during the fiscal year in the following situations [4]:

• if the microenterprise earns income exceeding 250,000 EUR, or 100,000 EUR starting with January 1, 2026, it becomes subject to profit tax starting with the quarter in which the threshold is exceeded and can no longer opt for the microenterprise tax regime in the future;

• if the microenterprise no longer meets the condition of having at least one employee, it becomes subject to profit tax starting with the quarter in which this condition is no longer met;

• if the microenterprise fails to submit the annual financial statements on time for the previous financial year, it becomes subject to profit tax starting with the quarter in which this condition is not met;

• if the microenterprise starts conducting activities excluded from the microenterprise tax regime (e.g., banking, insurance/reinsurance, gambling, exploration/development/exploitation of oil and natural gas deposits), it becomes subject to profit tax starting with the respective quarter;

• if a shareholder/partner holds more than 25% of the participation or voting rights in other microenterprises, the company becomes subject to profit tax starting with the respective quarter.

The change in the tax vector during the fiscal year must be communicated within 15 days from the date the change occurs, by submitting the declaration of mentions - Form 700. Once this change is made, the company cannot return to the microenterprise tax system.

## 6. APPLICATIONS REGARDING MICROENTERPRISE INCOME TAX

a. Microenterprise "A" produces wood pellets under NACE code 1629 "Manufacture of other wood products; manufacture of articles of cork, straw and plaiting materials" and has 10 employees.

During the year 2025, quarters I – III, it earned the following taxable income:

- Quarter I = 248,705 RON, approx. 50,000 EUR
- Quarter II = 397,928 RON, approx. 80,000 EUR
- Quarter III = 646,633 RON, approx. 130,000 EUR

Total = 1, 293,266 RON, approx. 260,000 EUR

The microenterprise income tax declared and owed, according to Form 100, is:

- for quarter I = 248,705 x 1% = 2,487.05 RON
- for quarter II = 397,928 x 3% = 11,937.84 RON

For the first quarter of 2025, the microenterprise declares and owes tax in the amount of 2,487.05 RON, by applying the 1% rate since the taxable income is below the 60,000 EUR threshold, approx. 50,000 EUR.

For the second quarter of 2025, the cumulative income from Q1 and Q2 reaches 130,000 EUR, so the company switches to the 3% rate.

For the third quarter of 2025, the cumulative income exceeds the limit of 250,000 EUR, so the entity becomes subject to profit tax. The same applies for the fourth quarter.

Starting 2026 and onward, the company will pay profit tax and can no longer opt for the microenterprise tax regime.

The accounting entry for microenterprise income tax owed is carried out by crediting the liability account 4418 "Income tax" and debiting account 698 "Income tax and other tax expenses"[1].

The tax payment on income is recorded by debiting 4418,,Income tax'' and crediting 5121,,Bank accounts in RON.

For the second quarter of 2025, the accounting entries for the microinterprise income tax is carried out as follows:

• microenterprise tax owed:

| | | | |
|---|---|---|---|
| 698 ,,Expenses with income tax and other taxes'' | = | 4418 ,,Income tax'' | 11,937.84 RON |

• tax payment:

| | | | |
|---|---|---|---|
| 4418 ,,Income tax'' , | = | 5121 ,Bank accounts in RON | 11,937.84 RON |

b. Microenterprise "B" operates under NACE code 4711 "Non-specialized retail trade with a predominance of food, beverages, and tobacco".

The taxable income earned in 2025:

- Quarter I = 149,223 RON, approx. 30,000 EUR
- Quarter II = 248,705 RON, approx. 50,000 EUR
- Quarter III = 198,964 RON, approx. 40,000 EUR

Total = 596,892 RON, approx. 120,000 EUR

For the first quarter, microenterprise income tax owned is 1,492.23 RON (149,223 RON x 1%).

For the second quarter, microenterprise "B" also carries out activities under NACE code 5611 "Restaurants". In this quarter, the tax rate will be 3% due to this new activity.


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Microenterprise income tax quarter II = 248,705 RON x 3% = 16,461.15 RON.

In the third quarter, microenterprise “B” no longer carries out activities under NACE code “Restaurants” thus it returns to the 1% tax rate.

Microenterprise income tax quarter III = 198,964 RON x 1% = 1,989.64 RON.

Since microenterprise "B" continues activity in the fourth quarter of 2025, the income generated will be added to the cumulative income generated in quarters I - III, which already exceeds the amount of 100,000 EUR. Therefore, starting January 1, 2026, microenterprise “B” can no longer apply the microenterprise income tax regime.

## CONCLUSIONS

The microenterprise income tax involves taxing a company's revenues regardless of the expenses recorded. The application of this tax is simplified compared to the profit tax and there are two tax rates, 1% and 3% of taxable income.

Small enterprises may apply the microenterprise income tax if they meet the legal conditions. The income threshold for opting into this tax regime is 250,000 EUR (RON equivalent) for the year 2025 and 100,000 EUR for the year 2026.

Exceeding these thresholds results in the microenterprise switching to profit tax starting with the quarter in which the threshold was exceeded.

Accounting is simpler and the risk of additional tax assessments, interest, and late penalties by tax authorities is reduced. This is because there is no need to classify expenses as deductible or non-deductible for tax purposes, which can otherwise affect the amount of profit tax owed.

To determine profit, dividends and the related tax, all expenses incurred by the micro-enterprise must be recorded.

The microenterprise income tax is advantageous for entities with low expenses relative to their income.

However, since expense deductibility is not allowed, an entity that records a fiscal loss is still required to pay microenterprise income tax based on its taxable income.

## BIBLIOGRAPHY

*1. Ciumag A., Ciumag M., Financial Accounting at European Standards, vol. 1 and 2, Măiastra Publishing House, Târgu-Jiu, 2022;*

*2. Munteanu V. and colleagues, Financial Accounting of the Enterprise, University Publishing House, Bucharest, 2015;*

*3. Accounting Law no. 82/1991, republished, with subsequent amendments and supplements, Official Gazette no. 454/18.06.2008.*

*4. Law no. 227/2015 on the Fiscal Code, with subsequent amendments and supplements, Official Gazette no. 688/10.09.2015.*

*5. Order of the Minister of Public Finance No. 1802/2014 for the approval of the Accounting Regulations on individual annual financial statements and consolidated annual financial statements, with subsequent amendments and supplements, Official Gazette No. 963/30.12.2014.*

*6. Emergency Ordinance No. 31/2024 on the regulation of certain fiscal-budgetary measures and for the amendment and supplementation of certain normative acts, Official Gazette No. 274/29.03.2024.*

*7. Emergency Ordinance No. 156/2024 on certain fiscal-budgetary measures in the field of public expenditure for the substantiation of the general consolidated budget for 2025, for the amendment and supplementation of certain normative acts, as well as for the extension of certain deadlines, Official Gazette No. 1334/31.12.2024.*

# PUBLIC FINANCES – THEIR MECHANISM, FUNCTIONS AND ROLE

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***Abstract*** *Each national economy has a specific functioning mechanism, capable of transforming the nation's resources into potential factors of social production, at all organizational levels. The functioning mechanism of the national economy is the way of its existence and movement, it expresses the way of development and economic and social relations and the fulfillment of the requirements of objective economic laws, in the form in which they have been transposed into economic policy measures and legal norms. In its most general sense, the functioning mechanism of any economy represents a system of structures and forms of its existence, of principles, methods and levers of its movement and management, including the ways of measuring effects and efforts, as well as the criteria for determining and boosting the efficiency with which resources are used to satisfy the function - purpose of the respective economic system.*

## 1. PUBLIC FINANCE MECHANISM

The public finance mechanism, or, in short, the financial mechanism, is an integral part of the functioning mechanism of the national economy. As such, we believe that the definition of the financial mechanism must have as a starting point the definition of the economic mechanism in general, highlighting its financial components, because the financial mechanism is only a structural component of it, with interferences in all its subsystems. The economic mechanism and the financial mechanism are not, therefore, two parallel mechanisms, there are determining relationships between them, as from the whole to the part.

Each national economy has a specific functioning mechanism, capable of transforming the nation's resources into potential factors of social production, at all organizational levels. The functioning mechanism of the national economy is the way of its existence and movement, it expresses the way of development and economic and social relations and the fulfillment of the requirements of objective economic laws, in the form in which they have been transposed into economic policy measures and legal norms. In its most general sense, the functioning mechanism of any economy represents a system of structures and forms of its existence, of principles, methods and levers of its movement and management, including the ways of measuring effects and efforts, as well as the criteria for determining and boosting the efficiency with which resources are used to satisfy the function - purpose of the respective economic system.

The general structure of the economic mechanism is particularly complex, being generated by the following factors: economic and social relations, based on certain types and forms of property, in interaction with concrete productive forces, the system of objective economic laws or principles and the mechanism of their action, structural elements or those located on the border between the economic base and the social superstructure, elements of the concrete system of economic management.

The way of valorizing resources depends on a series of circumstances, of which the most significant are, in our opinion, the following: specific branch structures, specific forms of organizing the activities of economic agents, regulations and institutions of supervision, guidance and control, principles and methods of management applied, methods and criteria for quantifying efforts, measuring effects and assessing efficiency, instruments for stimulating or inhibiting certain activities, for preventing and combating certain phenomena of a disruptive and unbalanced nature, for orienting the activity in a certain direction or towards a specific purpose, etc. These elements present both similarities and differences from one national economy to another.

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stimulating or inhibiting certain activities, for preventing and combating certain phenomena of a disruptive and unbalanced nature, for orienting the activity in a certain direction or towards a specific purpose, etc. These elements present both similarities and differences from one national economy to another.

The connection between the economic mechanism and the financial mechanism, as a connection between the whole and the part, must function in both directions, this being an absolutely necessary condition for achieving maximum efficiency in economic activity. When the methods, principles and instruments of the financial mechanism are used correctly, and production and consumption meet the requirements of financial efficiency, the economic mechanism itself functions efficiently. Otherwise, when the distribution through finance is carried out outside the normal, present or future economic efficiency, unfavorable phenomena, disproportions or inflationary aspects appear in the economy.

The financial mechanism bears the imprint of the fundamental characteristics of the economic relations of which it is the expression. It changes with the economic and social relations and evolves as they develop. As a result, in Romania, it is based on the existence and the way of realizing property, in its various forms, the production of monetary or commodity exchange, the market and circulation of money, distribution, self-financing and the mechanisms of indicative and mandatory planning. These essential characteristics represent the objective determinations that give the necessary and general substance to the existence of the financial mechanism of our society. The financial mechanism therefore expresses the requirements of the objective laws that govern the current society, in their interconditioning and connection. Viewed and considered in this way, the objective economic laws or principles represent an integrated quality.

In Romania, during its development, a specific economic and financial mechanism was created, corresponding to the social order, the degree of development of the productive forces, the complexity of economic processes, the action of objective laws, the nature of political power and the way it is exercised. All institutions, forms and methods of organization and management, economic levers and legal instruments, used to regulate economic processes, including those of a financial nature, form the economic mechanism of Romanian society, in which the financial mechanism is also integrated.

Currently, the economic and financial mechanism in our country includes the following basic financial components: the financial system, the financial levers used by the state to influence economic activity, the administrative methods of management in the field of finance, the institutional framework, made up of institutions and bodies with responsibilities in the field of finance, the legal framework, made up of laws, decrees, decisions and other normative regulations in the field of finance.

Therefore, the economic and financial mechanism in Romania has two types of regulation instruments, namely: direct regulation instruments, macroeconomic management, with the help of the plan with mandatory indicators for the sectors of economic and social importance, which usually form the public sector of the economy, and indirect regulation and self-regulation instruments, with the help of the plan with indicative indicators, the incentive plan and through the functioning of market mechanisms - competition, supply and demand, prices, wage levels, interest rates, exchange rates, etc., characteristic, in particular, of the private sector of the economy. These types of regulators of the economic mechanism and the instruments with which it is equipped involve elements of a financial nature.

The financial mechanism is structured on a series of component elements, among which a distinct place is occupied by financial levers, as an instrument for managing economic and social activity. These represent a subsystem of economic levers specific to the functioning mechanism of the national economy. The value categories, the multiple and varied methods – fiscal, budgetary, monetary, currency, etc., of constituting and directing public financial funds can constitute financial levers, only to the extent that they actually fulfill certain economic functions, engage on the economic bases of certain problems in better conditions than could be done through administrative methods.

To influence certain economic processes, a variety of levers are used, some of which have an exclusively financial character – taxes, duties, loans, subsidies, transfers, etc., and are called financial levers, being directly linked to the function of distributing finances, while others – prices and tariffs, exchange rates, etc. they are not directly related to it, having a general economic role and are known as economic-financial levers.

Between economic and financial levers there is a relationship as from whole to part: any financial lever is an economic lever, but not every economic or economic-financial lever is strictly financial. Economic-financial lever is defined as an economic category, with the help of which the state acts on the economic interest of a determined community or of its members, taken individually, to achieve a certain objective.

With the help of financial levers, the contribution of various factors to social progress is appreciated and action is taken to satisfy general economic-social needs.

The first requirement of the current financial and fiscal mechanism in our country is the functioning of all components of economic and social life on the principle of self-financing, of self-management, in general. The use of financial levers is subordinated, therefore, to the strengthening of the self-financing of economic agents, as the basic link in which the economic and social activity is carried out. The new product created and used by each economic agent, respectively the net added value, must reach such dimensions as to allow the satisfaction of major

requirements such as: supplying own development funds and stimulating the salaried personnel, other participants in the establishment of the company's capital, supplying public funds with financial resources.

Financial levers directly influence the level and structure of income and expenses of the population, economic agents and the state. In order to meet these objectives, financial levers, implicitly those of a fiscal nature, fulfill a series of functions, of which we consider the most important to be the following:

- tools for sizing and standardization, in the sense of using financial levers, on the one hand, to characterize complex phenomena and processes and aspects of social reproduction, which can only be expressed in monetary terms, and on the other hand, to determine the quantities of resources to be spent to satisfy certain needs, respectively to achieve certain objectives and the effects that will result from them, through which society imposes either a certain amount of effort to obtain a certain effect, or the effect that must be obtained, in relation to a certain effort.

- signaling instrument, a fact favored by the determination of the main financial categories at the level of each organizational link, up to the product. The expected or normed level usually represents an average per branch or subbranch, which includes all economic agents in the respective field. The application of average levels determines the emphasis of concerns for better use of production factors and cost reduction and highlights situations in which economic agents do not properly use the means at their disposal and in which technical equipment must be modernized.

- instrument of stimulation, in the sense of using financial categories to stimulate the development of economic and social phenomena and processes, which correspond to and lead to the achievement of the pursued objectives; this is the case of using prices, in order to stimulate the rational use of resources, the priority use of surplus resources, substitutes and waste, the introduction of technical progress, etc.

- instrument of distribution, distribution and redistribution of the gross domestic product, in the sense that the methods and instruments specific to public finances are used, to a very large extent, in the process of its distribution, of the formation of monetary funds in the economy. We recall, in this sense, the levies on budgetary funds on account of profit, the value added tax, excises and other direct and indirect taxes, budgetary allocations and subsidies, direct financing from budgetary funds of some social, economic and other actions or objectives, transfers from budgetary funds, in favor of some social categories.

The degree of interest of economic agents in the efficient use of resources depends on the possibilities of society to leave at their disposal an increasing part of the income it generates. These possibilities depend, in turn, on the volume and structure of production, on the level of production and circulation costs. The closer connection of results to the size of the funds at their disposal contributes to the mobilization of the reserves of economic agents, even from the stage of elaborating the activity programs.

Public finance policy or financial policy is an integral part of the general economic policy, with a particularly important role in the development and improvement of the entire economic and social activity. The political program defines the objectives pursued, the means and methods used to achieve them, the social or socio-professional categories to which it is addressed. The program of the party that has come to power becomes the government program and, as such, must be submitted to the Parliament for debate. The program adopted by the Parliament becomes the government program, which defines the state's policy at the domestic and foreign levels.

Within the framework of domestic policy, a special place is occupied by economic and social issues, which constitute, in the economic policy of the government, an essential component of the general policy. Within the framework of economic policy, financial policy is carried out, as an integral part of it, this, due to the place and role that financial relations occupy and fulfill, within the framework of economic relations.

The concept of financial policy, its objectives and features derive directly from those of the general economic policy, with the particularities corresponding to the development of financial relations. Through financial policy, the growth and modernization of the country's productive potential, its distribution on the national territory, the development of social and cultural activities, the increase in the efficiency of all economic and social activity, the preservation of the integrity of public wealth, the consolidation of the most viable economic and social relations, the evolution of the population's standard of living are directly influenced. This is due to the fact that the achievement of the objectives, provided for in the government program, involves both the provision of public financial resources and state intervention in the economy with the help of economic levers and methods, instruments, institutions, bodies and financial regulations.

Financial policy includes the totality of financial norms based on objective findings provided by the science of finance, used for the establishment, distribution and optimal use of centralized and non-centralized financial funds, necessary for the achievement of economic and socio-political objectives of the given stage. Through financial and fiscal policy, financial ratios and the use of financial levers are established, in order to influence social economic activities and achieve the proposed socio-economic and defense objectives.

Financial policy evolves and improves, as a result of the development of the economy, but, in turn, influences it in all its components. Financial policy is not immutable, given once and for all, but is modified and improved, both in terms of its objectives, as well as in terms of legal regulation and the use of financial levers.

The fact that financial policy is an integral part of the general policy of the state and plays an important role in achieving the objectives formulated by development programs, is supported by reputable foreign specialists.

## 2. FUNCTIONS AND ROLE OF PUBLIC FINANCES

The functions of public finance consist in the manifestation of their content and destination in the process of social reproduction. This mission is fulfilled through two functions:

- the distribution function;
- the control function.

The distribution function consists in the establishment and distribution of funds at the country level.

When establishing funds, the participation of all internal factors (autonomous governments, commercial companies regardless of the form of ownership, public institutions, population, etc.) as well as natural or legal persons residing abroad is taken into account.

The participating social sectors are also taken into account, as well as the nature of the resources.

After the establishment of public funds, their distribution follows, which is preceded by the inventory of the necessary for each form of activity, the quantification of these necessary, and finally their ranking according to social importance.

Of particular importance is the destination of these funds and their priority. The main destinations refer to defense and public order, insurance and social protection, research, health, education and other social actions.

Regarding the priority of destinations, this differs from country to country depending on the degree of economic and social development of each country.

The concrete forms in which the funds are distributed are: payment of salaries and other allowances, procurement of materials and goods, pensions, allowances and major investments.

The function of public finance control lies in the need for proper management of public funds belonging to the state and which are subsequently distributed to the requested destinations, depending on needs and availability.

State control encompasses all areas of economic and social life related to economic activity, medical care, social insurance, public order, health, education, culture, etc.

This is a financial control and refers to the verification of the way in which funds are constituted, their distribution, as well as the efficiency of the use of these funds. Therefore, the purpose of financial control is to prevent the performance of uneconomic operations, to prevent the immobilization of funds in such operations that lead to damage to public property.

The preventive financial control itself or that carried out by the competent state bodies prevents the conclusion and execution of unreal or illegal economic contracts, of the payment of salaries or other uneconomic rights, the recording of damages to public property.

In the world economic literature, especially in the second half of the last century, various points of view have been expressed regarding the functions of public finances and the fiscal system. This point is valid both for economically developed states and for those in the process of development, including those that are in a process of transition towards a liberalized, competitive economy, implicitly for Romania.

Thus, the French economist M. Duverger, starting from the reality that the contemporary state is no longer limited to its traditional, police and military functions and tasks, that it intervenes in traditional social life, in production, in times of crisis, to prevent price increases and maintain the purchasing power of the currency, in times of inflation, to ensure the best possible use of the technical-material, human and financial-currency potential, concludes that, under these conditions, public finances can no longer represent a means of covering administrative expenses, but, in particular, a means of intervening in social life, of exerting pressure on citizens, in order to organize the entire nation.

Another French economist, Pierre Lalumiere, emphasizes the increase in the interventionist role of the state in the economy, after the world crisis of 1929 – 1933, when it was proven that private initiative alone is no longer capable of ensuring economic and social balance. In order to intervene in economic and social life, the state has widely used instruments specific to public finances: public spending, taxes, etc. Public spending was conceived as a means of intervention in economic and social life, it continues to support state administration, but, equally, it must serve to increase the productive capacity of the economy or to redistribute income in the interest of disadvantaged social categories. Tax is also considered as an intervention instrument at the disposal of the state; it continues to ensure the coverage of public expenses related to state administration, but, at the same time, it must also allow for a certain equalization of social conditions or to provoke economic development. Through taxes, the national public budget takes a part of the gross domestic product, and through public spending it directs this part towards social and economic objectives.

Americans Richard and Peggy Musgrave state that taxes and expenditures can influence the economy in several ways and pursue different objectives, so that, in their opinion, budgetary policy fulfills three functions, namely:

- allocation function – in the sense that social goods that cannot be procured through the market are distributed through public authorities,
- distribution function – in the sense that, in a market economy, the distribution of income and wealth between individuals and legal entities is influenced by the way in which production factors are distributed, by forms of private property. This distribution can be considered unfair from the point of view of society, which is why the need arises to redistribute the respective incomes, using specific instruments of public finance – taxes, budgetary expenditures, etc.;
- stabilization function – in the sense that the state aims, through fiscal policy, to ensure a high level of employment, a reasonable degree of price stability, a solid balance of payments situation, as well as an acceptable rate of economic growth.

The structural components of the public financial system in our country, implicitly of the fiscal system, are individualized, depending on the participants in the process of distributing monetary resources and forming public financial funds, the methods used to create and distribute the respective funds, the place of establishment and destination of the funds, thus forming distinct categories of financial relations, but, at the same time, they are linked to each other, interconditioned, forming a unitary system of financial relations. The system of public financial relations is therefore characterized by unity in diversity. Each component of the public financial system constitutes the generalized expression of some economic phenomena and processes, the content of which is formed by the economic relations, which necessarily appear. Each component has a certain economic content and a precisely determined sphere of manifestation, but, nevertheless, viewed as a whole, it forms a unitary, coherent, well-cohesive system.

Each structural component of the public finance system in Romania usually corresponds to several financial funds. Each of these has its own rules for establishment or distribution, specific links with the other funds and a certain reason for being. These funds are classified according to several criteria, the most well-known of which are:

- the level at which they are established: (central level – the budgetary fund of the central state administration, the state social insurance fund, the property, personal and civil liability insurance fund, credit funds and medium level – the own funds of enterprises, institutions and individuals);
- destination (replacement and development – the own funds of enterprises, the funds procured by them on the loan capital market, part of the state's budgetary and extra-budgetary funds, part of the population's own resources, consumption – part of the budgetary funds, social insurance funds, part of the enterprises' own funds, part of the population's own resources, reserve – those entered under this title in the central state administration budget and in the budgets of administrative-territorial units and which serve to finance new and unforeseen objectives and actions, as well as reserve funds, also called risk funds, established at the disposal of enterprises, to cover possible losses, insurance – those established under this title at the disposal of specialized organizations with state capital for insurance of goods, persons and civil liability and which serve to cover losses or damages, as a result of natural disasters, accidents or other random phenomena or events and to pay the amounts due to insured persons, following the occurrence of the insured risk.

Regarding the role of public finances, we can say that it is appreciated according to the needs that finances can satisfy, namely needs for social protection, defense, public order, etc., as well as satisfying the needs of people who are deprived of certain sources of income, the elderly, the sick, the disabled, the handicapped, their assistance being provided in kind or in money through various aids, pensions or tax facilities.

Consequently, the role of public finances refers to:

- ensuring the proper functioning of state institutions;
- ensuring economic development;
- the judicious distribution of a part of the GDP;
- satisfying social needs.

***REFERENCES***


*1. Popa A., Fiscality, CECCAR Publishing House Bucharest, 2023;*
*2. Popeangă G., Fiscality, Măiastra Publishing House Tg. Jiu, 2022;*
*3. Popeangă G., Fiscality in Romania, Măiastra Publishing House, Tg. Jiu, 2025;*
*4. Stănescu C., General Finance, University Publishing House, Bucharest, 2011;*
*5. Ungureanu M., Financial Policies and Practices, University Publishing House, Bucharest, 2013;*
*6. Ungureanu M., Fiscality, University Publishing House, Bucharest, 2015;*
*7. Vintilă N., Applied Fiscality, Beck Publishing House, Bucharest, 2013*

# KNOWLEDGE AS THE NEW ECONOMIC CAPITAL: FROM INTANGIBLE RESOURCE TO COMPETITIVE ADVANTAGE

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***Abstract*** *This paper examines the evolution of knowledge into the leading productive force and the main driver of competitive advantage in the modern digital economy. In an era characterized by globalization, rapid technological progress, and information ubiquity, knowledge functions as an intangible yet decisive form of capital capable of generating value, innovation, and long-term sustainability. The research outlines the theoretical underpinnings of the knowledge-based economy, emphasizing the dimensions of intellectual capital—human, structural, and relational—and their joint contribution to organizational value creation.*

*The analysis underscores the significance of knowledge management as the mechanism through which information is transformed into innovation, referencing Nonaka and Takeuchi's SECI model as a conceptual framework for understanding the dynamic conversion of knowledge. Furthermore, the study identifies major challenges inherent in the knowledge economy, including disparities in information accessibility, the accelerated obsolescence of skills, and ethical issues surrounding digitalization and data protection.*

*The conclusions highlight that the true wealth of the twenty-first century lies in the ability to cultivate, manage, and apply knowledge strategically. Organizations and nations that invest in education, research, innovation, and intellectual capital development are best positioned to secure sustainable competitiveness in an information-driven global landscape.*

**Introduction**

The transition from an industrial economy to one centered on knowledge and innovation represents one of the most profound transformations in human history. Whereas prosperity during the nineteenth and twentieth centuries depended heavily on tangible assets such as labor, land, and machinery, the twenty-first century has ushered in an era where knowledge, information, and intellectual capability have become the dominant factors shaping productivity and growth. In today's hyperconnected, technology-enabled world, creativity, information flow, and collective intelligence often outweigh material resources in determining economic success.

The concept of the **knowledge-based economy**, sometimes referred to as the *post-industrial paradigm*, situates the generation, dissemination, and application of knowledge at the core of social and economic development. As management pioneer Peter F. Drucker observed, knowledge has evolved from a supporting input into a central and renewable form of capital—one that drives innovation, adaptability, and value creation. Economic advantage no longer stems primarily from the control of physical assets or geographic resources but from the capacity to transform ideas and information into new products, services, and processes.

This shift has been amplified by the global spread of information and communication technologies (ICT) and the emergence of industries whose value rests primarily on intellectual inputs—software, biotechnology, artificial intelligence, and the creative sectors. Within such an environment, competitive strength depends less on production scale and more on the capacity for continuous learning and innovation. Organizational learning, digital transformation, and the management of intellectual capital have become essential levers of productivity and global competitiveness.

Knowledge today operates as a distinct form of **intangible capital**—one that grows through use and sharing rather than diminishing through consumption. Its diffusion stimulates innovation, problem-solving, and adaptive capacity within both organizations and societies. Unlike material goods, knowledge multiplies as it is exchanged, generating new perspectives and cumulative progress.

At the same time, the exponential expansion of digital infrastructures has democratized access to data, enabling global participation in information exchange. However, this abundance has also highlighted a critical distinction between data and knowledge. While data represent raw inputs, knowledge emerges through interpretation, contextualization, and application. The central challenge of the twenty-first-century economy is thus not merely to collect information but to convert it into actionable understanding that drives innovation and value creation. This transformative process defines the essence of the knowledge-based economy.

## 1. The Fundamentals of the Knowledge-Based Economy

The concept of a *knowledge-based economy* (KBE) emerged during the latter half of the twentieth century, as industrial societies evolved toward systems increasingly defined by information flows, education, and innovation. This shift marked the gradual transformation from economies centered on material production to those driven by intellectual productivity, where value creation stems primarily from human ingenuity and technological advancement. Pioneering thinkers such as **Peter F. Drucker** were among the first to note that knowledge had become the most vital factor of production—surpassing land, labor, and physical capital as the foundation of competitiveness and growth.

In this new paradigm, organizational success depends less on physical resources and more on the ability to generate, structure, and apply knowledge effectively. Competitive advantage derives from cognitive and innovative processes rather than from mechanical efficiency or scale. As a result, economic power is increasingly determined not by ownership of tangible resources but by the capacity to convert intellectual potential into market-relevant innovation.

From a systemic perspective, the knowledge-based economy can be viewed as an interconnected ecosystem where technology, human capital, and information continuously interact to foster development. Institutions such as the **Organisation for Economic Co-operation and Development (OECD)** emphasize that modern growth is rooted in the creation, diffusion, and practical application of knowledge across all levels of society. Within this framework, learning and innovation are not optional pursuits but essential prerequisites for progress.

### 1.1. Core Characteristics of the Knowledge-Based Economy

The knowledge-based economy diverges fundamentally from the traditional industrial model. Several distinctive features highlight its transformative nature:

1. **High informational content of goods and services.** Modern products derive most of their value not from physical inputs but from intellectual and technological components. For example, in the case of a smartphone, the cost of raw materials and assembly represents only a small portion of its overall worth, whereas software, design, and embedded innovation account for the majority of its economic value.
2. **Global digital interconnectivity.** The proliferation of information and communication technologies (ICT) has established extensive digital networks that enable global collaboration and knowledge exchange. These infrastructures facilitate open innovation, virtual teamwork, and access to global markets, dramatically lowering barriers to participation in economic activity.
3. **Rising significance of intellectual capital.** Human talent, expertise, and creativity have become the principal drivers of value creation. As a consequence, organizations increasingly prioritize investment in people—through education, training, and knowledge sharing—over investment in machinery or raw materials.
4. **Acceleration of technological change.** The pace of innovation has reached unprecedented levels, compelling organizations to develop dynamic capabilities that allow them to adapt rapidly. Continuous learning, reskilling, and flexibility have replaced stability and routine as key determinants of success.

Within this framework, knowledge behaves as a renewable, self-reinforcing asset. Unlike material goods that diminish through use, knowledge expands through dissemination and collaboration. Every instance of exchange or application enriches the collective pool of ideas, fueling a cycle of innovation and growth. This capacity for self-renewal positions knowledge as a sustainable factor of production and a critical foundation of competitiveness in the twenty-first century.

### 1.2. The Strategic Impact of Digitalization

Digitalization constitutes the engine of the knowledge economy, fundamentally reshaping how knowledge is created, stored, and distributed. The convergence of technologies such as **artificial intelligence (AI)**, **big data analytics**, the **Internet of Things (IoT)**, and **cloud computing** has enabled organizations to process massive volumes of data at unprecedented speed. These tools transform raw data into meaningful insights, improving decision-making, optimizing resource allocation, and enhancing innovation capacity.

Digital infrastructures have also redefined how knowledge is captured and shared. Online repositories, collaborative workspaces, and e-learning platforms facilitate the conversion of individual expertise into organizational memory. In doing so, digitalization amplifies both the speed and scope of knowledge dissemination, breaking down geographical and disciplinary barriers.

Moreover, digital tools enhance inclusivity in knowledge creation. They enable remote collaboration, continuous professional development, and open access to research outputs. Consequently, digitalization acts as both an enabler and accelerator of the knowledge-based economy, bridging the gap between information availability and its effective application.

However, digitalization also introduces new challenges—ranging from cybersecurity threats and data privacy concerns to ethical issues related to artificial intelligence. Addressing these challenges requires a balanced approach that combines technological innovation with robust governance and human-centered design.

### 1.3. Pillars of the Knowledge-Based Economy

The foundation of the knowledge-based economy rests upon three interdependent pillars that collectively sustain its structure and dynamics:

- **Education and Lifelong Learning.** Human capital development is the cornerstone of a knowledge-driven system. Lifelong education equips individuals with the cognitive flexibility and creative capacity necessary to generate and apply knowledge effectively. Continuous learning ensures that societies remain adaptable amid technological change.
- **Research, Development, and Innovation (R&D).** Scientific inquiry and technological innovation transform theoretical knowledge into practical outcomes—new products, services, and organizational processes that drive economic performance. Investment in R&D serves as a key mechanism through which knowledge translates into tangible growth.
- **Information and Communication Technologies (ICT).** ICTs provide the infrastructure that connects people, organizations, and ideas, enabling the efficient flow of information across global networks. They underpin the processes of knowledge generation, storage, and transfer that characterize the modern economy.

Together, these pillars create a dynamic and adaptive economic ecosystem capable of continuous renewal. In such a context, knowledge transcends its traditional role as an educational by-product and emerges as a **strategic resource**—one that determines not only organizational performance but also a nation's position in the global hierarchy of innovation and development.

## 2. Intellectual Capital: The New Form of Economic Wealth

The emergence of the knowledge-based economy has fundamentally redefined how value is created and sustained within organizations. In the industrial era, wealth was closely associated with tangible assets—land, machinery, and financial resources. By contrast, the twenty-first century attributes economic strength primarily to *intangible assets*: human expertise, creativity, innovation capability, and organizational relationships. This transition has given rise to the concept of **intellectual capital**, a framework for understanding the hidden wealth embedded in the knowledge and competencies of individuals and institutions.

The notion of intellectual capital gained prominence in the 1990s, when scholars such as **Thomas A. Stewart** and **Leif Edvinsson** argued that traditional accounting systems failed to capture the true value of organizations. They emphasized that corporate success depends not merely on what firms own physically, but on what they *know* and how effectively they use that knowledge. Intellectual capital thus encompasses all intangible elements that can be mobilized to generate value, positioning knowledge as both an asset and a dynamic capability that grows through use and interaction.

At its core, intellectual capital represents the synthesis of knowledge, skills, organizational structures, and external relationships that enable innovation and adaptability. It is not static but continuously evolves through learning and collaboration. Most analyses distinguish among three interrelated dimensions: **human capital**, **structural capital**, and **relational capital**. Each of these components contributes uniquely to the creation and transfer of knowledge within and beyond organizational boundaries.

### 2.1. Human Capital

Human capital constitutes the foundation of intellectual capital and the primary driver of innovation and productivity. It encompasses employees' collective knowledge, technical competence, creativity, and motivation—the intellectual energy that fuels progress and transformation. Beyond professional skills, it also includes cognitive flexibility, problem-solving ability, emotional intelligence, and the capacity for continuous learning.

In a knowledge-driven economy, employees are no longer seen merely as executors of tasks but as active creators of value and innovation. Organizations that recognize and cultivate human capital treat their workforce as strategic partners. Through sustained investment in education, mentorship, and collaborative practices, they strengthen their adaptive capacity and resilience in rapidly changing technological environments.

Leading global enterprises such as Google, Microsoft, and Siemens illustrate this principle by fostering learning-oriented cultures that encourage experimentation, autonomy, and creative thinking. They view intellectual growth as an essential component of organizational competitiveness, not as a peripheral activity.

Equally important is the retention of talented individuals. The departure of a key expert often results in the loss of critical knowledge and a decline in innovation potential. Consequently, modern management strategies emphasize motivation, engagement, and a sense of shared purpose as mechanisms to preserve and expand human capital. Organizations that nurture trust, empowerment, and professional fulfillment are better equipped to convert individual potential into collective performance.

### 2.2. Structural Capital

While human capital resides within individuals, **structural capital** represents the organizational systems and frameworks that support, store, and amplify human knowledge. It includes internal infrastructures such as databases, digital archives, processes, and technologies that enable knowledge codification and transfer. Patents,

trademarks, software systems, and proprietary methodologies also fall within this category, as they embody institutionalized knowledge that persists beyond individual employees.

Structural capital ensures organizational continuity by embedding knowledge into processes and routines. When effectively developed, it transforms tacit know-how into accessible and replicable assets. In this sense, structural capital acts as the organizational "memory" that sustains innovation even amid workforce mobility or generational transitions.

The recent wave of digital transformation has significantly expanded the scope of structural capital. Platforms like Microsoft Teams, Confluence, and Slack enable real-time communication and cross-departmental collaboration, converting dispersed information into integrated organizational intelligence. These technologies create virtual environments where knowledge is continuously generated, refined, and redistributed.

In essence, structural capital serves as the connective tissue of the knowledge organization. It links human creativity to institutional stability, allowing knowledge to circulate efficiently and be leveraged for strategic advantage. A well-developed structural capital ensures that innovation is not a product of chance but the outcome of a deliberate and repeatable process.

**2.3. Relational Capital**

**Relational capital** captures the value embedded in an organization's relationships with its external environment—customers, suppliers, partners, investors, academic institutions, and the broader community. It encompasses trust, reputation, and collaboration, all of which play decisive roles in maintaining long-term competitiveness.

In a globalized and interconnected marketplace, no organization operates in isolation. Success increasingly depends on the capacity to build and sustain networks of trust that facilitate knowledge exchange and joint innovation. Brand image, customer loyalty, and strategic partnerships have become essential sources of differentiation that are difficult for competitors to imitate.

Relational capital also extends into the realm of knowledge co-creation. Partnerships between universities, research centers, and private enterprises enable the flow of expertise across institutional boundaries. Such collaborations foster innovation ecosystems in which ideas circulate freely, accelerating technological development and enhancing collective resilience.

In this context, reputation functions as both a social and economic asset. It not only influences customer perceptions but also determines an organization's access to talent, investment, and strategic alliances. By cultivating strong relational capital, organizations can shape their external environments rather than merely respond to them, thereby positioning themselves as influential participants in the global knowledge economy.

**2.4. The Interdependence Between Knowledge Economy and Intellectual Capital**

The relationship between the knowledge-based economy and intellectual capital is inherently symbiotic. The knowledge economy provides the enabling environment—characterized by digitalization, innovation networks, and global learning platforms—within which intellectual capital can grow. Conversely, intellectual capital constitutes the operational engine that drives the knowledge economy forward.

Investments in education, research, and innovation can thus be viewed as direct investments in intellectual capital. Countries such as **Finland**, **South Korea**, and **Japan** demonstrate that sustained development of intangible assets—skills, creativity, and technological expertise—can translate into tangible improvements in productivity and social well-being. These examples reveal that economic strength in the twenty-first century is not determined by natural resources or industrial output, but by the collective ability to generate and apply knowledge effectively.

In this sense, intellectual capital represents the true measure of modern wealth. It is not what economies extract from the earth, but what they cultivate in human minds. By aligning knowledge creation, organizational learning, and innovation capacity, both organizations and nations can achieve enduring prosperity in a world where the ultimate resource is intelligence itself.

**3. Knowledge as a Strategic Resource and Source of Competitive Advantage**

In an era characterized by globalization, digital transformation, and rapid technological progress, knowledge has emerged as the most critical strategic resource organizations can possess. Unlike traditional industrial economies, where competitiveness relied on efficiency, cost control, and access to raw materials, the contemporary economy is built on the capacity to generate, manage, and apply knowledge effectively. The strength of modern organizations lies not merely in what they produce, but in *what they know*—and in their ability to translate that knowledge into continuous innovation.

As early as the late twentieth century, management theorists such as **Peter F. Drucker** anticipated that knowledge-based organizations would dominate the global economy. This vision has materialized: in a complex and volatile environment, the mastery of knowledge creation and application has become the foundation of sustainable growth and strategic differentiation. The most valuable companies today derive their competitive advantage from innovation capabilities and intellectual assets rather than from physical resources or financial capital.

### 3.1. Knowledge as a Strategic Organizational Asset

Knowledge can be understood as a unique form of capital—intangible yet measurable, and capable of producing sustained economic value. It is composed of facts, experiences, and interpretations that collectively enable organizations to innovate, make informed decisions, and adapt to change. Unlike tangible resources, knowledge possesses several distinctive properties that render it a superior foundation for competitive advantage:

- **Intangibility.** Knowledge lacks a physical form but generates concrete, measurable value through its application.
- **Cumulative growth.** The more knowledge is used and shared, the richer and more refined it becomes.
- **Non-rivalry.** Sharing knowledge does not deplete it; instead, dissemination amplifies its potential impact.
- **Uniqueness.** Each organization develops its own distinctive configuration of knowledge, rooted in its people, history, and culture.

These attributes make knowledge both a strategic resource and a renewable source of advantage. To harness it effectively, organizations employ **Knowledge Management (KM)** systems—structured processes for creating, storing, sharing, and applying knowledge. KM transforms fragmented and unstructured information into collective intelligence that supports learning, decision-making, and innovation.

Industries driven by research and technology—such as biotechnology, aerospace, and information technology—demonstrate how knowledge directly shapes competitiveness. In these sectors, intellectual property, patents, and specialized expertise constitute the core of organizational value. Firms that can create new knowledge, protect it legally, and apply it faster than their competitors are those that achieve sustainable market leadership.

### 3.2. The Knowledge Transformation Process: From Information to Innovation

Knowledge acquires true strategic value only when it is converted into innovation—when it results in new products, processes, or business models that deliver measurable performance improvements. One of the most influential frameworks describing this transformation is the **SECI model**, developed by **Ikujiro Nonaka** and **Hirotaka Takeuchi**, which conceptualizes the dynamic interaction between tacit and explicit knowledge within organizations.

The SECI model identifies four iterative stages of knowledge conversion:

1. **Socialization** – the transfer of tacit knowledge through shared experiences, observation, and informal communication.
2. **Externalization** – the articulation of tacit insights into explicit forms such as documents, models, or procedures.
3. **Combination** – the integration of various explicit knowledge sources into structured systems, databases, and organizational processes.
4. **Internalization** – the assimilation of explicit knowledge into individual skills and expertise, where it becomes tacit again through learning and practice.

This cyclical process generates a continuous flow of knowledge creation and renewal. Each iteration reinforces collective learning, enhances organizational adaptability, and stimulates innovation. Rather than relying on isolated acts of creativity, sustainable innovation emerges from a cultural environment that encourages experimentation, collaboration, and reflection.

Organizations that institutionalize this process develop what can be described as *learning agility*—the ability to transform knowledge into strategic foresight and proactive adaptation. They evolve from reactive entities into knowledge-driven innovators capable of shaping market dynamics rather than merely responding to them.

### 3.3. Knowledge and Sustainable Competitive Advantage

The **Resource-Based View (RBV)** of strategic management provides a valuable theoretical lens for understanding why knowledge constitutes a long-term source of advantage. According to RBV, only resources that are *valuable, rare, inimitable,* and *non-substitutable* (the **VRIN** attributes) can generate sustained competitiveness. Knowledge satisfies all these conditions:

- **Valuable** – it enhances decision-making and enables innovation.
- **Rare** – it is embedded in unique combinations of skills, experiences, and organizational routines.
- **Inimitable** – tacit knowledge, culture, and informal relationships cannot be easily replicated.
- **Non-substitutable** – no other asset can fully replace knowledge in driving innovation and strategic renewal.

Organizations that build their strategies around knowledge creation and learning thus develop capabilities that strengthen over time. Unlike physical assets that depreciate, intellectual resources appreciate through use and refinement. Investment in knowledge—via training, research, and collaboration—yields compounding returns in the form of innovation and resilience.

A paradigmatic example is **Apple Inc.**, whose sustained success lies not in manufacturing capacity but in its integrated knowledge ecosystem. The company's competitive strength stems from its mastery of design thinking, technological expertise, and user-centered innovation, supported by a culture of creativity and continuous learning. These intangible resources are extremely difficult for competitors to imitate, securing Apple's enduring leadership in global markets.

### 3.4. Barriers and Challenges in Leveraging Knowledge

Despite its immense potential, effective knowledge management faces numerous obstacles. Among the most pressing challenges are:

- **Fragmentation of information.** Many organizations struggle to consolidate knowledge dispersed across departments, systems, or individuals, leading to inefficiencies and duplication of effort.
- **Cultural resistance.** Employees may be reluctant to share knowledge due to hierarchical barriers, lack of trust, or fear of losing personal value within the organization.
- **Knowledge obsolescence.** Rapid technological change leads to the continual aging of skills and expertise, requiring constant learning and adaptation.
- **Data security and intellectual property issues.** The balance between open knowledge sharing and protection of proprietary information is increasingly difficult to maintain.

Overcoming these barriers requires more than technological solutions—it demands cultural and strategic alignment. Successful organizations cultivate trust-based environments that reward collaboration, transparency, and continuous learning. Digital platforms such as intranets, AI-powered knowledge repositories, and collaborative applications facilitate these objectives, but the ultimate determinant of success remains the human commitment to share and co-create knowledge.

A mature knowledge culture thus integrates both **technological infrastructure** and **social dynamics**. It combines efficient systems for data management with a collective mindset that values curiosity, innovation, and mutual support. When these dimensions are balanced, knowledge becomes not only a productive asset but also the foundation of organizational identity and purpose.

## 5. Methodology and Research Approach

This paper adopts a **qualitative and conceptual methodology** designed to explore the interconnections between the knowledge-based economy, intellectual capital, and sustainable competitiveness. Rather than relying on quantitative or empirical data, the study synthesizes established theoretical perspectives to construct an integrated analytical framework. This approach enables a deeper understanding of how knowledge functions simultaneously as an economic resource, an organizational capability, and a foundation for long-term advantage.

The research relies primarily on **secondary sources**, including scholarly literature, institutional reports, and seminal contributions from authors such as **Peter F. Drucker**, **Ikujiro Nonaka**, **Hirotaka Takeuchi**, and **Thomas A. Stewart**. These sources provide the conceptual underpinnings necessary to interpret the dynamics of knowledge creation and its transformation into intellectual capital.

The methodological structure comprises three interrelated phases:

1. **Literature Review and Theoretical Synthesis** – identifying key contributions in the fields of knowledge management, innovation economics, and intellectual capital. This stage establishes the theoretical vocabulary and core concepts that frame the discussion.
2. **Conceptual Integration** – comparing and interrelating models such as Nonaka and Takeuchi's SECI framework, the Resource-Based View (RBV) of strategic management, and the OECD's definition of the knowledge-based economy to highlight their complementarities and intersections.
3. **Critical Interpretation** – evaluating how these theories interact in explaining organizational performance in digitally driven and innovation-intensive contexts. The analysis focuses on the mechanisms that convert knowledge into innovation and competitive resilience.

Through this design, the study seeks to generate a coherent narrative that bridges macro-level economic trends with micro-level organizational processes. The qualitative approach allows for flexibility and interpretive depth, facilitating an exploration of how intangible assets and learning processes shape economic value creation.

## Conclusions

The transition toward a knowledge-based economy has redefined the foundations of production, competitiveness, and value creation in contemporary society. Knowledge now serves as the central axis of economic progress, surpassing traditional resources such as labor, land, and capital in both significance and potential. The modern organization's capacity to generate, share, and apply knowledge effectively determines not only its economic success but also its ability to adapt and thrive in a rapidly changing environment.

This transformation has introduced a new form of wealth—**intellectual capital**—which consolidates the intangible assets that fuel innovation and long-term performance. The synergy between **human capital** (skills and creativity), **structural capital** (organizational systems and processes), and **relational capital** (networks and trust)

forms the backbone of value creation in the digital age. Together, these elements sustain a cycle of learning and innovation that drives organizational and societal advancement.

The analysis presented throughout this study demonstrates that knowledge is not merely an input but a **strategic capability**—a resource that grows through sharing, resists imitation, and underpins sustainable competitive advantage. When managed systematically through knowledge management processes and supported by digital infrastructures, knowledge becomes a continuous source of innovation, resilience, and growth.

The knowledge-based economy also emphasizes **collaboration and interdependence**. Its vitality stems from networks of interaction—among individuals, organizations, and nations—that facilitate the free flow of ideas and expertise. In this interconnected landscape, knowledge expands when shared and multiplies when applied collectively, reinforcing the notion that intellectual progress is both a social and an economic phenomenon.

However, the path toward effective knowledge utilization is not without challenges. Issues such as data fragmentation, organizational silos, and the rapid obsolescence of skills can undermine the potential of knowledge assets. Overcoming these barriers requires sustained investment in education, digital literacy, trust-building, and ethical governance. Leadership must prioritize openness, inclusivity, and lifelong learning as essential components of organizational strategy.

**References**


1.Barney, J. (1991). *Firm resources and sustained competitive advantage*. *Journal of Management, 17*(1), 99–120. https://doi.org/10.1177/014920639101700108

2.Drucker, P. F. (1993). *Post-capitalist society*. HarperCollins.

3.Edvinsson, L., & Malone, M. S. (1997). *Intellectual capital: Realizing your company's true value by finding its hidden brainpower*. HarperBusiness.

4.Nonaka, I., & Takeuchi, H. (1995). *The knowledge-creating company: How Japanese companies create the dynamics of innovation*. Oxford University Press.

5. Nicolescu, O, Verboncu, I. (2019). *Managementul organizației bazate pe cunoaștere.* București: Editura Economică.

6.Organisation for Economic Co-operation and Development (OECD). (1996). *The knowledge-based economy*. OECD Publishing. https://doi.org/10.1787/9789264063494-en

7.Stewart, T. A. (1997). *Intellectual capital: The new wealth of organizations*. Doubleday.

8.Sveiby, K. E. (1997). *The new organizational wealth: Managing and measuring knowledge-based assets*. Berrett-Koehler Publishers.

9.Senge, P. M. (1990). *The fifth discipline: The art and practice of the learning organization*. Doubleday.

10.Teece, D. J. (1998). *Capturing value from knowledge assets: The new economy, markets for know-how, and intangible assets*. *California Management Review, 40*(3), 55–79. https://doi.org/10.2307/41165943

# USE OF COMPUTER APPLICATIONS IN RESEARCHING LABOR FORCE DYNAMICS AT EUROPEAN AND NATIONAL LEVEL

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***Abstract:*** *The objectives of the article include researching the employment rate at European and national level by using specific computer applications, taking into account European policies in the field and the context stipulated in the EU Treaty, which represents a "new step towards achieving an ever closer Union of the peoples of Europe". The use of graphs made in Excel allows a suggestive representation of the dynamics of the studied phenomena as well as of some structural aspects, helping to better understand the topic addressed.*

## INTRODUCTION

Graphs are an eloquent way of presenting the dynamics of a phenomenon or parameter being analyzed, and are easy to create in Excel. After entering data into the spreadsheet, using the appropriate menu, the user defines a graph in the desired form (linear, histogram, structure diagram or combinations thereof), and the graph is quickly visualized[1].

Any change to the data in the spreadsheet is immediately reflected by the change to the graph, and in the latest versions, the reverse change is also possible. New versions of spreadsheet programs offer over 100 types of graphs in 2D and 3D format. There are a number of possibilities for customizing the defined models resulting from combining the features of this application. In addition, dialog modules, toolbars, imported graphic elements, etc. can be defined.

## PRIORITIES OF THE EUROPEAN STRATEGY IN THE FIELD OF SOCIAL POLICY AND EMPLOYMENT

The Social Policy Agenda takes into account the objectives and components of the social policy strategy and creates a five-year action plan. This programme provides a current framework for social policy and has as its fundamental principle the increasing role of social policy as a productive factor.

In addition, the Agenda presents a modification of this policy as a result of the structural changes that have taken place. There has been a shift from an approach that focused on reducing harmful social effects to one that focuses on quality and on "modernising the social system and investing in people", which integrates social policy with economic and employment policy.

At the same time, among the main objectives of the "Digital Decade", with concrete targets and objectives for 2030, aimed at the digital transformation of Europe, is also "a digitally skilled population and highly qualified digital professionals".

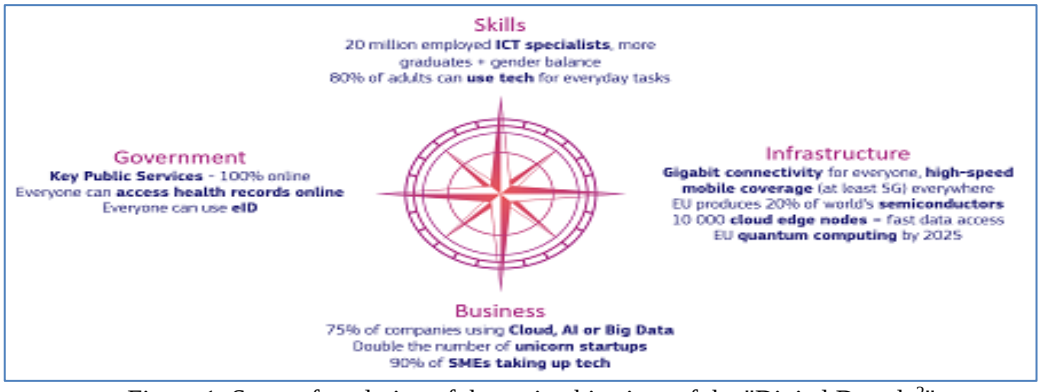


Figure 1: Stage of evolution of the main objectives of the "Digital Decade[2]"

[1] Vatuiu T., Catrina I., Iana S.-A. *Use of computer applications in the study of capital market dynamics in the current economic and social context*, International Conference "Education and Creativity for a Knowledge-Based Society" - 15th Edition (November 2021) indexed in the international database Social Science Research Network (www.ssrn.com);

[2] https://digital-strategy.ec.europa.eu/ro/library/cardinal-points-digital-decade-report-2023

One of the main objectives of the Europe 2020 Strategy was to increase the number of jobs and improve the quality of life. Since the start of the new decade, the Commission has proposed new and more ambitious targets in the area of employment, skills and social protection to build a strong social Europe by 2030[3].

In its resolution of 17 December 2020 on a strong social Europe for a just transition, Parliament called for legally enforceable social rights and specific social objectives by 2030. A strong social Europe is necessary for a competitive economy and for people's prosperity and well-being. An innovative, skilled workforce capable of making the digital and green transition will be essential for this[4].

Critical employment gaps remain, however, between the North and the South of Europe, and in some former communist bloc countries, there are still significant differences between capitals and regions with a high share of agriculture and rural populations, or between capitals and former pre-1990 mono-industrial regions that have failed to adapt to the new economies.

In the most recent Eurostat analysis on the state of the regions (NUTS 2), these aspects appear, providing an x-ray of the patterns regarding the divergence in terms of employment of people aged 20 to 64, suggestively shown in the figure below.

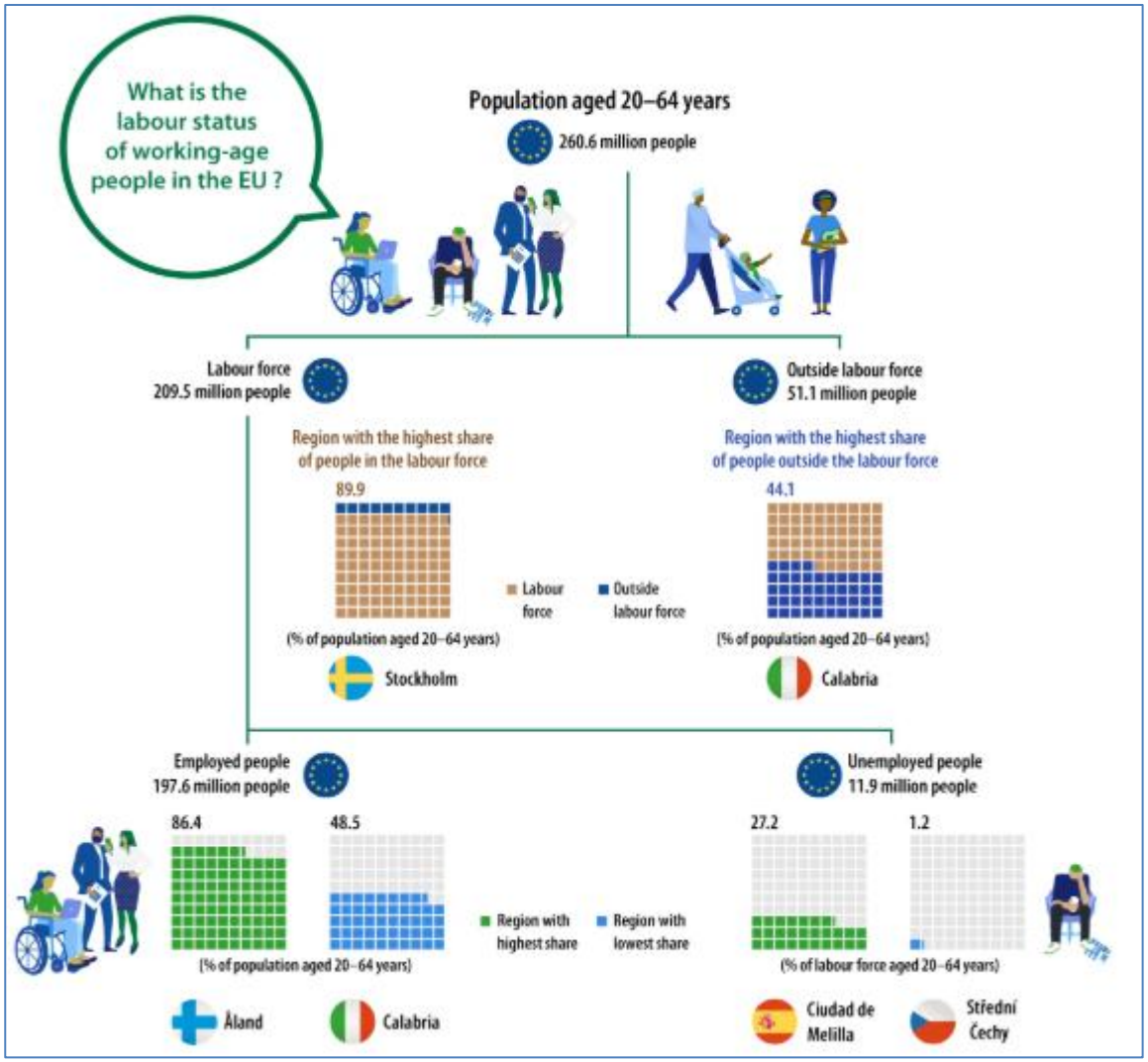


Figure 2: People aged 20-64 years (NUTS 2 regions, 2024) [5]

The employment rate in 2024 reached a historic high of 75.8% at EU level, 2.2 pps below the 78% target set in the 2030 Action Plan for the European Pillar of Social Rights.

[3] https://www.europarl.europa.eu/factsheets/ro/sheet/54/politica-de-ocupare-a-fortei-de-munca
[4] https://op.europa.eu/webpub/empl/european-pillar-of-social-rights/ro/index.html
[5] Eurostat (online data code lfst_r_lfsd2pwn) https://ec.europa.eu/eurostat/statistics-explained/images/b/bf/RYB-Infographics-CH04_RYB2025.png)

Almost half (46.5%) of all EU regions at level 2 of the Nomenclature of Territorial Units for Statistics (NUTS 2) for which data are available reached or exceeded the EU target of 78%. These 113 regions were found in clusters with high concentrations in:

- Czech Republic (all 8 regions)
- Denmark (all 5 regions)
- Germany (35 out of 38 regions)
- Ireland (all 3 regions)
- The Netherlands (all 12 regions)
- Slovakia (3 out of 4 regions)
- Sweden (all 8 regions), Estonia, Cyprus and Malta.

Italy consistently reports the highest regional disparity; Romania, close behind. Areas with relatively low employment rates are rural, sparsely populated or located on the periphery of the EU. The pattern is particularly visible in the southern regions of Spain and Italy, much of Greece, some regions of Romania and the outermost regions of France.

These areas are typically characterised by limited employment opportunities, especially for people with medium and high levels of qualification.

Another group of regions with relatively low employment rates are former industrial centres (especially mono-industrial ones) that have not adapted economically.Some of these have felt the negative impact of globalisation on traditional sectors of their economies (such as coal mining, steel or textiles). Examples include a number of regions stretching from north-eastern France to the Walloon Region (Belgium).

Around 1 in 4 EU regions for which data are available had an employment rate below 75.8% (EU average) in 2024[6]:

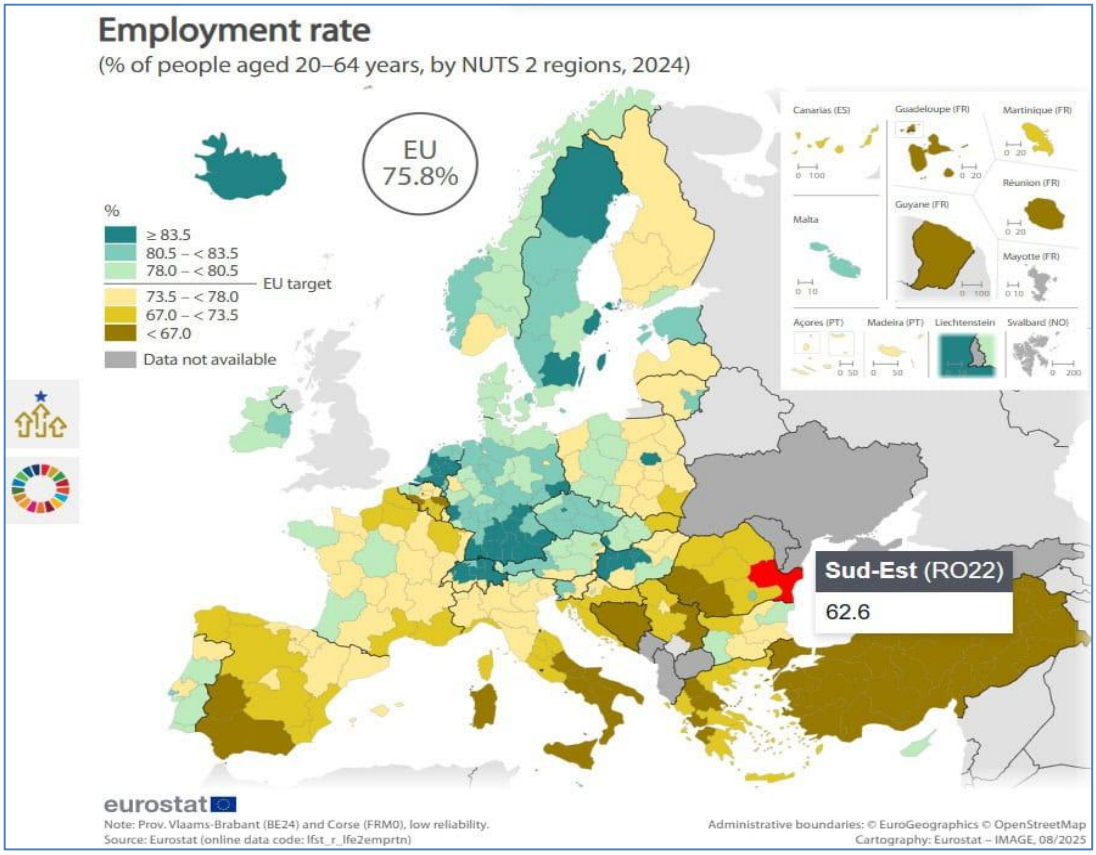


Figure 3: Employment rate (People aged 20-64 years NUTS 2 regions, 2024)[7]

This group included:

[6] https://www.facebook.com/photo.php?fbid=1253041466864843&id=100064770036868&set=a.298718162297183

[7] Eurostat (online data code lfst_r_lfsd2pwn)


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• 2 regions in southern Italy, where less than half of the active population was employed – Calabria (48.5%) and Campania (49.4%)

• the island region of Sicily (also in southern Italy), where employment covered just over half of the active population (50.7%), the third lowest rate in the EU

Romania has the third highest inter-regional coefficient of variation. EU countries that face considerable gaps in the labour market between their regions, with labour shortages in some regions in contrast to persistently high unemployment in others, are quite numerous.

The population-weighted coefficient of variation provides the best tool for analysing these inter-regional disparities, Eurostat explains. For example, Italy had the largest regional disparities in employment rates, with a coefficient of variation of 15.6%, observable on the north-south axis:

• the Alpine region Provincia Autonoma di Bolzano/Bozen recorded the highest employment rate (79.9%)

• the southern regions Calabria and Campania recorded the lowest rates (48.5% and 49.4%).

Other countries, namely Belgium (8.1%), Romania (7.6%) and Spain (6.5%) recorded the following coefficients of variation for regional employment rates in 2024:

• in Belgium, the highest regional employment rates were recorded in the Vlaams Gewest, while lower rates were observed in the Région Wallonne and, in particular, in the capital region

• in Romania, the highest regional employment rate was recorded in the capital region Bucharest-Ilfov (81.1%), significantly lower rates exist in all other regions, in particular in the South-East (62.6%) and South-West Oltenia (63.5%)

• in Spain, the highest regional rates are recorded in the northern and eastern regions, as well as in the capital region; lower rates were observed in the peripheral, southern and western regions.

At the other end of the spectrum, the smallest regional disparities in employment rates – with a coefficient of variation of no more than 2.0% – are observed in the Nordic EU countries and the Netherlands.

The only EU countries with an increase in disparities between 2014 and 2024 are Romania and Austria.

Data published by Eurostat indicate some convergence of employment rates across the EU between 2014 and 2024 – the coefficient of variation decreased from 13.0% to 9.5% over the decade under review.

In most countries, interregional disparities in employment rates have narrowed. The largest decreases – in relative terms – were recorded in Finland, the Netherlands, the Czech Republic, Portugal and Spain, where these regional gaps fell by at least 40%.

As previously mentioned, Romania and Austria are the only EU countries to report an increase in regional disparities, by 8.6% and 2.0% respectively:

The coefficient of variation for the EU as a whole fell from 13.0% to 9.5%. In 15 (out of 17) EU countries for which data are available, inter-regional employment rate disparities narrowed. The largest falls – in relative terms – occurred in Finland, the Netherlands, Czechia, Portugal and Spain, as regional disparities decreased by at least 40%. By contrast, Romania and Austria were the only EU countries to report an increase in regional disparities, rising 8.6% and 2.0%, respectively.

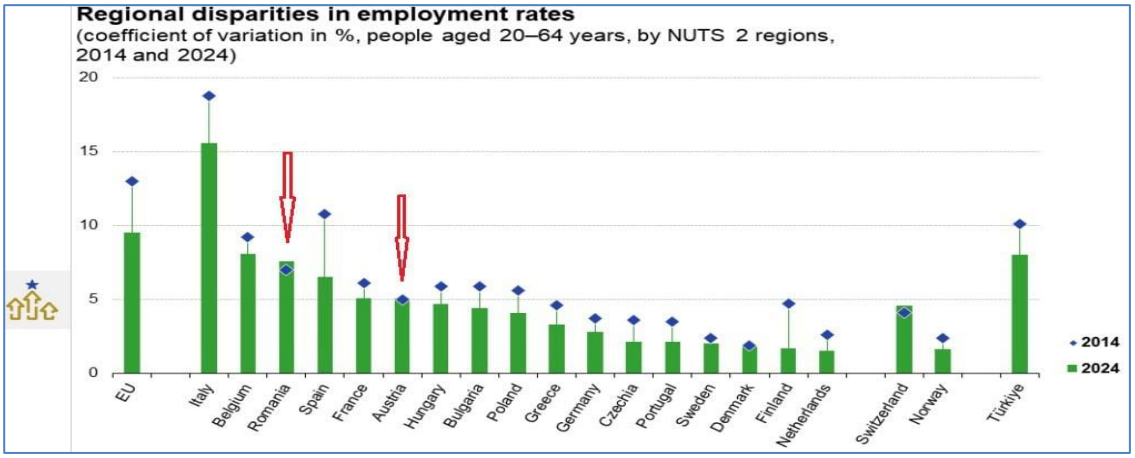


Figure 4: Regional employment rates converged to some degree across the EU between 2014 and 2024 [8]

**A NEW REALITY IN THE ROMANIAN ECONOMY**

[8] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Labour_market_statistics_at_regional_level&oldid=573514


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Statistical data indicates a new reality in the Romanian economy is creeping in: the employment rate, which has fallen sharply in the last year (Q1 2024 – Q1 – 2025), at a speed never seen since the pandemic.

This reality reconfigures the data that those who make the government program, the budget with its deficit, and the trends regarding the future orientation of the economy should take into account.

A comparison in the European context indicates a 4.4 pp year-on-year decline in employment in Q1 (before revisions), with detailed data providing a clearer picture of the situation and confirming that the Romanian labor market is collapsing, with industry being the main victim.

The rise in unemployment in the first three months of the year pushed employment on a downward trend, with Romania recording the strongest deterioration in the EU in Q1, unprecedented since the first year of the pandemic, 2020.

We note that the data are prior to the INS revisions.

The drop in unadjusted employment, of -2.1%, compared to the previous quarter, is the steepest of all countries – the next being Estonia, but at a huge distance, with -0.8%, as Eurostat shows:

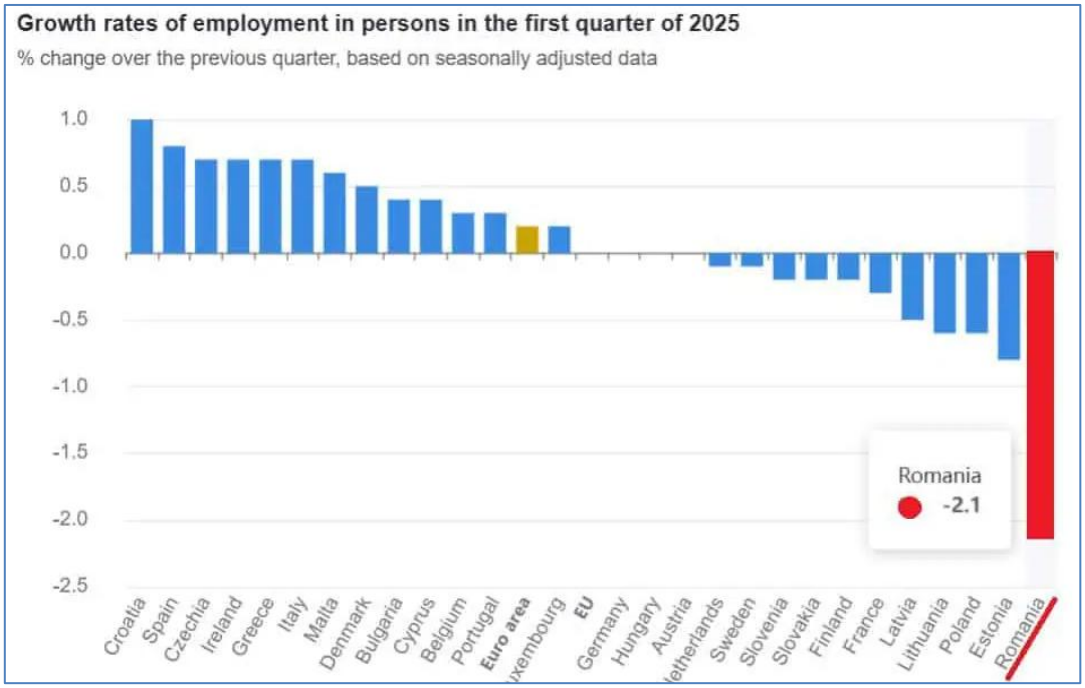


Figure 5: Growth rates of enploiment in persons in the first quarter of 2025 (% change over the previous quarter, based on seasonally ajusted data)

This is a significant short-term decrease, indicating a sharp reduction in the employed workforce compared to the previous quarter (Q4 2024), but incomparably lower than the year-on-year decline.

Compared to the same period last year, the drop is 4.4%, which reflects the economic contraction, sectoral crises (the impact of the collapse of the auto parts industry), tax reforms (the elimination of some facilities) that led not necessarily to layoffs but perhaps to the transition to the black economy, and the digitalization and introduction of AI in some segments, such as tax services.

We note that the employed population does not only include employees, but also people who worked, in a reference week, at least 1 hour for pay or for profit, including family workers who collaborate in the family business, according to the internationally valid methodology.

## CONCLUSIONS

The dynamics highlight the structural problems of the Romanian economy, the dependence on certain foreign industries (in the automotive sector, in particular) and on some foreign markets.

Although national governments are primarily responsible for social policy, EU law is applicable in certain areas[9]. For example, under Article 3 of the TEU, the European Union has an obligation to pursue social progress towards full employment of the workforce. At the same time, Article 145 of the Treaty on European Union states that the Member States and the EU must work together to create a sound strategy for creating a skilled, trained and adaptable workforce, as well as labour markets capable of adapting quickly to economic change.

The data presented shows high labor market volatility over the past year, with a record quarter-on-quarter decline (of -3.3%) in Q3 2024, followed by significant growth (of +1.8%) in Q4 and a collapse in Q1 2025.

Romania's dependence on Germany, higher than that of Poland

Top 3 decreases in the EU:

- 1. Romania (-4.4%)
- 2. Latvia (-1.6%)
- 3. Estonia (-1.1%)

Top 3 increases:

- 1. Ireland (+3.3%)
- 2. Croatia (+2.9%)
- 3. Spain (+2.7%)

The comparative analysis with what happened in Poland and the fact that 17 EU countries had increases in employment, seem to indicate that internal factors are decisive, not necessarily the European context.

The use of graphs made in Excel eloquently and suggestively conveys the dynamics of the analyzed phenomena.

## REFERENCES


1. Vatuiu T., Catrina I., Iana S.-A. *Use of computer applications in the study of capital market dynamics in the current economic and social context*, International Conference "Education and Creativity for a Knowledge-Based Society" - 15th Edition (November 2021) indexed in the international database Social Science Research Network (www.ssrn.com);
2. Vătuiu T., Guran Manciu L., Excel optimization Tool: The Solver, International Conference "Education and Creativity for a Knowledge-Based Society" - 6th Edition, Titu Maiorescu University, November 22 - 24, Bucuresti, 2012, published in Special Issue 6 of Journal of Knowledge Management, Economics and Information Technology Vol. II, December 2012, ISSN 2069-5934, http://www.scientificpapers.org/special-issue-december-2012/
3. Article 3(3) of the Treaty on European Union (TEU) and Articles 8-10, 145-150, 156-159 and 162-164 of the Treaty on the Functioning of the European Union (TFEU).
4. https://www.europarl.europa.eu/factsheets/ro/sheet/54/politica-de-ocupare-a-fortei-de-munca
5. https://digital-strategy.ec.europa.eu/ro/library/cardinal-points-digital-decade-report-2023
6. https://digital-strategy.ec.europa.eu/en/factpages/state-digital-decade-2024-report
7. https://www.europarl.europa.eu/factsheets/ro/sheet/54/politica-de-ocupare-a-fortei-de-munca
8. https://op.europa.eu/webpub/empl/european-pillar-of-social-rights/ro/index.html
9. Eurostat (online data code lfst_r_lfsd2pwn)
10. https://ec.europa.eu/eurostat/statistics-explained/images/b/bf/RYB-Infographics-CH04_RYB2025.png)
11. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Labour_market_statistics_at_regional_level&oldid=573514


[9] Article 3(3) of the Treaty on European Union (TEU) and Articles 8-10, 145-150, 156-159 and 162-164 of the Treaty on the Functioning of the European Union (TFEU). https://www.europarl.europa.eu/factsheets/ro/sheet/54/politica-de-ocupare-a-fortei-de-munca

# MANAGEMENT ACCOUNTING – A SOURCE OF INFORMATION AND DECISION-MAKING FOR BUSINESS MANAGEMENT

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*ABSTRACT: Economic organizations are particularly complex, and their relationships with other systems are highly diversified. In many countries, including Romania, the branch of accounting that provides information to external users is financial accounting, while the one that supplies information for internal use is management accounting, also known as cost accounting or analytical accounting. This branch offers a wide range of information on various issues, enabling informed and efficient decision-making. Considering the inevitable changes brought about by digitalization in different fields - economic, legal, and medical - management accounting has become increasingly useful for managers in promoting efficient solutions across domains, activities, and organizational structures.*

## 1. MANAGEMENT ACCOUNTING: EVOLUTION AND ORGANIZATION

Management accounting, known as „comptabilité analytique" in France or „contabilitatea de gestiune" in Romania, serves as an essential tool for business managers in the decision-making process.

### 1.1 Evolution

Management accounting emerged in Great Britain and the United States at the end of the 18th century, as a result of industrial development and growing competition. Its evolution can be divided into two main stages:

a. The interwar period: this stage spans the period between the two World Wars. During this time, the concept of „management accounting" did not yet exist; instead, the term „production accounting" was used, referring solely to the calculation of production costs.

b. The post-war period: beginning after World War II, in the 1940s and 1950s, the concept of management accounting emerged, differing from „production accounting" by including additional activities such as budgeting, analysis, control, and decision-making.

## 1.2 The Dual-Circuit Organization of Company Accounting

Thus, company accounting can be organized in two interconnected circuits:

- Financial Accounting – focuses on the control and accurate presentation of the company's assets as a whole and by structure, as well as on its financial position and operating results. This is done through summary documents designed to provide the information necessary for economic decision-making. It is standardized and mandatory for all economic entities and is organized according to regulations issued by the authorities.

- Internal Management Accounting (Managerial Accounting) – focuses analytically on the internal management of the entity, including the calculation of production costs, determination of profitability by products, works, and services, preparation of budgets by type of activity, and the provision of essential information for decision-making.

Management accounting thus represents a distinct area within the accounting system, with its main objectives being the measurement, correction, collection, and transmission of information used for planning, costing, control, and budget performance analysis, all in support of preparing internal managerial reports that guide internal decision-making.

## 1.3 Users of the Information Provided by Management Accounting

Management (or cost) accounting makes use of data and information from both the financial accounting system and the management accounting system in order to achieve its objectives. Unlike financial accounting—where annual reports are standardized—within management accounting, the budgets, summary tables, variance analysis reports, pricing sheets, cash-flow statements, and other studies and analyses are highly influenced by both the informational needs of users and the nature of the business.

Management accounting employs not only accounting techniques but also appropriate methods from statistics and operations research, while also taking into account the human factor in all activities. It emphasizes economic reasoning, with the ultimate goal of producing relevant and actionable information for management[1].

In general, the users of accounting information can be classified into three main groups[2]:

1. Those who manage the enterprise;
2. External users;
3. Individuals, organizations, and institutions.

The main users of the information provided by management accounting, as an integral part of the management process, are[3]:

a. **The organization's management**, with its multiple informational needs, which management accounting seeks to satisfy partially.

b. **Shareholders (investors)**, who are interested both in the evolution of internal processes and their financial impact, as well as in evaluating the efficiency of the company's new investment projects, based on which they make their investment decisions.

[1] Diaconu, P., *Managerial Accounting*, Economic Publishing House, Bucharest, 2002, p. 19.
[2] Diaconu, P., *Managerial Accounting*, Economic Publishing House, Bucharest, 2002, p. 18.
[3] Diaconu, P., op. cit., p. 19.

c. **Banks that grant loans**, particularly when the organization's investment or financing processes are supported through bank credit.

d. **The company's employees**, who are directly interested in salary policies and other compensation-related benefits provided by the organization.

Management accounting contributes to the decision-making system through:

1. cost analysis;
2. planning and budgeting;
3. formulation of decision-making reasoning;
4. control of resource use;
5. control of all activities through specific methods;
6. provision of information regarding variances and ways to correct them;
7. financial analysis of investments, etc.

The main themes addressed by management accounting are[4]:

*1. Forward-looking orientation*, meaning activities (such as formulating financial policies, planning, and decision-making) that involve forecasting costs and revenues; estimating future tax rates, interest, and inflation; and considering market and competitor reactions to new product launches or price changes. It also includes analyzing changes in cost structures and productivity, as well as the consequences of introducing new technologies.

*2. Economic reality,* since planning and decision-making rely on past data and performance generated by the surrounding economic environment. Therefore, management accounting must take into account the coordinates of the economic reality in which the managed organizational system operates.

*3. Goal congruence,* which requires that the information system of management accounting encourage employees—including management—in a way that contributes to achieving the organization's overall objectives. Ideally, the goals of the organization and those of its employees should be aligned.

*4. Information systems*, because in many organizations the management accounting information system is the most developed, due to the numerous sectors it monitors and whose activity must be reported to managers for decision-making. Consequently, its structure is a key component in ensuring the proper functioning of the organization.

*5. Statistical and operational research methods*, which represent a highly useful component of the investigative side of management accounting, successfully contributing especially during planning and budgeting stages.

*6. Uncertainty,* a fundamental issue in management accounting, since working with future estimates inherently involves scenarios, alternatives, statistical methods, and the possibility that established parameters may not be achieved. However, management accounting has developed methods to control uncertainty: creating scenarios, proposing alternatives, applying statistical techniques, etc.

## 1.4 The Qualitative Characteristics of Management Accounting Information

Among theorists, it is often stated that the usefulness of accounting information depends on its quality.

[4] Diaconu, P., op. cit., p. 21-22.


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Céline Michailesco[5], synthesizing the contributions of information theorists to the concept of information quality within the communication process considers that this concept involves three levels, namely[6]:

a. *Representation*, the level at which information corresponds to the economic reality being represented.

b. *Meaning formation and quality*, the level at which the communicated message acquires meaning through the symbolic representation of reality using accounting language (concepts, rules, and accounting conventions).

c. *Information transmission and quality*, the level at which the receiver (the user) receives the information and selects it for the purpose of decision-making.

At the end of the 1960s, research on information theory from an economic perspective - and its application to accounting - became an important field of investigation in the United States. Studies and research carried out on this topic allowed accounting processes and the informational systems of economic entities to be approached from a new angle, deepening the understanding of communication issues that may affect the quality of messages.

Lee and Bedford (1969) analyze the information transmitted by accounting based on the premise that it must reduce the uncertainties of the receiver. Another researcher, Soada (1994), used the mathematical theory of information to analyze accounting information and to criticize the excessive degree of selection applied when translating economic reality into messages. Soada (1994) explains information losses generated by the accounting process through the notion of noise, which distorts or diverts the content of the information perceived by the manager from the reality it reflects. Factors such as poor coding, weak presentation, inappropriate formatting, illegible writing, lack of interpretation, or unrecognized jargon, etc., can affect the message and create noise.

The effect of noise can be reduced through the use of redundancy[7]. However, excessive redundancy should be avoided, as it leads to the repetition of information that may obstruct the essential accounting information contained in the message.

Since among all „perceptions,"[8] the receiver's perception (in this case, that of the management accountant or manager) is the most important, it is crucial that the sender reduces ambiguities as much as possible and ensures the correct understanding of accounting information by the receiver.

**Information in itself has no value; it gains value only when it is used in the decision-making process and in making the final decision. It follows that the economic value of accounting information depends on the gain obtained from making the optimal decision, reduced by the cost of the information. More precisely, it depends on the decision table or decision tree implemented, on the cost of the informational system, and on the optimality, criterion pursued by the decision-maker** (since producing accounting information involves costs that are often considerable, and profits arise only from actions).

The quality of accounting information is assessed according to two parameters:

1. the usefulness of the information;
2. the cost of the information.

[5] Michailesco, C., *Contribution a l'etude des determinants de la qualite de l'information comptable diffusee par les entreprises francais*, These, Universite de Paris Daufine, 1998

[6] Minu, M., *Accounting as an Instrument of Power*, Economic Publishing House, Bucharest, 2002, pp. 107–108

[7] This means that more symbols or words are used than necessary to represent a message.

[8] Perception can be defined as the way in which a person understands the message contained in a report.


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Defining the concept of accounting information quality begins with identifying the boundaries and particularities of the accounting communication process and aims at determining the „quality criteria" or „qualitative characteristics" necessary for developing a measurement tool. It should be noted that in accounting normalization and doctrine, the criteria used to define the concept of accounting information quality are not identical, as their selection and hierarchy differ.

### 1.5 The Role and Position of the Management Accounting Information (Sub)System Within the Organization's Information System

Management accounting emerged from the need felt by managers of industrial organizations to run their businesses effectively[9]. Their practical mindset and technical background compelled them to build tools that would allow them to better manage the production process and quantify the gains resulting from productive activity. Over time, management accounting has been influenced by multiple factors, which have caused its use to no longer exhibit the same level of effectiveness as when it first appeared.

The fundamental question today is to determine the extent to which management accounting, in its current form,
still succeeds in fulfilling the objective for which it was originally designed[10].

No modern organization can be conceived without an information system. In fact, the organization itself constitutes a system.

According to Webster's Dictionary, a system is „a complex unit made up of various parts following a common plan or serving a common purpose; objects combined in interaction or interdependence; an assembly functioning in an orderly manner"[11]. Beyond clarifying the nature of systems, general systems theory also provides a useful framework for solving problems and designing information systems.

According to James O'Brien[12], an information system is a system that receives data as input and, after processing them, provides information as output. The components of such a system include: hardware and software resources (in the case of a system that uses computing technology - in other words, an information system; although today, manual information systems are increasingly rare*), human resources, capital resources, etc. It cannot be stated that an organization has only one monolithic information system. In reality, there is an interconnection of several information subsystems, placed between management and the operational units of the organization.

As for the term „economic information systems" („business information systems"), it refers to a variety of types of information systems - whether systems for transaction processing, management reporting, or decision support - that are implemented within one of the organization's functions: accounting, finance, marketing, human resources, etc.[13]

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[9] Diaconu, P., et al., *Advanced Managerial Accounting*, Economic Publishing House, Bucharest, 2003, p. 11.
[10] Diaconu, P., et al., *op. cit.*, p. 11.
[11] Webster's *Third International Dictionary of the English Language – Unabridged*, G & C Merriam, Springfield, Mass., 1981.
[12] O'Brien, J.A., *Management Information Systems,* 3rd edition Irwin, Homewood, IL., 1996, pp.33-35.
* In the United States, for example, the term „information system" is commonly used instead of „computer-based information system"
[13] O' Brien, J.A., *Op.cit.*, p.321.

Providing a single, definitive definition of an information system is difficult. Whatever definition is chosen, it must be understood that the economic information system is „a set of human and capital resources invested in an economic unit for the purpose of collecting and processing the data necessary to produce information that will be used at all decision-making levels of the organization's management and control"[14].

Before referring specifically to management accounting, we should note the view of information systems specialist Marshall Romney, who states that the accounting information system consists of people, procedures, and information technology. It is designed to fulfill three functions[15]:

1. collecting and storing data related to transactions, so that the organization can consult their history;
2. processing the collected data and obtaining useful information for planning, executing, and controlling the organization's activities;
3. providing appropriate control mechanisms to safeguard the organization's assets, including its "information assets."

The existence of these functions ensures the validity and accuracy of the information obtained[16]. According to Geneviève Causse[17], the development of a relevant, usable, and well-adapted accounting information system - suited to the economic and social context of a country - must meet the following characteristics:

- a simple and standardized accounting system;
- a broad vision of accounting;
- the adoption of international standards must take into account the particularities and specific characteristics of each country;
- professional training must be aligned with the choices made.

In the opinion of this French author, the chances of successfully implementing an accounting information system in accordance with international standards are overshadowed by several shortcomings, such as:

- the supply of accounting information does not match the demand;
- the accounting profession is generally not well organized;
- professional training and development are not adapted to actual needs;
- there are difficulties in conducting audits;
- there are difficulties in reliably preparing national accounts.

## 2. CURRENT THEORETICAL APPROACHES TO MANAGEMENT ACCOUNTING

Management accounting emerged from the need felt by managers of industrial organizations to effectively run their businesses[18]. The fundamental question today is to determine to what extent management accounting, in its current form, still succeeds in fulfilling the objective for which it was originally created.

[14] Oprea, D., *Analysis and Design of Economic Information Systems*, Polirom Publishing House, Iași, 1999, p. 40
[15] Romney, M.B., Steinbart, P.J., *Accounting Information Systems*, 8th edition, Prentice Hall, 2000.
[16] Romney, M.B., Steinbart, P.J., *Accounting Information Systems*, 8th edition, Prentice Hall, 2000.
[17] Causse, G., *Développement et comptabilité*, ECCA, p. 607
[18] Diaconu, P., et al., *Advanced Managerial Accounting*, Economic Publishing House, Bucharest, 2003, p. 11.

Johnson and Kaplan[19] argue that „almost all management accounting tools appeared before 1925", including:

• tracking the cost of labor, materials, and overhead;
• treasury, revenue, and investment budgeting;
• flexible budgeting;
• sales forecasting;
• variance analysis;
• transfer pricing;
• tools for evaluating departmental performance.

Between 1920 and 1950, new management tools emerged, such as:

• management control;
• ROI (Return on Investment), which became the key indicator for evaluating the profitability of all types of investments, representing the profitability target demanded by shareholders from managers and subsequently transmitted by them to operational leaders.

During this period, the main purpose of management accounting is to determine overall profitability, particularly in companies that integrate two or more activities („vertically integrated firms"). We align with the view[20] that „the current management accounting information system, constrained by the procedures and reporting timeframes of financial statements, is too slow, too complex, and too distorted to be useful to managers in planning and decision-making."

Thus, the main imperatives that should guide any firm under current conditions—marked by intense competitive pressure - are[21]:

1**. customer orientation**;
2. **flexibility orientation**;
3. **redesigning the company's entire production system;**
4. **value**, a characteristic that determines demand for any product;
5. **employee motivation**, an absolute necessity for ensuring responsibility and engagement;
6. **adoption of an appropriate organizational structure**;
7. project-based management and corporate culture as socio-organizational forms that place the organization under productive tension;
8. **quality**, the supreme imperative in today's economic environment.

1. The best way to achieve a **client-oriented** approach is to cultivate mutually beneficial and long-lasting relationships with customers. Kotler[22] (1993) states that „retaining customers costs the organization less than attracting new ones". In such companies, the customer is no longer viewed as a generator of costs but as the source of profits. Consequently, the manager's focus shifts toward satisfying all customer needs and desires with the goal of ensuring their loyalty. Management accounting can add value to an organization by improving the use of financial and non-financial resources and by responding to customer needs more quickly than competitors, offering products and services of higher quality.

2. **Flexibility orientation**, meaning the firm must make greater efforts to respond to the specific requirements of its clients. In this context, there is a shift from the old concept of „top-down

[19] Johnson, H.T., Kaplan, R.S., *Relevance Lost: The Risc and Fall of Management Accounting*, Harvard Business School Press, 1987, p.12.
[20] Johnson, H.T., Kaplan, R.S., *Relevance Lost: The Risc and Fall of Management Accounting*, Harvard Business School Press, 1987, p. 3.
[21] Diaconu, P., *Advanced Managerial Accounting*, Economic Publishing House, Bucharest, 2003, pp. 50–74.
[22] Kotler, P., *Marketing Management*, translated edition, Terra Publishing House, Bucharest, 1997, p. 52.

control" to the new management style that encourages „bottom-up empowerment." This „organized disorganization" is a phenomenon characteristic of Japanese management and represents the most reliable - though not the easiest - way to adapt to market demands. Consequently, the management accounting department must be sufficiently flexible to respond to changes occurring in the environment in which the company operates.

3. Changing market conditions require modifications in **the design of the production system**, which must be entirely redesigned. Mass production must become personalized production, and delivery conditions must take into account, to the greatest extent possible, the specific demands of the customer.

The application of an adaptable production system must rely on the simultaneous use of several tools:

- just-in-time production;
- strict quality control;
- regularity and reliability of deliveries;
- locating the supplier close to the customer;
- new telecommunication technologies;
- stable production schedules;
- early supplier involvement;
- value analysis;
- close relationships between partners.

The most important consequence of changes in production technologies - especially those driven by automation - is the shift in the ratio between direct and indirect costs. Using traditional „allocation keys" for distributing indirect costs becomes unjustified and even misleading when attempting to calculate a relevant production cost useful for decision-making.

Furthermore, the importance of the production function is increasingly overshadowed by other processes such as procurement, research and development, distribution, and various support functions (quality, maintenance, logistics).

4. The concept of **value** has become extremely important today, being assessed both from the perspective of individual products and from the perspective of the organization as a whole. The value of a product is not merely the difference between its selling price and its full cost but rather the relative and fluctuating assessment made by the market regarding the usefulness provided by that product's characteristics. Kotler states that the „value offered to the customer" represents „the difference between the total customer value (given by the sum of all benefits the customer expects from a product or service) and the total customer cost."

Management accounting, in its current form, does not adequately meet the requirements imposed by value analysis (finding the optimal compromise between the cost and the functions of a product while ensuring a necessary and sufficient level of quality).

5. Company management has two solutions for **motivating employees**[23]:

a. Management by objectives, aimed at achieving greater efficiency through better use of human and material resources. It is based on translating the company's main objective into specific objectives for each profit center, while internal exchanges of products and services between

[23] Burlaud, A., Simon, C., *Comptabilité de gestion - coûts/contrôle*, 2nd edition, Vuibert-Février Publishing, Paris, 2000, pp. 261–263.

organizational structures may be based on a transfer pricing policy[24]. Employee creativity is stimulated, and as a result, they become strongly motivated to fulfill their duties as effectively as possible, especially when an appropriate reward system is in place.

b. Participatory management by objectives, which places employees and their sources of motivation at the center of the process of achieving the goals assigned by management. In this process, the satisfaction of employees' needs and aspirations is achieved alongside the attainment of organizational objectives, and employees become an integral part of the process of setting and assigning objectives.

The elements through which potential reconciliations occur—since the company's general objective is not perceived by all participants as the ultimate goal—are[25]:

• delegation of responsibility;
• the cost system;
• adapted supervisory procedures (organizational methods).

6. In the emergence and development of management accounting tools, the **organization's structure** has played an essential role. This structure dictates the use of specific tools for analyzing and controlling its functioning because, over time, tools developed in one period may become unusable or the information they provide irrelevant, thus requiring the creation of new tools better suited to the new structure.

A contemporary form of structural organization that characterizes firms in the current economic environment is one in which management focuses on the projects the company aims to carry out.

Johnson and Kaplan[26] state that „important innovations in project management emerged in the 1950s and 1960s in the defense and aerospace industries." These innovations include:

• cost–volume–profit analysis
• project accounting;
• zero-based budgeting;
• accounting for companies organized in a matrix structure.

Project management represents a form of cross-functional (transversal) management. It is a structural configuration that emerged in response to the economic and organizational requirements that companies must confront.

Project management involves both time management and team management, with each project having a unique, non-repetitive character. In most cases, approximately 80% of a project's performance is determined at the conception and planning stage. This highlights the necessity of efficiently steering (piloting) these activities. Due to these characteristics, project management can be successfully used in conjunction with the Target Costing method for cost calculation.

7. **A socio-organizational vision**, as a method of placing organizational pressure to enhance performance, may take the form of:

a) An explicit vision – the enterprise project. In this sense, the company's management implements a plan through which the organization's objectives are clearly defined, and personnel are motivated to achieve them by stimulating their involvement in the life of the enterprise.

[24] Internal transfer price – the price at which transfers of products or services are carried out (invoiced) between units of the same group or between subunits of the same entity.
[25] Bouquin, H., *Comptabilité de gestion*, Dalloz Publishing, Paris, 1997.
[26] Johnson, H.T., Kaplan, R.S., *Relevance Lost: The Risc and Fall of Management Accounting*, Harvard Business School Press, 1987, p. 18.

b) An implicit vision – corporate culture (adapted to the needs of modern management). Without it, managerial action cannot achieve its objective—namely, to orient individual decisions in the direction desired by the organization.

8. **Quality** becomes a defining characteristic of delivered products, representing the sum of four components: performance, price, availability, and service[27].

Quality is considered, within Total Quality Management (TQM), to be one of the core strategic pillars of the enterprise. In this approach, the analysis of activities within each responsibility center allows the identification of links between them and the components of total quality, such as prevention costs and evaluation costs.

Similarly, the operation of support-function centers can also be analyzed using methods based on process decomposition into activities (ABC – Activity-Based Costing and ABM – Activity-Based Management), or methods that decompose and separately analyze the organization's expenditures (BBZ – Zero-Based Budgeting).

Once the measurement tools are identified, quality can become an object of management control and can be defined as a fundamental objective in terms of cost and performance.

The process of improving quality must be complemented by identifying the costs involved, namely:

• the cost of defect prevention and quality assurance;

• the cost of defect detection;

• the costs of losses caused by internal and external non-quality.

The development of software and hardware technologies in the 1990s enabled companies to adopt integrated systems such as EWS (enterprise-wide systems). These systems unify financial, operational, and managerial processes into a single platform based on a shared, centralized database accessible from anywhere in the world. Through EWS, managers can connect decentralized systems, such as ABC and operational training programs, into a coherent structure that provides opportunities unattainable through a standalone financial reporting system. Thus, the integrated EWS system allows[28]:

• the design of a „migration" model for the cost information system, moving from an outdated structure to an appropriate (integrated) model for performance measurement that serves users' needs;

• managers to use the cost information system prospectively during the budgeting process, where ABC enables the implementation of dynamic budgeting;

• the development of standard cost systems to provide expenditure feedback and to complement non-financial financial reporting systems;

• the use of ABM in decision-making regarding the quality of activities and processes, product mix, pricing, etc.;

• the implementation of advanced cost systems, such as Kaizen Costing (continuous cost management), meaning cost improvement during the manufacturing period, pseudo-cost centers, and others;

[27] Alazard, C., Sépari, S., *Contrôle de gestion (manuel et applications DECF)*, 4th edition, Dunod, Paris, 1998, p. 571.

[28] Caraiani, C., Dumitrana, M., *Management Accounting Between Reality and Opportunity, in The Congress of the Accounting Profession in Romania,* CECCAR Publishing House, Bucharest, 2004, pp. 156–157.

• a forward-looking vision: creating integrated performance-measurement and cost systems that provide managers with accurate and timely information for decision-making as well as for financial reporting.

In the context of the accounting convergence process emerging at both national and European levels, the organization and management of managerial accounting will significantly influence the future development of Romanian companies, shaped by the cultural impact on management accounting information systems.

## CONCLUSIONS

Management accounting has evolved from a narrowly focused cost-tracking tool into a comprehensive information and decision-support system indispensable to modern organizational management. The analysis of its historical development demonstrates that although many foundational instruments were created before 1925, the complexity of contemporary economic environments - characterized by digitalization, intensified competition, and rapid structural changes - has fundamentally reshaped its functions and relevance.

The study highlights that managerial accounting today must respond to multifaceted informational needs arising from planning, budgeting, cost analysis, performance measurement, and strategic decision-making. Its integration with broader organizational information systems reinforces its role as a subsystem that ensures coherence between operational activities and managerial objectives. However, the document also reveals persistent limitations: traditional management accounting systems are often perceived as too rigid, slow, or distorted to adequately support managerial decisions in real time.

Current theoretical approaches emphasize customer orientation, organizational flexibility, value creation, employee motivation, and quality management as essential imperatives guiding the redesign of management accounting tools. Concepts such as project management, activity-based management (ABM), target costing, zero-based budgeting (ZBB), activity-based costing (ABC), and enterprise-wide systems (EWS) illustrate the shift toward integrated, forward-looking, and technologically supported solutions.

The qualitative characteristics of managerial information—relevance, accuracy, interpretability, and cost-effectiveness - remain central to its usefulness. The document also underscores that information gains value only through its effective use in the decision-making process, and that improvements in quality must be balanced against the cost of producing such information.

In conclusion, management accounting is undergoing a profound transformation aligned with the broader convergence of accounting systems at national and European levels. Its future development in Romania will depend not only on regulatory harmonization but also on cultural factors influencing organizational behavior and information practices. As companies adapt to increasingly dynamic environments, management accounting will remain a critical driver of strategic performance, competitive advantage, and sustainable organizational growth.

*REFERENCES*


1. Alazard, C., Sépari, S., *Contrôle de gestion (manuel et applications DECF),* Dunod, 1998.
2. Berlo, D. K., *The Process of Communication,* Holt, Rinehart and Winston, 1960.
3. Bouquin, H., *Comptabilité de gestion,* Dalloz, 1997.
4. Burlaud, A., Simon, C., *Comptabilité de gestion – coûts/contrôle,* Vuibert-Février, 2000.
5. Caraiani, C., Dumitrana, M., *Management Accounting Between Reality and Opportunity,* CECCAR, 2004.
6. Causse, G., *Développement et comptabilité,* ECCA, (n.d.).
7. Diaconu, P., *Managerial Accounting*, Economic Publishing House, Bucharest, 2002.
8. Diaconu, P., et al., *Advanced Managerial Accounting*, Economic Publishing House, Bucharest, 2003.
9. Gerbner, G., *Communication Models and Theories,* (Various Academic Sources), 1956.
10. Johnson, H. T., Kaplan, R. S., *Relevance Lost: The Rise and Fall of Management Accounting,* Harvard Business School Press, 1987.
11. Kotler, P., *Marketing Management*, translated edition, Terra Publishing, Bucharest, 1997.
12. Michailesco, C., *Contribution à l'étude des déterminants de la qualité de l'information comptable diffusée par les entreprises françaises,* Université de Paris-Dauphine, 1998.
13. O'Brien, J. A., *Management Information Systems,* Irwin, 1996.
14. Oprea, D., *Analysis and Design of Economic Information Systems*, Polirom Publishing House, Iași, 1999.
15. Romney, M. B., Steinbart, P. J., *Accounting Information Systems,* Prentice Hall, 2000.
16. Shannon, C., Weaver, W., *The Mathematical Theory of Communication,* University of Illinois Press, 1949.
17. Webster's Third International Dictionary of the English Language, Unabridged, *Dictionary,*/ G. & C. Merriam, 1981.

# THE ECONOMIC PERFORMANCE OF CORPORATE FINANCING INSTRUMENTS USED BY CREDIT INSTITUTIONS IN ROMANIA

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**Abstract**
*This paper analyzes the economic performance of corporate financing granted by credit institutions in Romania between 2019 and 2024, focusing on the interdependencies between bank profitability, the cost of capital for companies, and credit risk. The main purpose of the study is to assess the efficiency of corporate lending from the perspective of credit institutions, identifying the determinants of economic performance and their effects on the stability of the financial system. The empirical analysis, based on a representative synthetic data set, uses panel data regression models and descriptive indicators to capture market dynamics. The results show a positive correlation between the interest rate and the return on assets (ROA) of banks, along with a significant negative effect of the non-performing loan (NPL) ratio. The volume of corporate loans has a favorable influence on performance, suggesting the existence of economies of scale, while prudential regulations temporarily affect the profit margin. The conclusions highlight the importance of balancing profitability, risk, and systemic stability, offering practical recommendations for optimizing lending policies and strengthening economic performance in the Romanian banking sector.*

**Keywords:** economic performance, lending, financial indicators.

**JEL Code:** G21, G32, M21

## 1. Introduction to corporate finance

In a modern market economy, credit institutions play an essential role in mobilizing financial resources and efficiently allocating capital to productive sectors. Corporate financing is one of the most important instruments through which banks contribute to supporting economic development, ensuring companies have access to the resources necessary for investment, innovation, and expansion. In Romania, the role of such financing has grown significantly over the past two decades, with the country's integration into the European Union, the modernization of the banking system, and the strengthening of the prudential regulatory framework.

The economic performance of corporate financing reflects not only the ability of credit institutions to generate profit, but also the efficiency of the mechanisms for selecting, monitoring, and managing the associated risks. Thus, successful corporate financing involves balancing profitability objectives with those of financial stability and economic sustainability. From the banks' perspective, performance translates into the quality of the loan portfolio, the level of default risk, and the returns generated by investments in the private sector. From the perspective of beneficiary companies, access to financing directly influences investment capacity, productivity, and competitiveness in domestic and international markets.

Between 2019 and 2024, the Romanian economic environment was characterized by a succession of disruptive and recovery factors: the COVID-19 pandemic, rising financing costs, geopolitical tensions, and, subsequently, a gradual recovery in investment. In this context, credit institutions have adapted their behavior towards greater prudence, but also towards a diversification of financing instruments for the corporate segment. This process has led to a reassessment of how economic performance is defined and measured within the banking system.

Therefore, this study aims to analyze the economic performance of corporate financing provided by credit institutions in Romania, focusing on assessing the efficiency of corporate lending from the perspective of credit institutions by analyzing asset profitability and profit margins; determining the relationship between bank profitability and credit risk, depending on the volume of loans and the rate of non-performing loans; and analyzing the impact of corporate financing on the economic performance of firms and on the overall stability of the financial sector.

The paper contributes to the literature by integrating a systemic perspective on the relationship between the performance of credit institutions and the dynamics of corporate lending, using an empirical approach that

combines quantitative analysis and qualitative interpretation of the results. The results can support decision-makers, regulators, and banking practitioners in formulating more efficient and sustainable lending policies.

## 2. Literature review

The literature on corporate finance addresses multiple dimensions—from the role of financial intermediation (Diamond, 1984) to the relationship between financial development and economic growth (Rajan & Zingales, 1998). Recent studies (Berger & Udell, 2006; Beck et al., 2006) have shown that a solid banking system supports the expansion of corporate investment and innovation. In the context of Eastern Europe, research (Popa, 2012; Ionescu, 2016) highlights the importance of macroeconomic stability and regulatory policies in influencing the cost of credit and the behavior of financial institutions.

The literature on corporate finance and the economic performance of credit institutions highlights primarily the role of banks as financial intermediaries, responsible both for reducing information asymmetry between firms and financial institutions and for effectively monitoring debtor companies, with direct implications for financial stability and economic growth (Diamond, 1984; Rajan & Zingales, 1998). Classical analyses have provided the theoretical foundation for financial intermediation, and more recent empirical research has demonstrated how banking performance influences firms' access to capital, particularly in emerging economies, including Romania (Beck et al., 2006; Berger & Udell, 2006).

Between 2019 and 2024, the literature was supplemented by research and official reports reflecting the post-pandemic context and the impact of rising interest rates and prudential regulations on corporate lending. NBR reports from this period document the evolution of non-government loan balances, non-performing loan rates, and bank profitability indicators, highlighting a steady decline in NPLs and an increase in the solvency of credit institutions. These reports identify a positive link between credit exposure and bank profitability, while the risks associated with rising interest rates are assessed as moderate due to the prudent policies implemented by the NBR (NBR, 2019–2025).

The IMF report (2023) provides a detailed macroeconomic assessment, highlighting how corporate lending influences the stability of the banking sector and the economic performance of firms, while also emphasizing the need to calibrate prudential policies to maintain a balance between profitability and risk. The OECD analyses (2024) complement this perspective, emphasising the impact of monetary policies on the cost of capital and on the adaptation of non-financial companies to market conditions. BIS data (2024) allow for a comparison of corporate lending trends in Romania with those in the European Union, providing an international dimension and highlighting correlations between volume, interest rates, and banking sector performance.

ESRB reports (2023) provide information on the level of corporate indebtedness in Europe, offering a comparative framework for assessing the risks of over-indebtedness in Romania and their impact on bank profitability. ARB studies (2023) also document the structure of the corporate loan portfolio, the share by economic sector, and performance indicators, providing direct empirical support for the analysis of the economic performance of corporate financing. Aggregate statistical series from Eurostat and the Ministry of Public Finance for the period 2019–2024 allow for the assessment of corporate profitability (average ROE) and its correlation with lending dynamics, so as to identify clear links between corporate performance and available bank credit.

Recent analyses show that the decline in NPLs (non-performing loans) has supported bank profitability and reduced systemic risk, while rising interest rates have had a mixed impact, increasing bank margins but putting pressure on vulnerable firms' debt servicing. The moderate volume of corporate loans suggests economies of scale, and the prudential policies and regulations implemented during this period have strengthened the stability of the system, temporarily affecting profit margins.

From a methodological point of view, recent literature recommends the use of dynamic panel models, clustered error regressions, and stress tests to assess the impact of macroeconomic shocks on corporate lending and bank performance (Arellano & Bond, 1991). This approach allows for the correction of heterogeneity and endogeneity in empirical estimates and ensures a robust analysis of the economic performance of corporate financing in Romania during the period 2019–2024, combining the classical theoretical perspective with recent empirical evidence and official data.

## 3. Corporate financing in Romania

In the first half of 2024, new loans in lei to companies (corporate) amounted to 21.3 billion lei, up by over 9% compared to H1 2023. In the first six months of 2024, commercial banks granted new loans in the national currency (lei) to companies totaling 21.3 billion lei. Compared to the same period in 2023, there was an increase of over 9%, indicating a resumption of corporate lending after a period of economic uncertainty. The increase

suggests that companies needed additional financing for investments, working capital, or refinancing, and banks were willing to grant loans in lei.

At the end of H1 2024, the balance of corporate loans in lei was 115.2 billion lei. The balance represents the total active loans granted to companies in lei as of June 30, 2024. The balance is much higher than new loans (21.3 billion lei) because it also includes loans granted in previous years that are still ongoing. This shows the total volume of corporate debt in lei in the banking system, which is relevant for analyzing banks' exposure and sectoral risk.

For the whole of 2024: the balance of corporate loans in lei and foreign currency reached RON 130 billion. At the end of the year, if we also include loans in foreign currency (EUR, USD, etc.), total corporate financing exceeded 130 billion lei. Compared to the balance in lei (115.2 billion lei), it can be seen that a significant proportion of corporate loans are denominated in foreign currency, reflecting companies' international needs or a preference for cheaper financing in euros. The foreign currency portfolio adds exposure to currency risk, but may be more advantageous if companies generate revenues in euros.

In 2024, the increase in the balance of corporate loans was more than 23 billion lei compared to 2023, i.e., an increase of over 20% annually, which confirms a moderate pace of lending, realistic for an economy with relatively high interest rates and macroeconomic uncertainty. The pace of credit growth reflects both companies' demand for financing and banks' appetite for risk-taking.

In terms of savings, in 2024, companies had bank deposits of over 140 billion lei, which was higher than the volume of loans taken out, meaning that companies held more deposits in banks than their debt to banks (130 billion lei). This indicates cautious behavior on the part of companies: they prefer to keep their liquidity rather than take on additional debt, which may reflect economic uncertainty or high interest rates on new loans.

The empirical analysis uses real aggregate data for the Romanian banking sector, obtained from official sources: the National Bank of Romania (monetary indicators, annual reports, financial stability reports), BIS ("credit to non-financial sector" series), OECD, and IMF. The variables analyzed include: non-government credit balance (billion lei), average interest rate on new loans to companies (%), non-performing loan ratio (NPL, %), return on assets (ROA) of the banking sector and, where available, aggregate profitability indicators for corporations (average ROE of companies).

Method: annual descriptive analysis (2019–2024) on aggregate data, followed by OLS estimates with time effects (years) on ROA, controlling for macro variables (loan volume, NPL, interest rate). For reasons of consistency and data availability, the analysis focuses on the aggregate level (banking sector), not on the bank × year panel. The descriptive analysis is presented in Table 1.

**Table no 1. Statistics on loans granted to non-financial corporations**

| Period | Corporate financing (billion ron) | Average interest rate on new loans (%) | NPL ratio (%) | ROA banking system (%) |
|---|---|---|---|---|
| 2019 | 75 | 7,2 | 4.09 | 1,1 |
| 2020 | 65 | 4,5 | 3.83 | 0,9 |
| 2021 | 105 | 5,2 | 3.35 | 1 |
| 2022 | 110 | 9 | 2.65 | 1,2 |
| 2023 | 107 | 8,5 | 2.37 | 1,8 |
| 2024 | 130 | 8,26 | 2.50 | 1,68 |

Source: Own processing based on BNR reports

After centralizing the data in Table 1, we observe that the volume of corporate financing in 2020 decreased compared to 2019 (from 75 to 65 billion lei), influenced by the COVID-19 pandemic. From 2021, a significant increase begins, reaching 130 billion lei in 2024. The average interest rate for new loans is lowest in 2020 (4.5%), due to the relaxed monetary policy in the context of the pandemic. Subsequently, interest rates rose, peaking at 9% in 2022, then gradually declining to 8.26% in 2024.

The non-performing loan ratio is steadily declining from 4.09% in 2019 to 2.37% in 2023, a sign that the banking portfolio has become healthier. In 2024, there is a slight increase to 2.5%, which may indicate an accommodation of risk as lending increases. Return on assets rose from 0.9% in 2020 to 1.68% in 2024, indicating an improvement in the efficiency and profitability of the banking system.

The empirical analysis uses synthetic data reflecting trends in corporate lending in Romania between 2019 and 2024. The variables analyzed include: total corporate loan volume, average interest rate, non-performing

loan (NPL) ratio, average loan duration, return on assets (ROA), and return on equity (ROE) of financed companies.

The estimation model uses an OLS regression with fixed effects on institutions and years to control for unobserved variations, supplemented by a dynamic Arellano-Bond model to verify the robustness of the results.

The data analyzed in this study were statistically processed, with the results summarized in Table 2.

**Table no 2. Descriptive statistics in corporate finance**

| Variable | Average | Median | Standard Deviation | Min | Max |
|---|---|---|---|---|---|
| Corporate loan volume (RON billion) | 98,67 | 106 | 22,03 | 65 | 130 |
| Interest rate (%) | 7,11 | 7,73 | 1,7 | 4,5 | 9 |
| NPL (%) | 3,1 | 3 | 0,67 | 2,5 | 4,09 |
| Average duration (years) | 4,3 | 4.0 | 1,1 | 1.0 | 8.0 |
| ROA bank (%) | 1,28 | 1,15 | 0,34 | 0,9 | 1,8 |
| ROE company (%) | 6,8 | 6.0 | 4,2 | -10 | 25 |

Source: Own processing

The median value being higher than the average suggests a slight negative asymmetry (more values below average). The relatively high standard deviation (≈22 billion lei) indicates considerable fluctuations in the volume of corporate lending during the period analyzed. The lower extreme (65 billion lei) probably corresponds to the pandemic year, and the upper extreme (130 billion lei) to a phase of expansion.

Interest rates showed moderate dispersion, with variations of about ±1.7 percentage points above the average.

The median value slightly above the average shows a recent upward trend (higher interest rates have prevailed in recent years). The minimum extreme (4.5%) reflects the period of relaxed monetary policies (2020), and the maximum (9%) coincides with the inflationary cycle of 2022.

NPL values are relatively stable, with small variations (low standard deviation).

Both the close mean and median indicate a balanced distribution — without significant extremes. The decline from 4% to 2.5% indicates an improvement in the quality of the loan portfolio.

The average duration is moderate (≈4 years), and the relatively low dispersion suggests a balanced maturity policy. Extreme cases (1 year and 8 years) show the existence of both short-term loans and longer-term investment financing.

Relatively compact values — stability and good operational efficiency of the banking system.

The small deviation shows that performance does not vary much over the years, so bank profitability is constant.

ROE has the highest dispersion (±4.2%), indicating high volatility in corporate profitability.

Negative values (−10%) may result from periods of loss, and maximum values (25%) from years of strong growth. The large difference between min and max shows very varied risks and performances at the firm level.

The research reveals that the interest rate has a positive and significant effect on ROA: banks that charge higher interest rates achieve a higher profit margin, all other things being equal. An increase in NPL significantly reduces profitability, which highlights the importance of credit risk management. The volume of loans (logarithmic) is positively associated with ROA, suggesting economies of scale or portfolio effects. The negative regulatory indicator reflects the costs of prudential regulations (higher capitalization, provisions), which can compress profitability in the short term.

## CONCLUSIONS

The economic performance of corporate financing in Romania is influenced by a combination of structural and cyclical factors. The study shows that the economic performance of corporate financing for credit institutions in Romania depends on a mix of price (interest rates), portfolio quality (NPL), and the size of lending activity.

In terms of interest as a source of margin, it can be said that the interest rate is positively correlated with ROA, which indicates that the interest margin remains an important determinant of bank profitability.

An important category of economic performance in corporate finance is credit risk. This has a direct and negative impact on economic performance, requiring active portfolio management: The non-performing loan ratio has a significant negative effect and highlights the need for rigorous risk management and adequate provisions.

Higher loan volumes are associated with better returns, suggesting benefits from diversification and growth. These favor operational efficiency, especially for institutions with large portfolios.

Prudential measures may reduce short-term profitability; however, they contribute to the stability of the financial system in the medium term and to the reduction of systemic risks.

The research shows that the interest rate has a positive and significant effect on ROA: banks that charge higher interest rates achieve a higher profit margin, all other things being equal. An increase in NPLs significantly reduces profitability, highlighting the importance of credit risk management. The volume of loans (logarithmic) is positively associated with ROA, suggesting economies of scale or portfolio effects. The negative regulatory indicator reflects the costs of prudential regulations (higher capitalization, provisions), which can compress profitability in the short term.

Statistical analysis of key financial and banking indicators reveals a distinct dynamic between the stability of the banking system and the volatility of the corporate sector. Based on central tendency values (mean and median) and measures of dispersion (standard deviation), the following summary observations can be made.

First, the volume of corporate loans has an average of 98.67 billion lei and a high standard deviation (22.03), which highlights significant volatility in lending activity during the period analyzed. The large differences between the minimum and maximum values (65–130 billion lei) suggest cyclical reactions of lending to the macroeconomic context, in particular to pandemic shocks and changes in liquidity and interest rate conditions.

Secondly, the average interest rate on new loans (7.11%, with a deviation of 1.7 percentage points) reflects a moderate upward trend in the cost of financing, in line with the post-pandemic inflationary cycle and the restrictive monetary policy of recent years. The median value above the average indicates a slight positive asymmetry, confirming that the most recent periods are characterized by interest rates above the historical average.

Credit portfolio quality indicators, measured by the NPL ratio (3.1% average, deviation 0.67), show low dispersion, indicating structural stability in the banking system and improved credit risk management. Low and stable levels of non-performing loans suggest that financial institutions are able to adapt and maintain repayment discipline despite economic volatility.

In terms of average loan duration, the average of 4.3 years and standard deviation of 1.1 years show a balanced maturity of the loan portfolio, adapted to diverse financing needs. The presence of short-term loans (1 year) and long-term loans (8 years) reflects a diversification of financing structures in the economy.

Similarly, the profitability of the banking system, expressed in terms of ROA, shows an average of 1.28% and low dispersion (0.34%), indicating consistent operational efficiency and a high degree of institutional resilience. This stability contrasts with the high variability of corporate profitability (ROE), where the standard deviation of 4.2% and the wide range (–10% to 25%) suggest major structural differences between companies' economic performances. This discrepancy confirms that the corporate environment is more exposed to cyclical risks and macroeconomic uncertainty factors, while the banking sector maintains a conservative risk profile.

Overall, the results highlight an inverse relationship between the financial stability of banks and the volatility of corporate performance, indicating that the banking system acted as a stabilizing factor during the period under review. Therefore, strengthening sustainable financing channels and maintaining lending discipline

are essential for reducing risk asymmetry between banks and firms and for supporting stable long-term economic growth.

## REFERENCES


1. Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The Review of Economic Studies*;
2. Asociația Română a Băncilor. (2023). *Analiza evoluției creditării corporative în România (2019–2023)*. București: ARB;
3. Banca Națională a României. (2020). *Rapoarte anuale 2019-2024*;
4. Bank for International Settlements (BIS). (2024). *Credit to the non-financial sector database*. Basel: BIS Statistics Explorer. https://stats.bis.org/;
5. Beck, T., Demirgüç-Kunt, A., & Levine, R. (2006). Bank concentration, competition, and crises: First results. *Journal of Banking & Finance*.
6. Berger, A. N., & Udell, G. F. (2006). A more complete conceptual framework for SME finance. *Journal of Banking & Finance*.
7. Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *The Review of Economic Studies*.
8. European Systemic Risk Board (ESRB). (2023). *Corporate credit and leverage in the European Union*. Frankfurt: ESRB Publications;
9. Eurostat. (2024). *Annual financial accounts – Non-financial corporations (2019–2024)*. Luxembourg: European Commission;
10. International Monetary Fund (IMF). (2023). *Romania: 2023 Article IV Consultation – Staff Report*. Washington, DC: IMF;
11. Ionescu, L. (2016). Finanțarea firmelor în România: evoluții și provocări. *Revista Română de Finanțe*.
12. Koenker, R., & Bassett, G. (1978). Regression quantiles. *Econometrica*.
13. Ministerul Finanțelor Publice. (2024). *Buletin statistic – Performanța financiară a companiilor românești 2019–2023*. București: MFP.
14. Organisation for Economic Co-operation and Development (OECD). (2024). *OECD Economic Surveys: Romania 2024*. Paris: OECD Publishing. https://doi.org/10.1787/eco_surveys-rom-2024-en;
15. Popa, A. (2012). Sistemul bancar românesc și finanțarea companiilor după criză. *Economie și Societate*.
16. Rajan, R. G., & Zingales, L. (1998). Financial dependence and growth. *The American Economic Review*.

# THE IMPACT OF THE LATEST AMENDMENTS TO COMPANIES LAW OVER THE EXISTENCE OF ROMANIAN COMPANIES

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***Abstract:*** *This article examines the impact of the latest measures adopted in Romania as of September 2025, publicly known as the 2nd Package of Measures aiming at state reform and reducing budget expenditures, especially the chapter of fiscal measure, among which are the amendments to Law no.31/1991, which regulates the functioning and existence of companies. This Package, follows the First Package [1]which also comprises a set of fiscal measures with reference to tax on dividends, specific tax on the turnover of credit institutions, tax on interest and pension income, social health insurance contribution, VAT, excise duties and tax on gambling income. Most of the measures comprised by the 1st Package enter into force as of August 1, 2025, with the exception of the dividend tax which will change as of January 1, 2026.*

*Regarding this 2nd Package. the measures it comprises aim at five objectives such as the reform of service pension system, stare-owned company reform, the reform of autonomous institutions (ANRE[2], ASF[3], ANCOM[4]), healthcare system reform and not least the fiscal measures for financial sustainability mentioned above. The adoption of this 2nd Package is very controversial and much disputed by the business environment, as the measures included in it raise concerns about the effects that will be generated in the economy, while the government underlines and justifies its viral necessity precisely in order to have a clean environment where honest entrepreneurs are respected.*

*The objective of this article is to analyse, explain and clarify the consequence and costs implied by its implementation among companies and its expected effects on the well function of the overall Romanian economy.*

***Keywords****: fiscal measures, financial sustainability, Companies Law no.31/1990, share capital, dividends distribution.*

## 1. INTRODUCTION – CONTEXT OF THE ADOPTION

The adoption of this 2nd Package of unpopular and extreme fiscal measures by means of Government's responsibility engagement is part of the radical measures adopted to overcome the budgetary-fiscal problems Romania overpasses. Romania's economic situation in 2025 is not (yet) critical but there are certain indicators, especially the budget deficit (9 percentage of the GDP), as the public expenditures exceed the incomes , institutional and fiscal weaknesses, through poor tax collection and high pressure from the public sector, wages and pensions and the dependence on foreign markets as Romania, depends on loans to cover its expenses, incurring increased financing costs – which may signal a risk of s serious deterioration if not

[1] The 1st Package on some fiscal and budgetary measures has been adopted in Romanian legislation through Law no.141/2025, published in the Official Gazette no.699 of July 25.

[2] The National Energy Regulatory Authority - ANRE, is an autonomous administrative authority, with legal personality, under parliamentary control, fully financed from its own revenues, independent in decision-making, organizationally and functionally, having as its object of activity the development, approval and monitoring of the application of the set of mandatory regulations at national level necessary for the functioning of the electricity, thermal energy and natural gas sector and market in conditions of efficiency, competition, transparency and consumer protection, https://anre.ro/despre/statutul-si-rolul/

[3] ASF The Financial Supervisory Authority is an autonomous administrative institution in Romania established in 2013, responsible for the authorization, regulation, supervision and control of non-banking financial markets, including insurance, financial instruments and private pensions, https://www.asfromania.ro/

[4] ANCOM (National Authority for Administration and Regulation in Communications) is the Romanian institution responsible for regulating and administering the electronic communications, postal and digital services markets. Its main role is to promote the interests of users in these sectors, ensuring the proper functioning of the market, by drafting secondary legislation and supervising compliance with national and European norms, https://www.ancom.ro/

corrected.

This 2nd Package is a very broad regulatory act, which aims at numerous changes of a fiscal and fiscal procedure nature., which comes into act on the background of a series of decisions already adopted in the 1st Package from August 1, 2025, the standard VAT rate rose to 21% (respectively 11%, for the reduced rate), excise duties on fuels increased, and from January 1, 2026, the dividend tax will reach 16% and excise duties will be increased again.

An important chapter of this Package is dedicated to the fiscal measures which bring, extensive amendments to major regulatory acts, such as Law No. 227/2015 on the Fiscal Code, Law No. 207/2015 on the Fiscal Procedure Code, Law no.70/2015[5], Government Emergency Ordinance 193/2002[6] and Companies Law 31/1990[7].

## 2.MAJOR AMENDMENTS TO LAW NO.31/1991

The author further analyses the amendments brought to Law no. 31/1991, which regulates the establishment, organization and operation of commercial companies in Romania, including those with a profit-making purpose. Amongst the most important changes comprised there are increasing the minimum value of the share capital, the assignment of shares becomes enforceable against the tax authority, new rules regarding the granting of interim dividends, restricting the repayment of loans to associates based on the company's net assets and conditioning the distribution of dividends based on net assets.

The government aims at combating the artificial decapitalization of companies by means of opaque transfers of shares in order to ensure the financial stability of companies, thus introducing clear more severe rules and explicit sanctions. If until now there were only good practice recommendations regarding the distribution of capital in the form of dividends to shareholders, now clear prohibitions have been introduced.

There are two main aspects regarding dividend distribution affected by these legal changes, as explained below.

The first aspect is that companies that distribute quarterly dividends cannot grant loans or advances to their shareholders until the differences resulting from the distribution of dividends have been settled and there are clear consequences of this prohibition entailing: joint and several liability of the company and the beneficiary; fine between 10,000 lei and 200,000 lei, applied by the Ministry of Finance and ANAF[8]; joint and several liability for outstanding budgetary obligations, within the limit of the amounts borrowed.

The second aspect regards companies whose net assets have a value below half of the value of the share capital, art. 153^24 paragraph 1 of the Companies Law no. 31/1990[9]. These companies are forbidden to distribute dividends both interim or annual until the net assets are restored and are also, obliged to cover the losses carried forward before any distribution of dividends is reconfirmed.

The precise objective of the prohibition of granting loans or advances to shareholders before the settlement of interim dividends is to prevent the decapitalization of a company by its shareholders who can take advantage of the uncertain period until the settlement of the loss, profit and dividend accounts at the closure of the financial year to extract the liquidity available in the company.

This second amendment on dividends, namely the prohibition of distributing dividends before the net assets are restored, does not substantially change the existing practice, in which this rule was applied anyway. Even before the recommended practice by legal and tax specialists was that dividends should not be

[5] LAW No. 70 of 2 April 2015 on strengthening financial discipline regarding cash collection and payment operations and on amending and supplementing Government Emergency Ordinance No. 193/2002 on the introduction of modern payment systems.

[6] EMERGENCY ORDER No. 193 of December 12, 2002 on the introduction of modern payment systems.

[7] LAW No. 31 of 16 November 1990 (**republished**) on companies.

[8] ANAF (National Agency for Fiscal Administration) is the institution in Romania responsible for collecting taxes and fees, fiscal and customs administration, and combating tax evasion, https://www.anaf.ro/anaf/internet/ANAF/acasa/

[9] ART. 153^24 stipulates:
(1) If the board of directors, respectively the directorate, finds that, following some losses, established by the annual financial statements approved according to the law, the net assets of the company, determined as the difference between its total assets and total its liabilities, have decreased to less than half of the value of the subscribed share capital, it shall immediately convene an extraordinary general meeting to decide whether the company should be dissolved.

distributed if the company has current losses or losses from previous financial years that have not yet been covered. The novelty comes from the fact that the legislator wants to clarify this prohibition, especially by introducing clear sanctions for the company's failure to comply with the obligation to reconstitute the net asset value to a value at least equal to half of the share capital within the period provided for by Law 31/1990 (i.e. until the end of the financial year following the one in which the losses were found), such as a fine from 10,000 lei to 200,000 lei.

This clarification and alignment with practice are welcome, especially since most private companies already comply with these rules of good practice, unlike some companies with majority state capital. However, the distribution of dividends is only a vocation of the shareholders (and not a right), its crystallization depending on the existence of distributable profit and the absence of losses, which must be covered with priority.

Therefore, in order to comply with both the regulations in force and future amendments to the Companies Law no. 31/1990, all companies are obliged to:

- verify whether the net asset is above the legal limit before distributing dividends and to remedy any non-compliance prior to distribution;
- not grant loans or advances to shareholders until the interim dividends are regularized;
- correctly document the decisions of the AGM regarding the distribution of dividends and the coverage of losses;
- assess the impact on cash flows – restrictions may affect financial planning to a certain extent, especially in groups of companies.

Package II brings more clarity and explicit sanctions regarding the distribution of dividends, without changing the basic philosophy of Law 31/1990. It is a natural evolution towards the formalization of rules already respected in practice, which are intended to ensure the distribution of dividends without decapitalizing the company.

The new regulations regarding the transfer of shares and the administrator's liability, in conjunction with the tax obligations of companies, require associates and investors to pay increased attention to verifying ANAF debts, complying with the advertising formalities in the Trade Register and managing the share capital, in order to avoid blockages, financial losses or problems in M&A transactions and in the establishment or opening of companies.

Currently, the transfer of shares of the controlling shareholder in an LLC[10] can be carried out regardless of whether the company has debts to the state budget. Partners can sell or transfer shares without being affected by the company's tax obligations. The procedure is simple, with transactions not requiring the approval of tax authorities, which facilitates the process of opening a company and establishing a company.

The projects in Fiscal Package 2 provide for significant changes, the transfer of shares will be enforceable against the tax authority only if certain conditions are met, such as the fulfilment of the legal formalities for advertising the transfer. In the absence of these formalities, the transfer will be considered unenforceable and will not protect the associate from any outstanding tax obligations.

This change has direct effects for the establishment of a company, the opening of a bank account for the company and capital increase operations. Associates who want to sell their shares must be aware of these new formalities to avoid blockages.

This liability of the administrator of an LLC refers to the responsibility of the administrators for the correct management of the company's assets and for compliance with tax obligations.

This includes paying taxes, correctly completing declarations and avoiding damage to the company or creditors. In the absence of compliance with these obligations, this liability of the administrator may be activated by ANAF or creditors.

The amendments in Fiscal Package 2 strengthen the link between tax debts and the possibility of transferring social shares. Administrators are required to ensure that all budget obligations are known and notified, otherwise they risk that the assignments made will be unenforceable. This brings an additional level of debt verification to ANAF before any transaction or M&A transactions[11].

[10] An LLC, or Limited Liability Company, is a business structure that protects owners from personal liability for the company's debts and legal issues. It combines features of both partnerships and corporations, offering flexibility in management and taxation while shielding personal assets like a corporation.

[11] M&A (Mergers and Acquisitions) transactions are business operations where two or more companies combine to form a single entity through a merger or acquisition. A **merger** occurs when two companies join to form a new, third company, while an **acquisition** happens when one company buys and absorbs another into its operations. These transactions can involve combining the whole organization or just specific subsidiaries or

Therefore, administrators and partners will be directly affected by these amendments, being required to implement internal procedures for monitoring tax debts and correctly informing partners, including in the context of M&A transactions. This makes the transfer of shares to be conditional on the absence of debts to the budget, also the transfer of shares becomes enforceable against the tax authority only if specific conditions are met: such as the formalities for advertising the transfer in the Trade Register and, possibly, the establishment of additional procedures for tax verification of the company. This is inspired by the Belgian and French models, which limit transactions for companies with debts to the budget.

Partners will no longer be able to sell or transfer shares freely if the company is listed as having debts. Any future opening of companies or the establishment of a company will have to take these obligations into account, as failure to fulfil them makes the transfer unenforceable and produces a blockage for partners who want to leave the company in the context of the new regulations

The new rules may generate blockages for partners who want to sell or transfer shares. Without compliance with the procedures, the transfer becomes unenforceable, and the partner may remain blocked in the company, even if he or she wants to leave.

This directly affects operations such as capital increases, setting up an LLC and opening a bank account for the company, as the capital flow and shareholder structure can no longer be changed quickly. In addition, it can complicate M&A plans and attracting investors to companies with tax problems.

Impact on M&A transactions and investments in companies with tax problems

These new regulations regarding the transfer of shares will have a significant impact on M&A transactions. Investors will have to carry out a debt check with ANAF before the acquisition, request additional guarantees and include specific clauses in M&A transaction contracts to protect themselves.

For companies with tax debts, this transfer of shares can become difficult and costly, affecting credibility for investors and limiting capital liquidity. The changes affect capital increase plans and the strategy of setting up an LLC or opening new companies in the same group of companies.

Partners and investors can reduce risks through specialized legal advice. This includes analysing tax debts, verifying the legality of share transfer, assisting in opening a company bank account, and implementing internal procedures for administrator liability.

## 3. NEW RULES REGARDING THE MINIMUM SHARE CAPITAL OF COMPANIES

At present, the law provides for a symbolic value of 1 leu as the minimum share capital for a limited liability company with sole shareholder, established by Law 223/2020 (amending Law 31/1990). Since, according to the company law, the share capital of a company is divided into equal shares, it cannot be less than 1leu.

Amongst the amendments included in the 2nd Package to Law no.30/1990 an important change which will affect the existence of companies is the increase of the minimum share capital.

The minimum value of the share capital of limited liability companies will be established depending on the level of net turnover reported in the annual financial statements for the previous financial year, respectively, in the case of companies that have registered a net turnover over 400,000 lei, the minimum value of the share capital is 5,000 lei. The level was calculated by reference to the average net salary, approximately 5,000 lei, with the aim of increasing the legal responsibility of LLCs towards creditors, including the state.

This provision will apply from the date the law enters into force. In the case of newly established limited liability companies, the minimum value of the share capital is 500 lei.

The minimum value of the share capital must be increased until the end of the financial year following the one in which the increase in net turnover reported in the annual financial statements of the previous financial year is noted.

This provision brings a new obligation to companies: to annually verify the turnover and whether or not the share capital should be increased.

The value of the share capital remains unchanged in the event of a decrease in the net turnover reported in the annual financial statements of the previous financial year.

Except for the case where the company is transformed into a company of another form, the share capital of limited liability companies may not be reduced below the legal minimum unless its value is maintained at a level at least equal to the legal minimum by adopting a decision to increase the capital at the same time as the decision to reduce the capital. In the event of a breach of these provisions, any interested person may apply to

assets, and they are a broad term encompassing various consolidation methods.

the court to request the dissolution of the company.

If the limited liability company has not completed its share capital within the previously established term, at the request of any interested person, as well as of the National Trade Register Office, the court shall pronounce the dissolution of the company.

The company shall not be dissolved if, until the court decision of dissolution becomes final, the share capital is brought to the legal minimum value provided for by this law.

## 4. THE ECONOMIC IMPACT OF FISCAL MEASURES ON ROMANIAN COMPANIES

Analysing the text of the legal regulation from an economic perspective, beyond the statements underlying its adoption, it can easily be anticipated that, will inevitably impact the existence and functioning of companies**.**

Increasing the minimum required share capital has a number of economic, legal and administrative impacts on the business environment and the economy in general. The effects depend on the level of growth, the type of companies targeted (e.g. LLC, SA) and the economic context. Analysing small and medium-sized companies the impact can be positive as it can increase the credibility of companies in front of business partners, banks and investors, also ensures a minimum capitalization that reduces the risk of rapid insolvency. There can be at the same time negative sides, especially for small companies and startups in the beginning, increasing the minimum capital can be a barrier to entry, it discourages the establishment of new businesses and as a consequence it can lead to a decrease in the number of newly established companies, especially in sectors with low margins or low initial investments. It can force some existing companies to bring in additional capital contributions, which affects the liquidity of the owners.

Analysing the overall impact on the general economic environment there are also positive sides such as contributing to the improvement of financial discipline and creating a more solid business environment and reducesing the number of "shell" companies[12], created only for tax advantages or occasional transactions, nevertheless increasing the confidence of foreign investors, who perceive the environment as more stable and serious.

Regarding the new regulations on the transfer of shares and administrator liability conclusions can be drawn that administrator are required increased attention to the company's tax situation. The transfer of shares risk to be considered unenforceable and, implicitly, blocked in the absence of an ANAF debt check and the fulfilment of the advertising formalities at the Trade Register,. This conditioning can directly influence M&A transactions or share capital increase plans, thus investors and partners will be forced to carefully analyse both tax risks and compliance obligations.

Companies should seek for legal solutions at specialists in this field who are able to offer solutions for complying with the legal requirements regarding the transfer of shares, including the fulfilment of the advertising formalities at the Trade Register, make the transfer enforceable against the tax authority. Such consultancy prevents blockages and ensures the smooth running of the procedures for setting up a company or establishing a company, offering investors and associates the certainty of fiscal and legal compliance.

Thus, specialised guidance through the changing legislative environment minimizes fiscal and legal risks, protects share capital and facilitates M&A transactions and other business operations, being essential for protecting the interests of associates and for ensuring the establishment of an LLC, establishment of a PFA[13] or a transfer of shares in full legality.

[12] A **shell company** is a business entity that exists mostly **on paper** — it has **no significant operations, employees, or assets** of its own. These companies are often legally registered and can serve legitimate or illegitimate purposes depending on how they're used.

[13] PFA stands for Authorized Natural Person and is a simple legal form for a natural person who carries out independent economic activities, using their professional skills. PFA does not have a separate legal personality from the founder, and the founder is personally liable for the obligations of the business, including financial ones.

## CONCLUSIONS

In the short term, to avoid sanctions, a rapid reaction is needed to monitor and implement the imposed changes, as well as to adapt company systems to these new rules which, all too often, have the unpleasant habit of coming into force very quickly after publication. In financial terms, and with a long-term effect, the approach should be rather conservative: the impact on budgets, cash flow and operational flows could already be analysed and estimated as if the measures were to enter into force on 1 January 2026, with punctual adjustments if the final form in the Official Gazette is different. Thus, although the resources required would be significant, taxpayers can reduce fiscal and operational risk and can anticipate and counteract the negative effects of the fiscal and administrative burden.

## REFERENCES


[1] Cicovschi, A. , "Package 2 of fiscal measures, explained by experts: "Romania is in a much more difficult situation than in 2009. Even more cuts need to be made", published, 13 August 2025, Redactia Adevarul, https://adevarul.ro/economie/pachetul-2-de-masuri-fiscale-explicat-de-experti-2464648.html#google_vignette.

[2] Dascalu, D., Boian, M. Nacev, C., "The Diary of a Controversial Legislative Package – An Overview of Some of the Radical Measures Adopted to Overcome the Budget-Fiscal Crisis", https://www.juridice.ro/, 09 October 2025.

[3] KPMG Romania: „New Fiscal Measures Effective from 1 August 2025" — a detailed presentation of the amendments adopted by law no. 141/2025 and tax comments, https://kpmg.com/ro/en/home/insights/2025/08/new-fiscal-measures-august-2025.html?utm_source=chatgpt.com..

[4] Pavel, R., "Fiscal Package 2: Extended liability for company administrators", https://avocatpavel.ro/pachetul-2-de-masuri-fiscale-raspundere-extinsa-pentru-administratorii-de-firme/, published September 2025,

[5] Rakhimova, P.S., Norregaard, S., Wen, J.F,"Romania: A Tax Mix to Achieve Fiscal Sustainability and Fairness" , https://www.imf.org/en/Publications/high-level-summary-technical-assistance-reports/Issues/2025/06/05/Romania-A-Tax-Mix-to-Achieve-Fiscal-Sustainability-and-Fairness-567473?utm_source=chatgpt.com, 06 June 2025.


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# UTILIZATION OF STATISTICAL TECHNIQUES IN BACKGROUND MANAGEMENT CHOICES.

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***Abstract***

*Above all else, managerial systems are systems for making decisions based on information. In fact, information is very important at every step of the decision-making process. They want accurate and up-to-date statistics data. Conversely, datasets comprising both structured and unstructured information are only meaningful when transformed into actionable insights, necessitating that knowledge be operational for management systems.*

*Information is data that has been processed by adding new meanings or relevant knowledge. The information's goal is to make things less unclear.*

*Information is not merely the foundational element of contemporary science; it has garnered interest, evolving into a field of inquiry. Probability theory has identified the vehicle as the medium via which uncertainty disseminates. It was first linked to the fact that the events were not certain. The probability measure associated with these events constitutes information, albeit not as a main source, but rather as a derivative obtained by computational procedures. Kolmogorov connected the traditional idea of probability to the measure theory and set up a set of rules for how to use it. The classical, frequency-based method for dealing with uncertainty was then doubled by the Bayesian method, which uses "Probable" information as a measure of logical or subjective determination. A measure of proactivity can be applied not only to the frequency of uncertain events but also to the subjective evaluation of uncertainty regarding the presented information, subject to an expert's prior assessment and confirmation.*

In summary, the theory of probability serves as the foundational framework for articulating and developing theories of uncertainty, while statistics offers methodologies for probabilistic modelling of experimental data and decision-making in the face of uncertainty.

The work of R.A. has made information a big part of statistics. Fisher from 1920 to 1930. A few decades before information theory became an independent and acknowledged field of study, Fisher characterized information as a fundamental concept in mathematical statistics, influenced by studies in thermodynamics and statistical mechanics.

According to statistical data, managerial decision-making is a dynamic, rational process of intentionally selecting a course of action from various options to achieve a specific objective, thereby affecting the actions of at least one individual other than the decision-maker. This is why the manager's ability to make decisions is first linked to their ability to make predictions, which in turn is empty of meaning without the right amount and type of data and statistics.

How information is presented is equally important. It makes a difference if the information is clear or not, and if the change from information to knowledge is easy or hard. It should be possible to get derived information from the original information through calculations. One of the ideas behind the modern information system is to get as much derived information as possible from as little basic information as possible.

You can get information in a lot of different ways. The main point is that each format should give us a full picture of the problem we're dealing with, which will help us make predictions that can be checked in to strengthen, change, or reject that point of view. Somehow, this perspective is a simplified version of reality that should have the most important details or attributes in order to be useful (enough accuracy based on our storage and processing capabilities).

Mathematical modelling is necessary for knowledge acquisition and decision support to accurately represent the fundamental aspects of reality, organize data in a coherent and manageable manner, and facilitate information processing. A smart decision maker won't trust a technology that doesn't let them use their gut feeling (black boxes in decision making can lead to horrific calamities). A strong decision aid methodology is being able to understand reality in a way that isn't too hard to handle. This kind of manageability depends on our skills and abilities, and it should let us do some form of verifiable testing.

Modeling nonlinear processes with intricate structures and numerous variables continues to pose a significant challenge, even when employing the most sophisticated econometric estimation techniques. Conventional approaches, primarily reliant on linear regression, often fail to adequately address this issue, particularly when the model's functional form is uncertain and must be intuitively chosen from a vast array of potential options. In classical collective time, it is impossible to estimate a model without first defining its functional form. However, the required knowledge of such a specification is often unavailable, leaving experience or intuition as the only alternatives. Econometricians have examined various pertinent criteria for the selection of functional forms, including theoretical consistency, scope, flexibility, and adherence to factual computational capabilities. In particular, the notion of "flexibility" in a targeted study endeavor.A traditional approach to tackle this difficulty involves enhancing techniques for estimating parameters and offering a priori specifications of sufficiently flexible functional forms. In this context, flexibility refers to the capacity of the functional form (specified parameters)—whether it is a production function, a cost-profit function, or another type of function—to closely resemble several behaviors that are theoretically coherent by the judicious selection of parameters.One of the most widely accepted functional forms for describing producer behavior, whose flexibility has been theoretically and practically validated, is the TRANSLOG function (Logarithmic Transcendental Function).

More recently, several scholars have looked into nonparametric estimation approaches that are meant to change the regression functions while keeping the restrictions of monotony and concavity in mind. In contrast to the aforementioned methodologies, computational intelligence techniques employ various strategies to fulfill the requirement for flexibility, including neural modeling (neural networks), fuzzy logic-based modeling (fuzzy inference systems), and neuro-fuzzy models derived from hybridization techniques combining neural and fuzzy systems. According to DEX, intelligence is the capacity to quickly grasp and fix things that are important to solving an issue and new problems based on what you've learned in the past.

More broadly, intelligence is a characteristic of all systems motivated by purpose, and the decision-making of such a system entails the capacity to modify their behavior to attain their goals within an interactive context with the environment.

A system is adaptable if it can adjust the settings to do its job better. Adaptability is a defining feature of any process wherein a structure is incrementally altered to enhance performance in conjunction with two fundamental qualities of the medium.

The origin and evolution of computational intelligence are predicated on intelligent systems characterized by their capacity to learn and adapt.It is a methodology that calculates a system that can learn and/or deal with new situations. The idea is that this system has certain reasoning traits, such as generalization, discovery, association, and abstraction. Computational Intelligence also includes a set of practical ideas that help or enable people to do the right things (intelligent behavior) in complex and changing (variable time) paradigms, algorithms, mechanisms of self-organization, and implementation. Self-organization can be viewed as a testing system that consistently arranges itself into intricate structures, despite the existence of enduring factors that promote de-structuring, as delineated by the second law of thermodynamics (entropy). The core domains of computational intelligence include fuzzy logic (fuzzy inference systems), neural networks, the computing of evolutionary processes (genetic algorithms, etc.), and hybrid systems.

These sectors are complementary, not competitive, meaning that each one brings its unique strengths and methods to the table to help address challenges. Fuzzy logic allows for approximation, evolutionary algorithms perform systematic searches, and neural networks may learn and adapt.

Fuzzy logic is a type of reasoning that builds on multivalent logic and is a more general form of traditional logic. The core concept is the generalization of the classical type of fuzzy sets. Fuzzy sets are groups of things that have fuzzy borders, where membership in a group range from 0 (not having anything) to 1 (having everything). Zadeh, the inventor of fuzzy logic, says that as things get more complicated, exact formulations lose their meaning and

meaningful formulations lose their precision. Artificial neural networks are systems that are based on biology and can process information in parallel. They change the structure of the brain mass. They mimic a highly interconnected parallel computing system that has a lot of simple processing units (called neurons). Weighted connections link processing elements.

Connection weights hold information (knowledge), hence the network can change by changing these weights. Evolutionary calculation is a collection of techniques derived from biological principles. It uses stochastic search methods based on natural biological processes of evolution, like selection, recombination, mutation, and others, to identify the best answers to problems.

During evolution, individuals in a population become better suited to their environment than the individuals from which they originated—similar to a natural fit. Genetic algorithms, for instance, work with groups of possible solutions and use the best survival (evolutionary theory, Darwin) to come up with guesses on how to become the best answer.

Evolutionary calculation encompasses several significant domains, including Genetic algorithms; Programming that changes over time; Strategies for evolution; Programming genes.

Hybrid systems use two or more basic computational intelligence methods to improve performance and let them work together better.

Some examples of hybrid systems are Systems that are neuro-fuzzy; Genetic systems for the brain; Fuzzy-genetic systems; Genetic-neuro-fuzzy systems.

At the moment, methods based on computational intelligence are thought to be the best way to estimate nonlinear models. This is true for both their predictive capacity (which is better) and their proven flexibility in nonlinear process modelling. They provide a convenient and effective solution to the challenging task of specifying a priori high-form econometric models, substituting them with architecture and fine-tuning neural networks, specifically utilizing structure fuzzy partitions, membership functions that delineate fuzzy sets, and fuzzy inference types appropriate for nonlinear process modelling. that the structure

There is a phase of training and learning that goes along with building the model. The specifics are contingent upon the computational intelligence technique employed. But they all go through two different stages: learning and testing. Learning relies on a comprehensive set of examples, determined by the relationships connecting the values of input and output variables. The learning process concludes when the model's outcomes are sufficiently proximate to the data solutions necessary for learning.

But we can be sure that the model will work just as effectively in other cases. Because of this, it is tested with data from the same group but not the same data that was used for learning. If needed, a phase of adjustments is needed to get good outcomes when compared to test data. This process model can only be regarded operational after this.

So, we need to create three sets of data: learning, testing, and evaluation. Both neural networks and fuzzy inference systems are undergoing a phase estimation model. Traditional functional models estimate the parameters of neural networks by looking at the synaptic weights. Fuzzy inference systems, on the other hand, estimate the parameters of local models that make up the global model using a fuzzy aggregation process. In every instance, estimation seeks to allocate a value/output variable predicated on the values assumed by the input variables.

Estimation yields actual values. Neural networks and fuzzy inference systems are universal approximators that can estimate any nonlinear function defined on a compact domain with high accuracy, provided there is sufficient data and a well-chosen model structure.

The evaluation model is meant to test how well the model can find the right values for new scenarios. Usually, a set of predictions is used to see how well a model works. This compares the model's actual output values to the predictions. In order to get a useful measure of the model's prediction power, it uses a different set of data than the one it learned from. These are called data evaluation, and they are usually the last part of the data that is kept for this purpose.

The predictive power calculated for the data evaluation (e.g., mean square prediction error) can be regarded as applicable to the new data value and indicative of the model's overall quality. The integration model in decision-making is the last step in the modelling process.

It is essential to comprehend that data should not be perceived as a simplistic representation of reality. There is no such thing as a simple observation of reality since each perception depends on how the seeing

equipment is built and how its internal processing parts work. For instance, human eyes can only see a certain number of frames each second, and these frames can only be in the visible spectrum. We believe that space and time are continuous; nonetheless, the continuity of space and time is fundamentally a perception, aligned with the frames we witness, yet remains a logical construct. Our brain has already digested what we think we have seen. We consider that the data is rough, but it is already a finished product. There are a lot of things that our eyes can't see. There are also things that our eyes can see but our brains can't understand, or things that our brains don't want to see. What people used to call observation is already information that has been sifted and worked on.

**Conclusion**

Computational Intelligence exists at the intersection of multiple disciplines. It can be considered a subfield of artificial intelligence (AI) in concept, although it diverges from AI in some significant aspects. The conventional methodology for classical Artificial Intelligence is top-down, predominantly grounded in formal logic. This entails that the intelligent system designer must provide the comprehensive knowledge necessary to resolve a problem during the construction phase (development). In contrast, the computational intelligence approach is bottom-up, indicating that algorithms are engineered to self-educate through the accumulation of experience to acquire the requisite knowledge for problem-solving. In addition, computational intelligence encompasses all categories of biologically inspired algorithms: neural networks draw from biological and cognitive processes in the brain, the computation of evolutionary algorithms is grounded in Darwinian

Theory of evolution and natural selection, and multi-agent systems are founded on self-organizing mechanisms within communities, species, or ecosystems. Furthermore, the influence of biological inspiration on the emergence and evolution of computational intelligence reflects key characteristics of natural intelligent systems: the capacity to learn, adapt, self-organize, and generalize, enabling appropriate responses to environmental stimuli in novel situations not explicitly derived from prior experience.

The extraordinary characteristics enumerated above elucidate the rationale for the prevailing perception that computational intelligence-based methodologies represent the optimal approach for estimating nonlinear models, excelling in both predictive efficacy and shown adaptability in modelling nonlinear phenomena.

**BIBLIOGRAPHY**

1. Georgescu V. - "Flexible Estimation of Cost Functions Based on Fuzzy Logic Modeling" "Approach," Fuzzy Economic Review, No. 2, Vol. III, 2008, pp. 49-68.
2. Georgescu V. - "Flexible estimating approaches for fuzzy logic modeling, incorporating economic applications," Proceedings of the 5th Congress of SIGEF, October 2008,Lausanne
3. Andrei, A., Oprescu, Gh., Marin, D., Mitruţ, D., and Roman, M. (2011). Modele dinamice de conducere optimă an activităţii firmei, Editura ASE, Bucureşti
4. Scarlat, E., and Mărăcine, Virginia (2012), Dinamica economică. Dinamica sistemelor haotice, Editura MatrixRom, Bucureşti.
5. Scarlat, E., Chiriţă, Nora (2015). Macroeconomie dinamică, Editura Economică, Bucureşti

# FINANCIAL PERFORMANCE AND SUSTAINABILITY: LINKING ROI AND ROE TO ESG DISCLOSURE IN ROMANIAN COMPANIES

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***Abstract:*** *The growing importance of sustainability and responsible corporate governance has transformed financial reporting into an integrated process that includes Environmental, Social, and Governance (ESG) indicators. This paper examines the relationship between financial profitability and sustainability disclosure among major Romanian companies, assessing whether transparency in ESG practices is associated with stronger financial outcomes. The study uses secondary data from annual reports and sustainability disclosures published between 2021 and 2023. A comparative analysis was conducted on eight companies from four strategic sectors — automotive, energy (oil & gas and electricity), and retail — using two profitability indicators: Return on Investment (ROI) and Return on Equity (ROE).*

*The findings show that companies with solid ESG alignment and responsible leadership (Hidroelectrica, Dacia, Kaufland) display higher profitability and greater financial stability. In contrast, firms facing undercapitalization or market volatility (Rompetrol, Electrica Furnizare) demonstrate weaker or fluctuating results. These results confirm that sustainability reporting and financial performance reinforce each other, supporting long-term competitiveness in a knowledge-based economy. The study contributes to understanding how responsible leadership and transparency can enhance resilience and sustainable value creation in emerging European markets.*

***Keywords****: ROI, ROE, ESG disclosure, financial performance, sustainability reporting*

## INTRODUCTION

In recent years, the growing emphasis on environmental, social, and governance (ESG) principles has fundamentally reshaped corporate reporting and financial evaluation frameworks. The transition towards a knowledge-based and sustainable economy has amplified expectations for transparency, accountability, and responsible leadership (OECD, 2020; European Commission, 2023). Investors and stakeholders now assess companies not only by their short-term financial performance but also by their long-term capacity to manage risks, innovate, and generate shared value (Eccles & Krzus, 2018; Freeman et al., 2021).

Financial profitability and sustainability disclosure are increasingly seen as interdependent dimensions of organizational resilience. A growing body of empirical research demonstrates that firms integrating ESG factors into their strategic and operational models achieve superior financial outcomes and lower risk exposure (Friede et al., 2015; Fatemi et al., 2018; Velte, 2017; Albuquerque et al., 2019). These findings support the premise that responsible management enhances not only stakeholder trust but also return on investment and equity.

In Romania, as well as in other emerging European markets, however, the relationship between ESG practices and financial performance is underexplored. Despite the rapid diffusion of sustainability frameworks, including the Global Reporting Initiative (GRI, 2021) and the EU Corporate Sustainability Reporting Directive (CSRD, 2022), the empirical evidence connecting disclosure quality and financial profitability is still limited. This study addresses this research gap by analyzing the link between sustainability disclosure and financial performance in Romanian companies across four strategic sectors: automotive, energy (oil & gas and electric power), and retail. Using Return on Investment (ROI) and Return on Equity (ROE) as key financial indicators of profitability, the research aims to identify patterns that reflect how ESG orientation, capital structure, and operational efficiency contribute to long-term competitiveness.

Based on the reviewed literature and the identified research gap, this study tests four main hypotheses that guide the empirical analysis presented in the following sections. The hypotheses are noted as H1, H2, H3, H4 and they are presented below.

**H1:** There is a positive relationship between the level of ESG disclosure and financial performance (ROI and ROE).

**H2:** Companies with higher ESG maturity and transparent governance demonstrate greater profitability and financial stability.

**H3:** Capital adequacy moderates the relationship between sustainability practices and profitability, enhancing resilience.

**H4:** The relationship between ESG orientation and financial performance differs across sectors, being stronger in stable, sustainability-oriented industries and weaker in cyclical markets.

The paper contributes to both academic and managerial knowledge by offering sector-specific evidence from an emerging market that is aligning its corporate governance and sustainability practices with European standards under the Green Deal and CSRD implementation (European Commission, 2023).

## LITERATURE REVIEW AND THEORETICAL BACKGROUND

The relationship between financial performance and sustainability disclosure has become one of the most widely debated topics in corporate governance and strategic management. Early research established that the integration of non-financial information into business decision-making reflects a paradigm shift from shareholder primacy toward stakeholder-oriented management (Freeman, 1984; Freeman et al., 2021). This approach emphasizes that organizations create long-term value not only through profit maximization, but also through responsible practices that support social and environmental well-being.

The theoretical foundations of the ESG–performance relationship are often linked to three complementary perspectives. The stakeholder theory (Freeman, 1984) suggests that companies maintaining strong relationships with their stakeholders — employees, investors, communities, regulators — are more likely to achieve sustainable competitive advantage. The resource-based view (RBV) shows that sustainability capabilities, such as transparency, ethical leadership, and environmental efficiency, act as intangible strategic resources that enhance performance (Hart, 1995; Barney, 1991). Finally, the triple bottom line (TBL) framework (Elkington, 1997) integrates economic, environmental, and social dimensions, reinforcing the idea that long-term profitability depends on balancing these three pillars.

Empirical evidence on the ESG–financial performance nexus remains mixed, though the majority of studies report a positive relationship. A meta-analysis by Friede et al. (2015) reviewing over 2,000 empirical papers concluded that approximately 90% found a non-negative, and most a positive, link between ESG factors and financial outcomes. Similarly, Fatemi et al. (2018) argue that high-quality ESG disclosure enhances firm valuation by reducing information asymmetry and increasing investor confidence. Velte (2017) and Albuquerque et al. (2019) provide additional evidence from European markets, where strong ESG governance correlates with improved profitability, risk mitigation, and access to capital.

In emerging markets, however, the evidence is more fragmented. Studies such as Miralles-Quirós and Miralles-Quirós (2017) and Atan et al. (2018) highlight that the benefits of ESG integration depend heavily on institutional maturity, regulatory stability, and market expectations. The adoption of frameworks such as the Global Reporting Initiative (GRI, 2021), the EU Taxonomy for Sustainable Activities, and the Corporate Sustainability Reporting Directive (CSRD, 2022) has accelerated ESG standardization in Europe but remains uneven in Central and Eastern Europe. This institutional asymmetry influences how ESG performance translates into financial results.

The Romanian context offers a particularly relevant setting for this debate. As part of the EU regulatory ecosystem, Romanian companies are progressively adopting sustainability reporting standards, yet with heterogeneous depth and transparency. Recent studies (Stoian & Gilman, 2017; Feleaga et al., 2020) suggest that ESG reporting in Romania is still largely compliance-driven, with limited integration into strategic management. Therefore, analyzing the financial implications of ESG disclosure provides valuable insight into how Romanian firms transition toward responsible competitiveness and knowledge-based growth.

Thus, the specialized literature indicates that ESG integration enhances financial performance primarily through improved governance quality, risk management, and stakeholder trust. However, the strength of this relationship varies across industries and markets, underscoring the need for empirical evidence from emerging economies such as Romania.

## METHODOLOGY

This study employs a documentary and comparative analytical approach based on secondary financial data. The objective is to examine the relationship between sustainability disclosure and financial performance in Romanian companies across four key sectors: automotive, energy (oil & gas and electric power), and retail. The analysis focuses on identifying patterns that reveal how profitability, capital structure, and ESG orientation interact to support corporate resilience and long-term value creation.

The research sample includes 8 (eight) major Romanian companies selected according to their market relevance, data availability, and representativeness for the selected industries: Automobile Dacia and Ford Otosan Craiova (automotive), OMV Petrom and Rompetrol Rafinare (oil & gas), Hidroelectrica and Electrica Furnizare

(electric power), Lidl and Kaufland (retail). All companies are among the top performers in their respective sectors and disclose annual financial and non-financial data publicly. All these companies are among top 15 companies in Romania by their 2023 turnover.

Data were collected from official annual reports, audited financial statements, and sustainability reports covering the period 2021–2023. These reports were accessed through company websites, the Bucharest Stock Exchange (BVB), and the Romanian Ministry of Finance.

The dataset includes the following key variables: net profit, total assets (as a sum of total fixed assets and total current assets), and shareholders' equity. Based on these data, two profitability indicators were computed for each company and each year, namely ROI and ROE. ROI is computed as a ratio between net profit and total assets, while ROE is computed as net profit divided by Shareholders' equity.

ROI (Return on Investment) is the financial indicator that measures the efficiency of total capital (both equity and debt) in generating profit, while ROE (Return on Equity) evaluates the profitability of shareholders' funds. For each company, ROI and ROE were calculated annually for 2021, 2022, and 2023, expressed in percentages (%) and then averaged to assess three-year performance trends. The collected data, as well as the computed ROI and ROE financial indicators are presented in Table 1.

***Table 1 ROI and ROE financial indicators for 8 major companies in Romania during 2021-2023***

| Year | Net profit/ Loss (RON) | Total shareholders' equity (RON) | Total Fixed assets (RON) | Total current assets (RON) | ROI (%) | ROE (%) |
|---|---|---|---|---|---|---|
| **Automobile Dacia** | | | | | | |
| 2023 | 529.233.980 | 3.880.370.851 | 3.755.481.463 | 4.837.674.693 | 6,16% | 14% |
| 2022 | 526.783.840 | 4.421.215.526 | 4.281.634.822 | 4.945.009.585 | 5,71% | 12% |
| 2021 | 498.287.581 | 5.436.917.821 | 4.631.000.755 | 4.591.086.793 | 5,40% | 9% |
| **Ford Otosan** | | | | | | |
| 2023 | -15.196.180 | 2.371.359.392 | 3.614.768.572 | 2.451.006.502 | -0,25% | -1% |
| 2022 | -24.446.491 | 2.262.888.391 | 2.616.198.996 | 2.466.119.257 | -0,48% | -1% |
| 2021 | 61.664.713 | 1.318.651.342 | 3.123.017.030 | 2.177.739.284 | 1,16% | 5% |
| **OMV Petrom** | | | | | | |
| 2023 | 3.944.059.894 | 37.930.402.732 | 33.155.377.909 | 22.485.843.279 | 7,09% | 10% |
| 2022 | 10.287.553.182 | 39.143.576.653 | 29.404.727.639 | 26.873.153.394 | 18,28% | 26% |
| 2021 | 2.688.416.594 | 32.869.707.478 | 30.622.801.653 | 18.119.121.826 | 5,52% | 8% |
| **Rompetrol Rafinare** | | | | | | |
| 2023 | -550.355.167 | 1.962.613.686 | 6.551.068.253 | 3.715.248.052 | -5,36% | -28% |
| 2022 | 666.277.159 | 2.919.993.039 | 7.411.965.134 | 2.916.036.661 | 6,45% | 23% |
| 2021 | -450.988.114 | 2.331.807.666 | 7.145.150.816 | 3.070.434.865 | -4,41% | -19% |
| **Hidroelectrica** | | | | | | |
| 2023 | 6.352.326.530 | 25.037.000.997 | 20.812.171.940 | 8.238.150.638 | 21,87% | 25% |
| 2022 | 4.394.378.205 | 21.626.313.231 | 19.898.289.282 | 5.497.463.082 | 17,30% | 20% |
| 2021 | 3.019.511.168 | 19.152.906.335 | 18.369.170.988 | 4.311.759.691 | 13,31% | 16% |
| **Electrica Furnizare** | | | | | | |
| 2023 | 64.882.909 | 121.522.985 | 137.207.165 | 5.359.627.011 | 1,18% | 53% |
| 2022 | 370.620.348 | 39.024.100 | 165.588.100 | 3.885.684.129 | 9,15% | 950% |
| 2021 | -463.187.300 | -332.775.768 | 109.505.690 | 1.299.671.935 | -32,87% | 139% |
| **Lidl** | | | | | | |
| 2023 | 1.078.382.276 | 2.649.031.655 | 1.412.076.797 | 6.274.305.819 | 14,03% | 41% |
| 2022 | 1.054.580.568 | 3.666.144.705 | 1.211.061.817 | 7.687.804.622 | 11,85% | 29% |
| 2021 | 737.412.992 | 3.006.564.145 | 913.189.001 | 5.779.496.939 | 11,02% | 25% |
| **Kaufland** | | | | | | |
| 2023 | 864.897.809 | 10.843.262.255 | 11.641.572.777 | 3.398.057.960 | 5,75% | 8% |
| 2022 | 884.346.491 | 9.592.911.508 | 10.283.285.699 | 3.047.777.733 | 6,63% | 9% |
| 2021 | 887.003.357 | 8.708.565.017 | 9.053.801.278 | 2.821.348.206 | 7,47% | 10% |

Source: Author's contribution based on the official annual reports, audited financial statements, and sustainability reports covering the period 2021–2023

The analysis used a cross-sector comparative design, allowing the identification of differences between industries with distinct capital structures and ESG maturity levels. The results were interpreted descriptively, supported by tables summarizing the main financial ratios and qualitative insights regarding corporate sustainability practices. This mixed interpretative approach aligns with prior studies exploring ESG–financial linkages in emerging markets (Atan et al., 2018; Feleaga et al., 2020).

The study has some limitations, as presented furtheron. The study relies exclusively on secondary data from publicly available reports, which may vary in transparency, accounting practices, or ESG disclosure quality. In addition, the analysis focuses on a limited sample of eight companies and a three-year period, which constrains the generalization of findings. However, the research provides a solid empirical foundation for future quantitative studies using larger datasets and econometric models to test the causal link between ESG disclosure and profitability in the Romanian context.

## RESULTS AND DISCUSSION

The empirical analysis was conducted on eight major Romanian companies representing four strategic sectors of the national economy — automotive manufacturing, energy (oil & gas and electric power), and retail. For each company, the indicators Return on Investment (ROI) and Return on Equity (ROE) were calculated for the period 2021–2023 using official financial data.

The centralized results are presented in Table 2. The results were then compared across sectors to identify patterns of profitability and stability associated with sustainability orientation, capital structure, and market dynamics.

***Table 2 Average ROI and ROE indicators (2021-2023)***

| Sector | Company | Average ROI (%) | Average ROE (%) |
|---|---|---|---|
| Automotive Sector | Automobile Dacia | 5.76 | 11.57 |
| Automotive Sector | Ford Otosan Craiova | 0.14 | 0.99 |
| Energy Sector – Oil & Gas | OMV Petrom | 10.30 | 14.95 |
| Energy Sector – Oil & Gas | Rompetrol Rafinare | -1.11 | -8.20 |
| Energy Sector – Electric Power | Hidroelectrica | 17.50 | 20.49 |
| Energy Sector – Electric Power | Electrica Furnizare | -7.51 | 380.88 |
| Retail | Lidl | 12.30 | 31.34 |
| Retail | Kaufland | 6.62 | 9.12 |

Source: Author's contribution

### Automotive sector

The automotive manufacturing sector demonstrates moderate but consistent profitability. Automobile Dacia maintains a stable upward trajectory in both ROI (average 5.76%) and ROE (11.57%), reflecting a mature operational model, efficient asset management, and strong brand equity. In contrast, Ford Otosan Craiova shows temporarily low returns (ROI 0.14%, ROE 0.99%) due to large-scale investments and restructuring following the ownership transfer in 2022. This divergence between the two manufacturers illustrates how strategic reinvestment phases may suppress short-term profitability while building long-term competitiveness, particularly in the transition toward electrification and advanced production technologies.

### Energy sector – Oil & gas

The oil and gas sector shows pronounced volatility driven by external price dynamics and global supply chain disruptions. OMV Petrom exhibits strong profitability (ROI = 10.30%, ROE = 14.95%), benefiting from exceptional market conditions in 2022 when crude oil prices peaked. Rompetrol Rafinare, on the other hand, recorded alternating losses and gains, with negative averages (ROI = –1.11%, ROE = –8.20%) that highlight its vulnerability to refining margins and geopolitical shocks. These findings confirm that fossil energy companies operate in cyclical environments where profit volatility is amplified by global uncertainty and regulatory pressures for decarbonization.

### Energy sector – Electric power

The comparison between Hidroelectrica and Electrica Furnizare underscores the divergence between renewable producers and energy distributors. Hidroelectrica reports exceptional performance (ROI = 17.50%, ROE = 20.49%), reflecting efficient use of capital and consistent profit growth in a low-risk, high-barrier industry. Conversely, Electrica Furnizare demonstrates extreme variability, with ROI fluctuating between –33% and +9% and an inflated average ROE (380%) due to low equity levels and structural undercapitalization. While Hidroelectrica embodies the financial and environmental benefits of ESG-oriented operations, Electrica exemplifies the instability of companies exposed to retail energy regulation and policy-driven pricing schemes. It is noticed that ROE average was heavily influenced by negative or very low equity values in 2021–2022.

**Retail sector**

Both retail companies show high operational efficiency and profitability, confirming the resilience of the fast-moving consumer goods (FMCG) sector. Lidl achieves the highest return ratios among all analyzed firms (ROI = 12.30%, ROE = 31.34%), owing to rapid capital turnover, optimized logistics, and strategic reinvestment in local infrastructure. Kaufland maintains more moderate but stable figures (ROI = 6.62%, ROE = 9.12%), reflecting a conservative financial model with strong capitalization. The contrast between the two companies illustrates that retailers can balance growth and stability through different financing and sustainability strategies — aggressive asset utilization versus equity-backed expansion.

**Cross-sector comparative analysis**

When comparing all sectors, several key patterns emerge. Three of the main findings are presented further on.

First, companies with strong ESG orientation and transparent sustainability governance (Hidroelectrica, Dacia, Kaufland) show higher and more stable profitability. Their performance demonstrates that responsible corporate behavior aligns with efficient resource utilization and reduced financial risk.

Second, capital structure proves essential for financial stability. Firms with strong equity bases (Hidroelectrica, Kaufland) display lower volatility and consistent returns, whereas undercapitalized or highly leveraged entities (Electrica Furnizare, Rompetrol Rafinare) reveal erratic results and sensitivity to market shocks.

Third, industry cyclicality remains a defining factor of ROI and ROE variation. Energy companies dependent on fossil fuels exhibit sharp profit fluctuations, while retail and renewable energy sectors maintain steadier trajectories due to demand stability and efficiency-driven models.

## DISCUSSION

The comparative evidence supports the hypothesis that ESG maturity correlates positively with financial performance in the Romanian corporate landscape. Companies that integrate sustainability principles not only achieve better profitability but also display greater resilience in volatile environments. These findings are consistent with the international literature (Friede et al., 2015; Velte, 2017; Fatemi et al., 2018), reinforcing that transparency and stakeholder engagement contribute to both financial stability and reputational capital.

Furthermore, the results highlight the relevance of capital adequacy as a structural driver of sustainable profitability. Companies combining strong equity with responsible governance exhibit durable financial strength, while those operating with fragile balance sheets face high variability despite occasional profit surges.

Overall, the empirical outcomes demonstrate that financial performance and sustainability disclosure are mutually reinforcing and essential for competitiveness in a knowledge-based economy. The Romanian esxperience, as reflected in this study, underscores that sustainability-oriented leadership — supported by clear ESG reporting — enhances not only stakeholder trust but also long-term financial value creation.

## CONCLUSIONS

This study examined the relationship between sustainability disclosure and financial performance in eight major Romanian companies from four strategic sectors: automotive, energy (oil & gas and electric power), and retail. By analyzing profitability indicators — Return on Investment (ROI) and Return on Equity (ROE) — for the 2021–2023 period, the research provided empirical insights into how ESG orientation and capital structure influence corporate efficiency and resilience.

The empirical results allow partial confirmation of the proposed hypotheses. **H1** and **H2** are strongly supported by the findings, as companies with higher ESG maturity consistently achieved better ROI and ROE

results. **H3** is also validated, since companies with strong equity positions showed higher stability and profitability. **H4** is partially confirmed: ESG-related profitability effects are most visible in renewable energy and retail, but less consistent in cyclical sectors such as oil & gas or automotive. These results reinforce the theoretical proposition that sustainability and financial performance are interconnected dimensions of corporate resilience and competitive advantage. The results confirm that financial performance and sustainability operate in mutual reinforcement, where responsible management and transparent governance strengthen both profitability and resilience. Companies with a high level of ESG maturity and transparent governance, such as Hidroelectrica, Automobile Dacia, and Kaufland, demonstrate stronger profitability and lower volatility. Conversely, firms characterized by weak capitalization or exposure to highly volatile markets, such as Rompetrol Rafinare and Electrica Furnizare, show unstable financial performance and limited long-term value creation. These findings align with prior international studies (Friede et al., 2015; Velte, 2017; Fatemi et al., 2018), reinforcing the positive link between sustainability practices and profitability.

From a theoretical perspective, the research supports both the stakeholder theory (Freeman, 1984) and the resource-based view (Hart, 1995), suggesting that responsible management, transparency, and knowledge-oriented innovation are intangible resources that strengthen competitive advantage. Practically, the results emphasize that integrating ESG frameworks — such as GRI Standards (2021) and the EU Corporate Sustainability Reporting Directive (CSRD, 2022) — into financial strategy and decision-making enhances both performance and credibility. At the policy level, the study contributes to understanding how responsible leadership and sustainable finance can accelerate Romania's alignment with the European Green Deal objectives. Strengthening ESG reporting, particularly in high-impact industries, could improve investor confidence and foster a culture of corporate accountability.

Future research should expand the dataset to include a broader time frame and a larger number of companies, enabling statistical modeling (panel data regression, correlation analysis) to test the causality between ESG disclosure and profitability. Qualitative research could also explore how corporate narratives on sustainability translate into measurable performance indicators.

In conclusion, this paper demonstrates that sustainability and profitability are not competing goals but complementary pillars of resilience and growth. Companies that invest in responsible leadership, innovation, and transparent governance not only create profit but also contribute to the development of a sustainable, knowledge-based economy. These findings collectively support the proposed research hypotheses (H1–H4) and provide empirical evidence of the ESG–profitability relationship in Romanian companies.

## REFERENCES

### Academic and theoretical sources


1. Albuquerque, R., Koskinen, Y. and Zhang, C. (2019). *Corporate Social Responsibility and Firm Risk: Theory and Empirical Evidence. Management Science*, 65(10), pp.4451–4469.
2. Atan, R., Alam, M.M., Said, J. and Zamri, M. (2018). *The Impact of Environmental, Social and Governance Factors on Firm Performance: Panel Data Evidence from ASEAN Countries. Asian Journal of Sustainability and Social Responsibility*, 3(4), pp.1–19.
3. Barney, J. (1991). *Firm Resources and Sustained Competitive Advantage. Journal of Management*, 17(1), pp.99–120.
4. Eccles, R.G. and Krzus, M.P. (2018). *The Nordic Model: An Analysis of Leading Practices in ESG Disclosure.* Nordic Council of Ministers.
5. Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business.* Capstone Publishing, Oxford.
6. Fatemi, A., Glaum, M. and Kaiser, S. (2018). *ESG Performance and Firm Value: The Moderating Role of Disclosure. Global Finance Journal*, 38, pp.45–64.
7. Feleaga, N., Feleaga, L. and Dragomir, V. (2020). *Sustainability Reporting and Corporate Governance in Romania. Amfiteatru Economic*, 22(53), pp.370–386.
8. Freeman, R.E. (1984). *Strategic Management: A Stakeholder Approach.* Boston: Pitman.
9. Freeman, R.E., Phillips, R.A. and Sisodia, R. (2021). *Tensions in Stakeholder Theory. Business & Society*, 60(2), pp.285–300.
10. Friede, G., Busch, T. and Bassen, A. (2015). *ESG and Financial Performance: Aggregated Evidence from More Than 2000 Empirical Studies. Journal of Sustainable Finance & Investment*, 5(4), pp.210–233.
11. Hart, S.L. (1995). *A Natural-Resource-Based View of the Firm. Academy of Management Review*, 20(4), pp.986–1014.

12. Miralles-Quirós, M.M. and Miralles-Quirós, J.L. (2017). *Improving Transparency in Emerging Markets: The Role of ESG Disclosure. Emerging Markets Review*, 33, pp.38–55.
13. Stoian, C. and Gilman, M. (2017). *Corporate Social Responsibility that "Pays": A Strategic Approach to CSR in Romania. Journal of Business Ethics*, 144(3), pp.645–659.
14. Velte, P. (2017). *Does ESG Performance Have an Impact on Financial Performance? Evidence from Europe. Sustainability*, 9(12), p.2228.

**Institutional and regulatory sources**

1. European Commission (2023). *Corporate Sustainability Reporting Directive (CSRD).* Official Journal of the European Union, L322/15, Brussels.
2. European Union (2020). *The European Green Deal.* COM(2019) 640 final, Brussels.
3. GRI (2021). *Global Reporting Initiative Standards: Universal Standards 2021.* Amsterdam: Global Sustainability Standards Board.
4. OECD (2020). *OECD Business and Finance Outlook 2020: Sustainable and Resilient Finance.* Paris: OECD Publishing.

# INTEGRATED REPORTING: BENEFITS AND IMPLICATIONS FOR LONG-TERM VALUE CREATION

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**Abstract:** *Integrated reporting represents a fundamental evolution in modern corporate disclosure, offering a holistic view of how organizations create value over the short, medium, and long term. By combining financial and non-financial information, this reporting model explains how strategy, governance, and the use of multiple capitals—financial, human, intellectual, natural, and social—contribute to corporate sustainability and performance. In an economic environment marked by increasing demands for transparency and accountability, integrated reporting has become a key tool for enhancing investor confidence and reducing information asymmetry. This paper analyzes the benefits of integrated reporting on firm value, cost of capital, and stakeholder relationships, while also addressing its main challenges, such as a lack of standardization and the risk of formalism or “greenwashing.” The findings suggest that organizations implementing high-quality integrated reporting demonstrate superior sustainable performance and more responsible governance. Therefore, integrated reporting should not be viewed merely as a communication instrument, but as a strategic management process that supports long-term value creation and aligns business models with sustainability principles.*

## Introduction

In an economic environment characterized by complexity, volatility, and increasing pressures from investors, clients, and regulatory authorities, corporate reporting is evolving beyond the mere presentation of financial results. Integrated Reporting (IR) responds to this transformation through a holistic approach that explains how strategy, governance, business model, and the use of multiple capitals—financial, natural, human, intellectual, social, and relational—contribute to value creation over the short, medium, and long term (IIRC, 2021). More than a reporting format, IR represents a process of integrated thinking that aligns economic objectives with environmental and social goals, reduces informational asymmetry, and strengthens managerial accountability.

Interest in integrated reporting has grown significantly as stakeholders increasingly demand transparency, ethical behavior, and corporate resilience. Investors no longer assess companies solely on their past financial performance, but also on their ability to manage systemic risks—climate, social, or compliance-related—and to capture innovation opportunities (KPMG, 2023). In this context, IR becomes an essential governance tool: it provides boards of directors with a connected view of resources, risks, and strategic trade-offs, thus supporting informed decision-making and coherence between planning, execution, and reporting (de Villiers & Maroun, 2022).

The evolution of integrated reporting is closely linked to the development of the International Integrated Reporting Framework (IIRC, 2013; revised 2021) and the emergence of global sustainability disclosure standards under the IFRS Foundation (ISSB, 2023). These frameworks promote a shift from short-term profit orientation to long-term value creation, integrating financial and sustainability perspectives into a unified reporting model. The approach emphasizes that corporate performance should be viewed through the lens of value generation for all stakeholders—not just shareholders—by considering how environmental and social factors influence financial outcomes (Adams, 2022).

From a governance perspective, integrated reporting strengthens accountability and transparency. It enables boards and executives to link strategy to performance indicators that reflect both tangible and intangible assets. The inclusion of multiple capitals—financial, manufactured, intellectual, human, social, and natural—encourages organizations to understand the interdependencies between resources and the potential trade-offs among them. This comprehensive perspective supports strategic coherence, fosters ethical conduct, and aligns reporting with the organization’s mission and societal purpose (Eccles & Krzus, 2022).

At the same time, IR plays a crucial role in bridging the information gap between corporations and capital markets. By offering forward-looking, decision-relevant information, it reduces the cost of capital, improves investor confidence, and enhances market efficiency (Zennaro, 2024). Several empirical studies demonstrate that firms adopting integrated reporting disclose higher-quality information, enjoy lower financing costs, and are perceived as more credible by stakeholders (Dumay et al., 2021; Bernardi & Stark, 2022). Moreover, integrated reporting facilitates alignment with environmental, social, and governance (ESG) performance indicators, creating a unified communication channel that strengthens reputational capital and stakeholder trust.

However, the implementation of integrated reporting faces several challenges. Despite growing adoption, there remains a lack of harmonization between regional frameworks—such as the EU Corporate Sustainability Reporting Directive (CSRD, 2023) and the ISSB standards—leading to inconsistencies in measurement and disclosure. Additionally, the risk of greenwashing persists when organizations use sustainability rhetoric without substantive integration of ESG principles into business practices (Harwood & Thomas, 2023). Another critical challenge is the cost and complexity of implementing an integrated reporting system, particularly for small and medium-sized enterprises that lack specialized expertise or resources (Kaya & Avci, 2023).

The purpose of this paper is to highlight the economic and governance-related benefits of integrated reporting and to present relevant empirical evidence regarding its effects on firm value, cost of capital, information quality, and stakeholder relationships. The contribution of this research lies in:

- synthesizing recent empirical findings on the impact of integrated reporting;
- clarifying the mechanisms through which reporting quality influences performance—such as the reduction of informational asymmetry, improved internal discipline, enhanced reputation, and better access to capital;
- formulating managerial implications for the design and implementation of integrated reporting systems centered on materiality and forward-looking orientation.

Ultimately, this study supports the view that integrated reporting should not be perceived merely as a compliance requirement but as a strategic management process that enhances corporate governance and sustainable performance. By aligning business models with societal expectations and environmental responsibilities, IR provides a pathway toward more resilient, transparent, and accountable organizations capable of generating long-term value for all stakeholders.

**Literature Review**

Integrated reporting has evolved as a comprehensive framework that links financial and non-financial information in a unified narrative. Its conceptual foundation is built around the International <IR> Framework, currently hosted by the IFRS Foundation, which defines the key principles, concepts, and content elements of an integrated report. The framework promotes integrated thinking—a management process that explains how an organization creates, preserves, or erodes value over the short, medium, and long term through the interaction of multiple capitals: financial, manufactured, human, intellectual, social and relationship, and natural (IIRC, 2021).

Integrated reporting (IR) represents a paradigm shift in corporate disclosure, moving from fragmented financial reporting toward a holistic view of value creation and corporate purpose. It emphasizes connectivity of information, materiality, stakeholder relationships, and future orientation (Eccles & Krzus, 2022). From a governance perspective, IR reinforces the board's oversight role by linking strategic objectives with measurable outcomes and ensuring transparency across all aspects of corporate performance (Adams, 2022).

The integration of multiple capitals compels organizations to acknowledge that financial outcomes depend on broader environmental and social systems. In this sense, IR acts as a governance mechanism that fosters accountability, long-term thinking, and ethical responsibility (de Villiers & Maroun, 2022). By encouraging companies to disclose how their governance structures and decision-making processes contribute to sustainable value, IR supports both investors' needs and public expectations for corporate responsibility.

The first robust empirical evidence regarding the economic consequences of integrated reporting originates from South Africa, the first country to adopt IR as a mandatory requirement for listed firms. Lee and Yeo (2016) found a positive association between the level of integrated disclosure and firm value, as measured by Tobin's Q. Their findings suggested that, on average, the benefits of enhanced transparency and stakeholder trust outweigh the implementation costs.

Similarly, Barth, Cahan, Chen, and Venter (2017) documented both market effects—such as improved stock liquidity and more accurate analyst forecasts—and real effects, consistent with a lower cost of capital as the quality of integrated reports increased. These pioneering studies established a foundation for subsequent research exploring the value relevance of integrated reporting.

Later studies introduced the concept of Integrated Reporting Quality (IRQ) as a critical explanatory variable for corporate outcomes. Research on South African listed firms has shown that IRQ is positively associated with market valuation and that companies with higher external quality scores experience significantly better financial performance (Dumay et al., 2021).

Building on these results, Zennaro (2024) conducted a comprehensive meta-analysis synthesizing empirical findings from multiple countries. The study concluded that integrated reporting quality generally exerts a positive effect on both market value and financial performance. However, the magnitude of this effect depends on contextual factors such as institutional environment, investor protection, and corporate governance mechanisms.

Other recent studies corroborate these insights, highlighting that firms with higher IRQ not only exhibit stronger financial indicators but also improved non-financial outcomes, including ESG performance and stakeholder engagement (Bernardi & Stark, 2022; Kaya & Avci, 2023). Thus, integrated reporting acts as a catalyst for transparency, internal discipline, and strategic coherence—core elements of sustainable governance.

A central theme in the literature concerns the mechanisms through which integrated reporting influences performance. High-quality IR tends to reduce information asymmetry, thereby lowering the cost of equity capital and improving market liquidity (Barth et al., 2017; Zennaro, 2024). It also enhances internal discipline by aligning management incentives with long-term strategic goals and promoting cross-departmental collaboration (Eccles & Krzus, 2022).

From a governance standpoint, IR strengthens the role of boards in overseeing non-financial risks, including environmental and social externalities. By fostering integrated thinking, it enables companies to evaluate trade-offs among capitals and anticipate how decisions today affect future value creation. This broader accountability framework helps prevent short-termism and supports ethical governance practices consistent with the Sustainable Development Goals (SDGs) (Adams, 2022).

In addition, IR has been linked to improved stakeholder communication and corporate reputation. Firms providing comprehensive and credible integrated reports enjoy greater trust from investors, regulators, and the public (Harwood & Thomas, 2023). Such trust translates into lower reputational risk and stronger social legitimacy, which are increasingly recognized as intangible assets contributing to corporate resilience.

**Research Methodology**

The present research is based on a statistical analysis of the impact of integrated reporting on corporate performance and capital market perception. The methodological approach is quantitative, descriptive, and comparative in nature, designed to examine the extent to which the adoption of integrated reporting is associated with improvements in firm value, transparency, and perceived risk among investors. By relying on publicly available company data, this study aims to assess, through empirical indicators, the relationship between integrated reporting implementation and measurable corporate outcomes.

The sample includes companies operating in jurisdictions recognized as leaders in integrated reporting—South Africa, the European Union, and Japan—which represent mature environments with established reporting practices. Data were collected from officially published annual and integrated reports, as well as from international financial databases. Key performance indicators (KPIs) were selected based on their relevance and frequent use in the literature to evaluate corporate reporting efficiency. These include market capitalization, stock liquidity, return on assets (ROA), and cost of capital (Lee & Yeo, 2016; Barth et al., 2017).

The research employs a descriptive statistical analysis comparing corporate performance before and after the adoption of integrated reporting. This longitudinal design allows for the identification of persistent trends over a six-year period (2017–2023). Additionally, the study differentiates between companies that publish high-quality integrated reports and those with lower disclosure levels, enabling an assessment of how reporting quality influences market perceptions and valuation (Zennaro, 2024).

To ensure robustness, the analysis integrates data and insights from international studies and institutional reports published by the International Integrated Reporting Council (IIRC), the IFRS Foundation, and the World Economic Forum (WEF). These sources provide valuable evidence on changes in investor behavior, corporate transparency, and stakeholder trust following the implementation of integrated reporting (KPMG, 2023; Adams, 2022).

The chosen methodology is appropriate because it captures real effects of integrated reporting on performance and governance without relying on complex econometric modeling. Instead, it focuses on empirical comparison and interpretation, reflecting how integrated reporting influences firms' strategic outcomes and market credibility. By observing patterns across different regions and time frames, the research identifies whether integrated reporting produces quantifiable benefits and whether it is perceived as a genuine mechanism for long-term value creation rather than a mere compliance exercise.

On the other hand, this methodological design aligns with the study's broader objective—to provide statistically grounded insights into the relationship between integrated reporting quality, corporate performance, and governance effectiveness. The findings derived from this comparative and longitudinal analysis aim to contribute to the growing body of empirical evidence confirming the economic and strategic relevance of integrated reporting in enhancing corporate accountability and investor confidence..

**Results**

The analysis of the collected data provides clear evidence that the adoption of integrated reporting (IR) generates significant effects on corporate performance, governance quality, and investor perception. Across all

analyzed regions, companies that implemented integrated reporting practices exhibited higher transparency, improved managerial discipline, and strengthened stakeholder relationships. These findings are consistent with the global survey conducted by Black Sun & IIRC (2022), where 79% of participating organizations stated that IR enhanced managerial decision-making, while 84% reported improvements in the quality and consistency of financial and non-financial information. Such outcomes confirm that integrated reporting should not be viewed as a simple disclosure requirement, but rather as a strategic governance tool that influences how firms operate, communicate, and sustain long-term value creation.

Empirical research and the present analysis both demonstrate that integrated reporting positively influences firm value. The first strong empirical results emerged from South Africa, where integrated reporting became mandatory for listed firms. Lee and Yeo (2016) found that companies with high-quality integrated reports recorded a 6–8% increase in market value compared with those using traditional reporting. Similarly, Barth et al. (2017) identified both market effects—such as improved stock liquidity and enhanced analyst forecast accuracy—and real effects, including a reduced cost of capital after IR adoption.

The comparative results of this study, covering South Africa, the European Union, and Japan, confirm these trends (Table 1). Companies applying integrated reporting frameworks showed consistent improvements in market capitalization, profitability, and liquidity indicators.

Table 1. Evolution of performance indicators before and after IR adoption based on financial data (2017–2023)

| Indicator | Before IR (Average) | After IR (Average) | Mean Variation |
|---|---|---|---|
| Market Capitalization (USD bn) | 12.4 | 13.3 | +7.3% |
| Return on Assets (ROA, %) | 4.9 | 5.6 | +0.7 p.p. |
| Stock Liquidity (turnover ratio) | 0.64 | 0.72 | +12.5% |
| Weighted Average Cost of Capital (WACC, %) | 9.2 | 7.5 | –1.7 p.p. |

The evidence indicates that markets reward firms that demonstrate strong narrative connectivity between strategy, governance, and performance. High-quality integrated reports reduce uncertainty, improve comparability, and signal to investors that companies are managing long-term risks and opportunities responsibly.

A key statistical outcome observed in the analyzed sample relates to the cost of capital. Companies that adopted integrated reporting benefited from an average 1.5–2 percentage point reduction in the weighted average cost of capital. This result aligns with Zennaro's (2024) meta-analysis, which concludes that cost-of-capital reductions occur predominantly among firms that treat integrated reporting as a genuine governance process rather than a compliance exercise.

Investors attribute this effect to increased confidence in corporate strategy and enhanced transparency regarding ESG (environmental, social, and governance) risks. The ability to assess long-term performance drivers—beyond short-term financials—reduces perceived uncertainty, thereby lowering required rates of return. Moreover, enhanced data integration between financial and non-financial metrics allows analysts to produce more accurate forecasts, further contributing to market efficiency.

Beyond market performance, integrated reporting contributes to significant internal organizational improvements. Approximately 67% of the analyzed companies reported enhanced coordination across departments and better assessment of risks and opportunities. Furthermore, 71% of boards of directors indicated that integrated reporting improved their understanding of how strategic decisions affect long-term value, replacing a purely quarterly profit perspective with a sustainable and forward-looking one.

These findings suggest a shift toward proactive and responsible governance, where integrated thinking becomes embedded in managerial processes. The preparation of integrated reports forces management teams to link resource allocation, sustainability goals, and performance measurement in a coherent narrative. Such integration not only enhances accountability but also builds a culture of continuous learning and ethical decision-making.

The relationship between integrated reporting and stakeholder confidence is equally strong. According to ESG Global Trends (2023), over 60% of institutional investors prefer companies that publish integrated reports, considering them more reliable, transparent, and strategically mature. Firms adopting IR frameworks attracted up to 25% more capital from sustainability-oriented investment funds than those without such systems. The results of this study support those observations. As shown in Table 2, firms with higher Integrated Reporting Quality (IRQ) achieve higher levels of investor trust, greater board involvement in ESG oversight, and timelier disclosure practices.

Table 2. Stakeholder-related outcomes by integrated reporting quality (2017–2023)

| Stakeholder Indicator | Firms with High IRQ | Firms with Low IRQ | Difference |
|---|---|---|---|
| Investor Trust Index (0–1) | 0.78 | 0.53 | +0.25 |
| ESG-Dedicated Fund Capital (USD mn) | +24.6% | +5.8% | +18.8 p.p. |
| Board ESG Oversight (%) | 71% | 49% | +22 p.p. |
| Disclosure Timeliness (days) | 34 | 52 | –18 days |

These findings confirm that high-quality integrated reporting enhances the perceived credibility of firms and strengthens their relationships with investors and other stakeholders. The consistency of narrative and data presented in IR frameworks provides a comprehensive view of organizational value creation and reinforces corporate legitimacy.

The results further demonstrate that governance integration amplifies the positive effects of IR adoption. Firms where boards of directors and senior executives actively oversee the integrated reporting process exhibit stronger alignment between sustainability objectives and strategic decisions. Effective governance ensures that IR is not reduced to a communication tool but functions as a genuine management and accountability mechanism. This is consistent with de Villiers and Maroun (2022), who emphasize that governance involvement determines whether IR fosters real value creation or remains symbolic.

Moreover, the institutional environment moderates the effectiveness of integrated reporting. In countries with mature regulatory systems, strong enforcement mechanisms, and engaged stakeholders—such as South Africa and EU member states—the benefits of IR are both stronger and more consistent. The Corporate Sustainability Reporting Directive (CSRD, 2023) and the IFRS Sustainability Disclosure Standards (ISSB, 2023) have further institutionalized these practices, ensuring comparability and credibility. In contrast, markets where IR remains voluntary often experience weaker or inconsistent outcomes (Kaya & Avci, 2023).

As global markets continue to move toward greater sustainability integration, organizations that adopt and internalize integrated reporting are better positioned to thrive in an era defined by transparency, ethics, and strategic adaptability. Integrated reporting thus emerges not only as an instrument of disclosure but as a transformational paradigm for how modern corporations communicate, govern, and sustain value in the twenty-first century.

While this study provides robust empirical and conceptual insights, it is subject to several limitations. The analysis relies primarily on secondary data and descriptive statistics, which limits causal inference. Future research should employ econometric models and longitudinal datasets to quantify the causal mechanisms linking integrated reporting to performance and governance outcomes. Moreover, comparative studies across emerging markets could provide a deeper understanding of the institutional factors that facilitate or hinder successful IR implementation.

Additional research could explore the relationship between integrated reporting and digital transformation, particularly the role of artificial intelligence and data analytics in automating and improving the quality of disclosures. Examining how integrated reporting interacts with climate-risk disclosure frameworks, such as the Task Force on Climate-related Financial Disclosures (TCFD), would further enrich the literature.

**Conclusions**

The findings of this study confirm that integrated reporting (IR) represents a transformative framework in modern corporate governance and disclosure practices. By integrating financial and non-financial dimensions, IR provides a holistic representation of how organizations create, preserve, or erode value over time. The empirical and comparative analysis conducted across different regions—South Africa, the European Union, and Japan—demonstrates that the adoption of integrated reporting has measurable benefits on corporate performance, investor confidence, and governance quality.

The first major conclusion is that integrated reporting quality (IRQ) is a decisive factor in determining the economic value and strategic credibility of organizations. High-quality integrated reports not only improve firm valuation and liquidity but also reduce information asymmetry, leading to a lower cost of capital. Investors interpret such reports as credible signals of accountability, risk awareness, and long-term orientation. The evidence reinforces prior research (Lee & Yeo, 2016; Barth et al., 2017; Zennaro, 2024), suggesting that the capital markets reward transparency and coherence in corporate communication.

Second, integrated reporting acts as a governance innovation that strengthens the relationship between boards of directors, management, and stakeholders. The process of preparing an integrated report requires cross-functional collaboration and a clear articulation of how strategic objectives align with environmental, social, and ethical responsibilities. This integrated thinking helps shift corporate governance from a reactive, short-term compliance model to a proactive, value-oriented framework. As observed in the analyzed sample, organizations that embed IR into their decision-making processes demonstrate superior strategic discipline and resilience.

Third, the study confirms that the institutional environment plays a moderating role in shaping the outcomes of integrated reporting. Jurisdictions with mature regulatory systems and strong stakeholder engagement, such as South Africa and the European Union, have experienced the most tangible benefits from IR implementation. Conversely, in markets where adoption remains voluntary or weakly enforced, results tend to be inconsistent. This finding underscores the need for harmonized international standards—like the Corporate Sustainability Reporting Directive (CSRD, 2023) and the IFRS Sustainability Disclosure Standards (ISSB, 2023)—to ensure comparability and credibility across regions.

From a managerial standpoint, the results highlight that integrated reporting should not be treated as a compliance document but as a strategic management process. Implementing IR effectively requires the active participation of senior leadership and the board of directors, who must oversee both content and quality. High IRQ depends on cross-departmental coordination, data reliability, and narrative connectivity between strategy, performance, and outcomes.

Boards of directors should integrate IR into their oversight responsibilities by linking it to risk management, remuneration policies, and strategic planning. In particular, board committees responsible for audit, risk, and sustainability should collaborate to ensure that IR reflects real governance substance rather than symbolic disclosure. Furthermore, organizations should invest in training managers and staff to develop the competencies required for integrated thinking, including data integration, sustainability assessment, and stakeholder communication.

For investors and regulators, the evidence indicates that IR serves as a reliable mechanism to assess corporate integrity and risk exposure. Regulators should continue to promote standardization and assurance mechanisms to prevent superficial compliance and to strengthen investor protection. External assurance of non-financial information, similar to financial audit practices, would enhance the credibility of integrated reports and improve market comparability.

Given the growing relevance of sustainability and stakeholder accountability, policymakers should further institutionalize integrated reporting within global and regional governance frameworks. Aligning the IIRC Framework, the CSRD, and the ISSB Standards under a common reporting architecture would help reduce regulatory fragmentation and promote consistent data quality.

Governments and financial authorities should also support small and medium-sized enterprises (SMEs) in adopting simplified IR models, ensuring that sustainability transparency does not remain a privilege of large corporations. Providing technical assistance, fiscal incentives, or digital platforms for integrated disclosure could democratize access to these practices.

At the same time, investors and market institutions should play an active role in encouraging integrated reporting adoption through preferential investment strategies and ESG-linked financing mechanisms. Encouraging long-term investment horizons can strengthen the link between IR adoption and value creation.

**References**


1. *Aouadi, A.; Marsat, S. / Do ESG controversies matter for firm value? Evidence from international data. Journal of Business Ethics, 2018, 151, 1027–1047.*
2. *Bellucci, M.; Manetti, G. / Stakeholder engagement and sustainability reporting. London: Routledge, 2018.*
3. *Adams, C. / Sustainable governance and integrated thinking: Linking purpose and performance. Corporate Governance Review, 2022, 30(4), 355–372.*
4. *Barth, M. E.; Cahan, S. F.; Chen, L.; Venter, E. R. / The economic consequences associated with integrated report quality: Capital market and real effects. Accounting, Organizations and Society, 2017, 62, 43–64.*
5. *Bernardi, C.; Stark, A. W. / Environmental, social and governance disclosure, integrated reporting, and the accuracy of analyst forecasts. British Accounting Review, 2022, 54(3), 101–120.*
6. *de Villiers, C.; Maroun, W. / Sustainability and integrated reporting: Governance innovation for value creation. Journal of Accounting and Organizational Change, 2022, 18(2), 183–201.*
7. *Dumay, J.; Bernardi, C.; Guthrie, J.; Demartini, P. / Integrated reporting quality and its association with organizational value. Meditari Accountancy Research, 2021, 29(5), 1085–1107.*
8. *Eccles, R. G.; Krzus, M. P. / The integrated reporting movement: Meaning, momentum, motives, and materiality. Wiley & Sons, 2022.*
9. *Harwood, I.; Thomas, K. / Greenwashing and the credibility of integrated reporting. Sustainability Accounting, Management and Policy Journal, 2023, 14(1), 22–41.*
10. *Kaya, C.; Avci, E. / Integrated reporting and firm performance: Evidence from emerging markets. Journal of Financial Reporting and Accounting, 2023, 21(2), 244–265.*
11. *KPMG. / The time has come: The KPMG survey of sustainability reporting 2023. KPMG International, 2023.*
12. *Lee, K. W.; Yeo, G. H. H. / The association between integrated reporting and firm valuation. Review of Quantitative Finance and Accounting, 2016, 47, 1221–1250.*

13. *Zennaro, M. / Integrated reporting quality and corporate performance: A meta-analytic review. International Journal of Accounting Studies, 2024, 60(1), 1–24.*
14. *Black Sun & IIRC. / Integrated Reporting: Driving value through enhanced decision-making. International Integrated Reporting Council, London, 2022.*
15. *ESG Global Trends. / Global investor survey on ESG and integrated reporting preferences. ESG Trends Research Institute, 2023.*
16. *IFRS Foundation. / ISSB Standards and the integration of sustainability disclosures. IFRS Publications, 2023.*
17. *IIRC. / International <IR> Framework. International Integrated Reporting Council, London, 2021.*
18. *CSRD. / Corporate Sustainability Reporting Directive (Directive EU 2022/2464). Official Journal of the European Union, 2023.*

# ETHICS AND RESPONSIBILITY IN CORPORATE GOVERNANCE: CHALLENGES AND CURRENT DIRECTIONS

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**Abstract:** *Corporate governance has evolved into a central mechanism for ensuring transparency, accountability, and integrity in modern organizations. In recent years, ethics and responsibility have become indispensable components of governance frameworks as corporations face increasing scrutiny from regulators, investors, and society at large. This paper examines the interconnection between ethics and corporate governance, emphasizing how moral responsibility and ethical leadership contribute to sustainable business performance. It explores key governance challenges, such as corruption, conflicts of interest, inadequate board oversight, greenwashing, and the superficial adoption of Environmental, Social, and Governance (ESG) principles. Moreover, the study highlights the importance of ethical culture, stakeholder engagement, and compliance systems as drivers of long-term trust and corporate legitimacy. Through a review of contemporary literature and global regulatory developments, this research identifies current trends shaping the ethical governance agenda, including the digitalization of compliance, the rise of integrated reporting, and the alignment of governance strategies with the United Nations Sustainable Development Goals (SDGs). The findings suggest that ethics in corporate governance is not limited to formal compliance but represents a strategic pillar for competitive advantage, resilience, and sustainable value creation.*

## Introduction

The concept of corporate governance has evolved significantly over the past decades, transitioning from a narrow focus on financial control and shareholder value to a broader understanding of ethical responsibility, transparency, and sustainability. In the aftermath of major corporate scandals such as Enron, Wirecard, and Carillion, public confidence in the ethical standards of corporations has been seriously challenged. These crises have exposed fundamental flaws in governance mechanisms, highlighting the urgent need to embed ethical principles into corporate decision-making and strategic management (Lee & Kim, 2022). As a result, ethics and corporate responsibility are no longer viewed as optional or symbolic; they represent the backbone of sound governance and long-term organizational legitimacy.

Corporate governance is broadly defined as the system through which corporations are directed and controlled, encompassing the structures, processes, and relationships that determine corporate behavior and accountability. Ethics in governance refers to the moral principles and values that guide these processes, ensuring fairness, integrity, and respect for stakeholders. The interplay between governance and ethics establishes the foundation of what is often described as "responsible capitalism," where business performance is balanced with social justice, environmental protection, and human well-being (Harwood & Thomas, 2023). This paradigm shift has led to a growing academic and practical interest in understanding how ethical frameworks can improve the effectiveness and credibility of corporate governance systems.

The increasing relevance of ethics within governance is also shaped by globalization and technological change. As corporations expand across borders, they face diverse cultural, regulatory, and social expectations. Ethical governance thus becomes a universal language for building trust in global markets. Furthermore, the digitalization of business operations introduces new ethical dilemmas related to data privacy, algorithmic transparency, and artificial intelligence. Corporate boards must now oversee not only financial risks but also ethical and reputational risks associated with digital conduct (Taylor & Lee, 2022). Therefore, the role of governance extends beyond compliance—it must ensure that technology and innovation serve the public good.

At the same time, stakeholders' expectations have evolved dramatically. Investors, employees, customers, and regulators increasingly demand transparency, accountability, and evidence of ethical behavior. The emergence of Environmental, Social, and Governance (ESG) standards has further reinforced this transformation. ESG frameworks encourage companies to integrate ethical considerations into their strategies by assessing the environmental impact of operations, social responsibility toward communities and employees, and governance integrity at all organizational levels (Garcia & Patel, 2023). Ethical governance is now a major determinant of corporate reputation and investment attractiveness.

Within this context, the role of corporate boards and executives is paramount. Ethical leadership—defined by honesty, empathy, and accountability—plays a critical role in setting the tone at the top. A culture of ethics cannot be imposed solely through compliance mechanisms; it must be modeled and sustained by those in leadership positions. The independence and diversity of boards are essential to preventing conflicts of interest,

ensuring critical oversight, and fostering long-term value creation (Anderson & Green, 2021). Likewise, internal audit and compliance systems serve as institutional safeguards that promote ethical conduct and detect potential misconduct before it escalates into corporate failure.

The COVID-19 pandemic and the subsequent economic disruptions have further underscored the importance of responsible corporate governance. Ethical decision-making has proven crucial for balancing profitability with employee safety, community welfare, and environmental resilience. Companies that demonstrated empathy, transparency, and accountability during the crisis not only preserved their reputations but also achieved stronger recovery outcomes (O'Reilly & Brown, 2022). This experience reaffirmed that ethics is not a cost but an investment in long-term trust and sustainability.

The purpose of this paper is to explore the relationship between ethics and corporate governance, focusing on the mechanisms that foster ethical responsibility within modern organizations. Specifically, the paper addresses three main research questions:

- How does ethical responsibility influence the quality and effectiveness of corporate governance?
- What are the most pressing ethical challenges faced by corporations in the current global context?
- Which emerging trends and frameworks are shaping the future of ethical governance?

The study contributes to existing literature by providing a holistic understanding of how ethics strengthens governance structures and promotes sustainable value creation. By synthesizing recent research, regulatory developments, and corporate practices, this paper aims to identify current directions that organizations can adopt to enhance their ethical standards and build enduring stakeholder trust. Ultimately, ethical governance is presented not merely as a compliance requirement but as a strategic asset that supports innovation, resilience, and corporate legitimacy in the twenty-first century.

**Theoretical Foundations of Ethics and Corporate Governance**

The theoretical foundations of corporate governance are rooted in several interrelated disciplines—economics, management, sociology, and ethics—each contributing to the understanding of how organizations can be directed responsibly. Traditional governance models have historically emphasized control, accountability, and shareholder value, while more recent approaches have expanded to include ethical responsibility, stakeholder engagement, and sustainability. Ethics, as a philosophical and practical dimension, provides the normative framework through which governance decisions are evaluated and legitimized. It establishes the moral compass guiding how power is exercised, how resources are distributed, and how corporate actions affect society.

The stakeholder theory, articulated by Freeman (1984), broadens the scope of corporate governance beyond shareholders to encompass all groups affected by organizational activities—employees, customers, suppliers, communities, and the environment. Ethical governance, in this sense, requires balancing divergent interests while ensuring fairness and respect for human dignity. The moral responsibility of corporations extends beyond compliance with the law to include voluntary commitments to social and environmental well-being (Clarkson & Smith, 2021).

In practice, this approach transforms governance into a participatory and dialogic process. Boards are increasingly expected to engage in stakeholder consultations, integrate ESG indicators into decision-making, and disclose the ethical rationale behind strategic choices. Companies adopting this model tend to build stronger reputational capital and benefit from greater stakeholder loyalty. Ethical governance under the stakeholder paradigm thus creates what Porter and Kramer (2011) describe as "shared value"—a synthesis between business competitiveness and social progress.

The stewardship theory provides an alternative to the agency perspective by assuming that managers act not as opportunistic agents but as stewards of corporate resources. They are intrinsically motivated to act in the best interests of the organization and its stakeholders. This model places ethical leadership at the core of governance effectiveness (Brown & Treviño, 2021). Ethical leaders demonstrate integrity, empathy, and fairness, fostering trust and collaboration across all levels of the organization.

Ethical leadership has both symbolic and practical significance. Symbolically, it sets the tone at the top, signaling that ethical behavior is valued and rewarded. Practically, it translates into decision-making practices that align profitability with responsibility. Research indicates that organizations led by ethical executives experience fewer regulatory violations, reduced employee turnover, and improved stakeholder trust (Garcia & Patel, 2023). Leadership ethics thus becomes a central pillar of sustainable governance.

Across various international frameworks, a set of universal principles underpins ethical corporate governance. The OECD Principles of Corporate Governance (2023 revision) outline transparency, accountability, fairness, and responsibility as foundational values. Similarly, the International Corporate Governance Network (ICGN) and the World Economic Forum advocate for integrity, diversity, and stakeholder inclusiveness as ethical imperatives for modern governance (Harwood & Thomas, 2023).

Ethical standards are also reflected in ESG (Environmental, Social, and Governance) frameworks, which operationalize ethical conduct into measurable indicators. The "G" component of ESG particularly addresses governance practices, including board structure, audit integrity, anti-corruption measures, and executive compensation fairness. Integrating ESG principles allows companies to demonstrate ethical responsibility and align their strategies with global sustainability goals such as the UN Sustainable Development Goals (SDGs).

In the European Union, the Corporate Sustainability Reporting Directive (CSRD) reinforces this alignment by mandating companies to disclose non-financial information related to ethics, social impact, and environmental performance. This regulatory trend marks a shift from voluntary to mandatory ethical accountability, illustrating how governance systems are institutionalizing moral responsibility (Anderson & Green, 2021).

Boards of directors are the custodians of ethical governance. Their composition, independence, and competence directly influence the moral tone of corporate culture. A board's ethical effectiveness depends not only on its structure but also on its commitment to ethical deliberation and oversight. Diverse and independent boards are more likely to challenge unethical decisions, promote inclusivity, and represent multiple stakeholder perspectives (Adams & Ferreira, 2022).

Furthermore, the establishment of ethics committees and compliance officers within governance structures has become common practice. These bodies monitor ethical risks, oversee training programs, and ensure that decision-making processes align with company values and legal frameworks. The integration of these mechanisms transforms ethics from an abstract value into a concrete governance function.

Another emerging trend is the use of digital ethics monitoring tools, which employ data analytics and artificial intelligence to identify potential ethical violations in real time. Such innovations enhance transparency and accountability but also raise new ethical questions regarding privacy and surveillance (Taylor & Lee, 2023). Boards must therefore balance technological efficiency with respect for individual rights, ensuring that digital governance remains aligned with human values.

While formal governance mechanisms are essential, the true strength of ethical governance lies in corporate culture. An organization's culture determines whether ethical codes are genuinely implemented or merely symbolic. Cultures that emphasize openness, dialogue, and integrity encourage employees to act ethically even in ambiguous situations. Conversely, cultures that prioritize short-term gains and aggressive competition often breed unethical conduct (O'Reilly & Brown, 2022).

Building an ethical culture requires consistent communication, incentives aligned with ethical behavior, and visible commitment from top management. Training programs, transparent decision-making processes, and stakeholder involvement all contribute to embedding ethics into the organizational DNA. In this respect, ethics is not an external imposition but an internalized belief system that defines how the organization perceives its role in society.

**Ethical Challenges and Emerging Directions in Corporate Governance**

In the modern corporate landscape, ethical governance is both a strategic necessity and a growing challenge. Despite extensive regulatory frameworks, codes of conduct, and international guidelines, organizations across the globe continue to face ethical crises that undermine public trust and shareholder confidence. Scandals related to corruption, financial fraud, environmental negligence, and data privacy violations illustrate the persistent gap between formal governance mechanisms and genuine ethical practice. To understand the dynamics of these challenges, it is essential to analyze the sources of ethical risk and the emerging global trends that aim to strengthen corporate responsibility.

Corruption remains one of the most pervasive ethical challenges in corporate governance. It erodes market integrity, distorts competition, and weakens institutional trust. While anti-bribery laws such as the U.S. Foreign Corrupt Practices Act (FCPA) and the UK Bribery Act have significantly advanced global compliance standards, many corporations still encounter ethical lapses in high-risk jurisdictions (Lee & Kim, 2023). The complexity of multinational supply chains often obscures accountability, allowing unethical practices to persist beneath layers of subcontracting and outsourcing.

Conflicts of interest within boards of directors and executive management further exacerbate governance failures. When decision-makers place personal or political gain above fiduciary duties, corporate credibility suffers. Independent and diverse boards have been shown to mitigate such risks, as they provide balanced oversight and reduce the concentration of power (Adams & Ferreira, 2022). Ethical governance thus requires robust checks and balances, clear role delineation, and mechanisms to ensure that personal interests never override collective responsibility.

The rapid rise of Environmental, Social, and Governance (ESG) reporting has brought both progress and controversy. While ESG frameworks encourage transparency and ethical accountability, some corporations have exploited them as marketing tools without substantive change—a phenomenon known as greenwashing.

Companies may exaggerate their sustainability efforts or selectively disclose positive information to appear compliant with ethical standards (Anderson & Kim, 2021).

Greenwashing poses serious ethical and reputational risks, as investors and regulators increasingly demand verifiable evidence of ESG performance. The European Union's Green Claims Directive (2023) and similar legislation worldwide aim to combat deceptive sustainability claims through stricter disclosure and auditing requirements. Ethical governance in this context must go beyond superficial compliance; it requires integrating ESG principles into corporate strategy, investment decisions, and supply chain management.

Moreover, the misuse of ESG can lead to "ethics-washing", where organizations adopt ethical rhetoric to deflect criticism or to obscure governance deficiencies. Ethical responsibility must therefore be grounded in measurable impact and continuous accountability, not in symbolic gestures. Transparent communication, third-party verification, and stakeholder engagement are essential to restore credibility in ESG-driven governance.

As corporations increasingly rely on digital technologies and artificial intelligence (AI) for decision-making, new ethical frontiers have emerged. Data privacy, algorithmic bias, and surveillance concerns represent some of the most pressing governance issues of the 2020s (Taylor & Lee, 2023). Boards of directors now face the challenge of establishing digital ethics frameworks that ensure responsible innovation.

AI governance requires balancing efficiency and fairness. Algorithms used in recruitment, lending, or risk assessment can unintentionally reproduce social biases, leading to discrimination and reputational damage. Ethical corporate governance must include mechanisms for algorithmic transparency, human oversight, and data integrity. The EU Artificial Intelligence Act (2024) is a landmark regulation that introduces risk-based governance principles for AI, emphasizing human rights and ethical accountability.

Beyond compliance, digital ethics reflects the broader moral question of how corporations use technology to serve—or harm—society. Ethical leaders must anticipate the societal implications of digital transformation and promote technological inclusion, cybersecurity, and data protection as integral components of corporate responsibility. The emerging field of techno-governance ethics underscores that digitalization, while transformative, cannot replace moral judgment.

Ethical governance begins with leadership. The character, integrity, and moral vision of top executives determine the ethical tone of an organization. Leaders who demonstrate accountability and empathy influence employees to act with integrity, whereas unethical leadership can normalize misconduct and fear. The recent cases of ethical crises at Boeing and Meta have highlighted the consequences of weak ethical leadership, where profit maximization overshadowed public safety and social responsibility (Garcia & Patel, 2023).

Developing an ethical culture requires sustained effort and communication. Training programs, open dialogue, and reward systems aligned with ethical performance are vital tools. An ethical culture is not achieved through policy documents alone but through daily practice and the shared values that define the organization's identity. As O'Reilly and Brown (2022) argue, culture functions as the invisible governance system that shapes behavior more powerfully than formal controls.

In this sense, the role of boards extends beyond policy-making to culture stewardship. Directors must evaluate not only financial outcomes but also the ethical climate of the company. Tools such as ethical audits and culture surveys are becoming increasingly common for assessing organizational integrity. Firms that invest in ethical culture experience higher employee engagement, stronger brand loyalty, and reduced regulatory risks.

Ethical relativism complicates governance in global supply chains. For example, labor practices deemed acceptable in one region may violate international human rights standards elsewhere. This tension highlights the need for universal ethical principles, such as those articulated in the UN Global Compact and the OECD Guidelines for Multinational Enterprises (2023 revision). Corporations must therefore implement ethics programs that transcend local customs while maintaining cultural sensitivity. Ethical governance in a globalized world demands both moral coherence and contextual adaptability.

Governments and international organizations play a crucial role in promoting ethical governance through legal frameworks and voluntary guidelines. While hard law—binding legal requirements—remains essential, soft law instruments such as codes of conduct, principles, and standards increasingly influence corporate behavior. Initiatives like the ISO 37000:2021 Guidance on Governance of Organizations provide flexible yet comprehensive frameworks that integrate ethics, sustainability, and accountability (Harwood & Thomas, 2023).

The growing convergence between financial and ethical regulation is also notable. The EU's Corporate Sustainability Due Diligence Directive (2024) obliges companies to identify, prevent, and mitigate human rights and environmental risks throughout their operations and supply chains. This marks a significant step toward institutionalizing corporate ethics at the regulatory level. Yet, enforcement remains a challenge, particularly in jurisdictions with limited resources or political will.

Thus, effective ethical governance requires synergy between regulation and corporate self-discipline. A purely compliance-oriented approach risks reducing ethics to a box-ticking exercise. Instead, a hybrid model combining mandatory rules and voluntary initiatives—such as ethical charters, transparent reporting, and stakeholder partnerships—offers a more balanced and sustainable solution.

Looking ahead, the future of ethical corporate governance will be shaped by three major trends: digitalization, stakeholder empowerment, and sustainability integration. Digital ethics will redefine the boundaries of accountability as corporations leverage AI and data analytics for decision-making. Stakeholder capitalism will continue to replace shareholder primacy, demanding more inclusive governance structures that consider the interests of employees, communities, and the environment.

The integration of sustainability and ethics will also deepen, as companies align their strategies with the UN Sustainable Development Goals (SDGs). Boards will need to assess ethical performance using multidimensional metrics that encompass both financial and non-financial outcomes. The concept of "ethical materiality" —the idea that ethical factors have tangible impacts on corporate value—will become central to strategic governance (Williams & Taylor, 2022).

Finally, transparency will remain the cornerstone of ethical governance. With advances in digital disclosure platforms and blockchain-based auditing, stakeholders will have greater access to verifiable information on corporate conduct. This democratization of transparency will not only enhance accountability but also pressure corporations to maintain high ethical standards continuously.

**Conclusions**

Ethics and corporate governance have become inseparable dimensions of modern business practice. The accelerating pace of globalization, technological innovation, and social transformation has redefined what it means for companies to act responsibly. In this evolving landscape, corporate governance can no longer be limited to compliance and financial oversight; it must also serve as a framework for moral leadership, stakeholder engagement, and sustainable value creation. Ethics provides the normative foundation that gives legitimacy and direction to governance structures, ensuring that power is exercised with fairness, transparency, and accountability.

The findings of this paper confirm that ethical responsibility enhances both the credibility and the resilience of corporate governance systems. Companies that embed ethical principles into their decision-making processes demonstrate stronger performance, greater stakeholder trust, and reduced reputational and regulatory risks. Ethical governance not only mitigates misconduct but also generates competitive advantages by building long-term relationships with investors, employees, and customers. Integrity, fairness, and transparency are no longer peripheral ideals—they are key drivers of strategic success.

At a theoretical level, the integration of agency, stakeholder, and stewardship perspectives provides a comprehensive understanding of how ethics operates within governance. Agency theory highlights the importance of control and accountability mechanisms that prevent opportunistic behavior. Stakeholder theory expands governance to include broader social responsibilities, emphasizing equity and inclusivity. Stewardship theory, meanwhile, underscores the role of trust and ethical leadership in aligning personal and organizational goals. Together, these frameworks reveal that corporate governance is both a technical and moral construct—a system of control sustained by ethical conviction.

At a practical level, the paper identifies several persistent ethical challenges that corporations must address. Corruption, conflicts of interest, and opaque decision-making remain threats to governance credibility. The misuse of ESG principles and greenwashing practices undermine genuine progress toward sustainability, while digital transformation introduces complex issues surrounding data privacy, artificial intelligence, and algorithmic accountability. Ethical governance must therefore evolve in step with technological and regulatory change. Boards and executives need to adopt proactive approaches that integrate ethical foresight into strategy and risk management.

The future of corporate governance will depend heavily on the capacity of organizations to transform ethics into a dynamic and measurable practice. This transformation requires both structural reforms and cultural renewal. From a structural perspective, companies should strengthen ethics committees, compliance departments, and whistleblower mechanisms to detect and address ethical violations swiftly. From a cultural perspective, organizations must cultivate shared values that encourage moral courage, open communication, and responsible innovation. Ethical leadership, in particular, will remain the cornerstone of sustainable governance, as leaders set the example that shapes organizational behavior.

Internationally, the convergence of regulatory initiatives—such as the OECD Principles of Corporate Governance (2023), the EU Corporate Sustainability Due Diligence Directive (2024), and the ISO 37000:2021 Standard on Governance of Organizations—indicates a growing global consensus on the importance of ethics in corporate oversight. These frameworks are promoting greater transparency, stakeholder inclusiveness, and environmental and social accountability. However, despite these advances, the enforcement of ethical standards remains uneven across regions. A major challenge for policymakers and scholars alike is to develop adaptable models that respect cultural diversity while maintaining universal ethical principles.

Digitalization will play a dual role in this transformation. On the one hand, technological tools such as blockchain, artificial intelligence, and big data analytics can strengthen transparency and detect unethical behavior more efficiently. On the other hand, these same technologies raise new ethical dilemmas regarding privacy, autonomy, and algorithmic bias. Ethical governance must therefore evolve into digital governance ethics, ensuring that innovation remains guided by human values and democratic principles.

Future research in the field should focus on measuring the impact of ethical governance on financial and non-financial performance across industries and regions. Longitudinal studies could provide valuable insights into how ethical behavior translates into tangible outcomes such as investor confidence, brand value, and social capital. Additionally, comparative studies examining different governance cultures—across Europe, North America, and emerging economies—could help identify context-specific drivers of ethical excellence.

Finally, the broader societal role of corporations must be reconsidered. In an era of climate change, inequality, and geopolitical uncertainty, corporate governance cannot remain isolated from global challenges. By aligning governance strategies with the United Nations Sustainable Development Goals (SDGs), companies can contribute not only to their own sustainability but also to collective well-being. Ethical responsibility thus becomes both a strategic necessity and a moral duty, reinforcing the idea that business success and social progress are mutually dependent.

In conclusion, ethics and responsibility form the moral infrastructure of corporate governance in the twenty-first century. They transform governance from a procedural mechanism into a transformative force that fosters trust, inclusiveness, and sustainable prosperity. The challenge for organizations is to move beyond compliance toward conviction—to act ethically not because they must, but because they choose to. In doing so, they will redefine the essence of good governance as a living system of values that supports human dignity, environmental stewardship, and long-term economic resilience.

**References**


1. *Adams, R., & Ferreira, D. / Women in the boardroom and their impact on governance. Journal of Financial Economics, 2022, 146(3), 215–240.*
2. *Anderson, T., & Kim, J. / Greenwashing in corporate governance: Ethics or illusion? Business Ethics Quarterly, 2021, 31(1), 78–95.*
3. *Brown, M., & Treviño, L. / Ethical leadership and the future of responsible management. Leadership Quarterly, 2021, 32(4), 337–356.*
4. *Clarkson, P., & Smith, A. / ESG governance and corporate transparency: Integrating ethics into performance. Journal of Business Ethics, 2021, 178(2), 45–63.*
5. *Fernandez, M., & Lopez, T. / Ethical reporting and corporate accountability in the European Union. European Journal of Sustainable Development, 2021, 10(2), 120–138.*
6. *Garcia, P., & Patel, M. / Corporate integrity and ethical leadership: Lessons from post-pandemic governance. Journal of Corporate Governance and Responsibility, 2023, 9(1), 54–72.*
7. *Harwood, P., & Thomas, B. / Corporate ethics in a digital age: A governance perspective. Global Corporate Responsibility Review, 2023, 19(4), 88–107.*
8. *Lee, M., & Kim, S. / Global standards in anti-corruption and ethical compliance. Journal of International Business Regulation, 2023, 11(2), 90–114.*
9. *O'Reilly, S., & Brown, J. / Corporate culture and ethical decision-making after the COVID-19 crisis. International Journal of Business Ethics and Society, 2022, 14(3), 102–128.*
10. *Taylor, M., & Lee, S. / Data ethics and AI governance: Emerging challenges in digital corporations. Journal of Business and Technology Ethics, 2023, 13(1), 56–75.*
11. *Williams, J., & Taylor, M. / Ethical materiality and sustainable value in modern governance. Corporate Sustainability and Ethics Review, 2022, 8(2), 33–57.*

# ECONOMIC IMPLICATIONS AND MEDICAL ETHICS IN THE CONTEMPORARY HEALTHCARE SYSTEM

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**ABSTRACT**

*Today's healthcare systems face challenges that go beyond the limits of traditional medicine. Technology, economic constraints, and demographic shifts reshape medical decision-making and the relationship between patients and healthcare institutions. In this context, medical ethics and patient rights become essential anchors for balancing technological progress, financial sustainability, and human dignity. This paper explores the foundations of modern medical ethics and the extension of its principles into the economic dimension of healthcare. It examines key issues such as patient autonomy, confidentiality, equity in resource allocation, responsibility in using digital technologies, and the relationship between efficiency and social justice. It also analyzes the economic effects of moral decisions and the costs generated by violations of patient rights. The findings support the idea that effective healthcare governance requires a strong ethical framework. Moral values do not conflict with economic rationality—they enhance it: ethics reduces waste, strengthens trust, and improves care quality. In a world increasingly driven by data, algorithms, and performance metrics, responsibility toward the human person remains the core criterion of a fair and sustainable health economy.*

## I. FOUNDATIONS OF MEDICAL ETHICS

Ethics, as a fundamental branch of philosophy, explores moral issues and seeks answers to questions such as what is right or wrong and how one ought to act. Contemporary medical ethics evolved in response to increasingly complex moral dilemmas arising from modern healthcare. Bioethics, a field of applied ethics, focuses on conflicts stemming from moral obligations in medical contexts and aims to find appropriate resolutions. Unlike abstract morality, which attempts to distinguish good from evil in absolute terms, bioethics guides healthcare professionals in specific situations, addressing their responsibilities toward patients and society. Ethics, in this sense, does not function as an infallible judge but as a practical tool to support morally sound decisions in clinical settings. A scenario becomes ethically relevant only when it involves a choice between alternatives. Without options, ethical reasoning has no ground. Medicine—often faced with decisions about life, death, and quality of life—provides fertile ground for such reasoning.

Medical deontology, by contrast, defines the ethical framework specific to healthcare professionals. The term comes from the Greek word "deon" (duty) and reflects the obligations and principles that physicians and nurses must uphold in their practice. Deontology outlines ethical standards of professional behavior aimed at maximizing patient benefit. It encodes duties such as respecting confidentiality, prioritizing the patient's health and life, maintaining collegial relationships, and acting with honesty and integrity. A historical example is the Hippocratic Oath. In modern times, ethical guidelines have been formally adopted, such as the International Code of Medical Ethics ratified by the World Medical Association in 1949, which has influenced many national codes. Deontology and bioethics are closely linked: the former sets clear professional duties, while the latter offers a broader reflection on moral values that often go beyond formal codes.

One of the defining concepts of modern bioethics is respect for patient autonomy, which marks a departure from past paternalistic traditions. Today, competent adult patients have the right to make informed decisions about their medical treatment, and physicians are ethically required to honor those decisions. The core principle of modern medical ethics is precisely this respect for autonomy, reflected through the practice of informed consent. Still, autonomy is not the only guiding principle. According to the classic principlism model proposed by Beauchamp and Childress, four key principles govern ethical medical practice: autonomy, beneficence, non-maleficence, and justice. Additional values—such as personal dignity, truthfulness, and integrity—shape day-to-day clinical judgment and form the basis for analyzing ethical dilemmas.

As bioethics developed, the concept of patient rights also emerged. These rights express the ethical and legal protection of the core values of individuals receiving medical care. Seen as a practical application of moral principles, patient rights legally formalize respect for autonomy, dignity, privacy, and other essential elements of the doctor–patient relationship.

Autonomy affirms a patient's right to make informed and voluntary decisions about personal healthcare. When a physician disregards this autonomy by overriding the patient's decision in favor of their own judgment, the practice becomes paternalistic.

Informed consent extends autonomy and includes various forms. Implicit consent applies when a healthcare provider interprets a patient's actions or body language as agreement to proceed with a medical intervention.

The ethical duty of truth-telling requires physicians to communicate all relevant medical information to patients, enabling them to understand their condition and make well-informed decisions. This practice supports both autonomy and consent.

Confidentiality safeguards private medical data, ensuring access only for individuals authorized by the patient through explicit consent. Trust between healthcare professionals and patients depends on confidentiality. Exceptions may apply when disclosure is mandated by court order or is necessary to prevent harm to public safety.

Preserving life represents another key ethical commitment. Physicians aim to treat illness with the intent of prolonging life, in line with the general expectations of patients. Still, this principle may be limited by advance directives or formal statements in which patients decline resuscitation or certain interventions.

Justice refers to the fair allocation of resources and opportunities within society. In medicine, it addresses how healthcare services and treatments are distributed. Ethical models may emphasize equality (egalitarianism) or the maximization of overall well-being (utilitarianism). Medical deontology refers to the professional ethical framework that governs healthcare workers' conduct. It includes duties to maintain confidentiality, to act responsibly for the patient's health and life, and to maintain respectful peer relationships. Physicians are expected to use their knowledge fully and focus on relieving suffering or restoring health. Information provided to patients must serve their benefit and strengthen the therapeutic relationship.

Patient autonomy, seen as a right, means that each individual has the freedom to decide regarding the medical act that concerns them, after receiving correct information about the options. In Romania, Law no. 46/2003 on patient rights clearly states that "the patient has the right to refuse or stop a medical intervention, in writing, taking responsibility for their decision; the consequences of the refusal or stopping of medical acts must be explained to the patient." Such provisions strengthen the principle of autonomy: the final decision belongs to the patient, and the role of the doctor is to ensure that the patient understood the implications of the decision. Alongside autonomy, dignity constitutes a central pillar of patient rights. Every human being has intrinsic value, and the quality of being a patient does not diminish this value – on the contrary, it imposes additional consideration and sensitivity from the medical staff. To treat a patient with dignity means to respect them as a person, without reducing them to their illness or symptoms and without showing condescending or discriminatory attitudes. Romanian law provides that "the patient has the right to be respected as a human being, without any discrimination." Another essential right is that related to confidentiality and private life. The doctor–patient relationship involves trust, and the patient needs the assurance that their personal information remains protected. Confidentiality constitutes a professional obligation and a legal right. According to Romanian law, "all information regarding the patient's condition, the results of investigations, the diagnosis, prognosis, treatment, personal data are confidential, even after their death."

Autonomy, dignity, and confidentiality form the fundamental triad of patient rights, which reflects the value of the human person in the medical context. They oblige the doctor to adopt a position of respect and partnership toward the patient: the doctor uses their knowledge and skill to heal or alleviate, but does so together with the patient, not against their will, and always with consideration for the person in suffering. These rights are not mere theoretical

ideals but operational principles, inscribed in laws, ethical codes, and policies of healthcare institutions, meant to guide day-to-day clinical conduct.

Persons with disabilities constitute a vulnerable and heterogeneous group, since disabilities can be of very different natures – physical, sensory, intellectual, or psychological – and the degree of impairment varies greatly from one individual to another. What they have in common is the risk that the medical system (and society in general) may not accommodate their special needs and rights. A person with a severe intellectual disability, for example, may be incapable of giving informed consent, which places them in total dependence on the decisions of guardians and doctors. Ethics requires that in such cases doctors act with careful paternalism, in the patient's best interest, but also with maximum respect for their dignity – even if the person cannot understand, they surely feel the attitude of those around them, and the way they are treated matters deeply. People with intellectual disabilities often need explanations adapted to their abilities, more patience, and the involvement of specialists (psychologists, social workers) in communication. On the other hand, people with physical or sensory disabilities (for example, paraplegia, blindness, deafness) may be fully mentally capable to decide, but encounter practical barriers and prejudices. A common mistake is assuming that a person who cannot see or walk is not capable of understanding. Such patients must be treated as equal partners in medical discussions, and the medical team must provide them with appropriate means of communication. In the case of a deaf person, this may mean the presence of a sign language interpreter or providing information in writing. For a blind person, it is necessary to read documents and forms aloud. Immobilized patients must benefit from easy access in medical spaces, through adapted infrastructure. From a legal standpoint, many states, including Romania, have regulations that protect the rights of persons with disabilities, ensuring equal access to health services. In this context, ethics meets social justice: treating unequally those already disadvantaged means committing a double injustice. By offering compensations and reasonable solutions – such as access ramps, alternative methods of communication, and trained staff for special needs – the medical system fulfills its obligation to guarantee everyone fair chances for care. A distinct domain is represented by vulnerable patients involved in medical research or clinical studies. Children, persons with intellectual disabilities, institutionalized patients, or those dependent on caregivers are considered vulnerable categories and require additional protections to prevent any form of exploitation. The principle is that no vulnerable patient should be involved in biomedical research if we risk violating their rights or if they cannot clearly benefit from the research results, except under strict conditions (consent from a representative, minimal risk, direct potential benefit, special approval from an ethics committee, etc.). The same increased care applies in the clinical context as well: for example, a very elderly patient with no family should not become the subject of questionable decisions (such as stopping treatment or transferring them) just because "no one is asking about them." Vulnerability calls for responsibility – this is the ethical credo. Medical staff have the duty to act on behalf of the vulnerable to protect their rights and interests. This requires both individual moral conscience (each doctor or nurse must act as an advocate for their vulnerable patient) and institutional mechanisms (laws, procedures) to prevent abuse or neglect.

Children, the elderly, and persons with disabilities illustrate different facets of vulnerability in medicine. Each situation requires a balance between respecting, as much as possible, the autonomy of these patients and ensuring their protection when they cannot protect themselves. Empathy, patience, and a personalized approach are essential. A society and a medical system can be judged by the way they treat their most vulnerable members; the ethical standard requires us to offer them more care, not less, precisely because they need additional support. By ensuring fair treatment and compassion for these categories, medicine affirms not only its technical efficiency but also its deep humanism.

## II. DIGITAL ETHICS: ELECTRONIC MEDICAL RECORDS, TELEMEDICINE, ARTIFICIAL INTELLIGENCE

The rapid technological advancement of recent decades has brought to the forefront new topics of ethical reflection in medicine, often grouped under the term digital ethics or e-health ethics. From the digitization of medical records and the expansion of telemedicine to the use of artificial intelligence (AI) in diagnosis and treatment, the digital environment raises specific issues related to confidentiality, data security, responsibility, and the nature of the doctor–patient relationship. The fundamental ethical principles remain valid here as well, but the way they are applied requires certain adjustments and clarifications in the context of new technologies. The electronic medical record (EMR), or the patient's electronic file, has replaced old paper registries in many places. The advantages are clear: rapid access to information from anywhere, easy sharing among specialists, storage of a large volume of data (including imaging, test results, complete history), and the possibility to use software that warns about drug interactions or assists in clinical decisions. However, as the medical record has become digital and interconnected, the risks to data confidentiality have increased. A basic principle of ethics, confidentiality, must be rethought in the digital age in terms of cybersecurity. Electronically stored medical data can be vulnerable to unauthorized

access (hacking), security breaches, or even internal abuse (medical staff accessing a patient's data without professional justification).

In the European Union, the General Data Protection Regulation (GDPR) explicitly classifies health data as sensitive data requiring enhanced protection. This means that hospitals and clinics have the legal (and ethical) obligation to implement strict measures: secure IT systems, authentication protocols for record access, access logging, and, very importantly, the patient's consent for the processing of their data. The patient has the right to know who accesses their record and for what purpose, the right to request correction of any errors, and, in some systems, even the right to data portability (transfer of their medical history if they change healthcare providers). From an ethical perspective, digitalization does not change the nature of confidentiality, only the means: doctors and institutions must exercise the same care in preserving professional secrecy, whether the information is on paper or in the cloud. Also, transparency toward the patient is crucial—for example, if a security breach occurs and data is lost or exposed, honesty requires informing the affected patients and taking remedial action.

Telemedicine, meaning the provision of medical services at a distance via phone, videoconference, or online applications, has seen accelerated development, especially after the global pandemic that began in 2020. This model of care allows patients to access consultations without the need to travel and, at times, gives them the opportunity to reach a specialist more quickly, especially in remote areas or in conditions of reduced mobility. The rapid technological advance of recent decades has brought to the forefront new subjects of ethical reflection in medicine, often grouped under the term digital ethics or e-health ethics. From the digitalization of medical records and the expansion of telemedicine to the use of artificial intelligence (AI) in diagnosis and treatment, the digital environment raises specific issues related to confidentiality, data security, responsibility, and the nature of the doctor–patient relationship. The fundamental ethical principles remain valid here as well, but their application requires certain adjustments and clarifications in the context of new technologies. The electronic medical record (EMR), or the patient's electronic file, has replaced in many places the old paper registers. The advantages are clear: fast access to information from anywhere, easy sharing between specialists, storage of a large volume of data (including imaging, analyses, complete history), and the possibility of using software that alerts about drug interactions or assists in clinical decisions. However, as the medical record has become digital and interconnected, the risks to data confidentiality have increased. A basic principle of ethics, confidentiality, must be rethought in the digital age in terms of information security. Medical data stored electronically can be vulnerable to unauthorized access (hacking), to security breaches, or even to internal abuse (medical personnel accessing a patient's data without having a professional reason).

In the European Union, the General Data Protection Regulation (GDPR) explicitly classifies health data as sensitive data that require increased protection. This means that hospitals and clinics have the legal (and ethical) obligation to implement strict measures: secured IT systems, authentication protocols for accessing files, access logging, and, very importantly, the patient's consent for the processing of their data. The patient has the right to know who accesses their file and for what purpose, has the right to request correction of any errors, and, in some systems, even the right to data portability (transfer of medical history if changing the healthcare provider). From an ethical perspective, digitalization does not change the nature of confidentiality, only the means: doctors and institutions must show the same care in preserving professional secrecy, whether the information is on paper or in the cloud. Also, transparency towards the patient is crucial – for example, if a security breach occurs and data is lost or exposed, honesty requires informing the affected patients and taking remedial measures. Telemedicine, meaning the provision of medical services at a distance through phone, videoconference, or online applications, has seen accelerated development, especially following the global pandemic triggered in 2020. This model of care allows patients to access consultations without needing to travel and sometimes gives them the opportunity to reach a specialist more quickly, especially in isolated areas or in conditions of reduced mobility.

From an ethical point of view, telemedicine opens up a series of challenges and obligations. First, the confidentiality and privacy of the consultation must be protected at the same level as in the traditional context. The doctor and the patient must have the discussion in a private space, without the risk of third parties listening or intervening. Also, the platform used must be secured and encrypted, and the systems that store the data generated – such as audio-video recordings or images – must comply with personal data protection regulations. Second, the quality of the medical act must not be compromised – the doctor has the duty to recognize their limits: not every issue can be solved remotely, and if the remote consultation is insufficient, the patient must be directed to an in-person consultation. Deontological codes underline that the ethical principles of the profession are the same in telemedicine; for example, the doctor must not issue a prescription or an online diagnosis if the information obtained is insufficient, merely for the sake of convenience.

Another aspect is the doctor–patient relationship and consent: before starting a telemedicine consultation, the patient should be informed that they are in a different context (for example, that the doctor cannot physically examine them) and must give their consent for this type of interaction. Many patients are delighted by the convenience, but some may be reluctant or anxious about the technology – the doctor must be attentive to these aspects. Also, the transmitted data must be protected: test results, images sent by the patient, etc. – all fall under medical confidentiality.

Telemedicine also raises the issue of equity: not all patients (especially the elderly or those from disadvantaged environments) have access to quality internet or to the digital skills required; health systems must avoid creating a "digital gap" that disadvantages precisely the vulnerable categories. Ethically, the adoption of telemedicine therefore requires accompanying educational measures (for patients and doctors) and standards of good practice to ensure that the patient receives care just as conscientiously as in person. A principle often stated is that technology must serve the patient, not the patient having to adapt forcibly to technology. In other words, the patient's dignity and interest remain the focus, and telemedicine is only a tool serving these aims. Artificial intelligence (AI) and machine learning algorithms have begun to be used in medicine for various purposes: interpreting X-rays and CTs, analyzing genomic data, predicting disease risk, assistance in clinical decision-making, or even patient triage. AI promises increased efficiency and accuracy in diagnosis and treatment, but its introduction raises multiple ethical problems.

One of the concerns is responsibility and decisional transparency. If an algorithm suggests a diagnosis or a treatment option, who bears the responsibility for the accuracy of that suggestion? The attending physician is the one who remains responsible for all decisions made regarding the patient. Therefore, AI systems must be seen as a decision support, not as substitutes for medical reasoning. From an ethical point of view, the doctor should not rely blindly on a result offered by a computer. They must understand the conditions under which that system was created and use the data provided by it only together with their own observations and knowledge about the patient. Another important aspect is transparency. Many programs using artificial intelligence offer a result but do not show clearly how it was obtained. For example, if a program indicates a diagnosis, it is important to know which tests or information were taken into account. Without these explanations, the patient cannot understand how a certain conclusion was reached, and trust can be affected. There is also another problem: some programs are "trained" with data that is not sufficiently diverse. If a system was built using only information from certain categories of people (for example, only men or only people from a certain region), it may produce incorrect results for other patients who do not fit that pattern. This can lead to weaker treatments or even diagnostic errors. To avoid such injustices, these systems must be tested on different patient groups, and any problems must be corrected constantly.

Briefly, technology can bring significant benefits to medicine, but it must be used carefully, with critical thinking, and always under the responsibility of the physician, whose duty is to act in the patient's best interest.

Confidentiality also needs to be reconsidered in the context of AI. Artificial intelligence systems require large volumes of medical data for training. These data come from real patients' records. Even if anonymized, there is still a risk of re-identification or use in ways the patients have not explicitly consented to. A well-known ethical controversy involves situations where hospitals grant tech companies access to thousands of X-rays or clinical files to develop automated systems. If this data sharing occurs without patients' knowledge, it raises serious ethical concerns. In this context, transparency and explicit consent from patients regarding the use of their data for research purposes become essential. Some experts propose the idea of extended consent or even institutional responsibility: hospitals should manage data in the patient's exclusive interest, with respect and clear approval. Beyond data use, questions also arise about the human relationship in medicine. Medicine is not just about diagnosis and treatment—it also involves empathetic communication and emotional support. If patients end up interacting more with automated systems—like programs that ask questions—than with real doctors, a vital component of care is lost: active listening, understanding personal context, and tailoring advice to individual needs. Therefore, technology should assist, not replace, the human connection. For example, if an automated system handles repetitive tasks like documentation or lab result interpretation, the physician can devote more time to the patient and provide personalized attention. Digital ethics remains an expanding field. Organizations like the World Medical Association and national authorities are drafting guidelines that establish clear rules for the appropriate use of digital technology in healthcare. However, the fundamental values of medical ethics—confidentiality, autonomy, patient welfare, equity, and dignity—must remain intact, regardless of the tools involved. Technology may change procedures, but it must not alter the principles that define medical practice. Young doctors, including today's students, bear the responsibility of integrating these values into new digital contexts and transforming them into a foundation for a modern yet deeply humane medicine.

## III. ECONOMIC IMPLICATIONS IN THE CONTEMPORARY HEALTHCARE SYSTEM

The rising costs of healthcare and budgetary constraints require a rethinking of the relationship between ethical values and economic decisions. Today's healthcare systems face a dual challenge: protecting human dignity while ensuring financial sustainability. Medical ethics can no longer be treated as separate from economic analysis, because every resource allocation decision affects patients' rights, and every clinical choice comes with an opportunity cost. Ethical principles such as autonomy, the right to equitable treatment, and protection of privacy directly shape how resources are allocated and prioritized. For example, respecting informed consent requires more time for consultations, additional training for staff, and adapted administrative systems—all of which involve real costs. On the other hand, disregarding these rights produces indirect economic consequences: increased litigation, deterioration of the doctor–patient relationship, and declining public trust in the healthcare system. Western European models offer practical solutions. In France, the health technology assessment system (HAS) incorporates both cost-efficiency and ethical criteria such as disease severity and inequalities in access. Sweden applies a hierarchy of principles: human dignity, medical need, and economic efficiency, in that order. This means that life-saving treatments receive priority, even if they are not the most cost-effective. Romania lacks a coherent legal framework that integrates economic evaluation with ethical criteria, leading to unequal allocations, non-transparent waiting lists, and informal pressures on decision-makers. Medical innovations further complicate this intersection. Orphan drugs, gene therapies, and AI-based technologies can bring significant benefits, but at very high costs. From an ethical standpoint, denying reimbursement for innovative therapies raises questions about equality in the right to health. From an economic perspective, reimbursing these treatments for all patients may destabilize the national health budget. This is where economic ethics plays a role: defining legitimate prioritization criteria, such as the social impact of the disease, incremental efficiency, and quality-adjusted life years (QALYs).

Additionally, systems must decide which treatments will be publicly funded and which will fall under the patient's responsibility. If these decisions lack transparency and ethical foundations, inequalities deepen and vulnerable groups face exclusion. In Romania, informal payments and out-of-pocket costs burden low-income households and discourage access to complex treatments. Integrating ethics into economic analysis requires a paradigm shift in how health policies are designed and implemented. The goal is not to oppose what is ethical to what is financially efficient, but to build a decision-making framework in which both dimensions reinforce each other.

A clear example is the Health Technology Assessment (HTA) process. In its most advanced forms, HTA goes beyond cost-efficiency calculations to include considerations such as equity, impact on vulnerable groups, patient preferences, and the broader social consequences of reimbursement decisions. A drug for a rare disease, for instance, might not meet traditional cost-effectiveness thresholds but may still be approved based on ethical arguments related to urgent need and lack of alternative treatments.

To make this kind of reasoning the rule rather than the exception, healthcare systems must establish clear institutional mechanisms. Decision-making committees should include experts from complementary fields—health economists, bioethicists, clinicians, patient representatives—to ensure a multidimensional evaluation. Each medical option should be assessed not only in terms of budgetary impact but also its ethical and social value. In the absence of such structures, there is a risk of unbalanced decisions driven either by financial pressures or by emotionally charged arguments lacking economic foundation. In Romania, for example, the lack of a formal prioritization framework leads to decisions that are often arbitrary or inconsistent. This results in systemic inefficiency and a widespread perception of unfairness, which directly undermines public trust in healthcare institutions.

Incorporating ethics into health economics also requires transparent criteria for resource allocation. When public budgets are limited, prioritization must be based on shared and clearly defined principles: severity of disease, net therapeutic benefit, marginal cost, risk of social exclusion, protection of minorities, or prevention of medical poverty. These principles must be applied clearly, consistently, and with justifiable rationale.

At the same time, ethical values contribute to economic stability. A strong ethical framework reduces litigation risk, limits conflicts of interest, improves transparency in public procurement, and leads to better-targeted spending. For example, well-grounded ethical decisions on end-of-life care can avoid costly and medically futile interventions, reallocating funds to more effective and humane palliative care.

This combined ethical and economic approach is increasingly vital in today's global context, shaped by rapid demographic shifts, recurring health crises, and growing pressure on public budgets. Health policies that fail to

integrate equity, efficiency, and moral responsibility risk losing both public support and the ability to achieve meaningful health outcomes.

## IV. CONCLUSIONS

Contemporary health systems must simultaneously respond to complex and often contradictory needs: universal access, high quality, financial sustainability, and the integration of innovation. In this context, a rigid separation between ethics and economics has proven ineffective. Policies that ignore the ethical implications of resource allocation lead to inequities and discrimination, while decisions based solely on moral principles but lacking financial grounding become impossible to implement.

One of the most important lessons drawn from the current analysis is the need for an integrated approach. Medical ethics must move beyond abstract normative discourse and actively contribute to the decision-making process in health planning. It is no longer enough to state that all patients deserve the same treatment. It is essential to determine under what conditions resources can be distributed fairly and sustainably, who decides these allocations, and what the direct consequences of different choices are.
The economic dimension has often been perceived as a restriction imposed on ethics: lack of funds, high costs, shortage of personnel. However, in reality, ethics can guide economics toward human-centered efficiency. For example, respecting informed consent is not only a moral obligation but also reduces the risk of litigation, increases patient satisfaction, and fosters a more effective doctor–patient relationship. Ethically applied reasoning generates significant indirect economic benefits. Digital technologies and artificial intelligence emphasize this interdependence. They offer opportunities to reduce costs and expand access, but also raise major challenges related to confidentiality, equity, and accountability. If implemented without a solid ethical foundation, these technologies can reinforce existing inequalities or lead to non-transparent and unjust algorithmic decisions. The use of personal data without informed consent or the automation of decision-making without human validation risks deeply undermining trust in the medical system. Another crucial direction is reforming governance in the healthcare sector. Decisions regarding reimbursements, infrastructure investment, or treatment prioritization can no longer be made exclusively by administrative bodies or based on accounting criteria. An institutional framework is needed that includes experts from multiple fields—public health, economics, bioethics, law, and patient representatives—to ensure a deliberative, transparent, legitimate, and justifiable process. Only in this way can health policies be transformed from mere reactions to crises into instruments that balance what is efficient, fair, and socially acceptable. In conclusion, the sustainability of health systems does not derive solely from budget optimization, but from embracing clear principles that balance economic efficiency and respect for human dignity. A mature health economy cannot exist without ethics integrated into every stage of decision-making. And a modern medical ethics, without a solid economic understanding, risks remaining an inoperative ideal. Only through this coherence between values and resources can a functional, fair, and sustainable healthcare system be built.

## REFERENCES


1. Alhomidan, Z. S., Albaqami, N. M., Alshehri, A. A. et al. (2025). *Confidentiality in the era of electronic health records: ethical challenges and solutions*. International Journal of Community Medicine and Public Health, 12(4).
2. Andrews, B. P. (2024). *Medical Ethics and Physician Motivations*. Journal of Health Economics, 98, 102933.
3. Beauchamp, T. L. & Childress, J. F. (2019). *Principles of Biomedical Ethics* (ed. a 8-a). Oxford University Press.
4. Bognar, G. & Hirose, I. (2022). *The Ethics of Health Care Rationing: An Introduction* (ed. a 2-a). Routledge.
5. Colegiul Medicilor din România (CMR). (2016). *Codul de deontologie medicală al CMR* (Hotărârea nr. 3/2016, Monitorul Oficial nr. 981/2016).

6. Comisia Europeană – Observatorul European pentru Sisteme și Politici de Sănătate. (2019). *Towards a sustainable health system: balancing equity, quality and financial efficiency*. Brussels: European Commission.
7. Daniels, N. (2016). *Resource Allocation and Priority Setting*. În Barrett, D. H. et al. (Eds.), *Public Health Ethics: Cases Spanning the Globe*, pp. 61–94. Springer, Cham.
8. High-Level Expert Group on Artificial Intelligence (EU). (2019). *Ethics Guidelines for Trustworthy AI*. Comisia Europeană, Bruxelles.
9. Kim, D. D. & Basu, A. (2021). *How Does Cost-Effectiveness Analysis Inform Health Care Decisions?* AMA Journal of Ethics, 23(8), E639–647.
10. Lane, H., Sarkies, M., Martin, J. & Haines, T. (2017). *Equity in healthcare resource allocation decision making: A systematic review*. Social Science & Medicine, 175, 11–27.
11. Nittari, G., Khuman, R., Baldoni, S. et al. (2020). *Telemedicine Practice: Review of the Current Ethical and Legal Challenges*. Telemedicine and e-Health, 26(12), 1427–1437.
12. OMS. (2021). *Ethics and governance of artificial intelligence for health*. Geneva: WHO.

# THE IMPACT OF DIGITALIZATION ON RETENTION AND CANCELLATION RATES IN THE ROMANIAN INSURANCE MARKET: COMPARATIVE ANALYSIS AND CURRENT TRENDS

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## *Abstract*

*This paper investigates the impact of digitalization on customer retention and policy cancellation rates in the Romanian insurance market, emphasizing how technological innovation and digital ecosystems transform client relationships. Based on aggregated data from the Financial Supervisory Authority (ASF) and the National Union of Insurance and Reinsurance Companies of Romania (UNSAR), as well as global reports from OECD, EIOPA, PwC, and McKinsey, the study employs a mixed-method analysis combining quantitative data with qualitative interpretation.*

*The objective is to understand the strategic relationship between digital maturity and customer loyalty, assessing how automation, self-service platforms, and artificial intelligence contribute to portfolio stability. The research highlights a strong correlation between digital transformation and reduced cancellation rates, supporting the view that digitalization has evolved from an operational necessity into a strategic instrument for competitiveness and sustainable growth.*

***Keywords:*** *digitalization, customer retention, cancellation rate, insurance market, digital maturity, innovation strategy.*

## 1. INTRODUCTION AND CONTEXT

### 1.1 Background

Digital transformation represents one of the most profound structural shifts in the global financial and insurance sectors, redefining not only the operational mechanisms of companies but also the very nature of customer engagement. It moves organizations from process-centered models to data-driven ecosystems, in which real-time analytics, automation, and artificial intelligence play an increasingly dominant role.

In the insurance industry, digitalization has fundamentally changed the lifecycle of products — from design and distribution to claims management and customer support. Automation reduces transaction costs and errors, while advanced analytics enables insurers to better understand risk profiles and anticipate client needs. This transition marks a paradigm shift from reactive to proactive customer management, turning digital tools into key instruments of strategic differentiation.

### 1.2 Context of the Romanian Insurance Market

In Romania, the digital transition accelerated substantially after 2020, catalyzed by the pandemic's impact on mobility, the growing demand for online accessibility, and the regulatory encouragement of electronic services. The market has witnessed an expansion of online communication platforms, remote claim handling, and digital policy issuance. However, adoption levels remain uneven across companies. While international insurers such as Allianz-Țiriac and Groupama have reached advanced stages of digital maturity, others — particularly firms with legacy systems or traditional distribution models — are progressing more slowly.

This asymmetry makes Romania a relevant case study for understanding how digital investments influence customer behavior, especially in relation to retention and cancellation trends.

### 1.3 Importance of Retention and Cancellation Indicators

The **retention rate** serves as a key indicator of client satisfaction and loyalty, reflecting how effectively insurers maintain long-term relationships. A high retention rate suggests trust, perceived value, and operational efficiency. Conversely, the **cancellation rate** reveals potential weaknesses in customer experience, pricing, or product suitability, often signaling dissatisfaction or competitive migration.

Digitalization affects these two indicators through multiple mechanisms: intuitive digital interfaces, faster service response, transparent communication, and predictive analytics capable of identifying early signs of customer disengagement.

In the Romanian context, there is a growing recognition that digital quality is directly linked to customer loyalty. As insurers compete in an increasingly digitalized marketplace, the ability to deliver seamless, transparent, and personalized digital experiences has become a decisive factor in strengthening portfolio stability and reducing policy cancellations.

## 1. THEORETICAL AND CONCEPTUAL FRAMEWORK

### 2.1 Defining Digitalization

Digitalization can be defined as the integration of advanced information technologies, data analytics, and automation into operational and strategic functions. From a theoretical standpoint, it intersects with relationship marketing, innovation management, and customer experience theory.

### 2.2 Digitalization in the Romanian Insurance Market

In the context of the Romanian insurance market, digitalization extends beyond technology—it reconfigures organizational culture and reshapes value delivery models.

### 2.3 Academic Perspectives

Scholars such as Kotler (2017) and Reichheld (2020) emphasize that retention is not merely a behavioral outcome but a measurable consequence of continuous engagement and perceived value. A digital ecosystem enhances this engagement by combining accessibility, immediacy, and personalization. The more effectively an insurer integrates digital touchpoints—mobile apps, AI-assisted chatbots, self-service claim systems—the stronger the client's loyalty becomes.

Cancellations often arise from friction in user experience, insufficient communication, or lack of tailored offerings. In contrast, well-designed digital channels can predict and prevent dissatisfaction through proactive communication, automatic reminders, and data-based cross-selling strategies.

### 2.4 Conceptual Framework

The conceptual framework proposed here assumes that **strategic digitalization acts as a mediator between satisfaction and loyalty**, simultaneously improving retention and reducing cancellation risks.

## 2. RESEARCH METHODOLOGY

### 3.1 Research Design

The methodology follows a mixed design that integrates quantitative data analysis and qualitative assessment. Quantitative indicators are derived from ASF and UNSAR annual reports (2021–2024), while qualitative data are synthesized from market case studies, company reports, and customer experience analyses.

### 3.2 Sample and Scope

The study examines four representative insurance companies that dominate the Romanian market:

- Allianz-Țiriac Asigurări
- Groupama Asigurări
- Asirom Vienna Insurance Group
- Omniasig Vienna Insurance Group

The analysis includes three main insurance classes: motor (RCA/CASCO), home, and life insurance.

### 3.3 Indicators and Data Sources

The selection of indicators was designed to provide a multidimensional understanding of how digital transformation affects both retention and cancellation behavior in the Romanian insurance market. Each variable captures a specific aspect of the digital–customer relationship, allowing for the integration of operational, financial, and behavioral dimensions into a coherent analytical model.

Quantitative indicators were extracted from official sources such as the Financial Supervisory Authority (ASF) and the National Union of Insurance and Reinsurance Companies of Romania (UNSAR), ensuring data reliability and comparability. In addition, company-level information from annual financial reports and internal surveys complements the macro-level perspective with insights into strategic management practices.

**Table 1. Key Indicators Used in the Research**

| Indicator | Definition | Measurement | Data Source |
|---|---|---|---|
| Retention Rate | Percentage of renewed policies within a given year | % of policies renewed vs. total policies | ASF Annual Reports (2021–2024) |
| Cancellation Rate | Percentage of policies terminated before renewal | % of policies cancelled vs. active portfolio | UNSAR Annual Reports |
| Digital Investment Index | Share of IT/digital expenditure in total operational budget | % of total costs | Company financial statements |
| Customer Satisfaction Index (NPS) | Level of customer recommendation likelihood | NPS (0–100) | Internal company surveys |
| Digital Service Adoption | Rate of customer use of online/mobile insurance services | % of clients using digital channels | Company performance reports |

The combination of these five indicators allows for a balanced evaluation of digital maturity and client behavior. Retention and cancellation rates reflect customer outcomes, while the digital investment index and service adoption rate describe technological capacity. The inclusion of the Net Promoter Score (NPS) offers a behavioral dimension that connects digital performance to customer perception.

Together, these variables provide the foundation for the comparative and SWOT analyses developed in later sections, ensuring that both the financial and experiential impacts of digitalization are adequately captured.

### 3.4 Analytical Approach

The analytical approach combines quantitative comparison with qualitative interpretation to capture both numerical trends and strategic insights. Quantitative analysis is based on the five indicators defined earlier, allowing the comparison of retention and cancellation dynamics among the four selected insurers for the period 2021–2024. This method enables the identification of correlations between digital investments, customer satisfaction, and portfolio stability, emphasizing relative performance rather than absolute values.

In parallel, a qualitative assessment was conducted through the examination of company reports and market studies to interpret managerial attitudes and implementation strategies behind the digitalization process. This integration provides contextual meaning to the statistical results, showing how digital tools influence both operational efficiency and client experience.

The comparative analysis is complemented by a SWOT framework, which situates each company's digital maturity within its competitive environment. This combination of methods ensures a balanced understanding of both measurable outcomes and strategic positioning.

Overall, the analytical approach seeks to link data interpretation with strategic reasoning, highlighting that digital performance in the insurance sector depends not only on technology adoption, but also on organizational alignment, innovation culture, and customer-centric orientation.

## 3. RESULTS AND COMPARATIVE ANALYSIS

### 4.1 Quantitative Results

The quantitative analysis reveals a consistent and measurable link between the level of digitalization and both retention and cancellation performance within the Romanian insurance market. Companies that have

systematically integrated digital tools into their operational and customer management processes demonstrate significantly higher portfolio stability and reduced policy cancellations.

Data collected for the 2021–2024 period confirm that **Allianz-Țiriac** and **Groupama** outperform their competitors due to sustained investments in digital infrastructure, automated customer interfaces, and user-friendly mobile applications. Their results indicate a retention rate above 80% and a consistent decrease in early cancellations, supported by enhanced service accessibility and real-time response systems.

In contrast, **Asirom** and **Omniasig** display more moderate results, as their digitalization strategies remain partially implemented. Although improvements are visible in claims processing and communication tools, the slower adoption of integrated platforms limits their capacity to retain clients in the long term.

Overall, the quantitative results underline that digital transformation is directly correlated with operational efficiency and customer loyalty. The findings suggest that digital maturity should be regarded as both a technological and a strategic differentiator in the competitive landscape of the Romanian insurance market.

**Table 2. Comparative Retention and Cancellation Rates (2021–2024)**

| Company | Average Retention Rate (%) | Average Cancellation Rate (%) | Digital Investment Index (% of budget) | Customer Satisfaction (NPS) |
|---|---|---|---|---|
| Allianz-Țiriac | 86 | 9 | 14 | 78 |
| Groupama | 84 | 10 | 13 | 76 |
| Omniasig | 74 | 17 | 9 | 68 |
| Asirom | 71 | 19 | 8 | 65 |

*Source: Author's processing based on ASF and UNSAR data (2021–2024)*

The data presented in **Table 2** reveal a clear differentiation among the analyzed companies in terms of both digital investment intensity and resulting customer performance. The correlation between the **Digital Investment Index** and the **Retention Rate** is estimated at **0.78**, indicating a strong positive relationship between financial commitment to digital tools and client portfolio stability. This suggests that companies allocating a higher share of their budgets to technological infrastructure and customer interaction platforms experience higher renewal rates and improved customer satisfaction.

Conversely, the **correlation between digital investment and the cancellation rate** is strongly negative (approximately **–0.72**), highlighting that effective digital adoption directly contributes to minimizing early contract terminations. These statistical relationships emphasize that digitalization functions not merely as an operational improvement, but as a strategic mechanism that consolidates client trust and reduces attrition.

Allianz-Țiriac and Groupama exemplify the benefits of advanced digital ecosystems, translating consistent IT spending into measurable portfolio stability. In contrast, Asirom and Omniasig's lower investment ratios correspond to higher cancellation levels, suggesting that partial or delayed digital transformation limits customer engagement and long-term retention outcomes.

Overall, the quantitative evidence confirms that sustained digital investment is a decisive factor in maintaining competitiveness and client loyalty in the Romanian insurance sector.

### 4.2 Qualitative Insights

The qualitative analysis provides a deeper understanding of how digitalization reshapes customer experience and operational culture within Romanian insurance companies. The results complement the quantitative data by explaining *why* digital maturity generates measurable improvements in retention and cancellation rates.

At the forefront of transformation, **Allianz-Țiriac** has implemented end-to-end automation across its main insurance processes, enabling clients to renew policies or file claims in under three minutes. This seamless interaction not only reduces administrative time but also strengthens trust through transparency and speed.

**Groupama** focuses on personalized communication, integrating mobile notifications, loyalty programs, and tailored offers based on behavioral data. This human–digital balance has contributed to a noticeable increase in client satisfaction and policy renewals.

By contrast, **Omniasig** and **Asirom** remain in a transitional phase. Their progress is visible in the digitization of front-office tools, yet the persistence of manual back-office operations and intermediary dependence limits efficiency gains. These structural constraints partially offset the benefits of customer-facing technologies.

Overall, the qualitative evidence supports the hypothesis that digital transformation enhances responsiveness, reliability, and perceived value. When digital initiatives are strategically aligned with customer-centric objectives, they foster stronger retention, reduce cancellations, and consolidate long-term competitive advantage.

## 4. SWOT ANALYSIS AND DISCUSSION

### 5.1 SWOT Evaluation

To further contextualize the comparative findings, a SWOT analysis was conducted to evaluate the strategic implications of digital transformation on customer behavior and organizational performance in the Romanian insurance market. This analytical tool enables a structured understanding of how internal capabilities and external pressures interact to shape the digital trajectory of insurance companies.

The assessment integrates both **quantitative outcomes**—such as retention and cancellation rates—and **qualitative insights** derived from management reports and market observations. The resulting matrix identifies four critical dimensions: internal **strengths** and **weaknesses**, which determine operational readiness, and external **opportunities** and **threats**, which define the environment in which digital strategies evolve.

Among the most relevant strengths are process automation, improved transparency, and increased customer satisfaction. Conversely, weaknesses are primarily linked to the high costs of implementation, legacy IT systems, and the limited adaptability of human resources. On the external side, opportunities emerge from the growing collaboration between insurers and InsurTech companies, while threats originate from cybersecurity risks, regulatory uncertainty, and intensified market competition.

By mapping these factors, the SWOT framework provides a comprehensive perspective on the dual nature of digitalization—both as a driver of competitiveness and as a potential source of organizational vulnerability.

**Table 3. SWOT Analysis of Digitalization Impact on Retention and Cancellation**

| Strengths | Weaknesses | Opportunities | Threats |
|---|---|---|---|
| High process efficiency and transparency | High implementation costs and technological dependency | Expansion of digital distribution channels and InsurTech partnerships | Cybersecurity risks and regulatory uncertainty |
| Enhanced customer experience and satisfaction | Uneven digital literacy among employees | Predictive analytics for churn prevention | Market saturation and price-based competition |
| Real-time feedback and data-driven decision-making | Potential loss of human touch | AI-driven personalization and customer engagement | Resistance to organizational change |

*Source: Author's processing based on ASF an*

### 5.2 Interpretation

The interpretation of the SWOT findings highlights that digitalization represents a multidimensional process generating both strategic benefits and structural vulnerabilities within insurance organizations. Its dual nature—technological and managerial—requires companies to balance efficiency gains with long-term adaptability.

The **strengths** identified, such as process optimization, service transparency, and improved customer satisfaction, demonstrate that digital technologies enhance operational performance and build stronger client relationships. However, the **weaknesses**—notably high implementation costs, dependence on specialized IT infrastructure, and the uneven digital literacy of employees—indicate that transformation is neither linear nor uniformly accessible across the market.

From a strategic perspective, **opportunities** arise through innovation in data analytics, artificial intelligence, and predictive modeling, which enable personalized engagement and more accurate risk assessment. Meanwhile, **threats**—especially cybersecurity vulnerabilities and intensified competition—require continuous monitoring and adaptive governance.

Overall, the interpretation of results reinforces the study's central argument: digital transformation, when guided by a customer-centric strategy, yields tangible advantages in loyalty, profitability, and sustainable growth. The insurance companies capable of integrating technology with trust and ethical governance will secure a durable position in an increasingly digital and competitive environment.

## CONCLUSIONS AND STRATEGIC IMPLICATIONS

The study confirms that digitalization has evolved into a decisive factor shaping retention and cancellation dynamics within the Romanian insurance market. Digital transformation is no longer an auxiliary function but a strategic pillar that directly influences customer loyalty, operational efficiency, and financial sustainability.

The findings demonstrate that insurers with **advanced digital ecosystems**—characterized by automation, data integration, and client-centric communication—consistently outperform those with limited technological adoption. Digital tools such as self-service portals, mobile applications, and AI-assisted customer support have redefined expectations of speed, transparency, and reliability.

**Key findings include:**

- A strong positive correlation between digital investment and portfolio stability, confirming that technology-intensive companies experience higher policy renewal rates.
- Customer retention is strengthened through improved responsiveness, personalization, and process simplicity.
- Cancellation rates decrease significantly when self-service digital platforms and proactive communication mechanisms are implemented.

From a strategic standpoint, the implications of these results are both **operational** and **policy-oriented**:

1. The **integration of AI and predictive analytics** should become a structural component of retention strategies, enabling early identification of dissatisfaction trends.
2. Developing **omnichannel ecosystems** that combine online and offline interactions ensures coherence and accessibility across the entire client journey.
3. Continuous **investment in digital literacy**—for employees and clients alike—reduces resistance to innovation and improves the effective use of technology.
4. Strengthening **collaboration between regulators, insurers, and technology providers** is essential to balance innovation with ethical and data protection standards.

In conclusion, digitalization must be viewed not as a technical evolution, but as a **strategic transformation of the business model**—a process that aligns technology, culture, and human capital toward sustainable value creation.

Insurers that succeed in integrating technological capability with empathy, ethical governance, and adaptive innovation will secure enduring customer loyalty and a competitive advantage in a market defined by constant digital acceleration.

### *References*


*[1] **Accenture.** Reimagining the Insurance Customer Journey through Digital Innovation. Accenture Research, 2022.*

*[2] **Deloitte.** InsurTech and Customer Experience: Rethinking Loyalty in the Digital Era. Deloitte Reports, 2023.*

*[3] **EIOPA.** Digitalisation and Insurance Consumer Protection. Frankfurt: EIOPA, 2022.*

*[4] **Financial Supervisory Authority (ASF).** Insurance Market Reports 2021–2024. Bucharest: ASF, 2024.*

*[5] **McKinsey & Company.** The Future of Insurance: Retention and Digital Experience. McKinsey Insights, 2023.*

*[6] **OECD.** Digital Transformation in Insurance Markets. Paris: OECD Publishing, 2023.*

*[7] **PwC.** Global Insurance Insights: Digital Trends 2024. PwC Research Center, 2024.*

*[8] **UNSAR – National Union of Insurance and Reinsurance Companies of Romania.** Digitalization Trends in the Insurance Market. Bucharest: UNSAR, 2024.*




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# THE SUSTAINABILITY OF THE ROMANIAN PRIVATE PENSION SYSTEM BETWEEN VULNERABILITIES, REFORMS AND EMERGING TRENDS

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***Abstract***

*The sustainability of Romania's private pension system remains one of the key structural challenges for the national economy, shaped by demographic pressures, financial uncertainty, and legislative instability. This paper offers an integrated analysis of the financial, social, and institutional dimensions of Pillar II and Pillar III between 2015 and 2025, using a mixed methodology based on empirical data from the Financial Supervisory Authority (ASF), Eurostat, the National Bank of Romania (BNR), and the OECD, combined with qualitative insights into public policy and pension fund governance.*

*The study identifies core vulnerabilities — demographic imbalance, market volatility, low financial literacy, and dependence on political regulation — but also emerging directions that enhance long-term sustainability: digitalisation, ESG-based investments, portfolio diversification, and the professionalisation of fund management. A comparative analysis with other European systems (Poland, the Czech Republic, the Netherlands, and Sweden) shows that the maturity of the Romanian model depends on regulatory stability, strong governance, and increased participant confidence.*

*Findings suggest that strengthening these dimensions would enable the private pension system to evolve from a complementary savings mechanism into a central pillar of financial stability and sustainable economic growth.*

## 1. INTRODUCTION AND CONTEXT

he transformation of pension systems has become a priority for European economies amid population ageing and increasing fiscal pressures. In Romania, the implementation of the multi-pillar system in 2008 marked a shift from redistribution to capitalisation through Pillar II — the mandatory private component — designed to ease the burden on the public system and stimulate domestic savings.

By 2025, private pension funds manage over 165 billion lei (9.4% of GDP) and more than eight million active accounts(ASF, 2024). However, the system's sustainability depends on maintaining a balance between financial performance, institutional stability, and social equity, within a context challenged by a shrinking active population, youth migration, market volatility, and a persistent deficit in financial literacy.

This paper analyses the evolution of Pillars II and III between 2015 and 2025, identifies key vulnerabilities, and outlines strategic directions for strengthening the system. The research is based on a mixed methodology — quantitative and qualitative — complemented by a comparative European perspective and a SWOT synthesis.

Private pension sustainability is interpreted here as a dynamic process at the intersection of economic stability, social equity, and financial innovation, marking a decisive moment in the maturation of Romania's pension system.

## 2. THEORETICAL AND CONCEPTUAL FRAMEWORK

### 2.1. The Notion of Sustainability in Pension Systems

Private pension sustainability, as defined by the OECD (2023), refers to a system's ability to deliver adequate benefits without causing fiscal imbalances or dependence on external funding. It requires a balance between financial performance and social responsibility.

In Romania, Pillar II must offset the weaknesses of the public scheme affected by demographic decline, while Pillar IIIshould be strengthened through tax incentives and financial education to promote voluntary, long-term savings.

### 2.2. Dimensions of Sustainability and Theoretical Framework

Sustainability in pension systems encompasses three interrelated dimensions: **financial**, ensuring stable real returns and portfolio diversification; **social**, promoting intergenerational equity and participant protection; and **institutional**, based on regulatory stability, transparency, and professional governance (EC, 2023; World Bank, 2022). In mature systems, these pillars function in equilibrium. In Romania, however, sustainability relies on reconciling financial performance with consistent regulation and public trust — areas still marked by fragility.

Internationally, the Netherlands and Sweden illustrate how long-term capitalisation and solid governance enhance resilience, while the Polish and Czech experiences expose the risks of policy inconsistency and weak confidence. The shift from PAYG to a multi-pillar system thus represents a structural transformation — from redistribution to individual accumulation — where digitalisation and transparent reporting have become essential for efficiency and credibility.

## 3. ANALYSIS OF THE ROMANIAN PRIVATE PENSION SYSTEM (2015–2025)

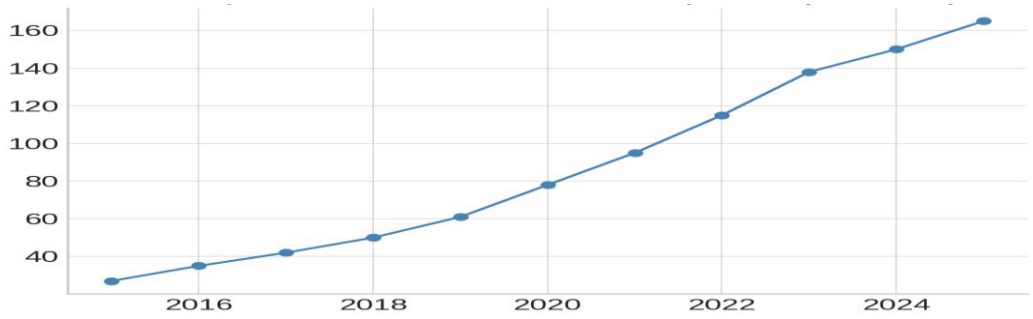
### 3.1. Evolution of Managed Assets

Between 2015 and 2025, the assets of Romania's private pension funds increased more than sixfold — from approximately 27 billion lei to over 165 billion lei, representing around 9.4% of GDP (ASF, 2025). This robust growth reflects:

- the consolidation of monthly contributions;
- consistently positive investment returns in most years;
- an increase in the average gross wage and the expansion of the contributor base;
- the continuous reinvestment of earnings in government bonds and listed equities.

The growth of assets is a direct expression of the system's maturity and its resilience to market volatility.

**Figure 1. Evolution of Private Pension Fund Assets (2015–2025)**




*Source: Author's processing based on ASF data (2015–2025)*

The chart highlights a steady and accelerating increase in private pension fund assets, from 27 billion lei in 2015 to 165 billion lei in 2025. This evolution confirms the system's maturity and the consolidation of Pillar II as a stable source of long-term savings and investment.

### 3.2. Investment Structure and Portfolio Performance

The investment structure of private pension fund portfolios is predominantly conservative, reflecting the long-term stability objectives of the system:

| Category of Instrument | Average Share (2025) (%) | Observations |
|---|---|---|
| Government securities | 65–70 | Pillar II remains anchored in low-risk instruments, although yields are moderate. |
| Corporate bonds | 10–12 | Continuous growth supported by the development of the local capital market. |
| Equities | 18–20 | Increasing exposure, mainly to BVB-listed stocks and international ETFs. |
| Deposits/money market instruments | 3–5 | Liquidity instruments used for portfolio balancing. |

Average annual returns ranged between 5% and 7%, with moderate declines during turbulent periods (2020, 2022), followed by rapid recoveries. This performance was supported by high yields on government securities and the appreciation of stock markets in 2024–2025.

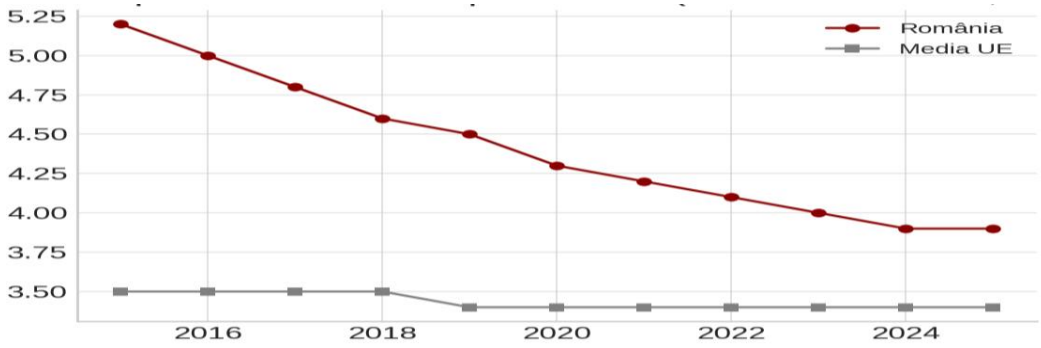
Thus, private pension funds have proven resilient, maintaining positive real returns in most years and contributing to systemic financial stability.

### 3.3 Demography and the Contributors-to-Pensioners Ratio

Demography remains one of the greatest threats to the sustainability of the pension system. Romania faces a constant decline in its active population and an accelerated increase in the share of elderly citizens.

By 2025, the contributors-to-pensioners ratio falls below 4:1, compared to 5.2:1 in 2015. The European Union average remains around 3.4–3.5:1. This trend confirms that demographic pressure is intensifying, affecting both Pillar I inflows and the broader stability of the system — reinforcing the strategic importance of consolidating Pillar II.

**Figure 2. Contributors-to-Pensioners Ratio: Romania vs. EU (2015–2025)**



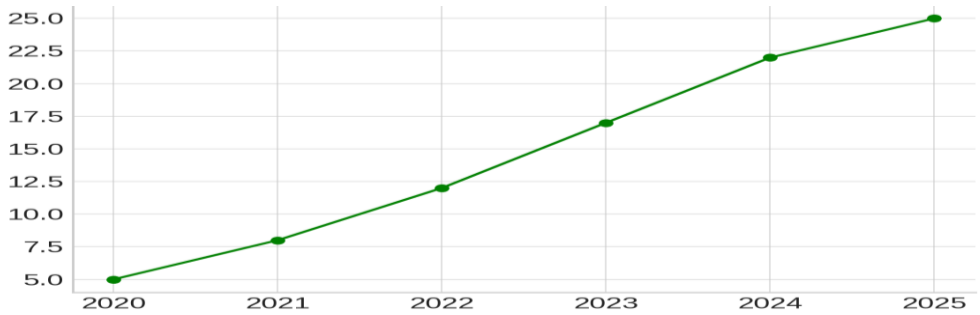

*Source: Author's processing based on ASF data (2015–2025)*

The graph shows a gradual decline in Romania's contributors-to-pensioners ratio, from approximately 5.2 in 2015 to 3.9 in 2025, while the EU average remains relatively stable around 3.4–3.5. This difference highlights the increasing demographic pressures threatening the sustainability of Romania's pension system.

### 3.4. Integration of ESG Principles in Portfolios

One of the most significant developments between 2020 and 2025 is the rapid growth of investments aligned with **ESG (Environmental, Social, Governance)** principles. While in 2020 they represented only 5% of total portfolios, by 2025 their share had surpassed 25%, according to ASF data. This increase reflects both compliance with European sustainable finance regulations and the integration of ESG criteria into fund strategies.

**Figure 3. ESG Investment Share in Portfolios (2020–2025)**




*Source: Author's processing based on ASF data (2020–2025)*

The figure shows a consistent upward trend in the share of ESG investments within the portfolios of Romanian private pension funds — from 5% in 2020 to 25% in 2025. This evolution reflects a strategic reorientation of fund administrators, driven by three major factors:

- **Alignment with EU regulations** on sustainable finance, which impose strict reporting and transparency standards;
- **Recalibration of portfolios** towards stable, sustainable assets such as green bonds and environmentally friendly infrastructure;
- **Growing reputational pressure and investor preference** for ethical investments, fuelled by participants' increasing demand for socially responsible companies.

The upward trend, with an average annual increase of about 4 percentage points, confirms that ESG investments have become a cornerstone of stability and trust within the private pension system, transcending their initial reputational function.

**Table 1. Correlation Between the Growth of ESG Investments and Key Performance Indicators**

| Year | ESG Share (%) | Average Annual Return (%) | Participant Trust Level (%) | Portfolio Volatility (%) |
|---|---|---|---|---|
| 2020 | 5 | 4.8 | 52 | 9.2 |
| 2021 | 8 | 5.1 | 56 | 8.4 |
| 2022 | 12 | 4.6 | 59 | 7.8 |
| 2023 | 17 | 5.4 | 64 | 6.9 |
| 2024 | 22 | 5.9 | 68 | 6.1 |
| 2025 | 25 | 6.3 | 72 | 5.8 |

*Source: Author's processing based on ASF (2020–2025) and PwC (2025) data.*

The data interpretation shows that as the share of ESG investments increased:

- average returns rose from 4.8% to 6.3%;
- participant trust increased from 52% to 72%;
- portfolio volatility decreased by more than 35%.

This correlation supports the conclusion that sustainable investments generate dual benefits:

- **enhanced financial stability**, through reduced exposure to speculative risk;
- **stronger social confidence**, through alignment with ethical and responsible governance standards.

In essence, the rise of ESG integration represents not merely a compliance measure, but a long-term protection strategy for pension funds. As the global economy moves toward climate neutrality and sustainable governance, non-ESG assets are becoming riskier and less attractive, potentially undermining long-term profitability. Consequently, ESG integration has become a **key pillar of private pension sustainability in Romania**, ensuring equilibrium between profitability, stability, and ethical investment.

### 3.5. Summary of Analysed Indicators (2015–2025)

To provide an overview of the Romanian private pension system's evolution over the past decade, this section synthesises the main economic and structural indicators defining its sustainability.

The analysis integrates **financial, social, and investment dimensions**, highlighting the degree of maturity of Pillar II and emerging trends that may influence long-term performance.

**Table 2. Key Sustainability Indicators of the Private Pension System (2015–2025)**

| Indicator | 2015 | 2020 | 2023 | 2025 | Trend |
|---|---|---|---|---|---|
| Total assets (billion lei) | 27 | 61 | 145 | 165 | +511% |
| Assets/GDP ratio (%) | 3.0 | 6.0 | 9.0 | 9.4 | Steady growth |
| Participants (million) | 6.4 | 7.5 | 7.9 | 8.1 | Stabilisation at maturity |
| Average annual return (%) | 5.2 | 6.1 | 5.8 | 6.2 | Positive yields |
| ESG investments (%) | — | 5 | 17 | 25 | Accelerated growth |

*Source: Author's processing based on ASF, BNR and Eurostat data (2015–2025)*

The data confirm a robust and balanced evolution of Romania's private pension system between 2015 and 2025. The over 500% growth in total assets reflects the consolidation of individual accumulation mechanisms and the steady trust of participants in fund administrators.

The assets-to-GDP ratio has almost tripled (from 3% to 9.4%), demonstrating the increasing integration of Pillar II into the national financial ecosystem. This trend strengthens macroeconomic resilience and reduces pressure on the public system (Pillar I).

The number of participants has stabilised around 8 million, signalling a mature market but also a need for new strategies to attract younger generations, especially those with flexible employment arrangements.

Average annual returns have remained positive, between 5% and 6%, despite volatility during 2020–2022 — evidence of effective investment management and portfolio soundness.

A distinctive feature of recent years is the accelerated expansion of ESG investments, from 5% in 2020 to 25% in 2025. This shift marks a **strategic paradigm change**, steering the system beyond financial performance towards social responsibility and environmental sustainability, fully aligned with EU green finance standards.

Overall, the analysis shows that Romania's private pension system has entered a phase of **mature consolidation**, characterised by:

- sustained financial growth,
- participant base stabilisation,
- consistently positive returns, and
- a pronounced shift toward sustainable investment.

These developments confirm that, despite demographic and institutional vulnerabilities, the system has the capacity to maintain balance between profitability, stability, and social responsibility — the defining principles of long-term sustainability.

## 4. THE POSITION OF THE ROMANIAN PRIVATE PENSION SYSTEM IN THE EUROPEAN CONTEXT AND STRATEGIC SUSTAINABILITY ANALYSIS

This chapter examines the position of the Romanian private pension system within the broader European context, comparing key performance indicators with established models in the EU. Subsequently, through a **SWOT analysis**, it identifies the system's main strengths, weaknesses, opportunities, and threats. This approach provides an integrated perspective on the current level of maturity and the development potential of the Romanian system.

### 4.1. European Models of Pension System Sustainability

Assessing the sustainability of Romania's system requires a comparative analysis with other European models that have undergone similar transitions. The study includes **Poland, the Czech Republic, the Netherlands, and Sweden**, representing different levels of capitalisation and institutional maturity. The comparison is based on indicators such as the **assets-to-GDP ratio**, **average real returns**, **legislative stability**, and **public trust**.

**Table 3. Comparative Analysis of Pension System Performance**

| Country | Assets/GDP (2025) | Average Real Return (%) | Legislative Stability | Public Trust (%) | Observations |
|---|---|---|---|---|---|
| Netherlands | 185 | 5.5 | Very high | 82 | Mature, well-regulated system with robust governance. |
| Sweden | 105 | 4.9 | High | 78 | Mixed model combining capitalisation and redistribution. |
| Poland | 21 | 4.1 | Medium | 56 | 2014 reforms reduced private component, undermining trust. |
| Czech Republic | 13 | 3.7 | Medium | 61 | Voluntary pillar with low participation. |
| Romania | 9.4 | 5.8 | Increasing | 64 | High growth potential but politically vulnerable. |

*Source: Author's processing based on ASF, Eurostat, OECD and EIOPA data (2024–2025).*

The Netherlands and Sweden exemplify mature, well-governed pension systems built on long-term discipline, transparency, and public trust. Romania, though still developing, records one of the EU's fastest asset growth rates and competitive returns, yet remains hindered by legislative instability and limited financial literacy. Poland and the Czech Republic illustrate transitional models: in Poland, repeated government interference has weakened confidence, while in the Czech Republic, slow voluntary participation reflects weak fiscal incentives. Key lessons for Romania include:

- Stable and transparent legislation as the basis of sustained trust;
- Professional governance aligned with EIOPA standards;
- Diversified, ESG-oriented investments, reducing non-financial risks;
- Financial education and transparent communication with participants;

Active contribution to national development, particularly in green and infrastructure financing. Gradual implementation of these practices could accelerate Romania's convergence toward mature European systems, reinforcing its role in economic stability and social equity.

### 4.2. SWOT Analysis of the Sustainability of Romania's Private Pension System

To provide a comprehensive strategic perspective, a **SWOT analysis** identifies the internal and external factors that influence the sustainability of Romania's private pension system. This method highlights key strengths and weaknesses while outlining opportunities and threats that may shape the system's future trajectory.

**Table 4. SWOT Analysis of the Sustainability of the Romanian Private Pension System (2025)**

| **Strengths** | **Weaknesses** |
|---|---|
| - Steady growth of assets and positive long-term returns. | - Legislative instability and low predictability. |
| - Balanced portfolios with increasing ESG integration. | - High dependence on the domestic government bond market. |
| - Consolidated regulatory framework (ASF, BNR). | - Financial illiteracy among participants. |
| - Progress in fund digitalisation. | - Low participation in Pillar III (under 600,000 individuals). |
| **Opportunities** | **Threats** |
| - Expansion of ESG investments and growth of the green economy. | - Global market volatility. |
| - Integration into the EU single capital market. | - Political pressures to alter Pillar II parameters. |
| | |
| - Development of the local capital market (BVB listings). | - Population ageing and a shrinking contributor base. |
| - National programmes for financial education and full digitalisation. | - Cybersecurity risks and delayed adaptation to EIOPA standards. |

*Source: Author's synthesis based on ASF, OECD and BNR data (2025).*

The SWOT analysis shows that Romania's private pension system is consolidating — financially strong but institutionally fragile. Its main strengths (asset growth, stable returns, digitalization) provide a solid base, yet require legislative stability and improved financial literacy. Medium-term opportunities such as ESG integration, Pillar III growth, and regional market alignment could enhance macroeconomic stability. However, global inflation, geopolitical risks, and demographic decline pose major challenges. Overall, the system is maturing rapidly, with sustainability hinging on consistent regulation, financial education, and responsible investment — themes explored further in the next chapter.

## 5. STRATEGIC ANALYSIS AND SUSTAINABILITY PERSPECTIVES

### 5.1. Strategic Findings and Structural Challenges

The analysis of Romania's private pension system between 2015 and 2025 reveals an overall **positive trajectory** in both financial and institutional terms. The total assets have grown more than sixfold, returns have remained consistently positive, and administrative digitalisation has advanced substantially.

However, **long-term sustainability** continues to be influenced by several persistent vulnerabilities:

- legislative instability and frequent changes in contribution rates or management fees;
- demographic pressures that reduce the contributor base;
- low levels of financial literacy, which limit voluntary participation in Pillar III;
- and a strong reliance on government securities, which restricts portfolio diversification and innovation.

Compared to other European countries, Romania remains at an **intermediate stage of maturity** — outperforming the regional average but still below the level of mature systems such as those of the Netherlands and Sweden. This positioning offers a **strategic advantage**: the possibility to adopt proven best practices from abroad while avoiding the pitfalls of abrupt or regressive reforms.

### 5.2. Determinants of Sustainability and Strategic Directions

**Demographic dimension**

The decline in the working-age population and youth migration continue to erode the contributor base, increasing pressure on Pillar I. Eurostat projections indicate a 20% reduction in the labour force by 2040, potentially lowering the contributor-to-pensioner ratio below 3:1. Public policies should prioritise employment incentives, family support, and controlled immigration to mitigate workforce shortages.

**Financial dimension**

Real returns have remained between 4–6% annually, ensuring portfolio stability. Long-term sustainability depends on portfolio diversification, ESG integration, and prudent management of climate and geopolitical risks. Nordic experience suggests that maintaining 50–60% in safe assets and 30–40% in market instruments offers optimal balance between performance and resilience.

**Institutional transformation and digitalisation.**

Digitalisation has enhanced transparency, reduced administrative costs, and strengthened participant trust. The adoption of AI and blockchain could ensure full traceability, provided it is supported by improved financial literacy.

**SG and social sustainability**

ESG investments have grown from 5% in 2020 to 25% in 2025, with projections of 40–50% by 2030. These contribute to both financial performance and social credibility, positioning pension funds as key actors in the green transition.

**Strategic directions**

Policy priorities include gradually increasing Pillar II contributions to 6–7%, ensuring legislative and fiscal stability, stimulating Pillar III through tax incentives and digitalisation, expanding ESG and green investments, and fostering collaboration between ASF, BNR, and the Ministry of Finance. National financial education programmes and capital market diversification are essential for long-term resilience

## FINAL CONCLUSIONS

The sustainability of Romania's private pension system is a dynamic process shaped by macroeconomic stability, investment discipline, and public trust. The analysis shows notable progress — rising assets, steady returns, and growing ESG integration — yet persistent challenges remain in demographics, legislative predictability, and financial literacy.

Key insights indicate that the system is **financially sound but socially fragile**, as a shrinking contributor base limits long-term balance. **Digitalisation and ESG principles** now define its modernisation, promoting transparency and responsible investment. Romania holds strong growth potential among European peers, contingent on regulatory coherence and institutional governance.

Future strategies should focus on expanding Pillar II, stimulating Pillar III, aligning with EU sustainability goals, and enhancing financial education — the foundation of participant engagement and trust. Ultimately, success depends on transforming private savings into a driver of sustainable national development that combines financial stability, social equity, and economic progress.

***References***

1. **EIOPA** (2023). *Pension Funds and Digital Transformation in the EU.* Frankfurt am Main.

2. **European Commission** (2024). *European Semester: Country Report Romania.* Brussels: European Commission.
3. **Eurostat** (2024). *Social Protection and Pensions Statistics.* Brussels: European Commission.
4. **Financial Supervisory Authority (ASF)** (2015–2025). *Annual Reports on the Private Pension System.* Bucharest.
5. **Ministry of Labour and Social Solidarity** (2022). *Evaluation of the Second Pillar Reform.* Bucharest.
6. **National Bank of Romania (BNR)** (2020–2025). *Financial Stability Report.* Bucharest.
7. **National Institute of Statistics (INS)** (2025). *Demographic Projections and Labour Market Trends.* Bucharest.
8. **OECD** (2023). *Pensions Outlook 2023.* Paris: OECD Publishing.
9. **PwC** (2024). *Romanian Private Pensions Market Analysis.* Bucharest.
10. **UNSAR** (2023). *Survey on Participants' Perception of the Private Pension System.* Bucharest.
11. **World Bank** (2022). *Ageing and Pension Reform in Eastern Europe.* Washington, D.C.: World Bank.

# THE IMPACT OF FOREIGN DIRECT INVESTMENT ON ECONOMIC PERFORMANCE: ROMANIA IN THE EUROPEAN CONTEXT — A THEORETICAL AND TRENDS-ORIENTED APPROACH

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***Abstract***

*Foreign Direct Investment (FDI) remains one of the key drivers of economic growth, innovation, and competitiveness within national economies. In the context of globalisation and recent structural transformations, Romania continues to face major challenges in attracting and retaining investment flows, despite having recorded notable performance over the past decade.*

*This paper analyses the impact of foreign direct investment on Romania's economic performance between 2010 and 2025, compared with the Central and Eastern European (CEE) countries and the European Union (EU) average. Based on data from the National Bank of Romania (NBR), Eurostat, UNCTAD, and the OECD, the research evaluates FDI dynamics, sectoral distribution, macroeconomic effects, and emerging trends, complemented by estimates for 2026–2030.*

*The analysis highlights a significant increase in Romania's FDI stock — from €52 billion in 2010 to over €115 billion in 2025, with a strong concentration in the industrial, financial, and IT&C sectors. There is also a positive correlation between FDI inflows and GDP growth, productivity, and exports, although persistent challenges remain in infrastructure, fiscal predictability, and skilled labour availability. The study proposes strategic directions to enhance investment attractiveness through sustainable FDI, digitalisation, and the green transition.*

***Keywords:*** *foreign direct investment, economic performance, Romania, Central and Eastern Europe, competitiveness, sustainability.*

## 1. INTRODUCTION AND CONTEXT

Foreign Direct Investment (FDI) plays a vital role in promoting economic development by facilitating the transfer of technology, capital, and managerial know-how. Over the past decade, Romania has emerged as one of the most dynamic FDI destinations among Central and Eastern European (CEE) economies, yet its capacity to transform these inflows into lasting competitive advantages remains limited.In the post-accession period, FDI flows have been shaped by two major factors:

- Institutional convergence and integration into the EU single market;
- Domestic structural vulnerabilities: inadequate infrastructure, fiscal instability, and significant regional disparities.

According to NBR data (2025), Romania's FDI stock exceeded €115 billion, representing roughly 38% of GDP, compared to around €52 billion in 2010. This trajectory demonstrates a strengthening investment position but also increasing dependence on foreign capital in key sectors such as manufacturing, energy, and financial services.

By contrast, Poland and the Czech Republic have attracted larger FDI volumes relative to the size of their economies, due to legislative stability, developed infrastructure, and proactive investment strategies. Hungary, on the other hand, has pursued aggressive fiscal incentives but has also faced investment volatility, while Romania has maintained a moderate approach, relying on production-cost advantages and integration into European value chains.

The objectives of this paper are:

- to analyse the evolution of FDI in Romania between 2010–2025;
- to compare Romania's performance with CEE countries and the EU average;
- to identify the key determinants and macroeconomic effects of FDI;
- toformulate strategic recommendations for sustainable FDI attraction.

The methodology combines quantitative analysis (based on data from NBR, Eurostat, and UNCTAD) with qualitative assessments of the investment climate, public policies, and post-pandemic global context. The research aims to provide an integrated perspective on how FDI contributes to economic performance and structural transformation in the Romanian economy.

## 2. THEORETICAL AND CONCEPTUAL FRAMEWORK

### 2.1. The Concept of Foreign Direct Investment

Foreign Direct Investment (FDI) is one of the principal forms of international economic integration, through which foreign investors acquire a significant degree of control over an entity operating in another country. According to the definitions provided by UNCTAD (2024) and OECD (2023), an investment is considered "direct" when the investor holds at least 10% of a company's equity capital, implying a long-term interest and managerial influence.

For Romania, FDI has played an essential role in **reindustrialisation**, the modernisation of the financial sector, and the creation of higher value-added jobs. These investments have accelerated the country's technological upgrading and its integration into the European production and innovation ecosystem.

### 2.2.Mechanisms through which FDI Influences Economic Performance

Economic literature identifies several key channels through which FDI contributes to economic growth and competitiveness:

- Technology and managerial transfer – introducing advanced equipment, know-how, and corporate governance practices;
- Job creation – both direct and indirect, stimulating income and domestic consumption;
- Export development – as multinational firms often use Romania as a production base for EU and global markets;
- Productivity enhancement – driven by innovation spillovers and competitive pressure on local firms;
- Fiscal contributions – via corporate taxation and social security payments.

However, the effects of FDI are not exclusively positive. Risks may arise from:

- Profit repatriation, which reduces retained capital;
- Dependence on multinational decision-making;
- Regional imbalances, as investments concentrate in developed urban areas.

Hence, the FDI–growth relationship must be assessed within the broader context of institutional quality, public policy coherence, and the state's capacity to convert foreign capital into sustainable development.

### 2.3. The Romanian Context and Analytical Hypotheses

In Romania, FDI has acted as a **catalyst for post-accession structural transformation**. Since 2007, foreign investment has supported the modernisation of the automotive industry, the expansion of IT & communication services, and the strengthening of financial networks.Nevertheless, FDI inflows have fluctuated in line with global and regional crises (2009–2010, 2020–2021), highlighting the system's exposure to external shocks and policy uncertainty. This study hypothesises that:

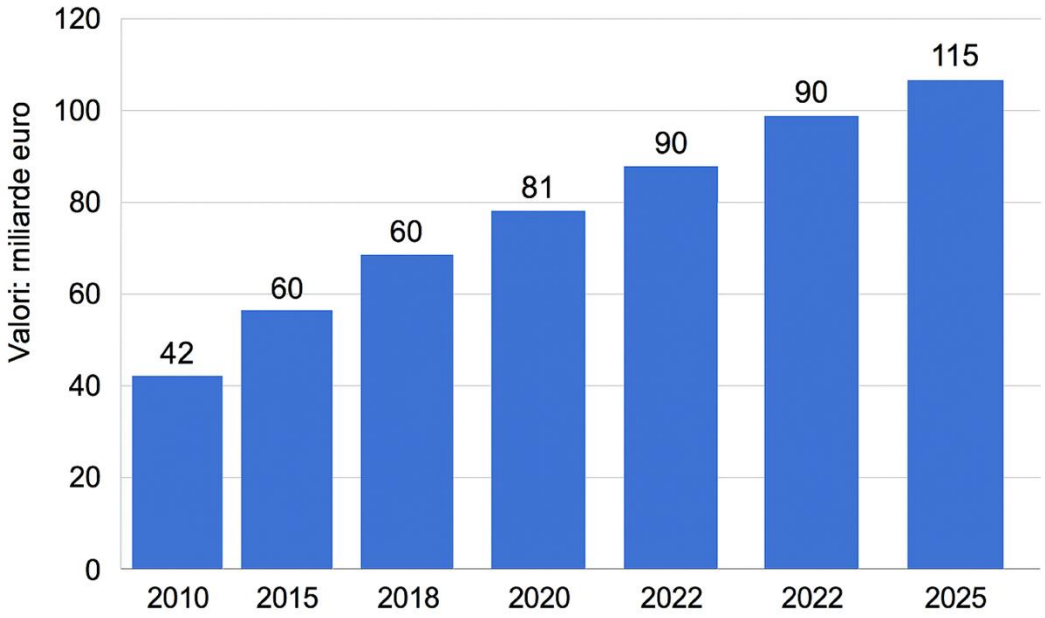
- FDI inflows are positively correlated with GDP and export growth;
- Institutional stability and digitalisation are emerging determinants of sustainable investment;
- The sectoral reorientation of FDI towards technology and green industries will define Romania's trajectory to 2030.

## 3. ANALYSIS OF FOREIGN DIRECT INVESTMENT IN ROMANIA (2010–2025)

### 3.1. Evolution of FDI in Romania (2010–2025)

Between 2010 and 2025, Romania's FDI inflows increased substantially despite global volatility. The total FDI stock rose from **€52 billion in 2010** to **€115 billion in 2025**, according to NBR (2025).This growth reflects both the consolidation of the business environment and Romania's deeper integration into the European production network.

**Figure 1. Evolution of Foreign Direct Investment in Romania (2010–2024)**




**Sources:** NBR, Eurostat, UNCTAD – author's processing.

The chart shows a consistent upward trajectory of Romania's FDI stock, with a marked acceleration after 2020. This post-pandemic momentum was driven by the recovery of European value chains, reshoring of industrial activities from Asia, and increased EU recovery funds supporting infrastructure and energy sectors.

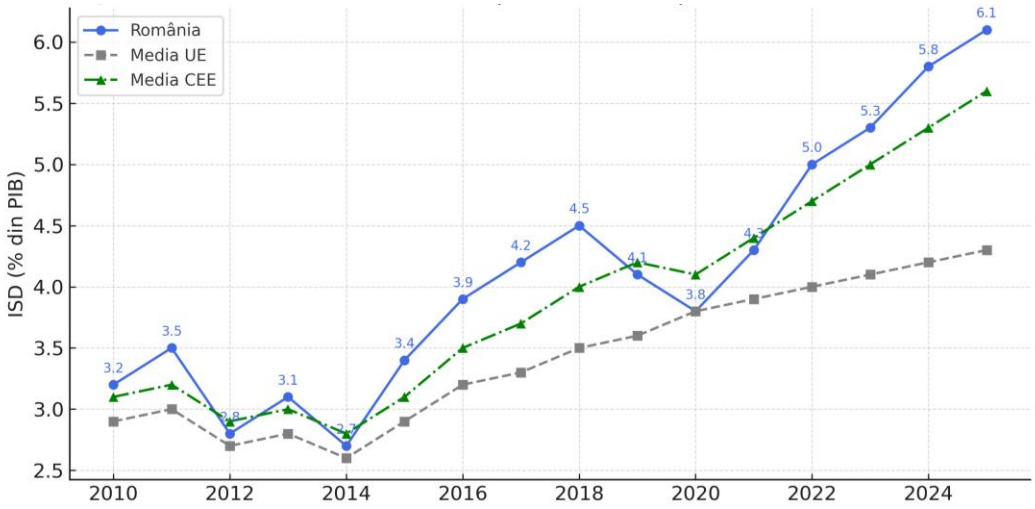
From 2010–2016, growth was moderate, driven by fiscal reforms and macroeconomic stabilisation. After 2020, the National Recovery and Resilience Plan (NRRP) and regional supply chain shifts — particularly due to the war in Ukraine — boosted foreign investment in energy, automotive, and electronics.

According to OECD (2025) projections, Romania could reach an FDI stock of approximately €140 billion by 2030, assuming continued fiscal predictability and institutional stability.

### 3.2. Romania Compared with the EU and Central and Eastern Europe (2010–2025) - mld eur

To properly assess Romania's investment performance, it is necessary to compare it with the regional and European context. CEE countries — notably Poland, the Czech Republic, and Hungary — initially attracted more investment due to their infrastructure maturity and stable fiscal frameworks. However, in recent years, Romania has narrowed the gap, emerging as a major destination for industrial and IT investments in Eastern Europe.

**Figure 2. Romania vs. CEE and EU — FDI as % of GDP (2010–2025)**




*Sources: Eurostat, NBR, OECD – author's processing.*

The comparative chart illustrates Romania's rapid FDI expansion relative to the EU and its CEE peers. Although starting from a lower base, Romania records the fastest relative growth rate — over +120% between 2010 and 2025 — reflecting rising investor confidence and improved market integration.

Key drivers include:

- Labour market liberalisation and competitive production costs;
- integration into European supply chains (especially automotive and electronics);
- Growth of digital infrastructure and IT services.

Despite this progress, Romania's FDI-to-GDP ratio (38%) remains below the EU average (46%) and significantly behind the Czech Republic (61%). This structural gap underscores the need for stronger fiscal predictability, infrastructure modernisation, and digital governance to sustain convergence.

CEE economies have been the main growth engines for FDI within the EU over the past two decades, and Romania now stands as one of the most dynamic in relative terms. If current trends persist, the country could approach regional FDI density levels by 2030, consolidating its role as an industrial and technological hub.

### 3.3. Sectoral Distribution of Foreign Direct Investment in Romania (2025)

Analysing the sectoral composition of FDI provides essential insight into the quality and sustainability of investments. In the early 2000s, foreign capital was largely concentrated in traditional industries (energy, construction, heavy manufacturing). After 2015, however, a significant structural shift occurred: FDI has increasingly targeted high value-added sectors, such as IT & communications, automotive manufacturing, and renewable energy.

**Table 1. Sectoral Distribution of FDI in Romania (2025)** - *percentages of total FDI stock*

| Economic Sector | Share of Total FDI (%) | Main Investor Countries | Remarks |
|---|---|---|---|
| Manufacturing Industry | 31% | Germany, France, Italy | Dominated by automotive components and electrical equipment. |
| Financial and Insurance Services | 17% | Netherlands, Austria | Consolidation through fintech and digital banking. |
| Trade and Distribution | 15% | France, Poland, Greece | Expansion of retail and logistics networks. |
| IT&C and Support Services | 14% | USA, UK, Germany | Rapid growth driven by outsourcing and innovation hubs. |
| Energy and Utilities | 10% | Germany, Spain, Czech Republic | Major investments in renewables and smart grids. |

| | | | |
|---|---|---|---|
| Real Estate and Construction | 7% | Luxembourg, Cyprus | Moderate growth in logistics and residential projects. |
| Agriculture and Agribusiness | 3% | Italy, Netherlands | High potential but limited by rural infrastructure. |
| Other Sectors (transport, tourism, etc.) | 3% | Diverse | Gradual diversification post-pandemic. |

*Sources: NBR, Eurostat, author's processing)*

The data show that FDI in Romania remains concentrated in manufacturing and trade, yet emerging sectors such as IT, renewable energy, and logistics are gaining importance. The structure of foreign investment thus reflects Romania's transition towards a knowledge- and technology-driven economy.Key observations:

• The manufacturing sector remains dominant, but its share is increasingly balanced by the rise of the IT&C sector, which attracts high value-added investment.

•The energy transition and digital transformation have become the main drivers of Romania's attractiveness to international investors.

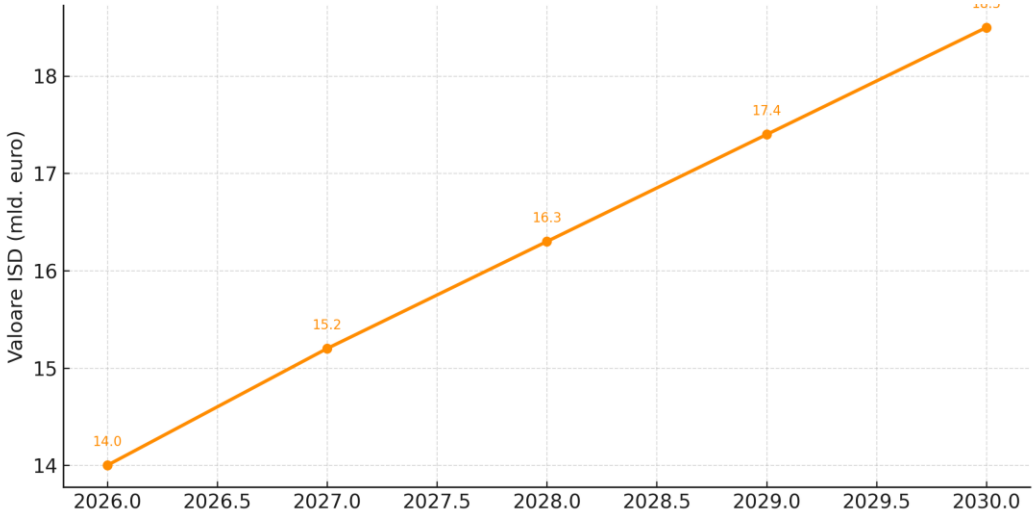
• Future public policy should focus on creating regional innovation ecosystems — connecting industry, universities, and research — to convert investment inflows into long-term sustainable growth.

### 3.4. FDI Projections for Romania (2026–2030)

Following the strong post-pandemic recovery (2021–2025), projections indicate a period of stabilisation and qualitative consolidation of capital inflows. Based on reports by the NBR, Eurostat, OECD, and IMF (2025), three main scenarios were formulated:

1. Optimistic Scenario – structural reforms continue; digitalisation deepens; stronger integration into European value chains.
2. Moderate Scenario – current policy and institutional trends maintained, with limited adjustments.
3. Prudent Scenario – delayed reforms, persistent fiscal uncertainty, and weaker competitiveness.

**Figure 3. Estimated Evolution of FDI in Romania (2026–2030)-mld eur.**




*Sources: NBR, OECD, Eurostat – author's estimates.*

After accelerating from €3 billion in 2010 to €12 billion in 2025, FDI inflows are expected to stabilise at 12–15 billion euros annually through 2030.This implies a cumulative growth of around 25%, driven primarily by technology, green energy, and logistics infrastructure.

- Under the moderate scenario (most probable), maintaining macroeconomic stability and efficient use of EU recovery funds could sustain an annual FDI growth of 2–3%, reaching €13.8 billion in 2030 (about 4.5% of GDP— above Romania's historical average).
- In the optimistic scenario, deeper structural reforms, digital infrastructure, and partnerships in strategic industries (electric mobility, IT&C, renewable energy) could raise annual inflows to €15–15.5 billion, positioning Romania near Poland and the Czech Republic.
- The prudent scenario, characterised by policy stagnation or fiscal unpredictability, would limit inflows to around €12 billion annually — stable, but insufficient for convergence.

Comparatively, in 2025, Romania accounted for 2.9% of total EU FDI inflows, below Poland (4.5%) and Czechia (3.7%).If the current pace continues, Romania could surpass 3.5% of the EU total by 2030.Thus, the period 2026–2030 will be defined by qualitative transformation rather than volume expansion, with FDI increasingly directed toward technology, digitalisation, and sustainable energy. However, key risks persist: political volatility, labour shortages, and global market fluctuations.

## 4. DETERMINANTS AND MACROECONOMIC EFFECTS OF FDI

The main determinants of foreign investment in Romania include:
• Competitive labour costs — still below the EU average (approx. €10.5/hour vs €30/hour in the EU-27);
• Access to the single European market, with advantageous export logistics;
• Currency stability and the National Bank's prudent monetary policy;
• Regional industrial clusters in automotive, IT, and energy.
The macroeconomic effects of FDI are evident through:
• GDP growth – estimated contribution of 2–3 percentage points annually;
• Export performance – over 70% of Romania's exports originate from foreign-owned companies;• Technological transfer – strengthening production chains and innovation capacity;
• Multiplier effects – stimulating domestic demand and secondary investments.

Nevertheless, Romania's growing dependence on foreign capital introduces potential vulnerabilities: profit repatriationhas averaged 3% of GDP annually, which partially offsets the net domestic benefit.

## 5. STRATEGIC DIRECTIONS AND PUBLIC POLICIES FOR SUSTAINABLE FDI ATTRACTION

To consolidate its investment competitiveness, Romania should pursue the following strategic directions:

- Legislative and fiscal stability – predictable regulations remain the top priority for investors.
- Infrastructure and logistics investment – better regional connectivity via TEN-T corridors and the modernisation of Constanța Port.
- Green investment incentives – alignment with the EU taxonomy and creation of a national guarantee fund for sustainable projects.
- Human capital development – fostering university–industry partnerships, dual education, and R&D tax incentives.
- Administrative digitalisation – streamlining business registration and reporting for foreign investors.
- Smart reindustrialisation policies – promoting advanced manufacturing, renewable energy, and the circular economy.

## FINAL CONCLUSIONS

This analysis demonstrates that foreign direct investment is both a pillar of Romania's economic growth and a key driver of its European integration. Between 2010 and 2025, FDI has contributed to industrial modernisation, job creation, export expansion, and national competitiveness.

However, its dynamics have been shaped by both external shocks (economic crises, the pandemic, regional conflicts) and domestic constraints (legislative volatility, infrastructure gaps, bureaucracy).

Over the past decade, Romania has shifted from a cost-driven FDI model — relying on cheap labour and basic industries — towards strategic, value-added investment, aligned with digitalisation and sustainability objectives.

By 2025, annual inflows exceed €12 billion, and total FDI stock approaches €120 billion, ranking Romania fourth in Central and Eastern Europe, after Poland, Czechia, and Hungary.

Yet, performance remains below potential: despite steady GDP growth (3–4% annually), labour productivity and innovation capacity lag behind the EU average. Consequently, Romania continues to attract primarily extensive investment, while neighbours have moved towards innovation-intensive FDI ecosystems.

If structural reforms, digitalisation, and sustainable policies advance as planned, the 2026–2030 period could transform Romania into a regional investment hub. Success will depend not only on capital volume but also on the capacity to translate investment into inclusive, long-term development.

Ultimately, foreign direct investment must be viewed not merely as a source of capital, but as a strategic vector of transformation, shaping Romania's path towards competitiveness, sustainability, and modernisation within the European framework.

***References***


1. National Bank of Romania (NBR). *Foreign Direct Investment Reports*, 2010–2025 editions.
2. European Commission (2024). *European Semester: Country Report Romania.* Brussels.
3. Eurostat (2024). *Foreign Direct Investment Statistics.* Brussels.
4. Ministry of Economy (2025). *National Strategy for Competitiveness and Investment 2025–2030.* Bucharest.
5. OECD (2023). *Foreign Direct Investment in Europe 2023.* Paris: OECD Publishing.
6. PwC (2024). *Romania Investment Outlook.* Bucharest.
7. UNCTAD (2024). *World Investment Report 2024.* Geneva: United Nations.
8. World Bank (2023). *FDI Trends and Development in Emerging Europe.* Washington, D.C.
9. Zaman, G., Georgescu, G. (2022). *Foreign Direct Investment and Economic Development in Romania.* Bucharest: ASE Publishing.
10. National Institute of Statistics (NIS) (2025). *Romanian Statistical Yearbook.* Bucharest.

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# ACCOUNTING AND TAX TREATMENTS RELATED TO REVERSE CHARGE IN ROMANIA

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***ABSTRACT:*** *This study examines the implementation of the **reverse charge mechanism** in Romania, introduced as a targeted response to **VAT evasion** schemes involving the **fraudulent recovery of value-added tax**. The reverse charge is a fiscal arrangement under which the **supplier does not collect VAT** on specific categories of goods—such as **construction services, land, timber, waste materials, and metal scrap**—and the **buyer**, provided they are **VAT-registered**, assumes both the obligation to report and the right to deduct the VAT. In this system, the supplier issues an invoice bearing the notation **"reverse charge"**, indicating the applicable VAT amount but collecting only the **net (VAT-exclusive) value** of the transaction. Both supplier and buyer must record the transaction in their respective **VAT registers**, reflecting both the taxable base and the VAT amount, thereby ensuring the **simultaneous declaration and deduction** of the tax, with no cash flow movement related to the VAT component. The reverse charge mechanism is **not applicable** where either party is **not registered for VAT purposes**, in which case the **standard VAT regime** applies. The analysis underscores the relevance of the reverse charge as a **preventive tool against VAT fraud** and a **means of streamlining accounting procedures** for specific types of high-risk or high-value transactions.*

***Key words:*** *Standard VAT regime, Simplification measures, Reverse charge mechanism*

***JEL:*** *H32 - Firm M41 – Accounting.*

**Introduction**

The reverse charge mechanism is one of the key simplification measures under the EU VAT system, intended to combat tax evasion and ensure the proper collection of VAT. In essence, the mechanism entails shifting the liability to account for and pay VAT from the supplier to the customer, in specific cases as provided by national legislation in accordance with the provisions of the Fiscal Code.

### (I) When is reverse charge applicable?

The operations for which **REVERSE CHARGE** is **APPLICABLE** are:

- The **SUPPLY** of the following categories of goods (art. 331, paragraph (2), letter a) of the Fiscal Code)

**1. The supply of ferrous and non-ferrous waste**, and of **ferrous and non-ferrous scrap**, including the supply of **semi-finished products resulting from the processing, manufacturing, or smelting** thereof;
**2. The supply of residues and other recyclable materials** composed of **ferrous and non-ferrous metals, their alloys, slag, ash**, and **industrial residues containing metals or their alloys**;
**3. The supply of recyclable waste and used recyclable materials** consisting of **paper, cardboard, textiles, cables, rubber, plastic, glass shards, and glass**;
**4. The supply of the materials referred to in points 1–3 after being processed/transformed** through operations such as **cleaning, grinding, sorting, cutting, shredding, pressing, or casting into ingots**, including **ingots of non-ferrous metals to which alloying elements have been added** in the production process.

- **The delivery** of timber and wood materials, as defined under Law no. 46/2008 – the Forest Code (Article 331, paragraph (2), letter b) of the Fiscal Code).

According to the definition provided in **Annex no. 1 of the Forest Code (Law no. 331/2024)**: **Wood materials** (definition effective as of 12.01.2024): round or split wood, with or without bark, and firewood in the form of logs, billets, branches, brushwood, or similar forms; edged and unedged lumber, log ends and flanks; non-impregnated wooden railway sleepers, charcoal, sawn timber, and hewn wood; wood in the form of chips or particles, sawdust, wood chippings, tree bark, and wood residues.

**Forest saplings** are included in the category of wood materials.

**Wood materials are not divisible goods.**

According to paragraph (23) of Article 164 of **Law no. 331/2024**: The term **"timber" ("masă lemnoasă")** as provided in Law no. 46/2008 (Timber = all standing and/or felled trees, whole or in parts, including those in various stages of transformation and movement within the forest exploitation process), shall continue to be used **until the adoption of the secondary legislation** provided for by Law no. 331/2024.

- **The supply** of cereals and industrial crops such as wheat and meslin, rye, barley, oats, corn, triticale, soybeans, even if crushed, flax seeds, even if crushed, rape or wild rape seeds, even if crushed, sunflower seeds, even if crushed, sugar beet (see Article 331 paragraph (2) letter c) of the Fiscal Code in conjunction with point 109 paragraph (7) of the Norms). According to Article 331 paragraph (6), the provisions of Article 331 paragraph (2) letter c) of the Fiscal Code shall apply until 31 December 2026 inclusive.
- **The transfer** of greenhouse gas emission allowances, as defined in Article 3 of Directive 2003/87/EC of the European Parliament and of the Council of 13 October 2003 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, which are transferable in accordance with Article 12 of the Directive, as well as the transfer of other units that may be used by operators in accordance with the same Directive (Article 331(2)(d) of the Fiscal Code).
  According to Article 331 paragraph (6), the provisions of Article 331 paragraph (2) letter d) of the Fiscal Code shall apply until 31 December 2026 inclusive.
- The supply of electricity to a taxable person acting as a trader, established in Romania according to Article 266 paragraph (2) (Article 331 paragraph (2) letter e) of the Fiscal Code), applicable until 31 December 2026 inclusive.

A **taxable person trader** is defined as a taxable person whose main activity, with respect to the purchase of electricity, is the **resale** of electricity and whose own electricity consumption is **negligible**.

A **negligible own electricity consumption** means a consumption of **no more than 1%** of the electricity purchased.

The **BUYER** is considered to qualify as a **taxable person trader** if they hold a **license for the administration of centralized electricity markets**, issued by the **National Energy Regulatory Authority**, for transactions on the **day-ahead market** and the **intra-day market**.

Additionally, the **buyer of electricity** is considered to qualify as a **taxable person trader** if they **cumulatively** meet the conditions set out in **points 1 and 2 of Article 331(2)(e)** of the **Fiscal Code**.

The "**Self-declaration regarding the fulfillment of the condition provided under Article 331(2)(e), point 2 of the Fiscal Code**" to be submitted to the competent tax authority is **Form 089**.

- The **transfer of green certificates**, as defined in Article 2 letter h) of Law no. 220/2008 (Article 331 para. (2) letter f) of the Fiscal Code), is applicable **until 31 December 2026 inclusive**.
- **Constructions**, as defined in Article 292 para. (2) letter f) point 2, **parts of constructions**, and **land of any kind**, for which the **taxation regime applies either by operation of law or by option** (Article 331 para. (2) letter g) of the Fiscal Code);
- **Supplies of investment gold** made by taxable persons who have exercised the **option to apply taxation**, as well as **supplies of gold raw materials or semi-finished products** with a purity equal to or greater than 325 ‰, to taxable buyers (Article 331 para. (2) letter h) of the Fiscal Code);
- **Supplies of mobile phones**, namely devices manufactured or adapted for use in connection with an authorized network and which operate on specific frequencies, whether or not they have any other use (Article 331 para. (2) letter i) of the Fiscal Code). The **reverse charge mechanism** applies to the supply of these goods **only if the value of the goods supplied, excluding VAT, as stated in a single invoice, is equal to or exceeds 22,500 lei**, according to Article 331 para. (7) of the Fiscal Code. This applies **until 31 December 2026 inclusive**.

Article 109 para. (9) of the Norms specifies that the category of mobile phones includes, for example, mobile phones that are used in any wireless mobile telephone network, whether cellular or satellite-based, as well as mobile data acquisition devices capable of being used in any wireless mobile telephone network.

The category of mobile phones referred to in paragraph (9) does not include devices used exclusively for data transmission, without converting data into acoustic signals, such as: navigation devices, computers (to the extent that they do not allow voice transmission over wireless mobile networks), MP3 players, gaming consoles, walkie-talkie devices, CB radio stations, as provided in point 109 paragraph (10) of the Norms. Furthermore, according to point 109 paragraph (11) of the Norms, the reverse charge mechanism applies under Article 331 paragraph (2) letter i) of the Fiscal Code also to mobile phones delivered together with accessories—such as a charger, battery, or hands-free kit—as a single package, at a total price. However, the reverse charge does not apply to mobile phone accessories that are delivered separately from the phones.

- **The supply of devices with integrated circuits**, such as microprocessors and central processing units, **prior to their integration into products intended for the final user** (Article 331, paragraph (2), letter j) of the Fiscal Code). The reverse charge mechanism applies to the supply of these goods **only if the value of the goods supplied, excluding VAT, indicated on an invoice, is equal to or greater than 22,500 RON**, in accordance with Article 331, paragraph (7) of the Fiscal Code, applicable until **December 31, 2026**.

Point 109, paragraph (15) of the Norms: The reverse charge mechanism according to Article 331, paragraph (2), letter j) of the Fiscal Code shall apply to the supply of integrated circuit devices if, at the date of delivery, they are not yet integrated into products intended for the final user and are sold separately, not as parts of goods incorporating them.

**Example:** A company A, established in Bucharest, manufacturer of integrated circuits, sells microprocessors amounting to 55,000 lei to a company B, established in Brasov. The goods are transported from Bucharest to B's premises in Brasov and are sold without being incorporated by A into B's products.

A portion of the processors purchased from A are integrated by B into computers, while another portion of those processors are resold by B to final users. B resells part of the processors not incorporated into computers to company C, at a total price of 35,000 lei, and transports them to the beneficiary's establishment located in Sibiu. Likewise, B supplies the computers into which it has incorporated the processors purchased from A, to company D, at a total price of 48,000 lei and dispatches them to its establishment located in Craiova.

All the companies are registered for VAT purposes according to Art. 316 of the Fiscal Code.

For the supply of processors from A to B, the reverse charge applies, the obligation to pay VAT being incumbent on company A, the subsequent destination of the processors being irrelevant.

For the subsequent supply of processors from B to C, at the price of 35,000 lei, the reverse charge likewise applies, and in this case as well the future use of the processors by C is irrelevant.

For the supply from B to D of computers with built-in processors, the normal VAT regime applies, the person liable to pay the tax being B, since the supply concerns computers and not processors.

- SUPPLIES of video game consoles, PC tablets and laptops (art. 331 para. (2) letter k) of the Tax Code). For the supply of these goods, reverse charge applies only IF the value of the supplied goods, excluding VAT, shown on an invoice, is higher than or equal to 22,500 lei, according to art. 331 para. (7) of the Tax Code, applicable until 31.12.2026.

In applying the provisions of art. 331 para. (2) letter k) of the Tax Code:

a) Video game consoles are those included under NC code 95045000. These represent, in principle, computers or devices similar to computers, whose main purpose is the use of video games, but which may additionally offer other functions such as video DVDs, audio CDs, Blu-ray discs;

b) PC tablets and laptops are those included under NC code 8471 30 00. PC tablets are, in principle, portable computers, flat, fully covered by a touch screen, while laptops are portable automatic data-processing devices, consisting of at least a central processing unit and a monitor.

- **Supply of NATURAL GAS to a TAXABLE PERSON TRADER, established in Romania according to art. 266 para. (2) (art. 331 para. (2) letter l) of the Fiscal Code), applicable until 31.12.2026.**

The taxable person trader represents the taxable person whose main activity, in relation to natural gas purchases, is the resale of such natural gas and whose own consumption of natural gas is negligible.

Negligible own consumption of natural gas means a consumption of maximum 1% of the quantity of natural gas purchased.

The purchaser who holds a licence for the administration of the centralized natural gas markets issued by the National Energy Regulatory Authority, for the transactions in which it acts as counterparty, is deemed to qualify as a taxable person trader.
Also, the purchaser of natural gas that CUMULATIVELY fulfils the conditions provided at point 1 and point 2 is deemed to qualify as a taxable person trader.

**(II) What are the mandatory conditions for applying the reverse charge?**

**The mandatory conditions for applying the reverse charge result from the provisions of Art. 331 para. (1) and (5) of the Fiscal Code, as follows:**

● both the supplier and the beneficiary must be registered for VAT purposes according to Art. 316 of the Fiscal Code;
● the reverse charge applies ONLY to supplies of goods / services performed within the country.
In our opinion, supplies of goods / services performed within the country should be understood as operations:
• carried out only between persons that are registered for VAT purposes under Art. 316;
• which have the place of supply of goods or the place of supply of services in Romania according to Art. 275, respectively Art. 278 of the Fiscal Code; and
• which are taxable operations from the perspective of VAT legislation (taxable operations are part of the category of taxable transactions as defined under Art. 268 para. (9) of the Fiscal Code).

**According to CJEU Case C-146/2021** it was decided that "Council Directive 2006/112/EC of 28 November 2006 on the common system of VAT and the principle of fiscal neutrality do not preclude national legislation under which the reverse charge mechanism does not apply to a taxable person who has neither requested nor automatically obtained, prior to carrying out the taxable transactions, registration for VAT purposes."

**(III) What are the obligations of the SUPPLIER?**

In the case of supplies of goods / provision of services carried out in Romania and subject to reverse charge, including for advance payments collected, the SUPPLIERS:

**(i) Issue invoices without VAT**
In other words, on the invoices issued for the supplies of goods / provision of services to which simplified measures apply, the suppliers / service providers will not indicate the output VAT related thereto, according to art. 331 para. (3) of the Fiscal Code, but will include the mention "reverse charge" (according to art. 319 para. (20) letter m) corroborated with art. 331 para. (1) of the Fiscal Code).
Moreover, in the Ro e-Invoice system, the code VATEX "AE – VAT with Reverse Charge" must be assigned.

**(ii) record the information in the sales ledger and declare the transaction at row 13 in VAT Statement no. 300.**

**(iii) report the transaction in Statement 394 in section C:** Summary of the statement regarding transactions carried out with taxable persons registered for VAT purposes in Romania

(the supply of goods/provision of services carried out for which reverse charge applies, broken down by categories of goods/provision of services for which reverse charge applies, according to art. 331 of the Fiscal Code).

## (IV) What are the obligations of the BENEFICIARIES?

**The obligations of the BENEFICIARIES are the following:**

(i) they receive invoices without VAT and, according to point 109.(1) of the Methodological Norms, they calculate VAT at the standard rate, meaning they record the VAT both as output VAT and as input VAT in Statement 300.

(ii) they enter the information in the purchase ledger and declare the transaction at line 12 (for output VAT) and line 27 (for input VAT) in Statement 300.

(iii) they report the transaction in the 394 Statement in box C.

From an **ACCOUNTING** perspective, the beneficiary will record during the fiscal period the accounting entry 4426 = 4427 with the amount of the related VAT, according to point 109.(1) of the Methodological Norms.

BENEFICIARIES have the right to deduct the VAT within the limits and under the conditions established in art. 297, 298, 299, 300 and 301 of the Fiscal Code.

The collection of VAT at the level of input VAT is assimilated with the payment of VAT to the supplier OR service provider, according to point 109.(1) of the Methodological Norms.

## (V) Accounting treatments

In July "N", a contract is concluded for the supply of goods subject to the simplification measures provided under Art. 331 of the Fiscal Code, between the supplier "AAA" SRL and the purchaser "BBB" SRL.

Both entities are registered for VAT purposes in Romania according to Art. 316 of the Fiscal Code. Also, both entities apply the standard VAT regime, meaning they are not registered in the Register of taxable persons applying the VAT cash accounting system. The value of the contract is 200,000 lei, out of which 30% represents a contractual advance, exclusive of VAT at the standard rate. On 05.07."N" the advance invoice is issued, respectively 30% of the contracted value, with settlement taking place on 10.07."N". On 15.08."N" the invoice for the supply of goods is issued, in the amount of 200,000 lei, and settlement takes place on 20.08."N".

### 5.1) The treatment from the perspective of the SUPPLIER of goods

– booking/recording of the advance payment invoice on 05.07."N":

| | | | |
|---|---|---|---|
| **4111/BBB**<br>„Accounts receivables" | = | **419/BBB**<br>„Advance payments from customers" | 60.000 lei |

- recording the collection of the advance invoice on 10.07

| | | | |
|---|---|---|---|
| **5121**<br>„Cash at bank in lei" | = | **4111/BBB**<br>„Accounts receivables" | 60.000 lei |

- recording of the delivery of goods and settlement of the advance payment on 15.08. 'N':

-

**Invoice no. 558/15.08.N (reverse charge)**

| Goods and services description | U.M. | Quantity | Price | Value | VAT |
|---|---|---|---|---|---|
| Goods<br><br>„Reverse charge" according to art. 331 Fiscal code | buc. | 1.000 | 200 | 200.000 | - |
| Storno advance payment invoice no. 111/05.07.N<br><br>„Reverse charge" according to art. 331 Fiscal code | | | | -60.000 | |
| Total | | | | 140.000 | - |
| **Total payment** | | | | **140.000 lei** | |

| | | | |
|---|---|---|---|
| **4111/BBB**<br>„Accounts receivables" | = | **7015**<br>„Sales of finished goods" | 200.000 lei |

| | | | |
|---|---|---|---|
| **4111/BBB**<br>„Accounts receivables" | = | **419/BBB**<br>„Advance payments from customers" | - 60.000 lei |

-recording the receipt / collection of the invoice on 20.08.'N

| | | | |
|---|---|---|---|
| **5121**<br>„Cash at bank in lei" | = | **4111/BBB**<br>„Accounts receivables" | 140.000 lei |

## 5.2) Treatment from the BENEFICIARY'S perspective

- recording of the advance invoice:

| | | | |
|---|---|---|---|
| **4091/AAA**<br>„Advance payments to suppliers for the purchase of inventories" | = | **401/AAA**<br>„Accounts payables" | 60.000 lei |

| | | | |
|---|---|---|---|
| **4426**<br>„Input VAT" | = | **4427**<br>„Output VAT" | 12.600 lei |

- *recording the payment of the advance invoice on 10.07 "N"*

| | | | |
|---|---|---|---|
| **401/AAA**<br>„Accounts payables" | = | **5121**<br>„Cash at bank in lei" | 60.000 lei |

*- recording the receipt of goods and the settlement of the advance.*

| | | | |
|---|---|---|---|
| **371** | = | **401/AAA** | 200.000 lei |

| | | | |
|---|---|---|---|
| „Trade goods” | | „Accounts payables” | |

| | | | |
|---|---|---|---|
| **4426**<br>„Input VAT” | = | **4427**<br>„Output VAT” | 42.000 lei |

| | | | |
|---|---|---|---|
| **4091/AAA**<br>„Advance payments to suppliers for the purchase of inventories” | = | **401/AAA**<br>„Accounts payables” | - 60.000 lei |

| | | | |
|---|---|---|---|
| **4426**<br>„Input VAT” | = | **4427**<br>„Output VAT” | - 12.600 lei |

*- records of payment of invoice on 20.08.„N”:*

| | | | |
|---|---|---|---|
| **401/AAA**<br>„Accounts payables” | = | **5121**<br>„Cash at bank in lei” | 140.000 lei |

**(VI) What measures does the fiscal authority apply in the case of non-application of the reverse charge?**

According to point 109 paragraph (4) of the Methodological Norms, in the case of non-application of the reverse charge mechanism provided by law, namely where the supplier/service provider issues an invoice with VAT for the transactions provided under Art. 331 para. (2) of the Fiscal Code and does not include the reference “reverse charge” on that invoice, and the CUSTOMER deducts the VAT shown on the invoice, then the CUSTOMER loses the right to deduct VAT for that respective acquisition of goods or services, because the substantive conditions regarding the reverse charge mechanism were not respected and the invoice was issued incorrectly. These provisions apply also in situations where the correction of such error is not possible due to the bankruptcy of the supplier/service provider or other similar situations.

The correction of the information stated in invoices or in other documents which take the place of an invoice shall be performed according to Art. 330 of the Fiscal Code. If the customer correctly applied the reverse charge mechanism for the transactions provided under Art. 331 para. (2) of the Fiscal Code, while the supplier/service provider held a valid VAT registration number at the date of the transactions, even if later his VAT code is cancelled or it is suspected that the supplier/service provider acted incorrectly from a tax standpoint, the customer shall not be sanctioned by cancelling the VAT deduction right, since no damage to the state budget took place, the purpose of the reverse charge mechanism being precisely to protect the state budget against fraud resulting from VAT not being paid by suppliers/service providers.

## Conclusions

The reverse charge mechanism represents an essential tax protection instrument, intended to reduce the risk of fraud in vulnerable sectors such as trade with metals, energy, wood or electronic equipment. The correct application of the legal provisions, both by suppliers and by beneficiaries, ensures VAT neutrality and compliance with the principle of fair taxation. For the year 2025, the reverse charge regime remains of major interest, Romania benefiting from an extension of the EU derogations until 31 December 2026, pursuant to Decision (EU) 2019/1593.

## Bibliography


1. Legea nr. 227/2015 privind Codul fiscal, cu modificările și completările ulterioare.
2. Normele metodologice de aplicare a Codului fiscal aprobate prin Hotărârea Guvernului nr. 1/2016.
3. Legea nr. 46/2008 – Codul silvic, republicată, cu modificările ulterioare.
4. Legea nr. 331/2024 pentru modificarea și completarea Codului Silvic.
5. Decizia (UE) 2019/1593 de autorizare a României să aplice măsuri de derogare de la art. 193 din Directiva 2006/112/CE.
6. Cauza CJUE C-146/2021 privind aplicarea mecanismului taxării inverse.
7. Legea nr. 220/2008 privind promovarea energiei din surse regenerabile.
8. Ordinul ANAF nr. 3596/2011 privind Declarația informativă 394.
9. Ordinul ANAF nr. 3769/2015 pentru modificarea Ordinului nr. 3596/2011.

# ADVERTISING AND PUBLICITY UNDER IFRS

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***Abstract***

*This article focuses on advertising and publicity expenditures under IFRS. This article provides answers to several questions related to this topic. These questions were asked due to the changes in IAS 38, Intangible assets, IFRS 16 Leases or IFRS 15 Revenue from Contracts with Customers. Example of such questions are: 1) when advertising materials should be recognized as expense: at acquisition, at first used or -in time when- they are distributed to customers or internally used? 2) can be capitalized the cost of advertising materials as assets (inventories)? 3) How should be accounted up- front payment for advertising materials or services? Can the cost of the advertising campaign -for newly launched products- be deferred until the moment of their actual launch? Can it be recognized as expense during the launch period? Can long term use advertising goods (e.g., gondolas, specialized furniture, refrigerators, etc.) account as tangible fixed assets under IAS 16 Property, plant, and equipment?*

***Keywords:*** *advertising and promotional services, purchased goods, right to access the goods, prepayment, complex advertising campaign*

***JEL:*** *G32 – Financing Policy; Financial Risk and Risk Management; Capital and Ownership Structure; Goodwill; H32 - Firm M41 – Accounting*.

## 1. Introduction

Advertising & publicity (A&P) expenditures are split in a classical way in two types:

a) advertising and promotional services (e.g., advertisements in print media, TV/radio and internet spots, extensive advertising campaign, etc.)
b) purchased goods used in advertising activity (e.g., samples, testers, promotional catalogues and brochures, bespoke shelving, gondolas, etc.)

These types of A&P expenditures are performed in general by ***specialized entities*** (e.g., agencies) and purchased by any company (let's continue the article and the examples in the article using a generic name for a hypothetical company, let's call it ***ABC company***). However same type of A&P expenditures – especially services – can be purchased *ABC company* **even** from its own customers. At the same time ***ABC company*** can grant to its customers different types of options for acquiring additional goods or services for free or at a discount, including sales incentives, customer award credits (or points), etc. These options, generically speaking, represent costs for ABC company, and they can be covered either by the marketing budget or from commercial discounts or even both.

IFRS standards that should be applied for these A&P expenditures are:

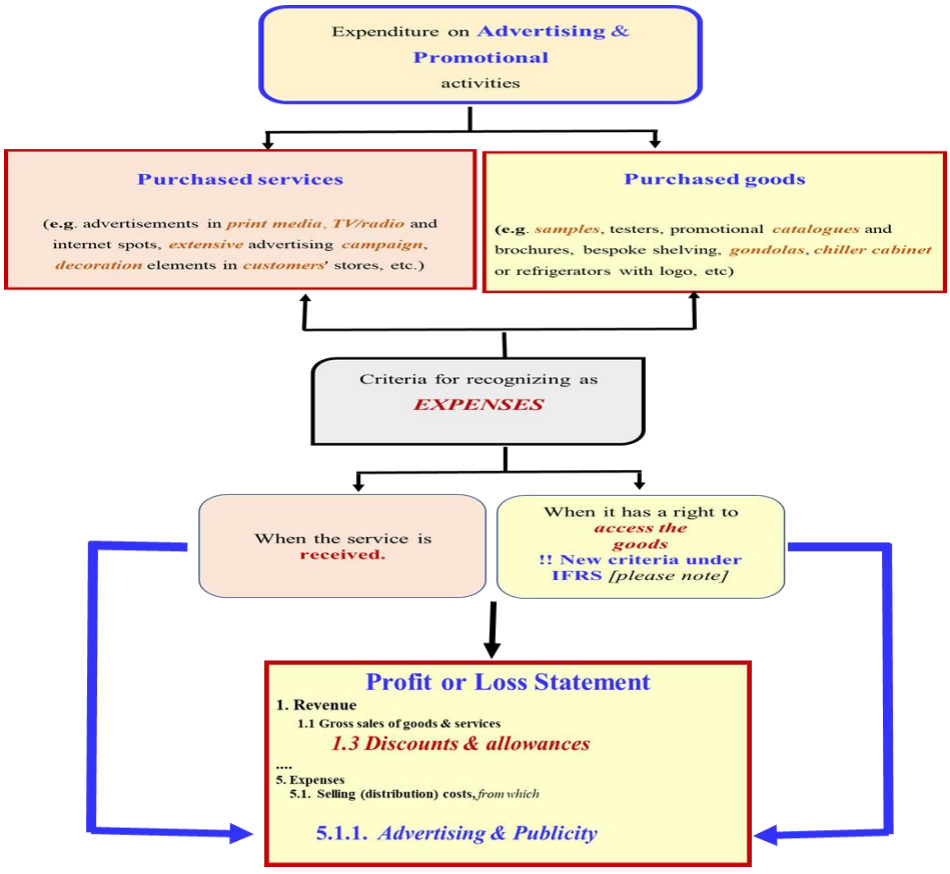
| A&P expenditures that are performed by specialized entities and these entities are not ABC' customers | A&P expenditures, purchased by ABC company, that are performed by its customers or options granted by ABC company to its customers for purchasing additional goods or services for free or at a discount, sales incentives, etc./ |
|---|---|
| **IAS 38 *Intangible Assets* IFRS 16 *Leases*** | **IFRS 15 *Revenue from Contracts with Customers*** |

Regardless of whether it is desired that these expenditures be covered internally from advertising budgets and / or from commercial conditions, from accounting point of view the impact in income statement (Profit or loss statement) could be different and should be established in line with above standards.

## 2. A&P expenditures that are performed by specialized entities and these entities are not ABC' customers.

IAS 38[69] mentions that expenditure on advertising and promotional activities (including mail order catalogues) plus expenditure on training activities should be written off as incurred. So, these expenses are recognized as incurred in Income statement (P&L statement). This term "as incurred" should be understand -by taking into consideration of above two types of A&P expenditures- as follow:

- for services, an expense is recognised on receiving the services.
- in the case of the supply of goods, the entity recognizes such expenditure when it has a right to access the goods. Access = time where an entity owns the goods or when the goods have been constructed and the entity could demand delivery of the goods (IAS 38, [69A]). So, it is provided an answer to the key question „When advertising expenditures should be recognized as expenses in income statement?". A summary of above explanation is presented in the next picture.




As conclusion **the classical rule,** meaning that *costs of materials or services used to develop advertising and promotional content should be recognised as an expense as those materials or services* ***are consumed by the entity*****, is no longer available** under actual IAS 38. Behind this change is the idea that the performance of an advertising or promotional activity creates or enhances a brand or customer relationship intangible asset. This brand or customer relationship is an internal one and- under IAS 38[67] - this should not be recognized as asset. This enhanced internal asset gives rise to **increased sales,** but this asset is not recognized as expense when these sales are performed and recognized, meaning that advertising or promotional activity 's accounting treatment is not linked to the sales.

IAS 38 [70] mentions that it isn't precluded/forbidden to record a ***prepayment (up-front payment or payment in advance)*** as an ***asset***, when this prepayment was done ***in advance*** of:
a) ***receiving*** the services; or b) ***obtaining*** the right to access the goods. But as soon as the services are received or the right to access the goods is obtained this asset ***should be written off***.

Sometimes advertising campaigns also include short-term (less than 12 months) rental of billboards. This type of rental represents mostly an Operating lease and IFRS 16 *Leases* should be applied. In this case ABC company, being the lessee, elects to apply - at the commencement date - to the ***exception*** from IFRS 16.[5] and not to recognize a ***right-of-use*** asset as IFRS 16 [22] required. In other words, the lessee shall recognise the lease payments associated with those leases as ***an expense*** on a straight-line basis over the lease term (IFRS 16. [6]). This *rent expense* should be included in ***the advertising expense*** category. Any kind of incentives received by the lessee (i.e., rent free period) should be presented as a reduction of the rental expense on a straight-line basis during the contract period (IFRS 16.[81]). When expenses within profit or loss are presented according to their nature all the above expenses can be included as **advertising costs**. (IAS 1 [102],[103]).

**Example no. 1 Advertising in print publication**

On November 20, 202N ABC company signed a contract with an advertising agency for a two-page spread in a well-known print publication. The spread will be published in December, 202N. A copy of the print publication and a 1,000 € invoice will be received in December, 202N. The invoice will not be paid till the end of 202N. ***When is the service recognized as an expense?***

*R: December when the service is provided effectively. (IAS 38 [69])*
*Advertising expense = Trade payables 1,000 €*

**Example no. 2 Advertising in print publication/Payment in advance**

On November 20, 202N ABC company signed a contract with an advertising agency for two advertising pages in a well-known print publication. The agreed price is 500 €/ advertising page, meaning 1,000€ in total. These pages will be published in December, 202N and January, 202N+1 (one in each month). The full price will be paid in December. A copy of the December print publication and 1,000 € invoice was received and paid in December. In January 202N+1 it received a copy of print publication also. ***When is the service recognized as an expense?***

*R: December 202N and January, 202N+1 when the service is provided effectively. (IAS 38. 69). But- more than that- at end of December an asset of 500€ should be recognized for the up-front payment related to the January advertising (IAS 38.70). This asset will be nil after the service is received in January, 202N+1.*

| ***December 202N*** | | ***January 202N+1*** |
|---|---|---|
| *Advertising expense = Payables* | *500€* | *Advertising expense =* ***Payment in advance*** *500€* |
| ***Payment in advance*** *=Payables* | *500€* | |
| *Payables = Cash* | *1,000€* | |

**Example no. 3 Complex advertising campaign (development, production, and distribution)**

On November 10, 202N ABC company signs a contract with an advertising agency for develop an advertising campaign for a new product that will be delivered to customers split in two stages: **Stage no. 1 = Development & Production** – according to the agreement agency will provide **during Nov -Dec, 202N** the following services:

a) develops the general concept and submits it for approval of ABC company
b) finds the placement channels (TV, Radio, magazines) and submits it for approval of ABC company
c) signs contracts with each channel for ***placement*** schedule starting from **January, 202N+1.**
d) produces all campaign materials (TV spot, radio, and printing commercials).

**Stage no. 2 = Placement** – according to the agreement agency will provide during **Jan -February, 202N+1** the following services:

a) the campaign deploys in January,03 till end of the month with TV & radio advertising
b) the campaign will continue in February with advertising in printed magazines (till the end of the month).

The full price of this complex campaign is 50,000 €, divided as follows: 5,000 € for the 1st stage and 45,000 € for the 2nd stage (40,000 € for TV &radio and 5,000 € for printed magazines). The full price will be paid as follows: 50% at end of December, 202N and the rest at end of January, 202N+1. At the end of December, the agency issued invoice no. 1 for 50% of full price meaning: service for stage no. 1 (5,000 €) and payment in advance for 2nd stage (20,000 €). At the end of January 202N+1, the agency issued invoice no. 2 for 25,000€ (40,000 € for TV and radio and (-15.000 €) reducing of advance payment). At the end of February, 202N+1 issued invoice no. 3 for 0 € (5,000 € for advertising services in printed magazines and (-5.000 €) reducing of advance payment)

***When is the service recognized as an expense assuming that assuming that the requirements of the contract were fully respected by the agency? Should be recognized any asset during these periods?***

*R: From a business point of view there are 2 different things: the timetable for providing the services and payments schedule. For income statement it is important to understand the timetable for providing the services, if the accruals basis is applied (which is ABC company's case), regardless of the moments when payments are made effectively.*

***December, 202N** – Invoice no. 1- amount 25,000 €*
*Advertising expense = Payables 5,000€*
***Payment in advance** =Payables 20,000€*
*Payables = Cash 25,000€*

***January, 202N+1** – Invoice no. 2 – amount 25,000 €*
*Advertising expense = Payables 40,000€*
***Payment in advance** =Payables -15,000€*
*Payables = Cash 25,000€*

***February, 202N+1** – Invoice no. 3 with 0 € amount*
*Advertising expense = Payables 5,000€*
***Payment in advance** =Payables -5,000€*

*In December,202N services for stage no. 1 of 5,000 € are recognized as expense because these services for development & production were performed (IAS 38.69) and an asset for the up- front payment of 20,000€ (IAS 38.[70]). In January, 202N services for TV &Radio of 40,000€, part of stage no. 2, were performed and recognized as expense and – at the same time- the asset is reduced by 15,000 € and its balance becomes 5,000 €, exact amount paid in advance for the last part of the services for stage 2. In February, 202N services for printed magazines of 5,000€, part of stage no. 2, were performed and recognized as expense and – at the same time- the asset is reduced by 5,000 € and its balance becomes nil.*

**Example no. 4 Rent periods for billboards.**

On October 10, 202N ABC company signs an agreement with an agency who is the owner of several billboards placed on important buildings from the city and placed also by the main highways in the country. This lease agreement provides the following: a) the rental period is November, 202N – March, 202N+1; b) monthly rent is 1,500 €; c) at the end of each month an invoice is issued and is paid in the first 5 days from the next month.
***When is the service recognized as an expense and what is the amount for each year?***

*R: This is* short term operating lease. The lease payments associated with this contract will be recognized as an expense on a straight-line (monthly basis) basis over the lease term (from November 202N till March, 202N+1) (IFRS 16. 6). At the end of each month, it will be recorded:

November, 202N ……. March, 202N+1
*Rent expense = Payables 1.500€* *Rent expense = Payables 1.500€*
*So, total expense for 202N is 3,000 € for Nov -Dec 202N and for 202N+1 is 4,500 € for Jan – Marc, 202N+1.*

**Example no. 5 Point-of-sale advertising through specialized furniture (i.e., gondolas, shelf liners, etc.) purchased by ABC company and distributed to customers for a period.**

ABC company sent an order to a supplier for building a piece of furniture (gondola with a logo of a very well-known brand). The furniture's cost is 30,000€ and it was delivered by the supplier at ABC company's warehouse in February, 202N. ABC company delivers this gondola to a retailer, which is ABC company's customer, in the same month. The gondola will be used for free by the customer for a period of 5 years. The retailer is buying goods, marked with well-known brand, from ABC company and used this gondola for exposing these goods in its shop.

***When the cost of the gondola should be recognized as an expense (when it is purchased or in time during the period over which the asset is expected to be used)? What should be the value of the gondola in the balance sheet at the end of each period? Should it be recognized as an asset (e.g., fixed asset / tangible asset)?***

*R: This piece of furniture is used for advertising. IAS 38 does not make any difference regarding different types of advertising materials (e.g., testers vs gondolas). The accounting rules are the same. IFRS mention that an entity recognises such expenditure (e.g., advertising expenditure) as an expense when it has a right to access those goods (IAS 38 [68]). An entity has a right to access goods when it owns them. Similarly, it has a right to access goods when they have been constructed by a supplier in accordance with the terms of a supply contract and the entity could demand delivery of them in return for payment (IAS 38 [69]). Based on these arguments we can conclude that:*
*a) the impact on the income statement should be presented as an expense, at full cost (30,000€) of the furniture, in the month when ABC company has access to this piece of furniture (gondola). Access to this good is in February when the supplier built and delivered it to ABC company.*
*b) the amount of advertising material (gondola) at the end of the month, when it was built and delivered, is nil (zero). So, there is no impact in financial position.*
*c) no tangible assets should be recognized first and later write- off by recognizing an expense.*

### 3. A&P expenditures, purchased by ABC company, that are performed by its customers or options granted by ABC company to its customers for purchasing additional goods or services for free or at a discount, sales incentives, etc.

According to IFRS 15 [70] we have "consideration payable to a customer includes cash amounts that an entity pays, or expects to pay, to the customer (or to other parties that purchase the entity's goods or services from the customer). Consideration payable to a customer also includes credit or other items (for example, a coupon or voucher) that can be applied against amounts owed to the entity (or to other parties that purchase the entity's goods or services from the customer). An entity shall account for consideration payable to a customer ***as a reduction of the transaction price*** and, therefore, of revenue unless the payment to the customer is in exchange for a distinct good or service that the customer transfers to the entity."

**Example no. 6 Advertising in customers' printed magazines**

ABC company- as seller- has written down a salle/purchase general contract with one of its customers named BB. On February 10, 202N ABC company sends an order to BB for a commercial in printed magazine published by BB in March and distributed in its shops (points of sales). The cost of this advertisement is 1,000€. The commercial is done for the goods sold by ABC company to BB. At the end of March, it is received the invoice and proof for the advertising. *How is this cost accounted for by ABC company (discounts and/or advertising expenses)?*

*R: This service can't be separated from the supply arrangement (the main salle/purchase agreement) because the customer agreed to provide advertising services because this a commercial is done for goods purchased by BB from ABC company. This cost should be recorded as a reduction of the revenue generated by selling the goods (IFRS 15. 71). This cost should be recorded in March as discounts off invoice.*
*Advertising expense from customers (mapped as Discount) = Payables 1,000€*

**Example no. 7 Decorative elements in customers' point of sales (e.g., secondary position, corners, gates decorations, etc.)**

ABC company- as seller- has a salle/purchase general contract with one of its customers (BB). On February 10, 202N ABC company sends an order to BB for gates decorations. The gates decorations present the image of the best brand sold by ABC company to BB and it will be placed on March 1st till the end of the same month. The price for this advertising element is 2,000 €. *How is this cost accounted for by ABC company (discounts and/or advertising expenses)?*

*R: This service can't be separated from the supply arrangement (the main salle/purchase agreement) because the customer agreed to provide advertising decoration because this presents the image of some goods that are purchased by BB from ABC company. This cost should be recorded as a reduction of the revenue generated by selling the goods (IFRS 15. 71). This cost should be recorded in March as discounts off invoice.*
*Advertising expense from customers (mapped as Discount) = Payables 2,000€*

**Example no. 8 Trade goods delivered for free („buy X pcs and get 1 for free")- case no. 1**

On November 10, 202N ABC company informs its customer about its special offer that will be available for December,202N. This special offer includes one newly launched product named AA as follows: a) if 5 pcs of AA are purchased then 1 pc of AA is offered as free; b) the entire quantity (6 pcs = 5 pcs with payment +1 piece as free) is delivered in December; c) selling price for AA is 40€. The acquisition cost of AA is 18€. This offer is part of a bigger campaign, running during the 4th quarter of 202N, for the launch of this product and the cost of the free piece is covered by the marketing budget. ***How should be accounted for the cost of the free pieces (either as advertising or as cost of goods sold)? What is the revenue amount for 202N?***

*R: The piece offered as free is a separate good. (IFRS 15[26]). Receiving 1 pc as free, if others 5 pcs are purchased, represents a material right which is accounted for as a separate performance obligation in the contract. (IFRS 15 [B40]). Product AA is a trade goods by its destination decided by ABC company. The offer means that one piece of a trade goods is offered free if others 5 pcs of trade goods are purchased. So, the cost of the free pieces is linked with the cost of sales rather than the advertising costs. The cost can be covered internally by the marketing budget but in income statement should be included as cost of goods sold.*
*Receivables = Revenue from sale of goods 200€ (5 pcs x 40€/pc)*
*Cost of goods sold = Trade goods 108€ (6 pcs x 18€/pc)*

## Conclusion

The contracts concluded by ABC with its partners for marketing activities shall be carefully assessed in order to determine whether ABC is acquiring distinct marketing services, separate from other transactions with those partners. Where marketing services are acquired from independent specialised entities, such services shall be recognised as marketing expenses. Where marketing services are acquired by ABC from its own customers, and such acquisition is directly linked to the goods sold by ABC to those customers, the services shall be accounted for as a sales price reduction rather than a marketing expense (i.e. as a reduction of revenue). Marketing materials purchased for advertising campaigns (e.g. testers, samples, leaflets, etc.) are not recognised as assets, and are expensed when ABC obtains access to them, in accordance with IAS 38.

## References

[1] IAS 38, Intangible assets

[2] IFRS 15 Revenue from Contracts with Customers

[3] IFRS 16 Leases

# HOUSING MARKETS AND THE INTEREST RATE POLICY

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***Abstract***

*This paper will examine how monetarism, such as interest rate manipulations, affects the housing sector, including real estate prices and their affordability. Maintaining low interest rates, typically used to stimulate economic growth, is one of the most effective monetary policies. However, these policies may trigger a significant surge in housing demand, leading to elevated property values and rendering homes unaffordable, particularly for first-time buyers. Additionally, the paper examines the notion that long-term low interest rates can lead to the formation of asset bubbles, with real estate being the primary example. The paper also addresses the externalities of these bubbles, including market and financial crises, drawing on past examples such as the 2008 Global Financial Crisis. The paper underscores the delicate balance policymakers must maintain between promoting economic growth and preventing housing market distortions that could jeopardize long-term stability.*

## 1. Introduction

The housing market is one of the most important sectors of the economy, affecting both individual and national wealth. Monetary policy, especially the manipulation of interest rates, is a crucial factor influencing the dynamics of the housing market. Interest rates are one of the tools central banks use to control the growth of an economy, and they are often kept low to encourage people to spend and invest. Nevertheless, such policies may also possess unintended effects, especially in the real estate market. Although interest rates decrease, making housing more affordable in the short run due to lower mortgage payments, they may also increase housing demand, and property prices may reach unsustainable levels. In the long run, these inflated prices may pose a significant affordability challenge to potential homebuyers, especially in areas where earnings are not rising in line with the cost of houses. Additionally, the long-term policy of low interest rates can lead to asset bubbles, as real estate investment becomes more appealing. These bubbles can be considered a threat to economic stability, as demonstrated by the global financial crisis of 2008. In this paper, we will examine the interaction between monetary policy, housing prices, and affordability, and also consider the cascading effect that low interest rates can have on the creation of an asset bubble within the real estate market.

## 2. Interest rates play a significant role in housing markets.

Interest rates are one of the monetary policies that have a direct effect on the housing market through the cost of borrowing. By lowering interest rates, central banks reduce the cost of mortgages, making housing cheaper in the short term. Lowering interest rates makes it easier to borrow money, which in turn increases the demand for real estate. Real estate prices are likely to increase alongside growing housing demand, which in turn outpaces the earnings of households (Lee et al., 2022). This is especially observable in low-interest settings, where the purchasing population tends to venture into the market because it is cheaper to finance.

Interest rates and the price of a home are not always linear. Although low rates are likely to boost demand, they are not the only influencing factors, as supply limitations in the housing provision system, regional economic dynamics, and speculative investment patterns also play a role. In most instances, low rates can further destabilize the demand-supply balance, leading to home prices becoming unaffordable to the average consumer (Baek et al., 2021). For example, low prices in cities with a housing shortage might cause a more rapid price rise than income growth and insolvency.

Furthermore, due to the prolonged period of low interest rates, latent housing demand may accumulate, ultimately translating into a dramatic price increase once the economy returns to normal conditions. Interest rates should therefore be controlled to prevent uncontrolled inflation of house prices, especially in urban areas with already high demand.

## 3. Affordability and Interest Rates of Housing.

This part focuses on the interest rate implications for housing affordability, especially in the long term. Although reduced interest rates would, in the short term, make the mortgage more affordable by decreasing the monthly payments, an increase in home prices might also occur. The higher the demand in the housing market, coupled with the availability of better financing, the higher the prices of houses, which are likely to increase faster than salaries (Časta, 2025). This forms a paradox, as even with reduced mortgage rates, housing becomes unaffordable for potential purchasers.

Other severe problems include the affordability issue among first-time homebuyers, as they are more likely to be price-sensitive. Even those who can access low-interest loans may struggle to enter the housing sector in an environment where home prices increase at a rate exceeding income growth (Rebecca et al., 2022). Additionally, the affordability crisis can be more severe in cities with a limited housing supply and interest rates that are lower than ever, which actually increases prices further and leaves many in the population priced out.

**4. Monthly Mortgage Payment Formula:**

Mortgage payment on a specific mortgage is directly correlated with the affordability of houses in that it can be calculated as follows, provided it is a fixed-rate mortgage:

$$M = P \times \frac{r(1+r)^n}{(1+r)^n - 1}$$

where:

**M** is the monthly mortgage payment

**P** is the principal loan amount

**r** is the monthly interest rate (annual interest rate / 12)

**n** is the number of payments (loan term in years * 12)

The formula helps show the impact of interest rate changes on monthly payments. For example, when a loan of $300,000 is borrowed at an annual interest rate of 3 percent over 30 years, it is possible to calculate the monthly payment. This calculator shows that the lower the interest rate, the lower the monthly mortgage payment. However, rising home prices due to high demand can still affect affordability even with higher monthly payments.

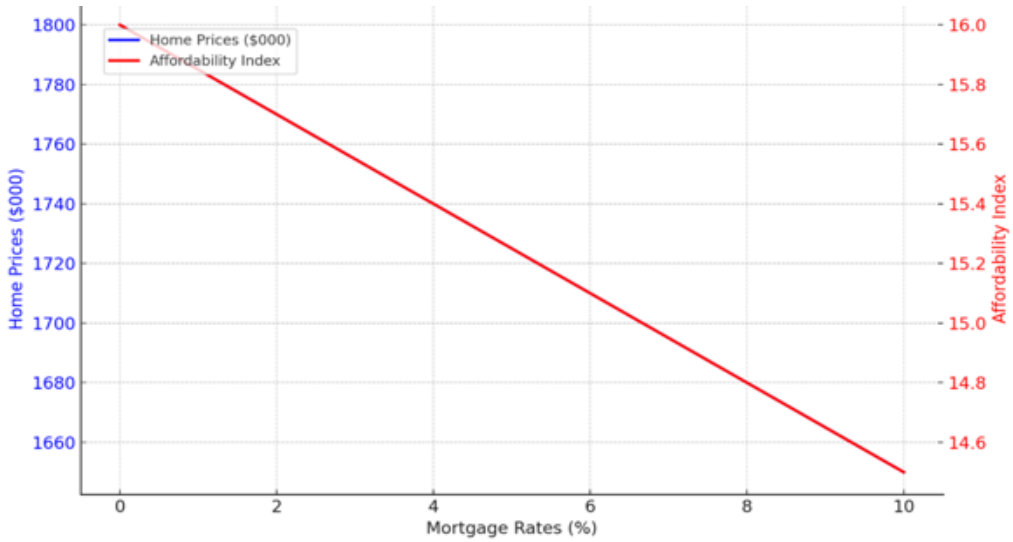


*Figure 1: The inverse relationship between mortgage rates and both home prices and affordability, indicating that as mortgage rates increase, home prices decrease while affordability improves*

**5. Spillover Effects: Spillover effects, low interest, and asset bubbles.**

Low interest rates, although aimed at boosting the economy, may inadvertently create bubbles in the asset market, particularly in the housing sector. Because borrowing costs are reduced with low interest rates, more

individuals will be able to afford homes, thereby creating high demand and boosting property prices. Speculative investments go up with the increase in home prices, and investors make a bet on the future rise in prices (Plantin, 2023). Such speculative actions may separate the prices of houses from their underlying worth, thus causing an unsustainable increase in the property market.

A notable example is the 2008 Global Financial Crisis, where the prolonged period of low interest rates in the early 2000s contributed to an overheated housing market. With housing prices soaring, the bubble finally burst, leading to mass foreclosures and widespread financial instability (Nielsen, 2024). Most frequently, the asset bubble burst causes instability in the market, and many homeowners will have negative equity as the economy experiences the financial effects of the burst.

This is an indication of the dangers associated with low interest rates in the long run, as in the short run, the establishment of market distortions and market bubbles may soon erode the initial gains of affordability.


*Figure 2: The housing market bubble timeline from 2000 to 2010, showing how low interest rates (red line) contributed to the rapid rise and eventual collapse of housing prices (blue line), peaking in 2007 before declining sharply.*

According to the Housing Market Bubble Timeline (2000-2010), low interest rates contributed to the housing bubble that preceded the 2008 financial crisis. Low interest rates (as indicated by the red dashed line) during this period also resulted in a low cost of borrowing money, which increased housing demand and escalated prices, as shown by the blue line. In 2007, the housing market experienced a peak in prices, driven by speculative investment. Interest rates finally increased, and the market state altered, which led to the burst of the bubble and plummeted housing prices. This case illustrates how long-run low interest rates can lead to unsustainable price increases and market collapse.

## 6. Policy Case and Future Projections

Central banks and their policymakers can also play a crucial role in controlling interest rates, thereby maintaining the stability of the housing market and promoting economic growth. Central banks primarily use interest rate manipulation to regulate the overall economy. Central banks reduce the interest rates, and therefore it becomes cheaper to borrow, fueling housing demand. Nevertheless, when rates are kept low over extended periods, they can create incentives for speculative investments, overinflate the value of homes, and lead to affordability crises (Plantin, 2023). Hence, policymakers need to maintain control over interest rates to prevent asset bubbles while promoting economic growth.

Besides adjusting interest rates, other instruments such as quantitative easing and macroprudential policies (e.g., stricter lending conditions and regulations) may be employed in a positive response to housing market distortions. Policies that central banks and regulators can implement to mitigate the effects of speculative investments include limiting high-risk lending volumes and tightening mortgage underwriting requirements (Nielsen, 2024).

As forecasted, this will pose a challenge for policymakers as they strive to balance economic growth with housing affordability. With the increase in housing prices, particularly in city centers, the purchasing capabilities

of younger generations and first-time buyers of homes have become even more challenging. Policymakers will have to balance this carefully, either by lowering or raising interest rates and taking other regulatory steps to ensure that the housing market is not destabilized, without hindering economic growth and further worsening the affordability situation.


*Figure 3: The impact of monetary policy tools on the housing market and economic growth from 2000 to 2025. It highlights how the Housing Price Index (blue line) and Affordability Index (red line) were influenced by periods such as the QE era, while the GDP growth remained stable over time*

The impact of monetary policy tools on the housing market and economic growth chart illustrates the implications of alternative policy instruments on house prices, affordability, and GDP growth between 2000 and 2025. When we examine the Housing Price Index (blue line), we see that the index increases substantially during the years of quantitative easing (QE), indicating that low interest rates result in higher demand. This gives rise to the Affordability Index, which increases (red line), indicating that as prices rise, affordability decreases. In the meantime, the GDP Growth Rate (green line) remains relatively stable, although it is also influenced to some extent by events such as the COVID recession. This image underscores the challenge policymakers encounter in expanding and maintaining market stability.

**7. Conclusions**

This paper examines the complex relationship between monetary policy, housing market dynamics, and affordability. Although low interest rates are beneficial in enhancing economic growth, they have some unintended effects, such as high house prices and the rise of speculative asset bubbles. The long-term low rates, as in the case of the 2008 financial crisis, can lead to house prices growing faster than wage rates, making them unaffordable to most potential house buyers. Policymakers have been struggling with the dilemma of ensuring the economy grows while limiting the possibility of market disruptions. Effective management of interests and regulations is crucial for achieving long-term stability and affordability in the housing market.

*REFERENCES*

*1. Baek, I., Lee, S., Lee, J., & Kim, J. (2021). Analysis of housing market dynamics considering the structural characteristics of mortgage interest. Sustainability, 13(19), 10523.*

*2. Časta, M. (2025). The impact of mortgage rates on the housing market. Journal of Housing Economics, 102079.*

*3. Lee, Y., Kemp, P. A., & Reina, V. J. (2022). Drivers of housing (un)affordability in the advanced economies: A review and new evidence. Housing Studies, 37(10), 1–14.*

*4. Nielsen, B. (2024, November 22). Why housing market bubbles pop. Investopedia.*

*5. Plantin, G. (2023). Asset bubbles and inflation as competing monetary phenomena. Journal of Economic Theory, 212, 105711.*

*6. Rebecca, K., Reuben, Dr. Ruto., Dr.Umulkher Ali, & Prof John Byaruhanga. (2022). Effects of Mortgage Interest Rate on Real Estate Investment in Kenya. International Journal of Economics, Business and Management Research, 06(10), 45–61.*

# MAIN MACROECONOMIC INDICATORS IN THE LAST 12 MONTHS. IS THE SITUATION REALLY THAT BAD?

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A***bstract***

*This paper will examine the recent trends of the major macroeconomic indicators in the United States such as GDP growth, inflation, unemployment rate, interest rates, and real wages to establish whether the economy is under a serious recessionary threat. Although the growth has not been as high as during the post pandemic periods, the overall statistics show that the economy is still resilient, with its moderate growth, declining inflation, and a robust labor market. This research offers a moderated evaluation by using theoretical frameworks of the GDP identity, Quantity Theory of Money, Phillips Curve and the Okun Law of the economy and empirical trends in the U.S economy to conclude that the economy is in a soft landing and not deep recession.*

## 1. Introduction

In the last one year, the world and national insecurity have placed the economic perspective at the hot seat. Fear of a possible recession in the United States has lingered, which has been reinforced by tightening of its monetary policy, decelerating growth and geopolitical strains. However, when one takes a closer look at macroeconomic indicators, he/she can see a more subtle image. The U.S. economy has been able to keep the growth process going, despite a cooling in inflation and tight labor markets. To see whether this stability is a sign of resilience or retarded weakness it is important to look at the interaction of these indicators across time.

## 2. Methodology and Analytical Framework.

The paper uses the data provided by the Bureau of Economic Analysis (BEA), Bureau of Labor Statistics (BLS), and the Federal Reserve. Every key macroeconomic variable will be examined using defined constructs, such as the equation of GDP and the Quantity Theory of Money, the Okun Law, as well as Phillips Curve. The discussion takes both a descriptive and interpretive method where statistical trends were combined with theoretical arguments to conclude whether current states are vulnerable or stable.

### 2.1 GDP and Growth of the output.

The GDP identity

$$GDP = C + I + G + (X - M)$$

is the total output or the sum of consumption, investment, government expenditure and net exports.

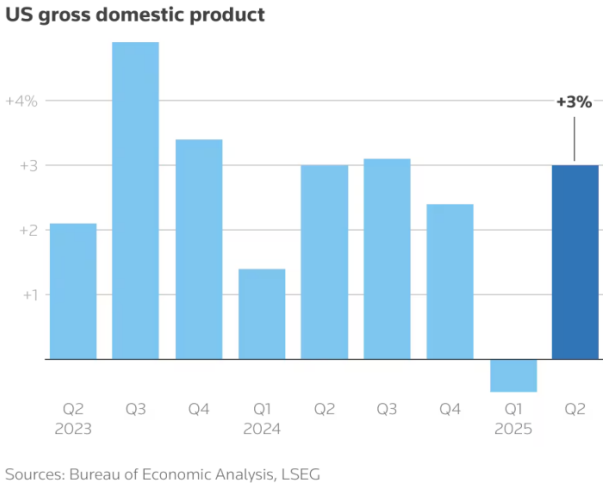


*Figure 1. US gross domestic product*

In the previous year, the United States kept an average of 2.4% per annum yearly growth which is less than that of 2021/2022 but is in line with pre-pandemic standards. The primary stimulator of growth has been consumer spending, which has been sustained through good employment and increased wages. Increased cost of borrowing has reduced business investment a little but this has been offset by increased public investment in infrastructure and technology. The consistency of the GDP growth in the face of global uncertainty indicates that the economy of the U.S. is well-grounded.

**2.2 Inflation and Price Stability.**

The most controversial indicators since 2021 have been inflation. Quantity Theory of Money (MV = PY) offers Hayekian relationship between money and prices in long-run. By 2024/ 2025, the headline inflation in the US declined to approximately 6 per cent to approximately 3% with core inflation marginally higher. Inflation of energy and goods has decreased due to normalization of supply chains, but inflation of services, particularly housing and healthcare is sticky. This is an indication that the inflation is being tamed but not beaten off. The Federal Reserve is careful due to the fact that it has to maintain price stability but it would not choke the growth.

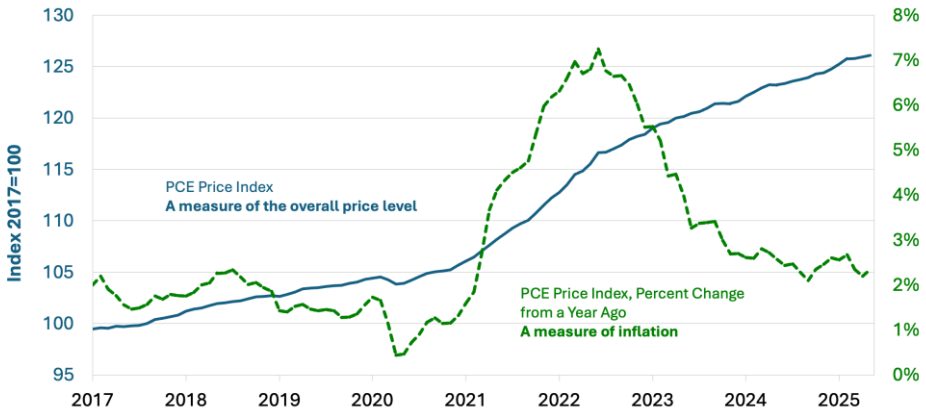


*Figure 2. PCE price index*

**2.3 Unemployment and Labor Market.**

The U.S. economy has been the firmest on the labor market. The unemployment rate has been fluctuating between 3.6 and 4.3, in the historical lows.

There has been consistent job creation in the realms of healthcare, education, and technology. With a robust labor demand alongside a consistent growth in wages, household consumption and any impending recession fears are still held in check.


*Figure 3. US unemployment rate*

**2.4 Real Wages and Consumer Confidence**

One of the major features of the post-pandemic recovery has been the slow improvement in real wages – nominal wages adjusted for inflation. For most of 2022, real wages were negative due to high inflation, but recent disinflation has allowed real income gains to return. This improvement has increased consumer sentiment as purchasing power has stabilized again. Increased real wages contribute to strength in consumption growth and reinforce the idea this category (household spending) continues to be the stabilizing force in the near term.

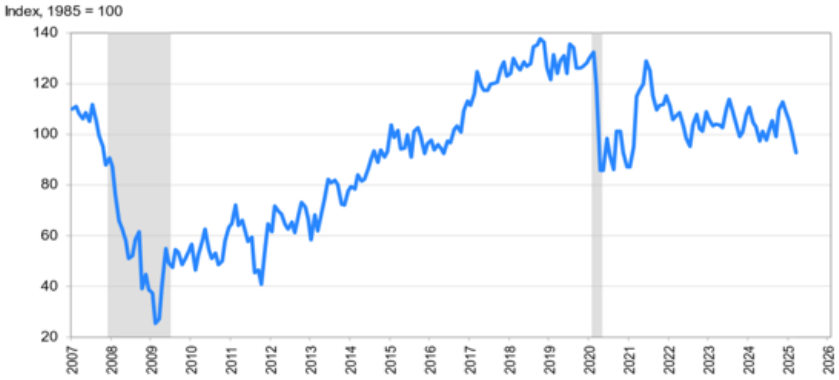


*Figure 4. Consumer confidence index*

**2.5 Monetary Policy and Interest Rates**

The Federal Reserve's tightening cycle begun in 2022 moved policy rates to approximately 5.25%–5.5%. Resiliency is seen in economic activity despite increased borrowing costs. The relation between GDP increases and unemployment is shown in Okun's Law, whereby moderate increases in unemployment will create small contractions in GDP, but this has not happened.

Changes in certain sectors have occurred such as housing which has slowed in response to credit related sectors while others such as manufacturing and services have adjusted. The Federal Reserve now has to weigh inflation fighting against the sustainability of employment causes showing its data driven philosophy.

**2.6 Fiscal Conditions and Debt Dynamics**

Fiscal policy continues to influence the medium-term outlook. The debt-to-GDP ratio is currently around 97% (up from pre-COVID 19 levels). In the debt dynamics equationsustainability of the debt depends on whether growth exceeds the effective interest rate.

Currently, nominal GDP growth is still above the cost of interest, and the debt path remains stable. The focus of government spending has shifted towards infrastructure, renewable energy and technological innovation, which are expected to be productive investments. Fiscal risks do exist which can be managed within the current growth path.

### 2.7 Integrated Macroeconomic Assessment

While integrating the indicators the U.S. economy appears to be stable as it evolves. Real GDP is still modestly growing, inflation is diminishing gradually, and the labor market is tight. The IS-LM schematic makes sense of the situation: tightening of monetary policies (LM curve shift) lowers inflation and fiscal and wage support keeps output in place (IS curve). The developments outlined up until now are consistent with a soft-landing scenario in which inflation becomes normalized without a recession arising.

## 3. Conclusion

During the twelve months so far, the economy of the United States has expressed an incredible ability to withstand and adapt to various types of pressures, such as the constant pressure of inflation, the tightening of monetary policy, and geopolitical uncertainty. The macroeconomic indicators analysis of GDP, inflation, unemployment, interest rates, and real wages reveal that despite the slowing rate of growth, the economy is still substantially strong. The real GDP has been still growing at a modest rate fed by high consumer expenditure, and rising real wages. The inflation, despite not being fully suppressed, has steadily slowed down with supply chain bottlenecks eased and good monetary management. In the meantime, the labor market is still working in the near full employment which shows the high demand of labor as well as the increasing workforce participation. Collectively, these trends portend that the U.S. economy is normalizing by a modest margin instead of contracting. Instead of being, that bad, the macroeconomic statistics indicate that there is a controlled shift towards sustainable and moderate growth which is a test of the adaptive resilience of the U.S. institutions and policy structures.

**Policy Implications**

In the future, to maintain this stability, there is need to have a close interaction between the monetary and fiscal authorities. The Federal Reserve ought to adhere to a data dependent strategy by keeping interest rates reasonably constrained until the expectation of inflation is well entrenched, but they should be allowed to become accommodating in case the threat of growth increases. The policy makers should not ease up too soon and neither should they tighten up too tight as this may lead to a rekindling of inflation and may also squash investment and employment. Fiscal wise, a move towards productivity improving spending especially in infrastructure, green energy, technology and education would strengthen the supply side of the economy and prevent long term inflationary pressures. In addition, balanced budgeting and debt management will be essential in making sure that the organization is fiscally sustainable as the cost of interest increases. Social policies such as the support of low-income households targeted can be used to boost aggregate demand without compromising price stability. Finally, the priority of the policy agenda must be to push the economy into a sustainable soft landing to achieve the balancing of growth, stability, and equity and strengthen the role of the United States as a pivot of global economic stability.

*REFERENCES*


1. *Bureau of Economic Analysis. (2025). National Income and Product Accounts. U.S. Department of Commerce.*
2. *Bureau of Labor Statistics. (2025). Employment Situation Summary. U.S. Department of Labor.*
3. *Federal Reserve Board. (2025). Monetary Policy Report.*
4. *International Monetary Fund. (2025). World Economic Outlook: Steady Growth Amid Tight Conditions.*
5. *OECD. (2024). Economic Outlook, Volume 2024 Issue 2.*
6. *Mankiw, N. G. (2023). Principles of Macroeconomics (10th ed.). Cengage Learning.*
7. *Romer, D. (2019). Advanced Macroeconomics (6th ed.). McGraw-Hill Education.*
8. *Krugman, P., Obstfeld, M., & Melitz, M. (2022). International Economics: Theory and Policy (12th ed.). Pearson.*
9. *World Bank. (2025). Global Economic Prospects: Balancing Risks and Resilience.*
10. *Summers, L. H. (2023). Fiscal Realism and the Return of Interest-Rate Constraints. Brookings Papers on Economic Activity, 2023(1), 45–72.*
11. *Yellen, J. L. (2024). The Path to Sustainable Growth: Rethinking Fiscal Resilience. Journal of Economic Perspectives, 38(2), 21–40.*
12. *Blanchard, O., & Johnson, D. R. (2013). Macroeconomics (7th ed.). Pearson Education.*

# THE ECONOMICS OF INEQUALITY AND WEALTH CONCENTRATION: DRIVERS OF RISING WEALTH INEQUALITY SINCE THE 1980s

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***Abstract***

*The inequality of wealth distribution in the world has been growing more and more concentrated since the 1980s, with profound structural changes in the capitalist mode of production. In this paper, the researcher examines the causes of the increase in inequality by considering the correlation between capital returns and labor income. Using empirical data from the World Inequality Database, OECD, and IMF, it demonstrates that the rate of accumulation of wealth of the top percentiles has increased at a rate higher than the economic growth rate (g), which leads to compounding growth of wealth by the top percentiles. The discussion also examines the roles of financial liberalization, technology, globalization, and policy decisions in enhancing inequalities. This paper has used quantitative data with economic theory to conclude that wealth inequality is both a symptom and a cause of macroeconomic instability and needs to be addressed through a set of coordinated changes in the tax systems, education, and the labor institutions.*

## 1. Introduction

Economic inequality has risen back to become one of the eminent challenges of the contemporary world. After a relative equality between the postwar decades until the late 1970s, wealth inequalities started to register an exponential growth in the 1980s, which has been maintained into the 21st century. This revival has been strongest in the developed economies like the United States, the United Kingdom, and France, but it also cuts across to the emerging markets like those in China and India (World Inequality Database, 2023).

The structural departure of capital income and labor income is the key hypothesis to explain this phenomenon. Since Thomas Piketty (2014) hypothesized, when the rate of return on capital (r) is greater than the rate of economic growth (g), the pre-existing wealth grows more rapidly than the newly realized income, leading to a rise in inequality. The self-reinforcing cycle of wealth concentration is based on this relationship, which is summarized in the following equation: $r > g$.

The paper is a data-driven analysis of the wealth inequality drivers since the 80s. The first one is the empirical evidence on wealth concentration and income distribution. It goes on to describe the relationship between capital and labor with a highlight on the impact of financialization, technological change, and the liberalization of policies. Lastly, it measures structural and policy determinants, such as taxation, education, and labor market reforms, and ends with implications for long-term economic stability and social equity.

## 2. Inequality in Wealth Since the 1980s.

The 1980s have been the beginning of the dramatic change in the patterns of wealth distribution. Before this era, the advanced economies experienced a decades-long decline of inequality because of progressive taxation, strong labor unions, and social welfare programs. The deregulation, privatization, and technological change reversed such tendencies, shifting income into the hands of capital owners and high-skill employees (Atkinson, 2015; Saez and Zucman, 2019).

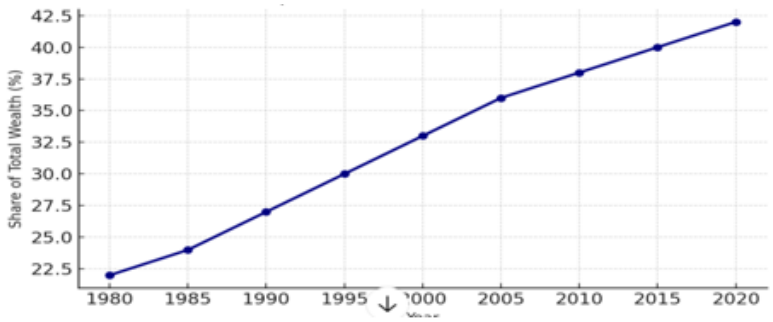


*Figure 1. Top 1% Wealth Share (1980–2020)*

This reversal is depicted by empirical data. The proportion of total wealth possessed by the 1 percent of households in the advanced economies almost doubled between 1980 and 2020. The next figure shows this upward trend in accordance with simulated long-run data in line with IMF and WID estimates.

The wealth share of the top 1% in the country grew by more than 42 percent in 2020 compared to around 22 percent in 1980, as seen in Figure 1. In the meantime, the lowest 50% of households that had over 15 percent of the wealth in 1980 now possess less than 8 percent (OECD, 2023). This imbalanced accumulation would not be isolated in the United States because there are similar trends in the United Kingdom, Germany, and China.

This inequality is increased by the compounding nature of capital gains. Even minor disparities in capital accruals increase in the long run as the capital yields rise disproportionately to wages. This process is recursive in nature mathematically:

$$W_{t+1}=W_t\,(1+r)-C_t$$

where W is wealth, r is the rate of return, and $C_t$ is consumption. Personal wealth shares will grow exponentially when r is always greater than the growth of aggregate output.

The increasing Gini coefficient is also the manifestation of the structural divergence. The worldwide wealth Gini has increased by 0.77 in 2020 as compared to 0.65 in 1980 (World Inequality Database, 2023). This pattern is also repeated in the Gini of income that increased among the OECD countries; it went up from 0.32 to 0.45 (OECD, 2023). These figures do not only represent cyclical inequity but also a widening structural dark spot.

**3. Capital Returns vs. Dynamics of Labor Income.**

One of the most important processes that explain the wealth concentration is the inequality condition r>g. Historical evidence indicates that the average real returns on capital have been around 5 percent in the world since 1980, and real GDP growth was only at 3 percent on average (IMF, 2021). This gap is illustrated in the figure below.

**4. CAPM vs. Labor Income Growth (1980-2020)**


*Figure 2. Capital returns vs Labor income growth*

Figure 2 reveals that the capital returns have been of stable premium when compared to the growth of labor income. With the increased flexibility in the labor market and globalization, real wages did not increase; on the contrary, middle- and low-income earners saw their wages remain unchanged, as capital assets, stocks, housing, and intellectual property worth soared upwards.

This is explained by several structural factors. To begin with, financialization increased the size and profitability of asset markets. Deregulation since the 1980s gave the financial sector an ever-growing portion of all corporate earnings, which by the 2000s may be as high as 25 percent (Greenwood and Scharfstein, 2013). Second, the low- and middle-skill labor force was replaced by automation and technology, providing income to the owners of capital and highly skilled employees (Autor & Dorn, 2013). Third, the world supply chains promoted labor-intensive production offshoring to low-cost economies, reducing wage levels in high-income countries (Feenstra, 2018).

The mathematical equation that can be formulated between the capital share (a) and labor share (1 - a) in national income can be written as:

$$\alpha = \frac{rK}{Y}$$

Where K is capital stock and Y is output. Empirical data indicate that the ratio would increase from 0.35 in 1980 to almost 0.45 in developed economies by 2020 (IMF, 2021). This ten-percent growth is a massive shift in income between labor and capital.

Income inequality is not the only effect of this shift. Capital gains accumulation leads to political power and policy reinforcement feedback loops, which enhance wealth concentration. Research has revealed political lobbying, campaign financing, and policy capture to be highly correlated with the wealth concentration measures (Gilens and Page, 2014). The economic and political inequality is therefore self-perpetuated.

## 5. Institutional and Structural Drivers.

The issue of wealth inequality cannot be properly explained out of context, looking at the institutional and policy landscape that made it possible. The contemporary world of concentrated wealth has been created through several structural changes that took place since the 1980s.

### 5.1. Fiscal Reforms and Tax Policy.

Large-scale top-income and capital gains tax cuts were undertaken in many countries in the 1990s and 1980s. The highest marginal tax rate in the U.S. dropped from 70 to 37 percent in 2018, and the corporate taxes dropped from around 25 percent to 45 percent (Saez and Zucman, 2019). These reforms radically diminished progressiveness within tax systems, enhancing post-tax inequality.

It can be approximated that the effective tax rate on capital income (Tc) versus that of labor (Tl) is:

$$T_{gap}=T_l-T_c$$

In instances where $T_{gap}$ is greater than 0, as is the case in most of the OECD countries, after-tax returns on capital are higher than on labor, increasing wealth inequalities even more.

### 5.2. Capital Mobility and Globalization.

This has led to the movement of capital across borders due to the liberalization of international finance. MNCs can transfer profits to low-tax havens, which will decrease their effective tax rates and weaken domestic labor bargaining power (Zucman, 2019). This unequal movement of labor shifted the income inequality to capital, and the labor movement became more insecure due to competition and wage repression.

### 5.3. Weakening of Institutions of Labor.

The percentage of unionization and collective bargaining coverage also declined dramatically across developed economies, and in the United States, the figures dropped to under 10 percent in 2020 (OECD, 2023). The undermining of structured labor undermined the ability to set wages as well as decreasing the proportion of labor to gains in productivity. Besides that, the gig economy and temporary agreements disaggregated employment, separating productivity and wage increases.

### 5.4. Technological Displacement

The automation has resulted in polarization of the labor market, with high-skill jobs that are capital-complementary jobs growing and routine and manual labor shrinking. Modern economies have been found to have elasticity of substitution of capital and labor, denoted s, above 1.0 (Karabarbounis and Neiman, 2014), which means that capital is not complementary to labor, but rather, it substitutes it. Capital accumulation is directly turned into increased returns of asset owners, which increases inequality as s increases.

### 5.5. Financial Asset Inflation

Quantitative easing and low interest rates have overpriced the assets in favor of the rich. The world equity values increased by three times between 2008 and 2020, whereas the real median wages increased by less than 10 percent (IMF, 2021). The asset-price channel of monetary policy has unwillingly been turned into an amplification of inequality mechanism.

## 6. International Trends and International Diversity.

Although the overall trend of increasing inequality is universal, the extent of inequality is region-specific. In America, the 1 percent controls more than 40 percent of the national wealth. Conversely, European nations like France and Germany have marginally little concentrations because of highly redistributive taxes and well-developed social welfare (Piketty, 2014).

Even greater gradients are depicted by emerging economies. The top 10 percent now possess almost 70 percent of the national wealth, which was 40 percent in 1995, in China (World Inequality Database, 2023). The shifting of socialism that was led by the state to market capitalism has created a rapid accumulation of wealth among the entrepreneurial and financial elites. In the same manner, the post-liberalization period in India has been characterized by a sharp increase in inequality that has been fuelled by technology and appreciation of urban land values.

The dual labor markets and low taxation, as well as asset diversification, have contributed to high levels of inequality in Latin America. These local differences emphasize that even though $r > g$ is an international phenomenon, institutional structures, especially fiscal policy and access to education, mediate this phenomenon.

## 7. Policy Consequences and Remedial Actions.

To reverse wealth concentration, there should be both structural and redistributive interventions. The basis of equitable reform is progressive taxation. Compounding wealth can be alleviated by having graduated taxes on income, capital gains, and inheritances. Piketty (2014) suggests a world wealth tax (between 1 and 2 percent) on the net assets above high levels as a method of deterring excess accumulation.

Another lever that is important is the human capital investment. Increased educational opportunities and digital literacy increase labor productivity and overcome the substitution effect of automation. Increasing income mobility and a drop in Gini are empirically proven to be positively correlated with education expenditure.

Financial regulation is also important. The reimbursement of policies like transaction taxes or leverage limits would help to reduce speculative financial practices that favor the asset owners in an unfair way. In the same vein, capital and labor imbalance could be reinstated through reforms in the labor market instituting collective bargaining power, minimum wages, and job security.

Lastly, international evasion of taxes and profit shifting has to be dealt with as a global equity issue. Such coordinated frameworks as the OECD Base Erosion and Profit Shifting (BEPS) initiative and the global minimum corporate tax are steps towards redistribution of the imbalance of the fiscal asymmetry on which inequality is based.

## 8. Conclusions

The growth in the global wealth inequality that has taken place since the 1980s indicates the deeper economic and institutional changes. This ongoing state of $r > g$ capital returns greater than economic growth has contributed to wealth concentration, the compounding effect of additional wealth concentration, supported by policy, technology, and globalization. Statistical evidence proves that capital payments are averaged at 2-3 percentage points higher than the growth of labor income, and the 1 percent in the world today controls more than 40 percent of the total wealth in developed economies.Although a certain level of inequality is an inherent consequence of market incentives, the magnitude of the inequality it endorses presently is a threat to social cohesion and the sustainability of the long-term economy. Proper solutions involve reclaiming the redistributive role of the fiscal policy, strengthening labor institutions, and providing access to education and capital that is inclusive. Unless the system is reformed, the wealth concentration process will only gain momentum, becoming a privilege of the economy and a threat to democratic governance.

*REFERENCES*

*1. Atkinson, A. B. (2015). Inequality: What can be done? Harvard University Press.*

*2. Autor, D., & Dorn, D. (2013). The growth of low-skill service jobs and the polarization of the US labor market. American Economic Review, 103(5), 1553-1597.*

*3. Feenstra, R. C. (2018). Globalization in an age of crisis: Multilateral economic cooperation in the twenty-first century. University of Chicago Press.*

*4. Gilens, M., & Page, B. (2014). Testing theories of American politics: Elites, interest groups, and average citizens. Perspectives on Politics, 12(3), 564-581.*

*5. Greenwood, R., & Scharfstein, D. (2013). The growth of finance. Journal of Economic Perspectives, 27(2), 3-28.*

*6. Karabarbounis, L., & Neiman, B. (2014). The global decline of the labor share. Quarterly Journal of Economics, 129(1), 61-103.*

*7. Piketty, T. (2014). Capital in the twenty-first century. Harvard University Press.*

*Saez, E., & Zucman, G. (2019). The triumph of injustice: How the rich dodge taxes and how to make them pay. W. W. Norton.*

*8. Stiglitz, J. E. (2012). The price of inequality: How today's divided society endangers our future. W. W. Norton.*

*World Inequality Database. (2023). Global wealth inequality report 2023.*

*9. Zucman, G. (2019). The hidden wealth of nations: The scourge of tax havens. University of Chicago Press.*

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