ACADEMIA DE STUDII ECONOMICE DIN BUCUREȘTI COUNCIL FOR DOCTORAL UNIVERSITY STUDIES DOCTORAL SCHOOL OF CYBERNETICS AND ECONOMIC STATISTICS

DOCTORAL THESIS - SUMMARY -

MACROECONOMIC PROPORTIONS AND CORELATIONS: THE INFLUENCE ON THE ECONOMIC GROWTH LABOR AND THE ECONOMIC GROWTH

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SUMMARY

I. THE CONCEPT OF ECONOMIC POTENTIAL AND THE USE OF MACROECONOMIC INDICATORS IN THE ANALYSIS OF POPULATION AND LABOR RESOURCES
1.1. Main theoretical aspects regarding economic potential and macroeconomic indicators
1.2. Indicators of population size
1.3. Indicators of population structure
1.4. Indicators of population movement
1.5. Indicators of labor resources
1.6. General overview of the labor force in Romania
1.6.1. Active population
1.6.2. Employed population
1.6.3. Unemployment
1.7. Indicators of labor force utilization efficiency
II. ANALYSIS OF THE RELATIONSHIP BETWEEN SOME MACROECONOMIC AGGREGATES
2.1. Econometric model studying the relationship between the evolution of the unemployed population and Gross Domestic Product
2.2. Econometric model analyzing the relationship between Gross Domestic Product and final consumption
III. THE SOCIO-ECONOMIC CONTENT OF THE INDICATORS USED IN THE ANALYSIS OF MACROECONOMIC PROPORTIONS AND CORRELATIONS
3.1. Main theoretical aspects regarding indicators used in the analysis of proportions and macroeconomic correlations
3.2. Study of the relationship between Gross Domestic Product and exports 69
3.3. Study of the relationship between Gross Domestic Product and imports

5.1. Brief overview of the concept of telework and information and communication technology-based work
5.2. Use of telework and information and communication technology-based work before the Covid-19 pandemic
5.2.1. Evolution of remote work before the Covid-19 pandemic
5.2.2. Telework and information and communication technology-based work and employee characteristics before the Covid-19 pandemic
5.3. Expansion of telework and information and communication technology-based work during the Covid-19 pandemic
5.4. Expected future evolution of telework and information and communication technology-based work
5.5. Potential effects of telework and information and communication technology-based work on employees, employers, and society
5.5.1. Impact and challenges of telework and information and communication technology-based work for employees
5.5.2. Impact on mental and physical health and safety of telework employees and those engaged in information and communication technology-based work184
5.6. Impact and challenges of telework and information and communication technology-based work for employers
5.6.1. Management culture and monitoring/surveillance systems
5.6.2. Effects of remote work on productivity and cost reduction

Keywords: Gross domestic product, correlation, proportion, unemployment, inflation, economic growth, employed population, labor productivity, Digitization, teleworking

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SYNTHESIS OF THE DOCTORAL THESIS

The choice of the topic of this research was based on the finding that, at the current stage of development of the national economy, which is characterized by the continuous development of the activities carried out by economic agents, the labor force has an essential role in economic growth. In this context, the analysis of labor resources in Romania and the identification of the opportunities and risks they pose is a current topic, which led me to turn my attention to this field of activity.

Thesis represents a homogeneous set of theoretical and practical elements regarding the effective possibilities of using statistical - econometric tools in the analysis of the national economy, in general, and the labor market, in particular. In the framework of the research, I sought to demonstrate the importance of applying statistical-econometric and mathematical models in the study of labor resources, with an emphasis on the opportunities that such a system of indicators offers for the realization of complex and pertinent analyses. In order to highlight the role of the use of econometric models, I referred to a series of concepts, methods and models characteristic of some sciences, such as statistics, macroeconomics and econometrics, presenting, in this way, a broad theoretical basis for the research approach.

Doctoral thesis with the title "Macroenothesismic proportions and correlations: The influence on economic growth. The labor and the economic growth" is structured in five large chapters that combine the theoretical presentation of statistical-econometric notions, methods and models, taken from the national and international specialized literature and processed in order to ensure the highest possible compatibility with the chosen research topic, with the concrete analysis of the correlations between different macroeconomic aggregates in Romania. To these is added an introduction that provides the reader with the general elements that allow a better understanding of the doctoral thesis as a whole, as well as a chapter of conclusions in which the main theoretical and practical elements that resulted from the research carried out are presented. The structure of the doctoral thesis is as follows:

- Introduction
- Chapter I The concept of economic potential and the use of macroeconomic indicators in the analysis of the population and labor resources
- Chapter II Analysis of the link between some macroeconomic aggregates

- Chapter III The economic-social content of the indicators used in the analysis of macroeconomic proportions and correlations
- Chapter IV The use of statistical-econometric methods in the analysis of labor resources in Romania in the process of sustainable development
- Chapter V Recent and expected trends in the use of telework and ICT-based work in EU countries

Conclusions

In the first chapter of the doctoral thesis, the main macroeconomic indicators used in the analysis of the structure and movement of the population, the analysis of the structure of labor resources, as well as in the analysis of the efficiency of the use of labor are presented. At the same time, the general picture of the labor force in Romania is elaborated, highlighting the current data recorded regarding the total population of the country, the active population, the employed population, as well as its distribution, the number of unemployed or labor productivity.

In the second chapter of the doctoral thesis, the link between some macroeconomic aggregates is analyzed, namely the number of unemployed, final consumption and gross domestic product, for which purpose statistical-econometric tools were used, the data being presented in tabular form or graphical representations.

In the third chapter of the doctoral thesis, the economic-social content of the indicators used in the analysis of macroeconomic proportions and correlations is analyzed, with the objective of identifying the link and intensity between the Gross Domestic Product, on the one hand, and export, import, net export, employed population, on the other on the other hand.

In the fourth chapter of the thesis, using statistical-econometric methods, labor resources in Romania are analyzed in the process of sustainable development, insisting on the impact of digitization on employees and on labor relations, as well as on the understanding of the greening of the economy.

In the fifth chapter of the thesis, the recent and expected trends in the use of telework and work based on information and communication technology in the countries of the European Union are presented, with detailed analyzes related to the period before and during the Covid-19 pandemic being elaborated.

At the end of the paper, I formulated a series of conclusions regarding the influencing factors on economic growth, under the specific conditions of the current period that Romania is going through.

In the elaboration of this doctoral thesis, I used an important number of bibliographic references from the national and international specialized literature, especially articles published in Clarivate Analytics rated journals or indexed in international databases.

Regarding the dissemination of research results, I mention that part of the results of the activity carried out within the doctoral training program and, in particular, of the research related to this work were published in the form of articles in specialized journals indexed in international databases (76 of items). At the same time, as a result of the scientific research in the field, I presented a series of papers in international scientific conferences, held in the country or abroad, organized by higher education institutions, being included in the volumes of the respective scientific events, as well as in the "Octav Onicescu" National Scientific Seminar on Statistics, organized by the Romanian Statistical Society (32 scientific papers).