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ABSTRACT

of a dissertation for the award of the educational and scientific degree
"Doctor" (in Economics) under the doctoral program "Finance, Money
Circulation, Credit and Insurance" (Finance) on the topic:

Economic Transformations in the Context of COVID-19 – Financial Assessment and Sectoral Analyses

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**Svishtov
2025**

The dissertation was discussed and proposed for protection under the Law on the Development of Academic Staff in the Republic of Bulgaria by the Department of Finance and Credit of the D.A. Tsenov Academy of Economics, Svishtov.

The dissertation has a volume of 152 standard pages. It consists structurally of an introduction, a presentation in 3 chapters, a conclusion and a list of literature – a total of **127 sources**. In support of this main text, **7 tables** and **19 figures** are included. Three articles have been published on the subject of dissertation work. A statement of assurance and originality is attached.

The defence of the dissertation will be held on October 6, 2025 in the “Rectorate” Conference Hall of D. A. Tsenov Academy of Economics, Svishtov, and the web-based conference system of D. A. Tsenov Academy of Economics at a meeting of the academic jury, appointed by order of the Rector of D. A. Tsenov Academy of Economics, Svishtov.

The protection materials are available in the Department of Doctoracy and Academic Development.

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I. GENERAL CHARACTERISTICS OF THE DISSERTATION

1.1. Relevance of the research

An analysis of the depth of changes in the world economy in the 20th and early 21st centuries allowed a number of economists to claim to have begun an era of transformation. However controversial, these changes, taken together, have led to the fact that the economic system has reached a new, qualitatively higher level of development. When analysing an economic system, account must be taken of the uneven movement of its various elements, which implies the need for multivariate development. Each economic system acquires new properties through the old inertia principle.

The importance of the process of modern transformation requires closer and more in-depth research to identify the *most important global economic, institutional, organisational and governance factors influencing the transformation of national and global economic systems in the global digital transformation phase.*

At the heart of economic development is structural transformation, the implementation of which requires strengthening production capacity and redirecting resources to more productive sectors. The most important factor influencing economic growth through structural changes is social needs, which are constantly growing in line with the laws of growing needs.

At present, fundamental changes are causing the digital transformation of the economy, which requires all socio-economic institutions and business units to be reconfigured. Digital technologies such as artificial intelligence, high-performance computing, advanced robotics,

virtual and augmented reality have a major impact on the economy, the labour market and society at large.

The outbreak of the COVID-19 pandemic has changed the functioning of the economy, work and societies around the world and accelerated the digital transformation process.

This research focuses on the problems related to assessing the extent of the ongoing transformative processes in the economic system on economic growth and assessing the degree of economic and digital transformation in Bulgaria, influenced by the depth of changes in the global economy in XXI. The most significant shock impacts of the Covid-19 pandemic on the sectoral structural transformation processes in Bulgaria and the opportunities for an inclusive and sustainable post-Covid-19 recovery have been identified, building on ongoing digital transformation processes. **Bulgaria's** level of digital readiness to embrace and integrate digital technology has also been assessed, as well as the capacity to create new and innovative opportunities for its use at macro and micro levels.

In accordance with the system approach and dialectical principles, the following methods have been used: universal – descriptive, analysis and synthesis, inflection and induction, summary and specific scientific – observation, methods of structural-functional, historical, logical, comparative and statistical analysis.

An information basis for the implementation of the empirical study of structural transformation taking place in the national economy is the available statistical information on the website of the National Statistical Institute of Bulgaria and Eurostat, the information (European Commission, 2024) on both indices is extracted from the Digital Economy and Society (CISCO, 2024) Index (DESI) and the Cisco Digital Preparedness Index (CISCO).

1.2. Object and subject of the research

The subject of research is the transformation of economic systems, the links and interactions of their constituent elements, as well as the influence of the links of the whole on the functioning of the parts.

The subject of research is the economic relations in the process of transformation of economic systems, as well as the state and prospects for transformation of the economic system of Bulgaria

1.3. Research thesis

The scientific thesis on which the study is built is aimed at proving the claim that, following the stage of development of social production, transformation processes occur in economic systems, leading to a change in the content and role of its main integrative properties in the formation of the socio-economic conditions for innovation of the system, which require an assessment and an appropriate set of measures of state economic and financial policy.

1.4. Aim of the dissertation

The main aim of the present study is to justify the inevitability and to “measure” the extent of the ongoing transformative processes in the economic system on economic growth and an assessment of the degree of economic and digital transformation in Bulgaria, influenced by the depth of changes in the global economy in XXI and the shock effects of the Covid-19 pandemic on sectoral structural transformation processes.

1.5. Research tasks

In order to achieve the main objective of the research, the following tasks are assigned:

1. To clarify the substance and content of the concept of “transformation of the economic system” and to identify the main factors determining the specificity of transformation processes in different economic systems;
2. Characterise the content and structure of the economic system, as well as the mechanism of influence of the structural links of the whole on the individual elements of the system.
3. Analyse the main drivers and causes of “transforming” socio-economic systems, synthesise the different concepts and theories of economists for analysing economic transformation processes and assess the impact of industrial revolutions on the transformation of economic systems.
4. Characterise the main mechanisms for optimising transformation processes, based on the relationship between structural transformation and economic growth.
5. Structure the main indicators for assessing the degree of structural transformation of the economy and, on this basis, analyse the dynamics of the sectoral (sectoral) structural transformation in Bulgaria over the period 2000-2023.
6. Assess the multidimensional impact of the Covid-19 pandemic on economic transformation processes.
7. To “measure” Bulgaria’s readiness to implement a digital transformation of the economy.

1.6. Methodology and scope of the research

The methodological and theoretical basis of the dissertation study is the main concepts and situations presented in classical and contemporary works by domestic and foreign scientists, programme and foresight developments by state bodies and normative documents. In accordance with the system approach and dialectical principles, the following methods have been used: universal – descriptive, analysis and synthesis, inflection and induction, summary and specific scientific – observation, methods of structural-functional, historical, logical, comparative and statistical analysis.

An information basis for the implementation of the empirical study of structural transformation taking place in the national economy is the available statistical information on the website of the National Statistical Institute of Bulgaria and Eurostat.

1.7. Structure of the study

Introduction

I. TRANSFORMATION OF ECONOMIC SYSTEMS: THEORY AND REGULARITIES

- 1.1.** Transformation as an economic category
- 1.2.** Modern concepts on the transformation of economic systems
- 1.3.** Impact of industrial revolutions on the transformation of economic systems

Conclusions to Chapter One

II. MECHANISMS TO OPTIMISE TRANSFORMATIVE PROCESSES IN THE ECONOMY

- 2.1.** 2.1. Structural transformation and economic growth

2.2. 2.2. Indicators to assess the degree of structural transformation of the economy

2.3. The sectoral (sectoral) structural transformation in Bulgaria 2000-2023 .

Conclusions to Chapter Two

III. MULTIDIMENSIONAL IMPACT OF THE COVID-19 PANDEMIC ON ECONOMIC TRANSFORMATION PROCESSES

3.1. Shock impacts of the Covid-19 pandemic on sectoral structural transformation processes in Bulgaria

3.2. Digital transformation for an inclusive and sustainable post-Covid-19 recovery

3.2.1. Impact of COVID-19 on the digital transformation process

3.2.2. Indices to assess the level of digital readiness

3.3. Assessment of Bulgaria's level of digital readiness – benchmarking

3.3.1 *Comparative analysis according to the Digital Economy and Society Index (DESI)*

3.3.2 *Comparative analysis according to Cisco Digital Readiness Index (CISCO)*

Conclusions to Chapter Three

Conclusion

References

1.8. Applicability of the research results

A theoretical understanding of the objective complexity of the transformation process resulting from the contradictions of past system states and the ‘accidental’ impact of the external environment is a prerequisite for identifying specific channels of impact of economic shocks

in a small open economy aimed at establishing the sectoral resilience of the economic system.

The main scientific insights in this development allow the formulation of practical policies to increase the resilience of the Bulgarian and EU economies to future shocks, based on a differentiated approach in the formulation of anti-crisis policies coupled with incentives for technological modernisation and structural adaptation, taking into account the specific characteristics and needs of different economic sectors.

II. Main content of the dissertation

Introduction

The introduction justifies the relevance of the research topic and outlines the theoretical and practical framework of the research area. The main elements of the research are defined: the object, object and research thesis of the dissertation is defined as the main objective of the study as well as the research tasks, methodology and information support.

CHAPTER ONE. TRANSFORMATION OF ECONOMIC SYSTEMS: THEORY AND REGULARITIES

A *first chapter* addresses issues concerning the main features of the transformation processes of economic systems and their impact on sectoral specialisation. The specificity of the most popular modern concepts on the transformation of economic systems has been identified and the main views on the impact of industrial revolutions on the transformation of economic systems have been drawn

On the basis of the considerations set out in the scientific study on the nature of the transformation processes taking place in economic systems under the influence of dynamic changes in the organisation of public production and the synthesis of the different approaches of economists to analysing and thinking about these processes, we can express the following considerations:

First, transformation processes are taking place in the economic system in times of offensive scientific and technological progress in the global economy. The characteristics of the transformed system depend on the interaction between the ‘old’ relationships inherent in the former economy and the new relationships inherent in the modern economy. The objective complexity of the transformation process is a consequence of the contradictions of past system states and the “accidental” impact of the external environment.

Second, the process of developing a socio-economic system marked by technological progress and organisational changes, without transformative processes, is inevitable, but as a consequence of the non-linearity of the historical development of humanity, the emerging system may be more or less progressive than the old structure, in so far as, in addition to economic growth, the development of the economic system involves changes in economic structure, social and technological changes.

Third, transformative economic processes lead to changes in almost all components of the system: the way in which the balance between constituent elements, ownership relationships, reproduction type and production structure is coordinated and maintained. The direction and pace of the socio-economic system depends on the internal and external factors that influence the ongoing transformation processes as well as the national characteristics of a country.

Fourth, the transition from an industrial to a post-industrial economic system is compounded by processes of socio-economic transformations that fundamentally change the structure of the economy. A number of original concepts and theories describing the specificity of transformative processes, assessing the characteristics of the relevant stage of public production, are the result of an understanding of these substantial changes.

Fifthly, the sharp stages of increasing complexity of the technological structure, defined as ‘industrial revolutions’ and the resulting transformation of public production, have an impact on every aspect of socio-economic development. At present, industrial transformation is taking place in the context of long-term and structural global changes. The rapidly changing geopolitical and economic situation in the world is causing growing economic and social polarisation, driven by digitalisation and technology in all aspects of life, as well as climate change and other environmental challenges.

CHAPTER TWO. MECHANISMS TO OPTIMISE TRANSFORMATIVE PROCESSES IN THE ECONOMY

The focus in Chapter Two is on clarifying the interdependence between structural transformation and economic growth, building on existing backgrounds in economic literature and characterising the specificity of the relevant indicators to assess the degree of structural transformation of the economy. Based on the theoretical stands identified, an empirical analysis was carried out to assess the speed of structural transformation in Bulgaria for the period 2000-2023.

Despite the diversity of economic theories and views on the causes of a change in the structure and specificity of the ongoing transformation processes in economic systems, the view of interdependence between sectoral structures and aggregate productivity remains undeniable. The main factors influencing economic growth through structural transformation are: (1) ***social needs*** at a certain stage of economic development and (2) the existence of sectoral differences **in yield elasticity**, which gradually displace the industry's share of overall consumption during the process of economic development. One of the earliest and central insights in literature on economic development is that the key factor determining the direction and degree of structural change is the **speed** at which structural transformation takes place.

In this study, the **amount of GDP produced has been used to establish the extent and direction of the ongoing sectoral structural transformations in Bulgaria for the** period analysed, as an indicator reflecting *the speed of change in the share of sector output* and **the level of employment by industry, measuring the rate of change in the share of sectoral inputs.**

To determine the speed of structural transformation in Bulgaria for the period 2000-2023, four indices of structural change in the sectoral composition have been applied between two points in time: *absolute Value Rate (NAV)*, *Modified Lilien Index (MLI)*, *Gatev Integral Structural Difference Factor* and *B Integrity Index*.

The results show that:

First, the values of the calculated indices of structural change by industry (based on GDP) indicate relatively low levels of ongoing transformation

processes of the sectoral structure of Bulgaria's economic system over the period 2000-2023 (see Table 1).

Table 1.

Indices of sectoral structural transformation of Bulgaria's economic system based on GDP (2000-2023)

<i>Sector</i>		<i>Structural transformation indices</i>			
		NAV	MLI	Gatev	Rabssev
A	Agriculture, forestry and fishing	0.0845	0.1030	0.0974	0.0691
B-E	Industry (excluding construction)	0.1338	0.2660	0.0732	0.0366
F	Construction	0.0670	0.0486	0.1365	0.0685
G-I	Trade, transport, hotels and restaurants;	0.0940	0.2527	0.0487	0.0243
J	Creation and dissemination of information and creative products; telecommunications	0.0582	0.0423	0.0850	0.0584
K	Financial and insurance activities	0.0778	0.0703	0.0731	0.0105
L	Real estate activities	0.0726	0.0981	0.0513	0.0347
M_N	Professional, scientific and technical activities; administrative and support service activities	0.0346	0.0358	0.0446	0.0330
O-Q	General government; education; education; human health and social work activities	0.0857	0.1566	0.0490	0.0312
R-U	Arts, entertainment and recreation, repair of household goods and other services	0.0202	0.0151	0.0519	0.0553
Total economic system		0.3642	0.4358	0.0648	0.0355

Second, the calculated indices of structural change through the application of the absolute value rate (NAV) are indicative of ongoing transformative processes in general and in all sectors of the Bulgarian economic system. At the same time, for the period analysed, the reported values are close to zero, pointing to the absence of any significant structural change. However, it should be noted that the index values derive three sectors that are relatively more significant than the other sectors in the system, and that

these are: *industry* (0.1338), *followed by services* (0.0940) and *agriculture* (0.0845).

Third, the MLI values by industry and overall for the economic system are a signal of a relatively slow pace of structural transformation. Sectors, with relatively faster rates of structural change, coincide with those defined by (NAV), namely: industry with index value of 0.2660, services sector (0.2527) and agriculture, forestry and fisheries (0.1030).

Fourth, Gatev's integrated structural divergence factor (0.0648) confirms the existence of relatively low transformation processes in the national economic system. Construction (0.0976) and Agriculture, Forestry and Fisheries (0.0974) are higher than these. The value of the coefficients in industry (0.0522) and services (0.0347) suggests that there are very low levels of structural differences.

Fifth, applying the scale known in the economic literature to assess the significance of structural differences by Rabersev index (Akhmetshin, 2018), two of the sectors have an *identity of structure*: 'Trade, Transport, Hospitality and Food Services' (0.0243) and 'Financial and insurance activities' (0.0105). In other sectors of the national economic system, the level of structural differences is very low.

The calculated indices and coefficients to estimate the sectoral structural transformation **based on the number of employees** in the sectors of the national economic system give us the following reasoning:

First, according to the value of NAV (0.0283), MLI (0.4847), Gatev's integrated factor (0.0277) and the integrated index of B. Rabsev (0.0399), the national economic system has very low levels of structural sectoral transformation (see Table 2).

Second, with the most significant sectoral transformation processes, according to the values of the indices calculated with the absolute rate dependencies, the agriculture, forestry and fisheries sector (0.0696) is higher than the average of the economic system: ‘Commerce, Transport, Hospitality and Food Services’ (0.0432), ‘Construction’ (0.0383) and ‘Industry’ (0.0348).

Third, according to index values calculated on the basis of the modified Lilian Index (MLI), relatively rapid rates of structural change can be observed in services (0.2696), industry (0.2593) and agriculture (0.2388).

Table 2.

Indices of sectoral structural transformation of Bulgaria’s economic system on a employment-based basis (2000-2023)

Sector		Structural transformation indices			
		NAV	MLI	Gatev	Rabssev
A	Agriculture, forestry and fishing	0.0696	0.2388	0.0260	0.0579
B-E	Industry (excluding construction)	0.0348	0.2598	0.0226	0.0112
F	Construction	0.0383	0.0383	0.0888	0.0536
G-I	Trade, transport, hotels and restaurants;	0.0432	0.2696	0.0207	0.0136
J	Creation and dissemination of information and creative products; telecommunications	0.0132	0.0142	0.0319	0.1598
K	Financial and insurance activities	0.0065	0.0092	0.0128	0.2728
L	Real estate activities	0.0034	0.0049	0.0210	0.7061
M-N	Professional, scientific and technical activities; administrative and support service activities	0.0226	0.0460	0.0277	0.0208
O-Q	General government; education; education; human health and social work activities	0.0378	0.1826	0.0206	0.0155
R-U	Arts, entertainment and recreation, repair of household goods and other services	0.0129	0.0218	0.0417	0.0739
Total economic system		0.2823	0.4847	0.0277	0.0399

Fourth, the value of Gatev's calculated integrated factors indicates a relatively low rate of structural transformation, both for the whole economic system and by industry.

Fifth, on the Rabssev scale, the value of the structural divergence index (0.0399), taking into account the dynamics of employees in the national economic system, identifies the level of structural sectoral transformation as very low. The opposite type of structure is observed in the real estate sector (0,7061) and a significant level in the financial and insurance activities sector (0.2728). A significant level of structural differences can be observed in the production and dissemination of information and creative products sector; telecommunications' (0.1598). According to the Ryabrzev scale, the values of the integrated indices for the agriculture, industry and services sectors are very low.

CHAPTER THREE: MULTIDIMENSIONAL IMPACT OF THE COVID-19 PANDEMIC ON ECONOMIC TRANSFORMATION PROCESSES

A third chapter focuses on clarifying whether and to what extent the restrictions imposed by the Covid-19 pandemic and its shock effects have affected the structural and digital transformation processes of the national economic system. The opportunities for an inclusive and sustainable post-Covid-19 recovery and Bulgaria's level of digital readiness to embrace and integrate digital technology have been assessed, as well as the capacity to create new and innovative opportunities for its use at macro and micro levels.

The pandemic crisis is catalysing structural transformation processes in the

Bulgarian economy, accelerating the transition to digitalisation and automation. Empirical evidence confirms the hypothesis of asymmetric impacts across sectors, resulting in a reallocation of resources and a shift in the relative weight of individual industries. New adaptive micro- and macro-economic mechanisms are emerging that modify traditional business models and create preconditions for increased resilience to future shocks. Sectors with a higher degree of digitalisation demonstrate greater reluctance, confirming theoretical assumptions about the role of technological readiness in crisis settings.

We affirm *that* digital transformation is not just making processes more efficient, but *creating new opportunities, building new business processes and introducing new methods* that allow organisations, on the one hand, to adapt to a new stage of economic development and, on the other hand, to increase the level of competitiveness in a digitalising world. By accelerating the digital transformation, the pandemic **has created an environment** that will continue to **foster innovation and technological renewal** at all levels.

Information on a country's level of digitalisation is essential for decision-makers in both public and private organisations. The availability of this information makes it possible to identify the sectors to which investments must be directed and to 'measure' the effect of such investments.

To assess Bulgaria's digital (digital) readiness to adopt and integrate digital technology, as well as the capacity to create new and innovative opportunities for its use at macro and micro levels, the data for two indices have been applied: *Digital Economy and Society* Index (DESI) and *Cisco Digital Readiness Index* (CISCO). The sample included EU Member

States in Eastern Europe: Bulgaria, Czechia, Estonia, Croatia, Hungary, Lithuania, Latvia, Poland, Romania, Slovenia and Slovakia.

Based on the reported Digital Economy and Society Index (DESI) figures for 2024, the main conclusions for some of the key indicators for Bulgaria are:

First, according to *DESI's first indicator, Internet skills*, *Bulgaria has the lowest 79.8 % of internet users. At the same time, our country is making significant progress of 6.7 % compared to the 31.2 % indicator for 2023* of the number of people with *at least basic digital skills*. The relative share of people *above initial digital competences* in Bulgaria is 8.97 %, three times lower than the EU average (27.32 %) and four times lower than the indicator values for Czechia (35.5 %).

Second, in Bulgaria, the percentage of households covered by a *fixed very high capacity network (VHCN)* is 88.61 % or 9.8 % higher than the EU average (78.81 %).

Third, the index for the '**Digitalisation of public services**' indicator indicates that, with the 94.7 % indicator for Estonia, the relative share of people *with online public services* in Bulgaria is 2.67 times lower than that of Estonia and 39.6 % lower than the EU average (75.0 %). The value of the indicator assessing *the level of provision of public services to citizens* increased in 2024 by 3.1 % compared to 2023. (European Commission, 2024). For Bulgaria, with a value of 59.7 % in 2023, this growth is 13.4 %. However, the relative share of public services provided to citizens in Bulgaria is lower than the EU average by 12 %.

Within the sample of the Eastern European EU Member States, **the Cisco Common Preparedness Index** 2024 values of 1.57 put Estonia in the top 20 countries with accelerating artificial intelligence deployment. The

remaining sampled Member States were among the 47 countries (33 % of respondents) categorised as ‘persecutors’.

The assessment of Bulgaria’s digital readiness, according to the **Cisco General Preparedness Index** 2024, leads to the following conclusions:

First, with an index value of 0.27 points, Bulgaria ranks last in the sample, after Hungary (0.36) and Romania (0.35).

Second, the score for the *Basic Needs indicator ranks* prominently in the group of Slovenian Member States analysed (0.86), followed by Czechia (0.79) and Estonia (0.79). The relatively lowest figures are Lithuania (0.63), Latvia (0.62) and Bulgaria with 0.61 points.

Third, under the indicator ‘*Business and government investment*’, Estonia again had the highest value of 0.57 points, followed by Poland (0.53) and Slovenia (0.44) (see Figure 14). Two of the countries in the sample had negative values: Bulgaria (-0.4) and Romania (-0.7).

Fourth, according to the values of the indicator assessing the level of restrictions on business development firms – ‘*Lesser doing business*’, Romania and Bulgaria again have negative values of -52 and -0.69 points respectively.

Fifth, on the indicator assessing the level of restrictions on business development firms, ‘*doing business*’, **first of all**, Estonia logically puts Estonia, with a value of 1.25 points. Lithuania (1.19) and Czechia (1.05) are also close to these values. Romania and Bulgaria again have negative values of -52 and -0.69 points respectively.

Sixth, Bulgaria’s estimate of the **Human Capital** indicator ranks it last in the group, with an index value of 0.32 which is 4.37 times lower than that of Estonia (1.39).

Seventh, among the sample of EU Member States analysed, Bulgaria ranks prominently in the ‘**Technology Infrastructure**’ indicator, with a score of 1.78 points.

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III. Guidance for future research on the topic of dissertation

The timeliness of this research presupposes the need for further research in the following directions:

- 1.** In order to clarify the causes and factors affecting economic change, income disparities and changes in the sectoral structure, an in-depth analysis of the ongoing processes of change in the economic structure is necessary to identify opportunities for increasing aggregate economic growth and establishing more diverse and complex production activities in Bulgaria to be placed at the centre of the analysis.
- 2.** Measuring the effects of the pandemic in the presence of sectoral divergences in the economies of Bulgaria and the EU, including: identification of the most vulnerable sectors; assessing the effectiveness of the support measures implemented, as well as drawing lessons to increase the resilience of the economy.

IV. Reference on the scientific and applied contributions in the dissertation

1. The substance and content of the concept of ‘transformation of the economic system’ has been clarified and the main factors underlying the specific nature of transformation processes in different economic systems should be identified.

2. The main drivers and causes of “transforming” socio-economic systems have been identified, to synthesise the different concepts and theories of economists for analysing economic transformation processes and to assess the impact of industrial revolutions on the transformation of economic systems.

3. Economic concepts and theories on the specificity of ongoing economic transformation processes have been synthesised, the impact of industrial revolutions on the transformation of economic systems has been assessed and the main mechanisms for optimising transformation processes are characterised, based on the relationship between structural transformation and economic growth.

4. The main indicators for assessing the degree of structural transformation of the economy have been structured and, on this basis, an empirical analysis has been carried out of the dynamics of the sectoral (sectoral) structural transformation in Bulgaria over the period 2000-2023.

5. The multidimensional impact of the Covid-19 pandemic on the economic transformation processes in Bulgaria has been identified and the country’s level of preparedness for the digital transformation of the economy has been assessed.

V. List of publications by the doctoral student

Milev, Goryan. Shock impacts of the pandemic on sectors of the economy in Bulgaria and the EU – empirical testimonies. International Scientific Conference on Problems and Challenges for Economic Science and Education in the 21st Century. OJ C 164, 25.6.2008, p. 19.

Milev, Goryan. Dynamics of sectoral structural transformation in Bulgaria. Annual Almanam “Doctoral Research”, Number of 16-2023, Book 19 – Studies and articles

<https://almanahnid.uni-svishtov.bg/title.asp?title=3052>

Milev, Goryan. Transformation of economic systems: prerequisites, patterns, concepts. Annual “Doctoral Research” Almanam, Number of XV – 2022, Book 18 – Studies and articles

<https://almanahnid.uni-svishtov.bg/title.asp?title=2935>

VI. Reference for compliance with the national requirements under the Regulations for the Implementation of the Law on the Development of the Academic Staff in the Republic of Bulgaria

National requirement in number of points: 35

Number of items indexed in NACID: 3 samples

Number of items indexed in NACID: 30,00

Total points: 30,00

VII. Declaration of originality of dissertation work

The variant of dissertation work in a volume of 150 pages under the heading: “Economic transformations in COVID-19 – financial assessment and sector analyses” is authentic and represents the author’s own scientific output. It uses authors’ ideas, texts and visualisation through graphs, diagrams, tables and formulae, complying with all the requirements of the Copyright and Related Rights Act by duly quoting and referring to foreign authoritative intent, as well as data, including:

1. The results and contributions achieved in the dissertation work are original and are not taken from studies and publications in which the author does not participate.

2. The information provided by the author in the form of copies of documents and publications, personal references etc. corresponds to the objective truth.

3. The scientific results obtained, described and/or published by other authors are duly and extensively cited in the bibliography.

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(PhD student Gorian Milev)