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# СОNTRIBUTION OF NOBEL LAUREATE ECONOMISTS TO THE DEVELOPMENT OF MICROECONOMIC THEORY ВНЕСОК ЕКОНОМІСТІВ-НОБЕЛІВСЬКИХ ЛАУРЕАТІВ У РОЗВИТОК МІКРОЕКОНОМІЧНОЇ ТЕОРІЇ

Summary. Introduction. Microeconomic theory is the foundation for understanding the behavior of individuals, households, and enterprises in market conditions. It provides a theoretical framework for analyzing economic decisions and their consequences for society as a whole. Over time, this branch of economic science has undergone significant development due to innovative approaches and discoveries made by outstanding economists, many of whom have been awarded the Nobel Prize in Economics. Nobel laureates in economics have significantly influenced the evolution of microeconomic theory, in particular through the development of new models, the analysis of market structures, the behavior of market participants, as well as incentive mechanisms

and information asymmetries. Their work not only deepens our understanding of economic processes, but also provides practical tools for solving important economic problems.

Objective: to examine the contributions of Nobel Prize laureates in economics, particularly in the field of microeconomic theory, and to find out how their theoretical research helped to develop economic science and improve the effectiveness of decision-making in real economic conditions.

Materials and methods. To achieve the specified goals, the article uses a complex of general scientific and special research methods: logical and theoretical generalization, morphological analysis to clarify the terminological apparatus, methods of analysis and synthesis, dialectical and historical approaches, comparative analysis, as well as the deductive method to clarify conclusions and formulate theoretical and practical recommendations.

Results. The study identifies the contribution of Nobel laureates to the development of microeconomic theory. The article focuses on the works of such economists as John Hicks, Kenneth Arrow, Gerard Debrai, Maurice Alle, Gary Becker, Amartia Sen and others, whose research leads to new levels of understanding of the interaction of the market and society. In particular, the significance of welfare theory, general equilibrium theory, asymmetric information theory and human capital theory is considered. The article also focuses on the importance of the influence of economists who became Nobel laureates on the development of modern economic theories and practices. An important aspect is the study of market failures, pricing and income distribution, which allows for a better understanding of economic processes and mechanisms that arise in different market conditions. Particular attention is paid to the achievements of the 2001 Nobel Prize laureates, in particular their work in the field of asymmetric information and market failures, as well as their research on market mechanisms related to pricing and income distribution. The research of Peter Diamond, Lloid Shapley and Alvin Rota, who applied game

theory to market design and achieved important results in the processes of resource allocation and market organization, is also considered.

Prospects. The considered studies of the contribution of Nobel Prize laureates to the development of microeconomic theory will allow us to better understand real market processes and develop effective economic strategies to solve social and economic problems.

*Key words:* microeconomics, marginalism, Nobel Prize, welfare theory, behavioral economics, asymmetric information.

Анотація. Вступ. Мікроекономічна теорія є фундаментом для розуміння поведінки індивідів, домогосподарств та підприємств в умовах ринкових відносин. Вона забезпечує теоретичні основи для аналізу економічних рішень і їх наслідків для суспільства в цілому. З часом ця галузь економічної науки зазнала значного розвитку завдяки інноваційним підходам та відкриттям, здійсненим видатними економістами, чимало з яких були удостоєні Нобелівської премії з економіки. Нобелівські лауреати в галузі економіки значно вплинули на еволюцію мікроекономічної теорії, зокрема через розробку нових моделей, аналіз ринкових структур, поведінку учасників ринку, а також механізми стимулів та інформаційних асиметрій. Їхні роботи не лише поглиблюють наше розуміння економічних процесів, але й надають практичні інструменти для вирішення важливих економічних проблем.

Мета: дослідити внесок лауреатів Нобелівської премії в економіці, зокрема в галузі мікроекономічної теорії, і з'ясувати, як їхні теоретичні дослідження допомогли розвинути економічну науку та покращити ефективність прийняття рішень у реальних економічних умовах.

Матеріали і методи. Для досягнення визначених цілей у статті застосовано комплекс загальнонаукових та спеціальних методів дослідження: логічне і теоретичне узагальнення, морфологічний аналіз для уточнення термінологічного апарату, методи аналізу і синтезу, діалектичний та історичний підходи, порівняльний аналіз, а також дедуктивний метод для уточнення висновків і формулювання теоретичних та практичних рекомендацій.

У дослідженні визначено Результати. внесок Нобелівських лауреатів у розвиток мікроекономічної теорії. У статті закцентовано увагу на роботах таких економістів, як Джон Хікс, Кеннет Ерроу, Жерар Дебре, Моріс Алле, Гері Беккер, Амартія Сен та інших, чиї дослідження виводять на нові рівні розуміння взаємодії ринку і суспільства. Зокрема, розглянуто значення теорії добробуту, теорії загальної рівноваги, теорії асиметричної інформації та теорії людського капіталу. В статті також зосереджено увагу на важливості впливу економістів, які стали лауреатами Нобелівської премії, на розвиток сучасних економічних теорій і практик. Важливим аспектом є дослідження ринкових провалів, ціноутворення та розподілу доходів, що дають змогу краще зрозуміти економічні процеси та механізми, що виникають у різних ринкових умовах. Особливу увагу в статті приділено досягненням лауреатів Нобелівської премії 2001 року, зокрема їхнім роботам у галузі асиметричної інформації та ринкових провалів, а також дослідженням ринкових механізмів, пов'язаних із ціноутворенням і розподілом доходів. Також розглянуто дослідження Пітера Даймонда, Ллойда Шеплі та Елвіна Роти, які застосували теорію ігор до ринкового дизайну та досягли важливих результатів у процесах розподілу ресурсів і організації ринків.

Перспективи. Розглянуті дослідження внеску лауреатів Нобелівської премії для розвитку мікроекономічної теорії, дозволять краще розуміти реальні ринкові процеси і розробляти ефективні економічні стратегії для вирішення соціальних і економічних проблем.

**Ключові слова:** мікроекономіка, маржиналізм, Нобелівська премія, теорія добробуту, поведінкова економіка, асиметрична інформація.

**Problem statement.** The experience of many countries shows that the works of Nobel laureates have great potential for application in such areas as macroeconomics, microeconomics, financial markets, marketing, which indicates an impressive breadth of scientific interests. The most important studies in economics of the second half of the 20th century were recognized by the world scientific community, and their authors became laureates of the Nobel Prize in Economics, established by the Central Bank of Sweden in 1968. Therefore, it is advisable to consider the outstanding Nobel laureate economists and their ideas that influenced the development of microeconomics.

Analysis of recent research and publications. The contribution of Nobel Prize laureates in economics to the development of microeconomic theory was studied by such researchers as O. Dluhopolsky, M. Dovbenko, O. Dubenska, Yu. Ivashuk, R. Kornyliuk, E. Libanova, O. Moskalenko, Kh. Peredalo, I. Pominova, N. Ushakova, M. Chirak, I. Chirak, O. Shymanska. Changing realities of life, the complication of the world, the formation of a new economy lead to the emergence of new relationships and interdependencies in economic theory, which explains the constant interest in familiarizing themselves with the scientific achievements of the laureates. Horkina L.P., Dovbenko M.V. [1]. studied the scientific views of such prominent economists, Nobel laureates, as S. Kuznets and R. Solow, on the formation of the modern theory of economic growth. Luniova T. S. [2] studied the scientific achievements of Nobel laureates related to market research. The scientist traced the evolution of views on the theory of consumer choice and characterized the contribution of Nobel laureates to the emergence and development of behavioral economics, the founders of which are considered to be G. Simon and D. Kahneman. Chirak M., Chirak I. [3] studied the contribution of the 2013 Nobel Prize winners in Economics Y. Fama and R. Shiller to the development of economic science and, in particular, to the identification of long-term trends in financial markets. Dluhopolsky O., Ivashuk Y. [4] studied the methodological

basis of experimental and behavioral economics, highlighting the founders and most famous representatives of these sciences.

**Materials and methods.** To achieve the goals set, the article uses a complex of general scientific and special methods of scientific research: logical and theoretical generalization, morphological analysis to clarify the conceptual and categorical apparatus, methods of analysis and synthesis, dialectics and historicism, comparative analysis, as well as the deductive method to specify conclusions and formulate theoretical and practical recommendations. The information base of the study consists of monographs and scientific articles of domestic and international researchers, materials of scientific and practical conferences that focus on the development of microeconomic theory.

The purpose of the article is to study the contribution of Nobel Prize winners in economics to the development of modern microeconomic theory.

**Presentation of the main material.** The theoretical and methodological basis of microeconomics was initiated by marginalism - a scientific trend that emerged in the 1870s. In their analysis, marginalists use two main principles: the scarcity and limitation of production resources; rational behavior of the consumer and producer in the market. On this basis, a model of optimal behavior of market entities is developed, in which maximum benefits are achieved at minimum costs.

Let us consider the achievements proposed by Nobel laureates during the period of the formation of microeconomic science, since it was they who made many fundamental discoveries, substantiated a number of theories, and formulated important laws.

The Nobel laureates for their contribution to the theory of welfare were the English economist John Hicks and the American economist Kenneth Arrow, the French economist Maurice Allé and the Indian economist Amartia Sen.

Remaining true to the principles of marginalism, J. Hicks, who shared the 1972 Nobel Prize with Kenneth Arrow for his contributions to the development

of general equilibrium theory and welfare theory, sought in his work "On the Theory of Demand Again" to improve demand theory by removing its limitations associated with the use of indifference curves. In his work, he conducted a theoretical analysis of the transition from individual demand for a specific good to aggregate demand, that is, the aggregate demand for a large number of goods. Provided that the price ratio of individual goods remains unchanged, aggregate demand retains the properties of market demand for a specific good.

In his work "Value and Capital", Hicks addressed the problems of microeconomic theory, outlining the foundations of the ordinal theory of prices and developing the provisions of the general theory of equilibrium. He first raised the question of the stability of competitive equilibrium on the scale of large economic systems and proved that the subjective theory of value is not actually directly related to fluctuations in demand and supply in the market. Hicks also noted that changes in the prices of goods cause a "substitution" effect, which always has a negative impact, and the "income" effect can be both negative and positive. The algebraic expressions describing these changes have opposite signs: an increase in prices always leads to a reduction in demand, and a decrease in prices - to its expansion. In some works, these effects are called "Hicksian" [5]. The theory proposed by Hicks determines the reaction of consumers to changes in market conditions: an increase in prices is associated with a reduction in demand, and a decrease in prices - with its expansion. The interaction between market demand and supply inevitably causes changes in the price structure.

Gérard Debret, a French economist who won the 1983 Nobel Prize in Economics for his contribution to the understanding of the theory of general equilibrium and the conditions for its existence in an abstract economy, studied equilibrium prices, demand, and prices. In his works, he investigated the conditions under which prices in an economic system tend to reach their

equilibrium value. In a joint work with Kenneth Arrow, Debret substantiated the existence of equilibrium prices. In particular, in the article "The Existence of Equilibrium for a Competitive Economy," scientists developed a mathematical model in which various producers plan the sale of their products and services, as well as the demand for factors of production, in such a way as to maximize their profits. They supported their theory with mathematical calculations, on the basis of which the Arrow-Debret model arose [6]. This model determines various options for the behavior of producers and consumers, while the relationship between prices, demand, and supply are determined simultaneously. The model covers the supply of goods and the demand for factors of production on the one hand, and prices on the other.

The work of scientists also included assumptions about consumer behavior, on the basis of which demand functions were obtained, which determine the relationship between prices and quantities of goods offered and needed. As a result of this model, it was possible to prove the existence of equilibrium prices. The theory of value, where a mathematical analysis of general equilibrium was carried out, became a classic economic work of the 20th century. Such a model allows you to accurately determine important economic indicators for enterprises.

The French Nobel laureate in 1988, Maurice Allet, proved the first and second theorems of welfare theory. "He was clearly aware that an equilibrium distribution of income in order to achieve maximum social efficiency may, for various reasons, be unacceptable for the private sector and defended the thesis that distribution issues should be clearly separated from consideration of efficiency" [7, p. 153].

Maurice Allet proposed a system of markets for different goods, and the same good can be sold and bought in different markets. There is no single set of prices, and market exchange acts are not all carried out at once, but occur continuously. The scientist justified the multiplicity of markets and the large number of price systems as a reflection of the real change towards the economic optimum.

In 1992, the Nobel Prize was awarded to Gary Becker "For expanding the scope of microeconomic analysis to a wide range of human behavior and interaction between individuals." The extension of the scope of microeconomic analysis to a number of aspects of human behavior and interaction, including non-market behavior. Becker defines the essence of his scientific research as "The Economic Approach to Social Issues" [8]. The fruitfulness of his research was demonstrated by the example of such non-market forms of activity as discrimination, education, crime, marriage, family planning, as well as when explaining irrational and altruistic behavior, which, it would seem, is not at all characteristic of "economic man." Becker's colleagues, students and followers supplemented this approach with phenomena even more exotic for traditional economic science - from ideological processes and religious activity to suicides and sexual activity.

Such "economic imperialism" was inspired by the idea of the fundamental rationality of human behavior. The premise of rationality assumes that it is expedient (oriented to obtain future results) and coordinated in time. Starting from it, Becker widely expanded the framework of neoclassical economic theory, which he perceived as a universal language for describing human behavior, wherever and by whom it was carried out. Its key concepts: scarcity, price, opportunity costs, etc. - began to be increasingly actively added to the most diverse aspects of human life, including those that were traditionally in the realm of other social disciplines. Becker applied the theory of human capital to the problem of income inequality, emphasizing the importance of investment in training and education for the evolution of income opportunities throughout the life cycle, as opposed to simply comparing the size of income between people at a certain period. He was also one of the first to investigate and attempt to quantify the relationship between abilities and education, and to distinguish between human capital in general and the specific human capital of a firm [8].

Amartia Sen received the Nobel Prize in Economics in 1998 "for his contributions to the economic theory of welfare", although his scientific interests go beyond this topic. He is known for his research in the field of poverty, economic inequality and social problems such as hunger on the planet. Sen not only made theoretical generalizations, but also offered specific recommendations for preventing hunger and deprivation, as well as minimizing their consequences. The scientist emphasized that solving the global problem of hunger requires a correct understanding of the relationship between the food problem and the economic situation in general [2]. The theory of "asymmetric information" was developed by American economists George Akerlof, Michael Spence and Joseph Stiglitz, who received the Nobel Prize in Economics in 2001. They studied how imperfect information in the market can lead to problems when market participants have unequal access to knowledge or different levels of awareness [9]. The theory was developed in the 1970s and is a critique of traditional economic theory, which assumes that markets are efficient without regulation. Akerlof showed that when sellers have more information about the quality of goods than buyers, the market begins to be dominated by low-quality goods. The theory of asymmetric information also explains the phenomenon of rising credit costs in transition economies, pointing to problems arising from different levels of information.

J. Akerlof in the article "The Market for Lemons: Quality Uncertainty and the Market Mechanism" considers the market for used cars as an example for modeling the distribution of information. He assumes that cars come in two types: high and low quality. Each buyer wants to buy one car, but is unable to determine its quality at the time of purchase. All buyers evaluate the value of cars, regardless of their quality, and the price for all cars is the same. Only the seller knows about the quality of a particular car, and he is aware of the

difference in price between cars of different quality. Under conditions where there are separate markets for goods of different quality, the difference in price between cars of low and high quality allows for profitable transactions for both parties. This provides a socially efficient outcome in which profits from trade are maximized. However, if the market is not regulated and buyers cannot determine the quality of the product, sellers of low-quality cars begin to sell them in the market for high-quality cars. This leads to the unification of markets with one price for all cars. As a result, sellers of high-quality cars leave the market, leaving only low-quality cars, that is, "lemons." The result is a problem of market failure caused by externalities, when attempts to sell a bad product affect the perception of the quality of all cars on the market. This reduces the price that buyers are willing to pay for an average car, which, in turn, causes losses to sellers of good cars. J. Akerlof shows that the lack of information about the quality of the product leads to a decrease in prices and even to the disappearance of the market.

Michael Spence is best known for his studies of information asymmetry in the labor market, particularly the "signaling system" of the labor market. According to his theory of market signals, sellers can increase their sales by providing buyers with additional information about the quality of their goods or services. Such additional information can be trademarks, guarantees, recommendations, endorsements, or employee qualifications—all of which are "market signals." In his article "Labor Market Signals," M. Spence argues that signaling requires economic agents to spend significant amounts of money to convince others of their capabilities, value, or quality of goods and services. "Signaling" will not be effective if the costs of signaling do not differ among signal senders, i.e., among competitors in the labor market [10]. For example, an employer may select candidates for a job who have a high and expensive education. If, due to information asymmetry, there is no difference in education level, the employer will not be able to determine which of the candidates will be more useful for the job.

M. Spence, through his theory of market signals, explained how economically informed agents contribute to the dissemination of information about the state of the market and its efficiency. When a more informed agent makes expensive efforts to promote his product or service, he thereby informs less informed agents about this product or service.

The founder of experimental search in microeconomic theory is considered to be Vernon Smith (Nobel Prize laureate in 2002). In his research, V. Smith considered microeconomics as an experimental platform. The following statements were the result of his experiments [4, p. 183]: the equilibrium price is established as a certain approximation of the variety of market transactions, at the same time there are certain deviations from the ideal equilibrium state; the demand and supply curves, reflecting the real situation in the market, have a stepped nature; markets as information optimizers are evaluated under three auction conditions: static equilibrium, cyclical changes and chaotic changes in demand and supply.

Later, natural experiments, as an empirical analysis of real-life situations, began to be used to solve macroeconomic and socio-economic problems, for example, to combat unemployment or to identify the impact of the minimum wage on labor market conditions. In particular, in 2021, the Nobel Prize was awarded to David Card, Joshua Angrist, and Guido Imbens for the use of natural experiment methods in labor economics [11].

The 2012 Nobel laureates in economics, Lloid Shapley and Alvin Roth, successfully combined game theory with the concept of "market design" [12]. They studied the problem of aligning the interests of sellers and buyers, which can sometimes lead to the absence of deals and even the disappearance of inefficient markets. Unlike the goods market, the labor market is complicated by the fact that the subject of the deal is not an ordinary product and depends on

the interests not only of the employer, but also of the candidate for the position, who assesses the possibility of concluding a contract. The conclusion of a deal in such a market depends on the interaction of supply and demand, but also on the individual interests of each of the parties.

Scientists L. Shaplei and E. Roth have developed methods for the efficient allocation of resources among buyers, which allows for the formation of optimal combinations of interests between them and sellers, and also helps to find the best options for interaction between agents. They proposed a concept of market design that involves creating specific rules that improve the process of matching the interests of market participants. This can be useful not only for markets, but also for other situations where there is an interaction between two groups of agents who must choose each other.

Peter Diamond made significant contributions to economic theory, in particular to the study of such phenomena as public debt, capital markets, risk sharing and social insurance. He proposed adjusting the provision policy towards higher social insurance contributions. He proposed a model of the "coconut economy" (DMP model), which explained how markets work in the presence of frictions and search [13]. The DMP model was based on microeconomic decision-making theory and logically described the possibility of several or many equilibria in markets that were not optimal. Diamond showed that markets do not always work efficiently due to the presence of search costs, which reduces the possibilities for optimal deals. P. Diamond determined that in cases of market interaction, not only the terms of the deal are important for an economic agent, but also the resources spent on finding an alternative. He formulated the "Diamond paradox": in conditions of limited time and resources, the best choice is the price of the monopolist in the market. This explains the success of large real estate agents compared to alternative non-chain stores, even if they have lower prices, since the "search cost" will be significantly lower. A gradual increase in prices will lead to the establishment

of a monopoly price. Therefore, even insignificant search costs quickly turn even a market with many selling firms into a market with monopoly prices. The scientist proved that even in markets with a large number of sellers, search difficulties lead to the establishment of monopoly prices, higher than those in "pure" competitive markets, where there are no search costs. As a result, buyers and sellers are guided by the monopolist's high prices, instead of "fair" market prices.

In the 1980s, Peter Diamond, Dale Mortensen, and Christopher Pissarides actively developed the ideas of search theory and came to the important conclusion that external factors that are not taken into account by the searcher play an important role in the market. In addition, the three Nobel Prize winners in 2010, using their DMP model, theoretically substantiated the origin of the "Beverage curve". This curve shows that the labor market tends to two starting points at different times: high unemployment and a small number of vacancies on the one hand, and low unemployment and a large number of vacancies on the other. Diamond, Mortensen, and Pissarides showed that sometimes there are situations when both unemployment and the number of vacancies can increase. In this case, the answer to the question of why this happens should be sought not in the traditional business cycle, but in the labor market itself.

The foundation of the modern interpretation of asset prices was laid by the 2013 Nobel laureates – American economists Eugene Fama, Lars Peter Hansen and Robert Shiller. Scientists "established a number of important patterns that contribute to understanding how and why market prices of assets change" [3, p. 126]. According to scientists, the modern understanding of asset prices is partly based on fluctuations in the level of risk and attitude to it and partly on the perfection of markets.

Angus Deaton, winner of the 2015 Nobel Prize in Economics, made an important contribution to the development of the theory of demand, which is the basis of microeconomics. In turn, the theory of demand, which was developed back in the 19th century by Antoine Cournot, has always reflected the relationship between price and demand: the higher the price of a good, the lower the demand for it, and vice versa – the lower the price, the greater the demand.

Deaton and his co-author John Muhlbauer have created a new approach called the Ideal Demand System. They have developed a mathematical model that shows how households allocate their consumption among different goods. This model takes into account a number of factors, such as price levels, consumer incomes and demographic characteristics, which allows for more accurate predictions of demand behavior in real conditions. The Ideal Demand System has become an important tool for governments, especially in developed countries, who use it to formulate tax policies, analyze the impact of policy decisions on the well-being of different social groups and study inflation rates. This approach is also used to compare the purchasing power of the population in different countries, which allows for a better understanding of economic processes and the impact of policies on the standard of living of citizens.

In 2014, the Nobel Prize was awarded to the French economist Jean Tirol "for his analysis of market power and regulation," who in his works pays considerable attention to the study of specific markets, noting, in particular, the lack of effectiveness of the fight against oligopolies using classical methods [12].

According to the Nobel laureate, classical methods of fighting oligopolies are not always successful, because price restrictions do not always prevent excess profits, and the prohibition of cooperation between market players can inhibit the development of innovations. Therefore, Tirol emphasizes that optimal regulation should be carried out taking into account the specifics of a particular industry. In a number of his publications, Tirol describes the general concept of such a policy, applying it to various areas, from the banking system to telecommunications networks. Richard Thaler, the winner of the 2017 Nobel Prize in Economics, made a revolutionary contribution to the development of behavioral economics. His work on nudge theory changed our understanding of how people make economic decisions, emphasizing the importance of emotional and cognitive factors.

Thaler studied how people make decisions in the face of bounded rationality, social preferences, and lack of self-control. He found that people do not always act rationally, as classical economic theory suggests. Sometimes choices are made spontaneously, intuitively, or based on social and emotional factors. This is where the idea of nudges comes in—creating conditions under which a person, even if not forced, will make the right choice without direct intervention or coercion.

Thaler proposed the concept of "choice architecture," where it is important to understand how the design and presentation of information can influence decision-making. For example, "nudges" can help people make decisions in the context of complex economic processes, such as concluding insurance contracts, taking out loans, or purchasing real estate, even if they do not usually act rationally.

The main principle of Thaler's theory is "libertarian paternalism," which allows governments or other organizations to create conditions that stimulate people to make rational choices while preserving their freedom of choice.

The study of the process of market decision-making and mechanisms of public choice has allowed us to create a mechanism for adjusting such decisions in favor of public administration entities. Knowledge of deviations from rational standards can become an instrument of economic policy that can contribute to increasing public welfare.

**Conclusions.** The achievements of Nobel laureates have significantly influenced the development of welfare theory, market mechanisms, and equilibrium modeling in markets. From John Hicks to Peter Diamond and

others, their work has not only deepened the understanding of economic processes, but also led to the development of new directions in the study of consumer, producer, and market behavior. The research of Gerard Debray and Kenneth Arrow confirmed the existence of equilibrium prices in markets, which was an important step in understanding complex economic systems and the interaction of supply and demand. Gary Becker expanded the boundaries of microeconomics by analyzing the impact of economic principles on social phenomena, in particular, discrimination, crime, marriage, and education. His research emphasized the importance of human capital and social investment for long-term economic growth. Theories of asymmetric information, in particular the work of George Akerlof and Michael Spence, explain how information asymmetry between market participants can lead to inefficiency and a decrease in the quality of goods in the market, which has important consequences for economic policy and market regulation. The works of Vernon Smith and Peter Diamond in the field of experimental economics demonstrate the importance of an empirical approach to analyzing real economic situations and improving market mechanisms. This allows us to better understand the dynamics of markets and propose more effective strategies for achieving economic equilibrium. The research of the Nobel laureates in 2010 supplemented the understanding of labor market mechanisms, in particular the interaction between unemployment and the number of vacancies, which was an important contribution to the theory of search in markets. The modern interpretation of asset prices, proposed by the Nobel laureates in 2013, identified important aspects of market prices and helped to reveal the mechanisms of their formation under conditions of uncertainty and risk.

Thus, the contribution of Nobel laureates to microeconomic theory has significantly expanded the horizons of economic analysis, deepened the understanding of market processes and economic interactions, which

contributed to the development of more effective policies and strategies for optimizing market and social processes.

## Literature

1. Горкіна Л.П., Довбенко М.В. Теорія економічного зростання: нобелівський аспект. URL: https://eip.org.ua/docs/EP\_05\_3\_147\_uk.pdf (дата звернення: 01.02.2025).

2. Луньова Т. С. Розвиток мікроекономічної теорії у працях лауреатів Нобелівської премії з економіки. *Економічний простір.* 2022. № 179. С. 7-11.

3. Чирак М., Чирак I. Гіпотеза ефективних ринків: прибічники і критики. *Вісник ТНЕУ*. 2015. № 3. С. 126-135.

 Длугопольський О., Івашук Ю. Експериментальна та поведінкова економіка: від Вернона Сміта до Даніеля Канемана. *Вісник ТНЕУ*. 2014. № 1. С. 180-193.

5. Пархоменко Н. О. Вивчення питань цін та ціноутворення Нобелівськими лауреатами з економіки. *Вісник Хмельницького національного університету*. 2010. Т. 4, № 5. С. 107-110.

6. Шиманська О. Джерерд Дебре: новий вимір загальної економічної рівноваги. *Вісник ТНЕУ*. 2008. № 2. С. 169-175.

Шиманська О. Феномен Моріса Алле. Вісник ТНЕУ. 2008. № 4.
С. 151-156

8. ГЕРІСТЕНЛІБЕККЕР.URL:http://nobel.knute.edu.ua/index.php/nobelivski-laureati/geri-stenli-bekker(датазвернення: 01.02.2025).

9. Магдіч А.С., Лимонова Е.М. Асиметрія інформації: сфери виникнення та ефекти. *Нобелівський вісник*. 2019. № 1 (12) С. 50-56.

10. Ковальчук В. Моделі ринків з асиметричною інформацією у дослідженнях Нобелівських лауреатів. *Вісник ТНЕУ*. 2009. № 3. С. 123-132.

11. Єгорченко I. За лаштунками Нобелівської премії: відкриття, політика і математика. URL: https://zn.ua/ukr/science/za-lashtunkami-nobelivskoji-premiji-vidkrittja-politika-i-matematika-.html (дата звернення: 01.02.2025).

12. Список лауреатів. URL: http://nobel.knute.edu.ua/index.php/spisoklaureativ#2012 (дата звернення: 01.02.2025).

13. ПІТЕРАРТУРДАЙМОНД.URL:http://nobel.knute.edu.ua/index.php/nobelivski-laureati/piter-artur-dajmond(дата звернення: 01.02.2025).

## References

1. Horkina L.P., Dovbenko M.V. Teoriia ekonomichnoho zrostannia: nobelivskyi aspekt [Economic Growth Theory: The Nobel Aspect]. URL: https://eip.org.ua/docs/EP\_05\_3\_147\_uk.pdf [in Ukrainian].

2. Lunova T. S. (2022). Rozvytok mikroekonomichnoi teorii u pratsiakh laureativ Nobelivskoi premii z ekonomiky [Development of microeconomic theory in the writings of Nobel Prize laureates in economics]. *Ekonomichnyi prostir.* № 179. pp. 7-11 [in Ukrainian].

3. Chyrak M., Chyrak I. (2015). Hipoteza efektyvnykh rynkiv: prybichnyky i krytyky. [Efficient Markets Hypothesis: Proponents and Critics]. *Visnyk TNEU*. № 3. pp. 126-135 [in Ukrainian].

4. Dluhopolskyi O., Ivashuk Yu. (2014). Eksperymentalna ta povedinkova ekonomika: vid Vernona Smita do Danielia Kanemana. [Experimental and Behavioral Economics: From Vernon Smith to Daniel Kahneman]. *Visnyk TNEU*. № 1. pp. 180-193 [in Ukrainian].

5. Parkhomenko N. O. (2010). Vyvchennia pytan tsin ta tsinoutvorennia Nobelivskymy laureatamy z ekonomiky. [Study of prices and pricing by Nobel laureates in economics]. *Visnyk Khmelnytskoho natsionalnoho universytetu*. № 5. T. 4. pp. 107-110 [in Ukrainian].

6. Shymanska O. (2008). Dzhererd Debre: novyi vymir zahalnoi ekonomichnoi rivnovahy. [Gerard Debray: A new dimension of general economic equilibrium]. *Visnyk TNEU*. № 2. pp. 169–175 [in Ukrainian].

7. Shymanska O. (2008). Fenomen Morisa Alle. [Maurice Alle phenomenon]. *Visnyk TNEU*. № 4. pp. 151-156 [in Ukrainian].

8. HERI STENLI BEKKER. [GARY STANLEY BECKER]. URL: http://nobel.knute.edu.ua/index.php/nobelivski-laureati/geri-stenli-bekker [in Ukrainian].

9. Mahdich A.S., Lymonova E.M. (2019). Asymetriia informatsii: sfery vynyknennia ta efekty. [Information asymmetry: areas of occurrence and effects]. Nobelivskyi visnyk. № 1 (12). pp. 50-56 [in Ukrainian].

10. Kovalchuk V. (2009). Modeli rynkiv z asymetrychnoiu informatsiieiu u doslidzhenniakh Nobelivskykh laureativ. [Models of markets with asymmetric information in the research of Nobel laureates]. *Visnyk TNEU*. № 3. pp. 123-132. [in Ukrainian].

11. Єгорченко I. Za lashtunkamy Nobelivskoi premii: vidkryttia, polityka i matematyka. [Behind the scenes of the Nobel Prize: discoveries, politics and mathematics]. URL:https://zn.ua/ukr/science/za-lashtunkami-nobelivskoji-premiji-vidkrittja-politika-i-matematika-.html [in Ukrainian].

12. Spysoklaureativ.[Listoflaureates].URL:http://nobel.knute.edu.ua/index.php/spisok-laureativ#2012[in Ukrainian].

13. PITER ARTUR DAIMOND. [PETER ARTHUR DIAMOND]. URL: http://nobel.knute.edu.ua/index.php/nobelivski-laureati/piter-artur-dajmond [in Ukrainian].