

## Experience of the Covid-19 Pandemic as a Potential Catalyst of Selected Economic Concepts Modification

### Summary

We posit the need for the modification of how economic sciences are practiced in ontological, epistemological, and methodological aspects.<sup>2</sup> The need results from the impact of several factors that appeared even in the pre-pandemic period, for which Covid-19 may be a complementary and reinforcing circumstance that may even directly determine the change. The structure of the article follows its goal, which is our reflection on the main thesis. We selected eight issues to exemplify the areas that require change, for which we propose a set of postulates that constitute the desired modifications in economic sciences. The main method we used was that of critical literature analysis.

**Key words:** the economics, economic concepts, economic paradigms, the Covid-19 pandemic, the evolution of economic sciences, homo economicus, business performance, global supply chain, international competitiveness, the essence and measurement of national wealth, globalization, development economics

**JEL classification codes:** A10, A11, A12, B1, B2, B4, B5, C1, D6

### 1. Introduction

In this article, we reflect on the idea to modify the current main paradigm<sup>3</sup> of economic sciences, by which we mean mainstream economy, with all its consequences that influence the whole economic sciences. Within the economy of the real world and individual national economies, there accumulated so many factors in favor of change that we deem it necessary to consider this issue once again. We know that we are neither the first nor the only ones to write about the matter. However, we believe that – this time – such a change requires more determination and persistence. The Covid-19 pandemic appears to be the critical factor that made the world stop – for a moment, a few months, or maybe even a few years – and it appears to some as a factor that directly prejudices the need for that change.

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<sup>2</sup> The counterparts of adjectives “ontological,” “epistemological,” and “methodological,” which refer to science/theory, are the adjectives “ontic,” “epistemic,” and “methodic,” which refer to practice.

<sup>3</sup> In the Polish classification of scientific activities, the field of economic sciences formally ceased to exist on October 1, 2018. However, we may informally assume that the group of disciplines currently distinguished in the classification of disciplines in the field of social sciences constitutes a conventional subfield of social sciences, which roughly corresponds to the former field of economic sciences. The quasi-subdiscipline of economic sciences includes the following disciplines in the approach we propose here: economics and finances, management and quality sciences, socioeconomic geography and spatial management.

Of course, the pandemic is not the sole determinant of the postulated reevaluation, but it is the most recent factor among many other, and by decelerating socioeconomic processes, it encourages reflection and allows time for deliberation and action. The change of the real world requires many actions in practically all spheres of human activity and on various levels. Moreover, the change requires that we include in it the sphere of science and education. In other words, the change should also concern the modification of concepts developed by science. As representatives of the economic sciences, we join the discussion on the change – its goals, foundations, mechanisms, and tools – following our belief that such a contribution can influence other spheres and levels of human activity.

To illustrate our thesis, we refer to several examples<sup>4</sup> of issues, subjects, theories, concepts, and models of modern economic sciences. This choice is not predetermined and closed, while the set of problems may be extended, for which we certainly hope. However, our choice is neither voluntaristic nor accidental, as it refers to our combined scientific interests, which represent distant specializations within economic sciences. The noticeable heterogeneity of our examples intends to encourage a wide range of scholars in economic sciences to expand the scope of issues that require change in research approach. Moreover, it appears to us that the accuracy of our choice of issues has been verified by the pandemic itself, among other things, as they are visibly present in the discussion concerning Covid-19 in scientific literature and journalism and have been the subject of serious polemics in economic literature for decades. These examples are *homo economicus*, business performance, global supply chains, international competitiveness, the essence and measurement of national wealth, globalization, and development economics. In general, we seek answers to the question what should change in economic sciences' approach to each of the issues. The order of discussion of individual issues was based on the principle of reasoning from micro through mezo to macro and global levels of inquiry.

We seek to provoke a debate on a wide range of significant economic subjects, which raised controversy even before the outbreak of the Covid-19 pandemic, possibly leading to the creation of an outline of a modified economic sciences' research plan. The general framework of such a program could be composed of the following research questions:

- What has changed, is changing, and will change in the real world grasped in each issue (ontology)? Both before, during, and after the Covid-19 pandemic.

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<sup>4</sup> The exemplary nature of this selection does not exhaust the range of potential changes but is intended to encourage further analysis and discussion. The range of potential issues that require dialog is far broader and will certainly be expanded in other studies. The exemplary nature of our argument is also meant to shape the tone of the discussion, which should obviously develop on a much wider and more detailed analytical level.

- What has changed, is changing, and will change in our understanding of the world that is significant and cognitively investigable (epistemology)? Both before, during, and after the Covid-19 pandemic.
- What has changed, is changing, and will change in our methodology of cognizing this world (methodology)? Both before, during, and after the Covid-19 pandemic.
- Are there any premises for changing the proportions of economic sciences' functions toward a descriptive-explanatory or normative role?

The implementation of the signaled framework research program would require a reflection on the relationship between the cognitive versus normative functions of economic sciences<sup>5</sup> aimed at formulating postulates about what should change in economic sciences' practice. We intend to contribute to such a research program.

Method-wise, this article critically analyzes subject literature and constructs a set of normative recommendations for changes in economic sciences.

## **2. The Direction of Modifying the Reflection About Economic Sciences**

Economic sciences may be considered within a set of disciplines called instrumental (e.g. by Popper 1999: 180). The global or national economy is simply too complex and dynamic to be explained definitively and once for all. Changes in the economic behavior of major economic players and the infrastructure they use are rapid, so it is surprising that some people promote the belief that there is one main and universal paradigm in economic sciences. Instead, economics sciences are multi-paradigmatic by nature, to use a notion introduced by Bogusław Fiedor (2018). However, Fiedor indicates that the same notion was used to describe the achievements of “mainstream” economics, without any reference to alternative economic schools. A similar position was presented by Marian Gorynia (2019a), who applies the notion of a multi-paradigmatic approach to the entire economic sciences. It is possible that instead of seeking one or more universal paradigms of economic sciences, we should assume that the pattern for conducting research in economic sciences emerges from a permanent discussion among the subjects of this research. The sensible result of the discourse of economics should be ensured by the goodwill of speakers and the logic of content that they present. After all, contradictions in the promoted ideas can be a source of inspiration for new ideas.

Meanwhile, “mainstream” economics dominates the economic sciences, and the limits of this current are ambiguous. Some postulate this term should be attributed in sociological perspective to the achievements of “elite” economists, i.e. the most acclaimed scientists who work at the best

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<sup>5</sup> Most assume that the cognitive achievements revealed in proclaimed scientific theories are usually the basis for the derivation of practical directives, and these serve as the azimuth of the real activity of economic entities.

universities. A more rigorous term is “economic orthodoxy” identified for intellectual reasons and now associated with the neoclassical school in economics (Colander 2003: 5). Its most important assumptions include a) common microeconomic rationality explained by the homo economicus model, b) tendency to general and partial equilibrium, c) mathematical formalism (Fiedor 2019: 49). Therefore, the characteristics of core research presented by Bogusław Fiedor refers to economic orthodoxy and is one of the components of mainstream economics. However, this component is very expansive and is responsible for “economic imperialism,” i.e. the pursuit of imposing exclusive correctness on other schools of thought, other scientific disciplines, and even the extra-scientific practice of human activities (Davis: 7–8). Nevertheless, this orthodox thought – along with the neo-Keynesian school of thought, among other approaches – forms the basis of the proposal of the “new neoclassical synthesis,” which we can now treat from a sociological perspective precisely as a mainstream concept (Bludnik 2010).

According to some, mainstream economics justifies and is responsible for the devastation of the natural environment and the often-encountered separation of economic rationality from ethical and moral imponderables. The proponents of mainstream economics even secured for themselves institutional support for the promotion of their ideas around the world in the form of the Washington Consensus as an instruction of conduct for the officers of the International Monetary Fund and the World Bank. As a result, what counts around the world is the continuous increase in production (e.g. measured by GDP dynamics) and providing investors with ever more added value (e.g. measured by EVA), which require growing consumption (now in the stage of excessive consumerism). In other words, when recording these effects, we should indicate the frequently encountered overexploitation of natural resources (as the basis for production) and often uncritical search for the cheapest locations of production plants (to multiply profits), along with confusing aggressive marketing (which deprives consumers of the right to the freedom of choice).

The number of people convinced of the need to modify the assumptions and content of economic sciences grows systematically (Editor’s note 2020; Coyle 2020; Skidelski 2020). Sometimes, there even appears a more elaborate demand for the revision of economic sciences. We argue that – in order to make progress in the matter – the essence of modification/revision of economic sciences should be evaluated and changed in the spirit of kindness and awareness of the value of scientific achievements to date.

Chronologically, the Covid-19 pandemic is the last of the causative factors of the revision under consideration – neither the only nor the most important factor – but what draws attention are its direct nature, violence, and the surprise associated with its appearance.

At this point, let us focus on several features of the Covid-19 pandemic that determine the specificity of its impact on the socioeconomic system and the crisis phenomena characteristics that it engendered. First, the pandemic has all the characteristics of a “black swan” event, i.e. an unexpected and unlikely event, but one with enormous consequences (Taleb 2020; Roubini 2020a). Second, the nature of the crisis caused by the pandemic as a non-economic phenomenon concerns the supply, demand, and financial spheres, so it can be the subject of interest for all areas of economic sciences, which we notice in the number and scope of ongoing research projects and the already published output (Kołodko: 2020a). Third, the most important features of the crisis are its violent course, deep recession, and the significant decrease in global GDP, employment, and other indicators; not to mention the industry-sectoral and spatial diversification (Roubini 2020b). We find ourselves amid the deepest peacetime recession in the last 150 years, which has already had a devastating impact on the world economy (Wolf 2020). Fourth, counteracting the negative economic impact of the pandemic has led to unprecedented interventions by governments and international organizations (IMF 2020). Fifth, we must indicate the difficulties in forecasting the post-crisis future and the rebuilding of the world economy, characterized by very diverse forecasts and the need for their systematic updates (Wolf 2020). These uncertainties and dilemmas seem to indicate a great need for reflection of all economic sciences’ areas, which may contribute to building a “new normality” free from past mistakes in economic development.

As a result of the Covid-19 pandemic, but not limited to that, the dangers related to the overexploitation of our planet’s resources have not only been revealed but also acknowledged. On the other hand, there currently emerges good social atmosphere that encourages changes. The destruction of the natural environment results directly from excessive production and consumption and indirectly from the logic of market economy, while the deepest causes of this process are cultural (Wałowski 2004: 89–111). The social climate for a modification/revision manifests in many spontaneous protest movements (Amnesty International 2020).

Therefore, it is worthwhile to discuss this matter right now as the passage of time and socioeconomic processes dilute what is stagnant and immobile.

### **3. The Descriptive-Explanatory Versus Normative Character of Economic Sciences**

A matter frequently raised in discussions concerning the crisis caused by the Covid-19 pandemic is the character of economics and, more broadly, economic sciences in terms of the functions they perform. The result of centuries of reflection on this issue brought no unequivocal solutions. We can distinguish two different positions in this regard: a) a position that promotes a positive approach, b) a position that leans toward the active and normative involvement of economic sciences in

creating/fixing reality. Both refer to the concepts of constructivism (constructionism), pragmatism, and new pragmatism.

The positive approach primarily assigns economic sciences with the descriptive-explanatory function (Lipowski, 2011). In this view, science should be devoid of evaluative and normative elements. One of the precursors of such an understanding of the function of science may be considered David Hume, who stated that we should not derive value judgments from descriptive judgments of facts (“Hume’s guillotine;” Hume 1969: 469). Lionel Robbins (1932) and Milton Friedman (1953) shared this view. The knowledge of how reality works may be useful at most for forecasting – i.e. predicting the future – but it should not be used for reality’s creation in the sense of setting goals. However, it is hard to resist the impression that one cannot fully defend such an approach. If descriptive and explanatory knowledge show that the use of certain tools of economic policy are highly likely to lead to negatively assessed effects, then such knowledge results in a recommendation not to use these tools. However, this is a different situation than creating goals for socioeconomic development, and in this sense, it appears to fall within the framework that Lionel Robbins envisaged for economic sciences. Setting goals and selecting methods or means to achieve these goals are two different things.

The normative approach recommends a broader range of using economic sciences – both for setting development goals and defining the means to achieve them (Krugman 2020). In this case, Max Weber’s notion of rational action, in which the adoption of a particular intention is accompanied by the selection of means and consideration of side effects. A contemporary version of this approach is Gregory W. Kołodko’s notion of new pragmatism (Kołodko 2014; 2020b; Gorynia 2019a).

In discussions about the post-Covid-19 economy, experts emphasize the need for a broader use of scientific achievements – including economic sciences – to shape reality in such a way as to minimize the likelihood of similar pandemics and crises they cause. Some indicate that the accumulation of factors negatively affecting the development of human civilization has reached unprecedented proportions, and this alone justifies the need for the use of science to rationalize civilization (Solarz, Waliszewski 2020). Indeed, in reality the range of problems that require a solution is very wide, which we will signal below (points 4–11). Their cognition and explanation are essential as it is on them that the economic sciences research efforts should focus in the ontological-epistemological sense. In the sphere of ontology and epistemology, the great complexity and intricacy of relationships among components of civilization requires a comprehensive, holistic, and multidimensional approach. In this view, we should broaden the scope of empirical research to explain economic reality, especially in the area of modern civilization’s shortcomings and the resulting crises. The sphere of methodology requires us to adopt a pragmatic approach, oriented

toward solving specific problems, whose essence should be the focus of researchers' attention, without fixed assumptions that characterize specific schools of philosophy and dependence on a particular class of methods (Creswell & Creswell, 2018). In other words, we recommend eclecticism and pluralism in an individual choice of methods. Such understood, pragmatism remains open to various visions of the studied world, diverse research assumptions, and various forms of data collection and analysis. Therefore, we may expect an increase in the role of methodological triangulation, which implies a parallel flexible use of research methods that should complement each other and contribute to the better recognition of cause-and-effect relationships in economic activity. However, let us highlight the troublesome limitations of economic sciences. First limitation regards their multi-paradigmatic character, namely the coexistence of various notions, which some interpret as evidence of the underdevelopment of these sciences, while others as an expression of the complexity of the socioeconomic system (Gorynia 2019a). The second limitation is related to the fact that the economic aspect is only one of the many dimensions of civilization, so its understanding and recommendations' construction in relation to practice should be multidimensional, considering the entirety of systemic properties. The third and final limitation is the difficulty of building economic forecasts based on theory, as signaled by e.g. Karl Popper, Oskar Morgenstern, Robert Lucas, or Robert Merton (Dzionek-Kozłowska 2018: 174–175). These difficulties may be viewed as premises for a constructive exchange of ideas among different schools of economic sciences and even among various disciplines or fields of study.

Thus, on the one hand, the demand for socioeconomic practice in economic knowledge necessary for the rationalization of civilization seems to be high and increased as a result of the pandemic. However, on the other hand, what hinders the rationalization of civilization is the influencing of economic reality with the use of ambiguous results of theoretical and practical research, many of which are objective in nature. In this situation, it seems to us that what may be a useful measure is even the most basic education of societies in the cardinal and unquestionable rudimentary mechanisms of economic life. We might risk a statement that changes in science should necessarily be accompanied by changes in education. Indeed, the former is not enough. In general, we may recommend that – in the face of pluralism and imperfections in created notions – we should follow a heterodox rather than an orthodox approach in education.

#### **4. The Model of an Economic Man (Homo Economicus)**

Several centuries of evolution of the construct of the economic man has not led to the development of a uniform and coherent concept of both economic and extra-economic human behavior. Various schools of economics present very different approaches to the matter by assuming “that the goal of

the economic man is the maximization of wealth, profit, utility, or preference, by which they can pursue such a goal in a rational manner” (Dzionic-Kozłowska 2018: 8).<sup>6</sup> In the above definition, we may identify two elements: the element of egoism and the element of rationality (optimization). The definitions of each are also ambiguous. It seems that regarding both these elements a broad compromise is possible among different positions,<sup>7</sup> one that shows the usefulness of this construct in various economic theories. Simultaneously, this usefulness may be seen from the viewpoint of its two different roles: the description of the economic system and the modeling of market behaviors (North 1990: 17; qtd. after Dzionic-Kozłowska 2018: 119).

As far as the element of egoism is concerned, we should note that when building the above compromise – even with a literal pejorative understanding of egoism<sup>8</sup> – most economic theorists did not assume it to be the only motive of human economic activity, let alone the only motive of all human activity. Even the proponents of forming an “economic theory of everything” based on the homo economicus model would not argue that humans pursue rational utility maximization. These scholars only assume that people behave as if they were driven by such a motive (Becker 1990: 271–272). In this context, the notion of utility seems particularly useful, as it may be defined so broadly as to include other motives for human activity.<sup>9</sup>

The element of rationality (optimization) may be approached in a similar compromise manner. Representatives of many economic schools – generally, most heterodox schools – rightly reject full rationality as a descriptive and explanatory notion of human action, which is particularly emphasized by representatives of behavioral economics. The minimum condition for a compromise, then, seems to be the recognition of human rationality’s limitations and imperfections. Nevertheless, the usefulness of the construct itself may be considered an idealized model or an ideal type – after Max Weber – to be used for comparisons among real human behaviors.

It seems that even before the Covid-19 pandemic, economic sciences quite unanimously moved away from the extreme and strict homo economicus model as the maximization of preferences and full rationality typical of mainstream economics. By contrast, it does not appear that Covid-19 will lead to any significant change in this situation. However, some modification in the understanding and use of the economic man model should occur. The pandemic is likely to influence the necessity

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<sup>6</sup> “Preference maximization” is a mental shortcut meaning “the choice from among options available to the individual that lies the highest on the scale of their preferences, i.e. is judged by them to be the best available” (Dzionic-Kozłowska 2018: 8).

<sup>7</sup> Joanna Dzionic-Kozłowska (2016: 124–125) interestingly writes about the possibilities and difficulties of finding such a compromise between orthodox economics and behavioral economics.

<sup>8</sup> According to Johan Wolfgang von Goethe, homo economicus is a “two-legged calculator” willing to unscrupulously sacrifice the welfare of others to achieve own goals (Dzionic-Kozłowska 2018: 7).

<sup>9</sup> Indeed, usefulness can be defined so broadly that it may result from, among other things, sharing something with someone.



to redefine the homo economicus model so as to include ontologically relevant factors that affect utility and human preferences, such as health safety, health care expenditures, disease prevention efforts, or more broadly, investment in public goods, the reliability of supply, the location of production near markets, and the understanding of the role of inventories. This does not mean that the homo economicus model's framework was too tight that these factors could not have been included in the past. There was simply no need for it or, more precisely, people saw no need for such an inclusion. However, in the Covid-19 and post-Covid-19 reality, adding new elements to the explanans of the economic man model seems indispensable. The changes occurring in the real world (ontology) should be recognized in the sphere of cognition (epistemology) and taken into account in the construction of adequate research methods (methodology).

Let us note that observing the behavior of people in difficult life situations caused by the Covid-19 pandemic – suffice it to consider the difficult access to medicines, medical equipment, and food and hygiene resources or the greed of some entrepreneurs and cases of fraud – it seems that these conditions elevated the tendency toward selfish behavior, which would indicate a significant descriptive role of the model widely criticized for its unrealistic nature. In turn, the concept of homo economicus does not seem to have become more attractive in the normative view because of psychological and social processes triggered by the pandemic.

We may argue that a desirable and recommended evolution of this notion can be legitimately named *homo economicus moralis*, which would mean the inclusion of ethical, ecological, or anti-poverty economic values and inequalities among the criteria shaping human behavior. In particular, what should be stressed is the impact of the pandemic on increasing the probability of rising inequality levels, which was the subject of a lively discussion even before the appearance of Covid-19 (Boushey, Delong, Steinbaum 2018) and is a frequently raised topic during the pandemic (Sandbu 2020). This expected and recommended shift in focus on the capturing and exploring of the construct of economic man is part of the broader call for a shift in the practice of economic sciences in ontological-epistemological and methodological terms that we develop in this text.

## **5. Business Performance Measurement and Management**

An important element of the body of practice and theory of economic sciences is the collection of Business Performance Management principles and techniques. Over time, this knowledge has been improved, taught at universities, and promoted by numerous consulting companies. Its development can be divided into three stages. The first one, oldest and precursory, is the view from the turn of the nineteenth and twentieth centuries, which consists in applying financial accounting criteria (e.g. ROE or EPS). From around 1920s to 1970s, there were attempts to broaden the reception of applied

economic indicators by including non-financial measures (e.g. the French *Tableau de Bord*). Since the 1970s, many conceptual proposals have been made with approaches that combine strategic or qualitative achievements with financial results (ABC, BSC, TBL; Yadav et al. 2013: 949–950).

However, the most widespread view regarding the desired measure of corporate management efficiency is the maximization of shareholder value, i.e. that of the owners whose capital finances company activities. The perspective of shareholder value assumes that the providers of capital finance the establishment and operation of a company, bearing a high economic risk. By providing financial resources, they expect to be adequately rewarded for their monetary contribution. Economic value added (EVA) is the difference between the operating profit achieved and the cost of capital engaged in the company (Brilman 2002: 45). In this situation, of paramount importance is the concept of cost of capital, interpreted as opportunity cost. Thus, it is not enough to be traditionally profitable to create economic value. It is necessary to be more profitable than if the capital was invested in an alternative economic activity. Unfortunately, the described process has triggered the so-called pursuit of undue profitability (Stiglitz: 116–122), which in turn has become the source of negative economic externalities' intensification. One of these effects is the growing sanitary risk.

As early as in 1999, Andrew Neely (1999: 205–228) called for a revolution in business performance management. Unfortunately, this revolution has not been implemented to a satisfactory degree to this day. Some experts emphasize that keeping with the current principles and methods will lead to a disaster. This is because maximizing EVA leads to a permanent increase in profit, which in the conditions of hypercompetition requires an equally permanent increase in sales, which is possible only thanks to intensive marketing campaigns encouraging excessive consumption. In turn, negative economic externalities cause growing social costs. These costs should be included in the reception field of measuring enterprises' business performance.

Therefore, a change in the approach to measuring business performance of enterprises should result from the following circumstances. (1) The changing realities that after all constitute the subject of research in economic sciences. Due to the recent economic shock, the realized negative externalities force many to evaluate the business performance of any economic entity differently than they did in the past. Maintaining a company's human resources capacity involves an appreciation of the sanitary and work health and safety areas. The defense and expansion of market share requires reacting more quickly to demand volatility. These are ontic determinants of desired innovations. (2) Many of the determinants of required research modification in economic sciences were not identified and properly appreciated in the past. The pandemic might be understood as a catalyst for a qualitative change in the perception of the horror of the disaster impending for all of humanity. This essentially epistemic shift is proved e.g. by the view expressed in a McKinsey Institute report (Manyika et al.

2020), which states that the need for capitalism reform is recognized by economists and business leaders, as reflected in the American Business Council's declaration to define the purpose of the corporation differently: as moving beyond serving shareholders and toward obligations to all stakeholders. Thus, such an approach more clearly recognizes the complexity of the relationship between the economy, the society, nature, and climate. (3) Thus, the research stream called Business Performance Management transforms its postulated methods of managerial decision-making. These have a methodical character.

We might believe that – over time – economic resilience will become a more common system of measuring business performance.<sup>10</sup> The literature defines the term “resilience” in various ways (Bharma et al. 2011: 5379–5380). Seemingly the most accurate definition of all states that resilience is the fundamental competence to respond efficiently to significant changes that disrupt the achievement of adopted plans without falling into long periods of crisis. Economic resilience should comprise three main components: productivity, security, and agility. Productivity refers to the relationship between the volume of output sold and the number of resources consumed to produce that output. Security refers to sanitary protection and ergonomic working conditions as studies show that companies that protect workplaces and workers have smaller stock market declines compared to firms that do not (Herma-Fox et al. 2020: 16). Finally, agility is the flexibility to adapt to changing demand requirements (Banaszyk 2014: 195–210).

Agility and security rates are constrained by the productivity rate, which ensures at least exceeding the break-even point in business activity. Thus, it is impossible to positively evaluate a company's business activity that results in losses. At the same time, taking into consideration security and agility allows for moving away from serving only the owners of financial capital toward fulfilling obligations to all stakeholders.

## **6. Global Supply Chains**

A supply chain is a collective of companies gathered along a vertical technological and operational process – or, as some claim, along the process of adding value to successive business outcomes – starting from the sourcing of raw materials and ending with the transfer of products to final consumers (Mentzer et al. 2003: 3; Snyder, Shen 2019: 1; Witkowski 2010: 19). At the turn of the twentieth and twenty-first centuries, supply chains became a tool for building competitive capabilities in a globalized economy. Managers in companies have been forced to compete increasingly by reducing

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<sup>10</sup> Such a postulate was proposed by e.g. Paula Caligiuri, Helen De Cieri, Dana Minbaeva, Alain Verbeke, and Angelika Zimmermann (2020).

their own costs, shortening the time of service to the buyer, and maintaining the highest quality of products. This required the use of special instruments such as supply chains (Mentzer et al. 2003: 2).

The opportunity to build attractive competitive potential thanks to global supply chains results from the three following reasons. First, the global supply chains are created through outsourcing, i.e. focusing economic activity on their most efficient part for a given company and using the activity of other companies that are more efficient in other necessary parts of economic activity (Langford, Parsa 1999: 310–316; Trocki 1999: 181–183). Second, global supply chains gain stability thanks to Williamson's effect of asset specificity. Asset specialization may concern both human resources and other, inanimate resources. In a situation when specialized assets are used, partners become bilaterally dependent, and what falls are not only transformation (production) costs but also recipient change costs, if the cooperation is planned for a long term so that the supplier simply need not include the cost of changing the recipient (Wilkin 2016: 198–199). Third, supply chains become global because the liberalization of international political and economic relations allows for the intensification of trade and the international localization of companies, which the “new new theory of international trade” is currently trying to explain (Dzikowska 2017: 49–52).

The disruptions revealed and caused by the pandemic are a change at the ontological level. This is because real supply chains and networks are being transformed, particularly in economic sectors judged to be crucial to health security and the decision-making autonomy of societies and national governments. Zahn et al. (2020) indicate that in result of the pandemic, real supply chains will be shorter and more geographically compact, while global supply chains will become more locationally diversified; the more so that the drivers of their agility will cease to be physical assets and will be electronic platforms, while the regionalization of supply chains will shorten physical assets but will not change their fragmentation.

The above transformations are becoming increasingly evident (epistemological aspect) and are gather support for different supply chain management principles and methods. The Covid-19 pandemic has shown how global supply chains are not immune to disruption. It seems untenable for a global supply stream to be dependent on a small number of geographic locations. For example, 40% of the electronics industry's supply and 80% of the pharmaceutical industry's supply comes from China (Marsevich 2020). It is important to emphasize that the pandemic not only temporarily interrupted production at suppliers but later also froze transportation capacity in many intermediate countries, so as to finally – after the economies thawed – became the cause of both transportation and throughput congestion in major logistics hubs. Supply chains for many products focus on optimizing efficiency at the expense of security and reliability. The popular Just in Time management method liquidates inventory, which seems unsustainable if security and reliability are prioritized (Knapp

2020). Economic and political pressure to change this state seems to be a natural reaction. Simply continuing with “hyperglobalization” is unsustainable because of its immanent contradiction with democracy and the sovereignty of states (Rodrik 2011).

The pandemic is only one factor of the change. Others include technological advancement, rising political tensions, and the heightened importance of national interests. In sum, these factors cannot be ignored by economic sciences. The need for a revision of prevailing theoretical notions becomes apparent. Of course, this has to do with the shift from EVA to economic resilience and how it forces the development of new concepts of international trade and international production (international business location) and directives (principles) on the management of global supply chains. Propositions of a concept explaining the need for change appeared earlier. Among them, we may indicate Richard D’Aveni’s (1995) idea of hypercompetition and Jeremy Rifkin’s (2016) zero marginal cost society. The conclusion has always been the same: old business management and theoretical arrangements cannot or should not be sustained in the changed reality.

## **7. International Competition**

Unfortunately, the concept of international competition does not have a universally accepted definition. In the approach emphasizing locational attractiveness and the quality of management, many recognize that the ability to compete internationally depends on the competitive potential of enterprises in product markets, the potential of geographic areas and whole countries to attract mobile factors of production, and on the state of immobile factors of production, particularly the level of labor costs and job protection policies (Mitschke 2008: p. 108). The character of international competition understood in this way can be reduced to the interaction of institutional mechanism (formal-legal conditions and the economic policy of administrative authorities) and the competitive mechanism of enterprises (competition). Michael Porter (2011: 71–73) promotes a slightly different view, which shows international competitive ability at the industry level to first depend on the enterprises’ strategy, structure, and competition method, second – on the determinants of the factors of production, and third – on demand conditions, and fourth – on related and supporting industries. These factors determine international competitive ability, modified by random circumstances and government policies. This concept is often referred to as the Porter’s Diamond Model (Gorynia 2019c).

Satya Dev Gupta (2015: 9–22) proposes an explanation of international competitiveness through the interaction of two diamonds. The first links the characteristics of the industry (sector) determined by the reinforcing function of national economic policy, the quantity and quality of physical and human resources, the technological level, economies of scale, the state of supporting

industries, and demand factors related to the size of domestic market. The second diamond refers directly to enterprises and is determined by the resource and competence ability to transform comparative advantage into competitive advantage, innovation strategies related to supply factors and supporting industries, innovation strategies related to demand factors and product differentiation, along with business environment and government policies.

The Covid-19 pandemic changes the above realities (the ontological aspect) and reveals additional factors of international competition (the epistemological aspect).

The experience of the pandemic caused by the SARS-CoV-2 virus highlights the importance of the security factor, which includes sanitary and workplace security. An additional observation is related to the confrontation of remuneration levels of various professional groups according to the hierarchy of their social importance. The notion of essential workers, whose performance proves particularly important in emergency situations, has become widespread (Disaster management 2020). This issue is closely related to dominant axiological systems, i.e. it touches upon the issues of economic and organizational culture. Thus, we may conclude that just as Porter's Diamond was supplemented by Gupta's Diamond, we now obviously require to add a third diamond of a cultural (axiological) nature. The postulated concept of international competition should consist of three mechanisms. First is the sectoral mechanism (explained by Porter), second – the innovation stimulation mechanism (explained by Gupta), and third – the axiological-cultural mechanism (awaiting explanation). We may think that advantage in international competition will be gained by those who – besides traditional conditions – will also meet the condition of treating and rewarding workers fairly because of their actual usefulness in relation to the formation of subjective wellbeing in the society.

This additional component enriches the set of principles and directives for the formation of international competition of enterprises, i.e. it touches upon methodological issues of building their competition and at the same time requires appropriate methodological solutions of their cognition and explanation.

## **8. General Equilibrium**

Assuming that one of the principal goals of economic theory is to seek answers to questions about the nature and causes of wealth of individual economic agents, over a finite or infinite time horizon, then two competing methodological approaches are used in mainstream economics to achieve this goal. One is the general equilibrium theory, which is treated as a metatheory. Another is the approach in which wealth creation is reduced to resource allocation (Malaga 2011: 29). In this case, alternative methods of analysis are used, which may be described as sequential. They boil down to the analysis

of economic processes in well-defined stretches of time and places, instead of analyzing economic processes from their inception to their end.<sup>11</sup>

Strongly associated with mainstream economics, general equilibrium theories play an important role in schools of thought that primarily rely on mathematics and physics.<sup>12</sup> This is evidenced by the Sveriges Riksbank Prize in Economic Sciences in Memory of Alfred Nobel for its prominent representatives<sup>13</sup> and by the work of the real business-cycle theory, whose founders were Finn E. Kydland and Edward C. Prescott, along with the more recent and numerous applications of Computable General Equilibrium Models and Dynamic Stochastic General Equilibrium Models.

The general equilibrium theory as defined by Léon Walras was criticized for about a century of its development but is now considered complete. The problem is that it is abstract and based on strong assumptions such as the idea of pure and perfect competition, the homogeneity of economic agents, fixed economies of scale, the stationarity of economic systems or of equilibrium states whose reality is questioned. It is not an ideological construction in the service of liberalism because the construction of general equilibrium models allows room for the intervention of non-market institutions, including the state.<sup>14</sup> This theory combines descriptive qualities (various categories of general equilibrium models) with normative ones, which are related to optimality in the Pareto sense of asymptotically and globally stable equilibrium states.<sup>15</sup> We should emphasize here that while the positive inferences from general equilibrium theory (welfare claims) suggest that the cohesiveness of society may be the result of individual choices, their negative implications (regarding the instability or impossibility of social choice) show that inference based on individual behavior is not appropriate due to the heterogeneity of economic agents.<sup>16</sup>

When considering the future of economic sciences, we may draw on both the critique of the economic equilibrium construct and the appreciation of alternative ideas that strive for the universal description and explanation of economic processes. For example, according to Steve Keen (2017:

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<sup>11</sup> Indeed, there are alternative views derived e.g. from post-Keynesian and post-Marxist ideas that lead to the conclusion that the focus of economists should be on the circulation of production and consumption, along with mechanisms of economic reproduction.

<sup>12</sup> This mostly means the finite difference equation theory, the infinitesimal calculus theory, and the differential calculus theory, the dynamic economic systems theory, and Newtonian physics.

<sup>13</sup> Such as Paul Anthony Samuelson (1970), Sir John Richard Hicks, Kenneth Joseph Arrow (1972), Gérard Debreu (1983), Maurice Allais (1988), and – within game theory – Reinhard Selten, John Forbes Nash, and John Harsanyi (1993).

<sup>14</sup> Its attractiveness is determined, among other things, by a unified and rigorous representation of the economic mechanisms that determine the existence, unambiguity, local or global stability, and asymptotic global stability of equilibrium states.

<sup>15</sup> Most believe that the criterion of optimality in the Pareto sense is conservative and prevents deep structural or qualitative changes in economic systems.

<sup>16</sup> The problem is that it is an abstract category that cannot be trivialized or treated mechanically, and as such it is difficult to explain in everyday language. The essence of general equilibrium according to Walras and presented in a formalized manner can be explored in monographs (Panek 2003) and, in introductory manner, in textbooks (Malaga, Sobczak 2020).

63), “[t]he elementary neoclassical picture of market economy is a perpetual equilibrium .... However, there are certain conditions necessary for this state of equilibrium to occur, and advanced economic research has shown that none of them are met.” Keen provides a number of arguments to justify this critical approach. Among the most important are: (1) the Nash equilibrium theory, according to which there may be many states of equilibrium in one game (Keen 2017: 118); (2) the distribution of equilibrium states is highly dependent on the distribution of income among participants in the economic process, i.e. it is not the equilibrium that is the key determinant but the distribution (Keen 2017: 119); (3) the general equilibrium mechanism works only if there is perfect competition and the market is completely efficient (Keen 2017: 145–146); and (4) the idea of economic equilibrium originated as an ideological weapon against the feudal system so as to later become a tool of ideological struggle against socialist concepts (Keen 2017: 248–250).

However, the general equilibrium theory is static in nature. The basic assumption is that supply compares with demand in conditions of perfect competition. The confrontation of decreasing marginal productivity determines the equilibrium state. This state may be regarded as an ideal-typological description of economy, but one distant from reality, which means that – following Oliver Williamson – we may say it is only the starting point in the study of real economic problems (Williamson 1998: 21). The point of reference should remain with the real economy (the ontological dimension), not its ideal description. Such an assessment is not changed by the progress in the study of economic equilibrium, which aims to model a dynamic general equilibrium that oscillates around the Pareto optimum due to market frictions, price stickiness, and other market imperfections (Mankiw 2008: 97).

The acknowledging of alternative views primarily derived from post-Keynesian and post-Marxist concepts – articulated by heterodox economics – makes us focus on the circulation of production and consumption, along with the mechanisms of economic reproduction. Such an approach leads to an overcoming of the statics of general and partial equilibrium and allows for a more accurate description and explanation of the regularities that govern the distribution of wealth (Holko 2016: 155–169). Since modern problems are excessive income-wealth stratification and consumerism, alternative viewpoints on economics are always worthwhile. Perhaps it is exactly from the open confrontation of various views that a more satisfactory economic theory will arise.

The expected change also has an epistemological dimension as it recommends a completely different perception of economic processes. A modified view on these processes should focus more on cultural aspects. The idea of economic equilibrium is well suited to all kinds of analyses that require a quantified approach. In the era of computer-assisted economic simulations, the reduction of all phenomena to numbers is a useful approach, to a certain extent. However, these simulations do



not allow for the inclusion of components related to social dynamics, namely culture. In reference to this, Jerzy Wilkin (2016: 80–81, 91–92) assesses that economists' interest in the influence of culture fluctuates, while in the period of domination of mainstream economics there even happened a process of “eradication of sociocultural processes” from the research field of economics.

However, from the viewpoint of methodology it seems worthwhile to abandon the assumption of the priority of searching for causal relations responsible for maintaining economic equilibrium or for throwing the economy out of the equilibrium. The consequence of seriously considering the cultural component' significance is the postulate of a more widespread use of the method of humanistic interpretation (Kmita 1971), which assuming the rationality of the acting subject, recommends searching for the meaning that will explain the motives of the action. In other words, the method recommends indicating the interest which makes the subject ready to undertake any activity. According to the proposition of Gert Hofstede (2000: 38–39), culture is a programming of the mind which forms the subject's specific hierarchy of preferences.

The Covid-19 pandemic seriously affects this programming of people's minds. Thus, it can be expected that their value systems will also change, which will affect the description and explanation of economic processes not at all aimed at achieving a dynamic stationary state.

We must consider yet another aspect of the issue of socioeconomic system's equilibrium, this time in a context broader than just the economy: an equilibrium between different components of this system such as the economy, the society, and the environment (Mączyńska 2019). In this context, many write about sustainable growth or development, which means not equilibrium in the quantitative-calculative sense, but rather a proportional attention to aspects beyond the narrowly understood economic dimension. Moreover, the issue of equilibrium is sometimes presented in the institutional context, which entails an institutional equilibrium, meaning such an arrangement of institutions that promotes sustainable economic development (Wilkin, Kargol-Wasiluk, Zalesko 2019). The signaled additional aspects of an equilibrium were noticed by economic sciences even before the pandemic, but it seems that the pandemic prompts their wider consideration in future research (the ontological-epistemological aspect), along with necessary adjustments in research implementation (the methodological aspect).

## **9. Essence and Measurement of National Wealth**

One of the most important demarcation lines between our ignorance and knowledge of economic phenomena and processes is determined by the state of the development of theory and empirical applications of statistics. These two allow us to interpret the essence of and measure the wealth of nations. For several decades now, the literature on economics and statistics continues a critical

discussion on the role of Gross Domestic Product (GDP) and derived measures in macroeconomic analyses (Mączyńska 2013, 2014). With GDP we measure the aggregate value of production streams of goods and services produced typically during one calendar year in a country. Thus, GDP is an average measure that allows us to evaluate in a general way the condition of different economies or their evolution over time, but it does not allow us to explain the causes and extent of social inequalities or their evolution over time.

We must remember that GDP is calculated based on data declared by economic agents. Thus, its calculation generally ignores unpaid work (e.g. housework), voluntary work, own production or consumption, monetized but undeclared production, work in the grey economy, undeclared work, billed but unneeded or unused services, environment's devastation in local, regional, and global dimensions, natural resources and the degree of their depletion, the impact of natural disasters, wars, and debts from taking unpayable loans. As a quantitative measure, GDP neglects many important social phenomena or processes of a qualitative nature such as well-being, leisure, safety, the level of education, innovativeness, new technologies' productivity, various types of freedom guaranteed by democratic states, governance efficiency, public institutions' effectiveness, and respect for legal orders. In contrast, GDP does account for the streams of products and services related to activities that are unacceptable for health, ethical, or cultural reasons such as drug trafficking, prostitution, the development of production technologies harmful to the environment, production activities associated with excessive emissions of carbon dioxide and other types of pollutants that adversely affect the global climate, along with the arms race and the excessive development of the arms industry. These lists irresistibly pose the following question: Should we continue to privilege such an imperfect measure? After all, GDP includes phenomena that worsen the condition of societies and lacks some of those that improve this condition. From the viewpoint of ontology and epistemology, it is logical to conclude that economists focus their attention on only some realities and ignore other important processes and phenomena.

Admittedly, economists are aware of the limitations that arise from the practical applications of GDP and derivative measures,<sup>17</sup> so there is an ongoing discussion and work on the construction of new measures of socioeconomic development that would better recognize them and give a more

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<sup>17</sup> One evidence for this is that in the late 1980s, following the initiative of Herman Daly and John Cobb Jr (1989), efforts were made to develop alternative national income accounting systems aimed at determining the "Green" GDP as a competing measure of well-being and sustainable development to GDP. Examples of such measures are the Index of Sustainable Economic Welfare (ISEW) and the Genuine Progress Index (GPI). Unfortunately, despite their implementation and encouraging results, neither measure has so far reduced the importance of GDP in economic analysis. This negative conclusion is confirmed by the fact that in the assessment of the impact of the Covid-19 pandemic by political circles and the media, significant declines in GDP continue to be assigned key importance, including for the first time since the beginning of political transition in the 1990s in Poland.

appropriate basis for economic policies, thus ensuring a higher quality of life, environment, and health care systems, while accounting for the elimination of negative climate change causes, the more rational use of limited natural resources, non-invasive sources of energy, and improvements in the quality of human and social capital resources in relation to heterogeneous economic entities and economies. This is clearly evidenced by the studies of international expert groups such as the report of the Commission in the Measurement of Economic Performance and Social Progress (Stiglitz, Sen, Fitoussi 2013), the report of the High-Level Expert Group on the Measurement of Economic Performance and Social Progress (Stiglitz, Fitoussi, Durand 2019), or the UN resolution on “Sustainable Development Goals” from 2015. The latter identifies as many as 169 sustainable or balanced development goals with more than 200 indicators for global monitoring that jointly provide sufficient background material for a discussion on the essence and rational ways to measure the wealth of nations identified more with socioeconomic development in the world than with economic growth. The need to construct new indicators of growth and socioeconomic development is a serious challenge for scientific and research communities and statistical institutions that respect the highest methodological and ethical standards. According to van der Bergh and Antal (2011: 9–10), there is currently no perfect indicator of social well-being, so economists have a serious task to perform.

The recognition of previously neglected economic processes (the ontological-epistemological aspect) and the development and dissemination of new measures of national wealth should be seen (the methodological aspect) as a necessary adaptation to new trends that emerge in economic thought. An example of such a trend beyond the economic sphere is the Covid-19 pandemic and its socioeconomic consequences. Phenomena or processes of this type – which have a very large impact on how contemporary economies or societies function – should be of particular interest to public statistics. Even if only so that all rational activities of mankind in this area of global needs effectively eliminate ignorance or negative and irrational social behavior. This particularly concerns the due registration of the impact of Covid-19 on the resources and quality of human and social capital, the resources and functioning of labor markets, the demographic potential of individual countries, and the quality and manner of the reorganization of systems of education, social welfare, and health care. Such a registration can be achieved, among other things, through the tackling of latest challenges: the equalizing of economic phenomena and processes measurement frequency in the real and nominal spheres of the economy (which has never been so close to realization thanks to the development of information technologies); the bolder, fuller, and more rational use of the latest information and communication technologies (closely related to the implementation of the 4.0 economy model); the redefinition of the wealth of nations concept away from the notion of economic growth and in favor

of the category of sustainable socioeconomic development;<sup>18</sup> and finally, the continued construction of unified growth and socioeconomic development theories.

## 10. Globalization

In the economic sense, globalization (mundialization) may be treated as a special case of the internationalization of economic cooperation, characterized by the following features: a) in its essence, globalization is a logical consequence of the existing development of market economy and a natural stage of its evolution, which means it is immanent and unavoidable; b) the intensity, universality (global reach), uniformity, unification, and standardization of actions on a world scale are the basic attributes of the globalization participants; c) globalization is a higher (the highest?) stage of internationalization; d) the most important manifestations of globalization are international trade (exports, imports), foreign direct investments, international financial (capital) markets, with the role in this process played by information technology and the Internet (Gorynia: 2019c).

Noteworthy, there are large discrepancies in the understanding of globalization, especially the possible perceptions of globalization in the category of opportunities, threats, and its effects. From this viewpoint, the extensive literature on the subject (Al-Rodhan, Stoudmann 2006; Kowalski 2013) reveals four basic attitudes in the understanding of globalization: an approach dominated by enthusiasm slightly cooled by reason that can be described as pro-globalization or affirming globalization (but not blindly; Bhagwati 2004); an approach of concerned reflexivity, characterized by the balanced understanding of the nature of globalization (Streeten 2001); an approach imbued with a high degree of suspicion, strongly critical but without outright negation (Stiglitz 2002, 2007); an approach that involves questioning the meaning of globalization, manifested in ideas and policies described as new protectionism and new nationalism (e.g. the actions of President Donald Trump's administration and of similar leaders; Rodrik 2017).

From the perspective of Poland, we should note that economic globalization intensified after the fall of the Iron Curtain. From an economic standpoint, it meant the liberalization of international economic and political relations and the opening of the opportunities for the integration of previously independent markets of goods, capital, and labor into a single global market (Kołodko 2003: 27). As time passed, not only the benefits of globalization were becoming clear but also its negative effects. Stiglitz (2002, 2007) highlights such negative features of globalization as unfair rules of the game imposed by the more powerful developed countries, the uneven distribution of globalization benefits, losses of some participants in the process, imposing of an economic system inappropriate for the

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<sup>18</sup> This is supported by Charles Hall and John Day Jr. (2009) who assess the projections for the world economy presented in the so-called Rome Report, *The Limits to Growth* (1972).

traditions, culture, and developmental challenges of many developing countries. Some studies even indicate that economically developed countries gain more than they lose from economic globalization, while developing countries lose rather than gain (Walas-Trębacz 2007: 59–62).

The reputation of globalization was further undermined by emerging crises. Existing solutions were perceived as dogmatic and incapable of resolving emerging conflicts on internal and international levels. Many progressively lost faith in the reliability of neoliberal solutions in the spheres of economics (the undermining of the Washington Consensus) and politics (the functioning of liberal democracy; Stiglitz 2002, Rodrik 2011, 2017).

One of the consequences of the global financial crisis of 2007–2011 was the emergence of symptoms of a process described as “slowbalization” (meaning slow globalization; *The Economist* 2019). The process of deglobalization thus occurred before the Covid-19 pandemic (Gorynia 2020). The difference resides in the new element of fear that future highly probable pathogens may cause rapidly spreading incurable diseases, which makes many expect the petrification of the deglobalization tendency in all the spheres that are synonymous with the broadly understood security of the state and its citizens. Considering the above, there must happen a redefinition of economic efficiency from short-term to long-term, and the abandonment of low prices primacy and the ensuing lack of diversified supply. What best exemplifies these matters are the problems with purchasing and manufacturing medicines in Europe, even before the outbreak of the pandemic, and then after the appearance of the coronavirus on the continent, ranging from simple personal protection equipment through disinfectants to specialized equipment such as medical ventilators. However, it remains an open question how deep the deglobalization will be and whether the opponents of neoliberal solutions in economic, political, and social systems would not want to take advantage of this objective situation to introduce and, perhaps, even impose their preferred solutions, motivated only by subjective and axiological rather than pragmatic considerations? This, however, appears to us as a rather a rhetorical question.

When it comes to the projected consequences of the Covid-19 pandemic in the sphere of globalization and the balance of economic power in the world, we encounter a plethora of views in the literature, which encourages various authors to build possible scenarios for the future of globalization (Gorynia 2020, 2021). On the one hand, some indicate that, “[g]lobally, China is recovering from the pandemic relatively better than the USA, because it has managed to avoid a recession and is rapidly returning to the path of above-average growth” (Kołodko 2020a). On the other hand, others remark that China’s role as the factory of the world may diminish. This is important because with the passage of time, there increases the probability of social unrest in China and, in consequence, a socioeconomic and political crisis. If this were to happen, it would have a disastrous

impact on the global economy, given the current high dependence on Chinese supplies. If the pessimistic scenario comes true, the geography of globalization will change.

From an ontological perspective, the caesura of the Covid-19 pandemic may serve as a starting point for a change in the essence of economic processes. This change consists in the diminishing of the role of an important factor that intensifies economic globalization: consumption. Its increasing degree – often stimulated by marketing instruments – suctioned production and, in consequence, accelerated natural resources depletion, the natural environment pollution, and climate warming processes (Karczewska 2016: 39–41). It is possible, and at the same time advisable, that the change that now happens will lead to the abandonment – or at least limitation in scope – of the economy based on consumerism and to the transition to a closed loop economy.<sup>19</sup> As the nature of management changes, what also changes is how we perceive and evaluate management (epistemological aspect). Economic globalization should respect the requirements of the closed circulation of resources, goods, and waste. There arises a need for a new analysis and critical evaluation of systems of production of consumer and investment goods around the world. Moreover, we should probably study the efficiency of economic units and the wealth of nations in a different manner (the methodological aspect). Therefore, the indicated circumstances should imply shifts both in the subject of economic sciences' research interests and in the methodology of scientific research. These are extremely important, current, and real challenges for economic sciences.

## **11. Development Economics**

Development economics emerged after the Second World War and responded to rapidly progressing decolonization. This branch of economic sciences has a significant quantitative output: over three hundred conceptions. We may divide development economics into three groups, assuming the primacy of the factors on which their theoretical construction was established.<sup>20</sup> Neoliberal theories search for the causes of underdevelopment in the internal factors of a country, Marxist and socialist theories blame external factors – mainly colonialism and imperialism – while dependency theories explain underdevelopment with both internal and external factors.

The qualitative significance of development economics should be perceived primarily in its comprehensive and objective diagnosis – as a whole and not in individual veins – of the causes of

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<sup>19</sup> The linear economic process begins with the consumption of raw materials, goes through the production of consumer and investment goods – necessary to increase consumption – and finally leads to consumption that generates waste, while often realizing not utilitarian but prestige values. A closed loop economy generates two streams: biological and technical. Thanks to the former, organic waste is directed back to the environment, thus accelerating its regeneration, and thanks to the latter, technical waste is recycled, utilized, or reused. (Pichlak 2018: 335–336).

<sup>20</sup> For more on this subject, see Deszczyński (2001).

underdevelopment in this group of countries. Unfortunately, development economics is yet to formulate appropriate universal recommendations in the form of a corrective economic program that would be verifiable in the long term. However, the orthodox implementation of recommendations derived from these three groups of theories often ended up only deepening the underdevelopment of a country in which such attempts were made (Stiglitz 2007; Deszczyński 2015).

The collapse of the Washington Consensus coincided with the appointment in 2008 of Justin Yifu Lin as the Vice President of the World Bank and its Chief Economist. Following Joseph Eugen Stiglitz, he used this situation to disseminate his scientific output, proposing “new structural economics” as a panacea for underdevelopment problems (Lin 2011). The undeniable advantage of new structural economics is that it draws the right conclusions from structuralists’ mistakes (Lin, Wang 2018). However, its disadvantage lies in its formulation in a selective and ex-post manner based on the experience of Asian countries’ industrialization and – like do all structuralists – its special emphasis on the key role of state institutions in development processes, which is difficult in the conditions of the “soft state” syndrome commonly found in developing countries, if not impossible.

For developing countries, the Covid-19 pandemic means that the Western attention will not be on eliminating or – at least – alleviating the economic underdevelopment of these countries but on eliminating the economic effects of the pandemic; that is, Western countries focus on their internal problems, especially including the assurance of the broadly understood security of their societies and economies. This is likely to result in a freeze or even reduction of funds allocated to developing countries for development assistance and foreign direct investments, not to mention the possible limiting of trade relations. Most developing countries will be unable to overcome their economic underdevelopment without Western support. Thus, what is possible is the petrification and aggregation of problems that stem from underdevelopment.

It is impossible to solve developing countries’ problems only with economic calculus, theories of development economics, or economists’ knowledge and experience. What is needed here is an interdisciplinary approach and an awareness of the existence of Eurocentric burdens that effectively prevent the development of solutions adequate to the economic, political, and social realities of underdeveloped countries. Changes in the right direction were initiated by the Millennium Declaration, the Paris Declaration, the Accra Forum findings, and the Sustainable Development Goals. There is an increasing tendency to promote not only economic growth but also socioeconomic development, with a focus on raising the quality of life and combating poverty among the inhabitants of developing countries. An example of this is the 2019 Nobel Prize awarded to Abhijit Banerjee, Esther Duflo, and Michael Kremer, for their experimental approach to alleviating global poverty. This is what the change in the ontological aspect of development economics is all about.

Given the vagueness of how to remedy the presented situation, an important field of research opens also in economic sciences. The existing implementation of development economics theory in the practice of economic life of developing countries showed the inadequacy of proposed normative solutions, which are mostly standardized across a relatively large group of countries characterized by a strong diversity. In this situation, it may be more helpful to emphasise more the descriptive-explanatory approach that seeks to formulate a correct diagnosis of the economic situation of individual countries, among which almost all have their unique characteristics associated with political, social, historical, and cultural conditions. As a result, we must decide and solve problems under conditions of considerable uncertainty and the presence of many internal and external factors characterized by high volatility. This specificity makes the pragmatic approach – e.g. with the case study method supplemented by the triangulation method – more effective than the development economics theory, which a priori introduces a certain schematism in the perception of reality (Serra, Stiglitz 2008; Rodrik 2015). We need patient long-term actions aimed at eliminating the three types of dualisms that appear in developing countries: economic, social, and political.

The symptoms of a change in perception and, consequently, in preferred research methods in development economics is visible for some time now. Above all, there is a growing recognition of the postulate by representatives of the institutional school that economic development should be understood primarily as a cultural process and not as the result of the influence of “the invisible hand” (Street 1987: 1861). Equally strongly promoted is the view of economic development through the prism of “sustainable development.” As its key components, this concept assumes economic development and the fight against income inequalities. Income inequalities quickly turn into wealth inequalities, resulting from the polarization of income and assets, access to education, and health care. These elements deepen the polarization of living standards among citizens of different countries (Dalevska et al. 2019: 1840–1841). As a result, many recommend recognizing these changes and shift the focus in economic sciences’ research interests, but also to modify the practiced methodological choices. This means changing the epistemological and methodological aspects of economic sciences.

## **12. Conclusion**

With this article, we intended to indicate the need for a serious reflection on the contents of economic sciences. Our reflection assumes only outlining problems and sketching argumentations that justify the change/revision in approach and content of these sciences. Real economic processes, economic policy, and business management methods prove since long that our civilization seems to be heading for a dead end. The wall with which humanity is about to painfully collide already appeared at the turn of the century with the dot-com bubble, the 2008 global financial crisis, repeated social protests



against the growing stratification of income and wealth, increasingly frequent natural disasters resulting from the devastation of the environment and global warming, and now the global economic crisis provoked by the Covid-19 pandemic. Crises often stimulate new ideas and falsify old views. Mainstream economics and the management principles and guidelines derived from it at the global, macro, meso, and micro levels prove not fully effective. Therefore, it is reasonable to ask what and why should change in the area for which economists are responsible?

The above overview and discussion lead us to conclusions that are only signal the necessary reflection. Nevertheless, changes in economic practice and policy have already been announced (the ontological aspect), fundamental values and principles of management and the possibilities of their scientific cognition are perceived differently (the epistemological aspect), and there appear new demands of methods in economic activity research (the methodological aspect). First, we advocate cooperation between science, politics, and business, and we oppose the cynical use of each other to justify arbitrary views and pursue particularist interests. This will allow for the ideological neutrality of economic sciences and – in the long run – the strengthening of its prestige. Second, we propose posit that it is untenable to refer in the axiological sphere to the consequences of perceiving each person as *homo economicus*, especially in the radical version of the notion. Of course, elements of rationality and egoism are probably inherent attributes of humanity, but at the same time they cannot and should not be denied the characteristic of responsibility. Third, we prompt the inclusion of ethical values in the set of management imponderables. The problem of including these values in the standard model of rational choice has long been discussed among economists. There appear postulates to develop a model of *homo economicus moralis* not so much by supplementing the concept of rational choice but by its significant modification e.g. with the concept of rational compliance with norms or the concept of meta-ranking of preferences (Wincewicz-Price 2016: 435–458). The understanding and postulates of economic sciences toward the practice of business management should finally be liberated from the influence of at least some ideas of economic orthodoxy. In particular, the evaluation of top management's performance should cease to exclusively rely on the philosophy of managing on behalf of shareholders and with EVA. The vicious cycle of pursuing ever greater wealth for owners through ever greater production driven by excessive consumption should be broken if ecological, climatic, and civilizational risks are taken seriously. Many aptly believe that it is reasonable to include factors related to security and business agility in such an evaluation system. A consequence of accounting for business management agility with the EVA measure resides also in the drive to build extremely distributed and modularized international supply chains or, more broadly, specialize in international economic cooperation. Security requires reconsidering the validity of such a practice. We mean here not only security in the sense of ensuring economic continuity but also security in the

sense of protecting nature and the climate. Economists must urgently coordinate international – or, rather, global – regulations concerning not only the above issues but also labor law, social security, education, or environmental protection. Jointly, these issues demand a different approach to the concepts of shaping the competitiveness of both nations and companies. In addition to the already developed mechanisms of competitiveness in the form of sectoral adjustments and the creation of innovation, it seems only reasonable to account for cultural mechanism. Economists usually cannot break away from the equilibrium metaphor as an instrument for explaining and deriving recommendations for economic processes. Of course, equilibrium can be a useful heuristic tool in economics deliberations, but other metaphors that illuminate the studied phenomena from different angles – and thus enrich the methodical workshop and knowledge of economic sciences representatives – should not be overlooked. An even more serious problem is the search for the correct measure of national wealth. So far, the commonly used measure is GDP, which is known to have a plethora of imperfections. The argument that nothing better has been invented so far is difficult to accept. After all, many alternative solutions have already appeared in this field, and they should finally be considered seriously. Another topic for discussion is the economic meaning of globalization. Gathered experiences show that globalization is not just a source of benefits. Theorists should conceptually confront the emerging processes of deglobalization and slowbalization. Last but not least important is the problem of the increasingly dangerous process of uneven distribution of wealth in the world. This is the domain of development economics, whose postulates have long proved ineffective. Moreover, it is right now when there appears a chance to take a closer look at the mechanism of rotation of metropolises and peripheries.

We realize that they we barely hint at the need to modernize the contents and methods of economic sciences. It seems that the pandemic crisis is the last straw that breaks the camel's back – a camel that already bears ignorance and hypocrisy – and it also is a motivating factor to intensify cognitive efforts. We deem it preferable to begin with an inventory of achievements, deficiencies, and new ideas of economic sciences.

Finally, we recognize that our analysis above is not free from numerous limitations. First, some of the issues raised have been stirring the emotions of scientists, intellectuals, and journalists for a long time, and it is not certain whether the Covid-19 pandemic will change their attitude, which seems to be the sine qua non condition for change. Second, the list of issues for modification/revision is much longer than the one presented above, and we hope that it will be expanded by others, encouraged to participate in the discussion we propose. Third, paradoxically, the magnitude of potential changes – both in real economic life and in science, including economic sciences – can be expected to be proportional to the duration of the pandemic. The relatively rapid containment of the

pandemic seems to foster the eventual undertaking of relatively minor adjustments to economic sciences, while its prolonged duration may trigger more radical transformations in how economic sciences perform its descriptive, explanatory, and normative functions.

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### **The experience of the Covid-19 pandemic as a potential catalyst of modification of selected economic concepts**

The authors posit the need for the modification or even revision of how economic sciences are practiced in ontological, epistemological, and methodological aspects. The need results from the impact of several factors that appeared even in the pre-pandemic period, for which Covid-19 may be a complementary and reinforcing circumstance that may even directly determine the change. The structure of the article follows its goal, which is the author's reflection on the main thesis. To this end, the author's selected eight issues to exemplify the areas that require change, for which they propose a set of postulates that constitute the desired modifications in economic sciences. The main method we used was that of critical literature analysis.