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# Market Value as an Attempt to Objectivize the Behavior of Real Estate Market Participants

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ABSTRACT

Purpose – to demonstrate that (1) value, particularly the value of real estate properties was, is and will remain a controversial category in economics, (2) to create a single universal definition of value unrelated to the object of exchange and the conditions under which it is exchanged, and (3) seeking value that objectivises the market is futile.
Design/methodology/approach – the critical analysis of the pertinent literature and comparative analysis are used.
Findings – market value does not reflect the conditions of the real estate market; it is rather a highly imperfect attempt to objectivise the behaviour of its participants.
Research limitations – the market value of a real property is not directly measurable because it is based on prices that in the real estate market are an imperfect reflection of value.
Research implications – society expects a socially acceptable measure of value facilitating real estate transactions, the calculation of fees and taxes, and other public and private activities. Today's market value does not perform this function well, hence the need to redefine it.


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## INTRODUCTION

Real estate market value has emerged as a construct aimed to reflect the typical decisions of the market participants, objectivise their collective behaviour, and provide an objective measure for parties involved in real estate transactions or having to calculate fees or taxes, etc. The role of real estate in the economy prompted attempts to create a universal definition of its value, unrelated to both the object or purpose of valuation. However, the attempts appear to disregard the essence of market value, which is influenced by the subjective rather than objective perception of a good and the specific conditions of exchange. This paper seeks to demonstrate that (1) the category of value, especially the value of a real estate property, was, is and will remain controversial on the grounds of economics and that efforts (2) to create a single universal definition of value disregarding the object and conditions of exchange and (3) to find value objectivising the market cannot be effective. The goal is achieved based on the critical analysis of the pertinent literature and using a comparative analysis. The paper concludes with the observation that market value does not reflect the true conditions of the real estate market and very imperfectly objectivises the behaviour of its participants. It is a more of a myth than reality and evidently needs redefinition.

## THE CAUSE OF PROBLEMS WITH DEFINING VALUE AS AN ECONOMIC CATEGORY

Value is one of the most difficult categories to define in economics, which prompted A. Marshall to remark that a man would probably make a better economist if he trusted his common sense and practical instincts than if he announced that he was studying the theory of value and found it simple. J. S. Mill was very wrong in concluding in 1848 that ... there is nothing in the laws of value that remains to be explained to the present or future writer; the theory of it is complete (Mill, 1965, p. 31). The matter of value has been discussed for more than 2000 years now, which means that it was, is, and will probably remain an intricate and unclear category. Formulating its unambiguous definition is problematic if at all possible (Hausner, 2019, p. 18). However, explaining the nature of value is necessary no matter how difficult to define and interpret it is. Its economic significance has been succinctly explained by Professor G. Kolodko: economy without values is like life without meaning. The conceptualisation of value is a serious challenge for many scientific disciplines, which has resulted in each of them developing its own definition of it (Drenda, 2016, p. 40). The main factor contributing to the variety of value definitions is different perspectives on how an object and its value are related to each other; some view value as an inherent attribute of an object (the objective approach) while others consider it a matter of perception (the subjective approach) (Kowalczyk, 1986, p. 51). Because sciences explore different fields and thereby have different views on value, it has been concluded that the most appropriate framework for discussing its nature is the science where the concepts of value are the most spacious and general[1]. This science, according to Władysław Tatarkiewicz, is philosophy (Tatarkiewicz, 2020, p. 13).

The different focus of sciences investigating value causes that the concepts of value they use are wider or narrower. In psychology, value is a personal and subjective category, and so its measure is the preferences of the individual assessing it. It is understood as a desirable feature of people or things representing everything that individuals and societies deem important, precious, and worth pursuing; it has to do with positive experiences and constitutes a goal driving human aspirations (Łobodzki, 2009, p. 23). Sociologists give value a social dimension, describing it as a system of beliefs determining the judgments and behaviour of social groups or society as a whole. Thus, it has an objective content and arises, develops and evolves with the world (Nadolna, 2011, p. 170). From the perspective of culture, value derives from the commonly accepted existential-normative judgments (ibid.). In economics, value is equivalent to the material value of the object (Fox, 2012, p. 154), i.e., to the weight people assign to goods, or specific amounts thereof, realizing that having them will satisfy their needs (Menger, 2013, p. 113). In this context, value is the mental reflection of how individuals perceive the reality around them, filtered through the established social norms, relationships with other people, culture, and traditions. Economic value is rooted in philosophy and has psychological, social, and cultural facets. Figure 1.

[1] (...) there are unceasing efforts to go beyond partial deliberations and to embrace in one science all that exists; there are unceasing attempts to build, next to special sciences, a science that would give a view of the world (Tatarkiewicz, 2020, p. 13).

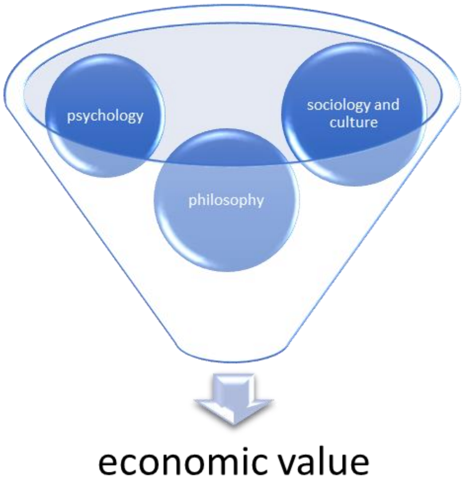


Figure 1. The multidimensional nature of economic value
Source: created by the authors.

There are three basic issues standing in the way of clarifying the concept of economic value. The first of them is its ontological characteristics. What is the form and nature of value? Is it internal or external to the object with which it is associated? Is it relative or absolute? The answers to these fundamental questions should primarily be sought in philosophy, but also in psychology. The second issue relates to the need to aggregate individual experiences or perceptions of value into a social or collective value. There is a problem with translating value that is primarily born in the minds of individuals into a universally accepted measure for business and fee and tax calculation purposes that society needs. The necessity for a theory of economic value to reconcile different personal and public concepts of value partly explains why formulating a useful theory is so difficult. Moral philosophy requires answering questions about what is fair to both an individual and society, economics raises questions about individual and market utility, and psychology asks about the behaviour and motivations of individuals. The last of the three issues is associated with the society's need to measure value and leads to the question about how its level should be determined depending on the circumstances or an object. Questions about the measurement of value are raised in many sciences, including economics, sociology, psychology, as well as in connection with the methodological and epistemological aspects of philosophy (Mooya, 2016, p. 5).

The complex nature of economic value that prevents the formulation of its unambiguous definition leads to disputes among economists and gives rise to many misunderstandings and misinterpretations. Although attempts to describe value go back as far as ancient times, a consensus on its nature or how it arises has not yet been reached. The efforts to interpret value have contributed to the establishment of various schools of economic thought (Przybyła et al., 2014, p. 7).

Value is not only one of the most problematic but also one of the most important concepts in economics. It is necessary for economic theory to be able explain phenomena taking place in economies, while economic practice needs it to ensure the efficient allocation of scarce resources (Wieser, 1924, p. 320, as quoted in: Przybyła et al., 2014). Understanding economic value and the behaviour of market participants is not possible without examining its origins.

## THE CONCEPT OF VALUE IN ECONOMIC THOUGHT

The deliberations about value have had a philosophical context and aimed to determine whether it is subjective, objective, absolute, or relative in nature, to classify it, to find it sources, and to understand how it is shaped (see, for instance, Zadora, 2005; Landreth & Colander, 2005). The understanding of economic value has changed with the sources of wealth (Mazzucato, 2018, p. 21), its existence having been attributed to production, exchange, labour, land, cost or utility, and scarcity of a given good. Thus, the sources of value were sought in the past or the future.

For practical reasons, economists have made efforts to combine the subjective and objective ingredients of value into a single concept (*The Appraisal of* …, 2021, p. 16-17)[2].

The variety of economic views on value has resulted in more than one type of value being used in contemporary literature. However, under the influence of the Austrian school, the subjective theory of value stating that the value of a good is a matter of individual perception came to the fore. It is worth noting here that a value reflecting the collective attitude and behaviour of market participants objectivises the market, thus losing the attribute of a subjective opinion. It is called market value that averages the subjective values and changes with them. Economists commonly agree that value has the following characteristics:

- Value is not attached to objects; it is not an inherent attribute, property, or an independent, autonomous characteristic of goods.
- Value is intangible and emerges in the minds of market participants; it therefore does not exist outside of them.

[2] One of the economists was Alfred Marshall (Dobb, 1976, p. 197).

- Value is more dependent on how market participants perceive the characteristics of an object than on the characteristics themselves. For instance, the significance of a stationary telephone in a flat for its value is almost none nowadays.
- Value is expressed in monetary terms, but economic values are not directly measurable. Hence, economists have adopted the tenet that every good has a value that is imperfectly reflected by the price. Accordingly, in the free market, the prices of goods constitute indirect measures of their value. They are both the units of measure and the parameters of economic value (Stachak, 2003, pp. 124-126).
- Value arises from interactions between the utility of a good, the perception of its scarcity, the desire to possess it, and the effective purchasing power.
- Value belongs to the future rather than to the past or present, because it depends on the demand for a given good, i.e., on its utility (Jevons and Menger's contribution) (Landreth & Collander, 2005, p. 240).
- Value is relative in nature. This relativity has been emphasized by J. B. Say: "The value of a thing means the value of another thing in general, for which that thing is exchanged".
- Value is instantaneous and is subject to constant change (Mill, 1965, p. 31, McKnight, 1994, p. 465-469).
- Value depends on changes between demand and supply. The role of demand is greater in short periods; the importance of supply increases with time (see: Marshall, as quoted in: Landreth & Colander, 2005, p. 301).

Because of the complexity of value and the definitional and interpretational problems it causes, the debates on its nature, quite common in the 18$^{th}$ and 19$^{th}$ centuries, were almost abandoned by the 20th century, when economists became more interested in prices. The switch was partly due to Cassel’s observation of 1903 that the theory of value was redundant in economic science and should be replaced by the theory of price. In 1974, Wend concluded that the theory of valuation should not be developed any further, as the price theory was more useful (Lawson, 2008, p. 14, 20). Both these statements meant a departure from the philosophical roots of economics towards its practical use, but they also reflected a change in the very nature of markets: the increasing replacement of the free-competitive markets by markets where it is more and more difficult for buyers and sellers to maintain anonymity, and where the rationality of entities is affected not only by restricted access to information and opportunism causing them to pursue their self-interest without regard for laws, customs, traditions or norms, but also by the wide diversity of objects of exchange (Zadora, 2004, pp. 42-43).

Another reason for the discussion of the nature of value to come to a halt could be the fast development of financial markets where all information other than confidential must be known to all market participants and investors (Begg, Fischer & Dornbusch, 2003, pp. 414-416), and where prices provide a good measure of value by reflecting changes in the business environment in real time. The increasing role of financial markets led to the development of a financial asset valuation methodology. Its use, however, has been very limited, because in financial markets prices reliably reflect the value of securities.

## PROBLEMS WITH DEFINING AND INTERPRETING MARKET VALUE THE REAL ESTATE MARKET

The real estate market does not meet the efficient market criteria, however. As the prices of real properties do not keep pace with its changes, nor fully account for them, in the real estate market, the theory of value cannot be replaced by the theory of price. Moreover, as real properties significantly differ from one another, it is impossible for the market participants to know their price before they are sold. Therefore, the value of properties put on the market must be assessed for the parties on a case-by-case basis. In the real estate market, the category of market value is practically the only reasonable option. It is also the most commonly sought, as society needs a widely acceptable measure of value to sell and buy properties, to calculate fees and taxes, etc.

In the real estate market context, deliberations on market value become more rather than less complex. Not only the definition of market value but also its interpretation and measurement are problematic due to the diversity of properties' characteristics and uses and the wide range of legal titles to them. Moreover, the titles are exchanged on a very imperfect and illiquid market, where the number of buyers and sellers is frequently limited and rational behaviours are rare. The definition[3] of market value as an

[3] Attempts to define market value have been made over centuries. The first definition of real estate market value was published in 1874 (Moore, 2009, p. 24). Over time, international cooperation has led to the introduction of market value definitions into many formal documents, such as International Valuation Standards, European Valuation Standards, RICS standards, as well as into the documents of the European Union. Interestingly, all of them

estimate is based on normative economics and ignores potential risks, which makes it especially unsuitable for inefficient markets such as the real estate market. All this contributed to the wide use of market value understood as the most probable price, i.e., one addressing possible risks. The estimated price is interpreted as the best price reasonably obtainable by the seller and the most advantageous price reasonably obtainable by the buyer (*European …*, 2016, p. 24). The same understanding of real estate market value has been adopted by National Valuation Standards drawn up by the Polish Federation of Valuers (PFVA).

The process of estimating the market value of real property should disregard all non-standard conditions or circumstances, such as atypical financing, sale or rental arrangements, or special requirements to be approved or authorised by anyone associated with the transaction involving the property, as well as any ownership rights, which might result in the estimated amount being misleadingly increased or reduced (*European …*, 2016, p. 24). The process also requires a careful analysis of the collected market data, which should omit the usually few transactions with the lowest and highest prices. The former are mostly caused by the limited supply of some properties, whereas high prices are the outcome of high supply and low demand. Omitting such transactions is necessary because they are very likely to have one or more characteristics disqualified by the definition of market value: the parties may have been related to each other (hence low prices) or have acted under duress; the parties' knowledge of the market may have been insufficient; the property was not properly marketed. Therefore, for the market value of a real property to be determined, the circumstances relevant to the transaction must be known. This observation is supported by the Polish legislation in force[4]. which requires that the category of value be considered with respect to a specific real property that has its own features and functions and exists in a specific competitive environment rather than in terms of a hypothetical property in a hypothetical market.

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explain market value in a similar fashion, describing it as " ...the estimated amount that could be obtained for an asset at the date of valuation, assuming that the parties have the firm intention to enter into a contract, are independent of each other, act with discernment and prudence, are not in a compulsory situation and an appropriate period of exposure of the property to the market has elapsed”.

[4] National Valuation Standard Basic Market Value, PFSRM. https://www.google.com/search?q=polska+federation+of+valuers%C3%B3w+majatkowych&oq=&aqs=chrome.0.69i59i450l8.2760212j0j15&sourceid=chrome&ie=UTF-8.

Being an economic category, value must reflect the optimal use of scarce goods such as land and its improvements, meaning that one of the key principles to guide the process of valuation should be the best and highest use of the valued property. The approach was incorporated into valuation methodology in the United States as early as 1903 and then was enshrined in the documents issued by IVS and EVS. It needs to be noted here that while the best and highest use of a property is not an element of the formal definition of market value, it is important in that it sets the context for its interpretation.

The concept of market value raises a number of questions: (1) does it reflect the real estate market conditions under which transactions are made? (2) given the diversity of needs of real estate market participants, is one definition of market value enough?, (3) is market value an objective representation of the behaviour of market participants, or do biases natural to valuation processes, especially in the real estate market, make its objectivity questionable?, (4) how well does it respond to the challenges of the 21$^{st}$ c? Unfortunately, all these questions must be answered in the negative.

*Market value fails to reflect real estate transaction conditions*

Market value is a conventional construct based on a number of assumptions that according to Mooya (2016, p. 12) are rooted in the neoclassical orthodox market models. These are:

- humans are rational,
- humans act on complete and perfect information,
- consumers and companies make decisions to maximize expected utility and profits, respectively,
- consumers and companies??? are motivated by self-interest, meaning that they disregard the utility of other entities (Solek, 2010, p. 22).

The assumptions met with wide criticism based on the fundamentals of economics. Herbert Simon has argued that individuals cannot maximize utility regardless of the market because complete information is not accessible and its processing has limits. They can only achieve a satisfactory level of utility. Accordingly, the expected utility concept fails to describe their actual behaviours. Adding the psychological perspective to economics (George A. Akerlof, Daniel Kahneman, Vernon L. Smith, Richard Thaler) made it possible to account for the imperfections of human behaviour, which are especially visible in the real estate market and explain its inclination to generate price bubbles. The indivisibility, immobility, and low liquidity of real properties, poor transparency of the real estate market, and high transaction costs have a limiting effect on the market participants' ability to make effective choices, i.e., on their operational efficiency. The real estate market is also affected by low allocative efficiency, meaning that properties have a limited range of best uses.

*There should be more than one market value. The concept of market value needs to take account of the specific needs of the client*

The attempts to adjust value to the needs of clients have a long history. The term 'to adjust value' should not be understood as selecting one of a range of existing values (e.g., an investment value) but as a process meant to ensure that the needs of an individual client are met. For example, banks use market value as well as mortgage value of properties understood as a long-term value determined on a given date and valid over a longer horizon, unlike market value. In financial reporting the notion of fair value is used, which can be the same or different from the market value of a property. The investment markets have adopted a market value of a property objectivising the market and a market value of a property as an investment, the characteristics of which make it partly similar and partly different from the market value. Their common feature is that both require market analysis, the interpretation of the data and comparisons to be determined.

If the purpose of real property valuation is to find an amount objectivising the market, then its representation will be the typical, most common price. If the investment value of a property is sought, then it will be equivalent to the highest price a potential buyer would pay, so it does not show the collective behaviour of investors. It all concentrates on the investment aspects, disregarding factors such fees, taxes, damages, or debt security. The investment value does not meet one of the definitional criteria for market value, which requires the parties to act prudently (European …, 2016, p. 25). As it seems, there is a need to formulate a special definition of market value enabling the assessment of damages for restriction of ownership rights or dispossession. Although the Mallinson Report (*Report of* …, 1994) led RICS to advise against the multiplication of value types, the process appears to be unavoidable given the increasing complexity of the business environment (see below).

*Market value does not objectivise the behaviour of market participants*

It is generally accepted that market value is an outcome of the objective observations of typical behaviours of market participants (*Real …*, 2000, pp. 41-42). However, its ability to objectivise their behaviours is limited by:

1) the special character of the valuation process[5],
2) the characteristics of real properties, especially their heterogeneity and diversity,
3) the characteristics of the real estate market, among which its imperfection, limited efficiency and low liquidity are particularly important.

All these characteristics are independent but interactive factors that make full objectivization of the real estate market impossible. This actually means that an objective value cannot exist because it will always have subjective elements. The attempts to obtain objective value, which by its nature is a subjective phenomenon, has thrown into confusion the fundamentals of economics (Menger, 2013, p. 119). Real estate valuation is always more subjective than the valuations of other goods whereby the market value of a real property is nothing more than an attempt to objectivise the market. As a result, it is surrounded by uncertainty, which in the real estate market is particularly high. Discussions about the uncertainty of real property valuations have been going on for several years now, mainly among British researchers. One of the reasons for starting them was the Mallinson Report (1994), which recommended the establishment of common professional standards for measuring and expressing uncertainty in valuation. A similar recommendation can be found in the Carlsberg Report (2002).

The uncertainty of valuation can be generally divided into typical and atypical (French & Gabrielli, 2003). Typical uncertainty stems from insufficient knowledge, imperfect information about valuation inputs, the assessment of the current and future market conditions, and the choice of valuation data. More weight tends to be attached to atypical uncertainty arising from the individual characteristics of the property or market volatility (French, 2011) and changing with the market and the type of a property. In the stable markets, the spread and volume of transaction data decreases as

[5] As well as operating in an information-rich environment, valuers are also influenced by emotions and their clients, which makes them vulnerable to heuristics (e.g., anchoring heuristics) and thinking errors. As a result, they do not and cannot fully comply with the normative model of real estate valuation. Departures from the normative model of property valuation are studied within the behavioural aspects of property valuation.

the market slows down; they also become less comparable in respect of transaction dates and property locations and technical and functional characteristics. The uncertainty of valuation increases with the complexity of its object. As single valuations are uncertain, the outcomes of valuations of similar properties become inconsistent. The differences between property values and actual prices show that valuations are not only uncertain but also fairly accurate, which explains why arriving at an objective value is problematic.

The use of price ranges in the real estate market makes it rational for property valuers to use them too. This requirement and valuation uncertainty suggest that value should be presented as the most common one in the market and appropriately interpreted. It should also be supported by a standard deviation which provides a measure of risk. [6] With this approach, it can be presented as a range of hypothetical prices whenever it might be useful given the purpose of valuation (e.g., sale).

*Novel directions in redefining the market value of real estate*

Economic value is a microeconomic concept that reflects the market opinion on the ability of an asset to be a source of economic benefits. It is determined based on the assumption that the asset will be used in the most efficient manner. This approach is consistent with classical economics as a social science focused on the best use of scarce resources. The scarcity of some resources leads to difficult decisions about their most efficient allocation. As the expediency of use changes in time, the economic value of an asset changes as well. This understanding of value is inadequate in the face of the challenges of the 21st century. As well as preventing the assessment of the level of depletion of non-renewable resources, it also makes it impossible to evaluate the behaviours of producers and consumers against environmental sustainability criteria, population health standards, and the ultimate goals of technological progress (Romanov, 1988, pp. 154-158). It thereby overlooks the emergence of new paradigms, i.e., new concepts and theories expanding the foundations of economics, such sustainable development and corporate social responsibility. There is rising

[6] The literature proposes several methods to measure the uncertainty of a single valuation:
- risk scoring (Hutchinson, Adair & Leheny, 2004),
- standard deviation (French & Mallinson, 1998),
- the Monte Carlo model (French & Gabrielli, 2003).

A convincing illustration of valuation uncertainty is different valuers obtaining different values for the same set of properties appraised at the same time (cf. Smit & Vos, 2003).

awareness that the economic factors may not be the only ones used in valuations and that the conceptualisation of value and its measures should not ignore new paradigms.

One of the new paradigms is 'green' design and construction of buildings, which recommends raising the energy efficiency of buildings regardless of whether or not this feature is financially justifiable. It also states that buildings should meet the social, ecological and environmental sustainability standards and generate less waste, consume less energy and water, cut on harmful emissions, and provide better working environments.

The awareness that resources are not infinite and that the environment needs to be protected heralds a new approach to the issue of value and prices (Romanov, 1988, pp. 154-158). At the same time, fast changes in economic conditions provide a strong impulse to seek new dimensions of value, such as the concept of social value proposed by C.E. Ayres and the idea of creating shared value (CSV), which is one more attempt to go beyond purely economic effects and make social aspects and externalities part of value measurements. The CSV has been endorsed as an important line of research also in the area of real estate, particularly that social questions and externalities have so far been outside the scope of value measurement criteria in this market (Mączyńska, 2011, p. 118).

Another promising approach in the research on value is that focusing on the life cycle and social impact of real properties, known as the Life Cycle Cost approach (*European* ..., 2016, pp. 264-265). It holds that value should be expressed as the present value of all costs that a property generates over its life, including construction, operation, maintenance, and demolition costs. It is argued, however, that even this concept may not be able to account for all external variables influencing value (*European* ..., 2016, pp. 265). Great potential is seen in the work on developing the long-term value concept, which is important for market analyses and debt security purposes. Comparisons between the long-term value of assets with fluctuations in their market values allow the signs of a price bubble to be detected.

## CONCLUSION

The definition of market value is conventional one; it has been changing in the past and will be changing in the future. Both the definition and interpretation of market value are expected to reflect the increasingly complex reality. Discussions surrounding value continue; it appears that they even intensified in the wake of the 2007-2009 crisis and extended to include the social dimensions of value. This is hardly surprising given that value, including the value of real estate, is a complex and controversial category (Mączyńska, 2011, pp. 102-120). Although markets need value objectivising the behaviour of their participants, some of its elements will always be subjective in nature. An objective value is as mythical as a unicorn. It is also noteworthy that seeking the market value of real properties involves a greater degree of subjectivity than the valuation of other assets, which simply means that this value is merely an attempt to objectivise the market. However, in spite of all the problems encountered in the search for a value objectivising the market, real estate valuation theory still needs it because it is not possible to replace it with price. The authors believe that instead of rejecting market value efforts should be made to improve its definition so that it can reflect the increasingly complex environment of the real estate market and better address individual needs of various clients.

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