

Abstractions and Paradoxes in Economic Theory: the Logic of Decision-Making

Mikheil Tokmazishvili*, Shota Lominashvili*, Medea Lominashvili-Pruidze*, Miranda Kavadze**

* Department of Economics, Faculty of Business, Law and Social Sciences, Akaki Tsereteli State University, Georgia

** Kutaisi International University, Georgia

(Presented by Academy Member Vladimir Papava)

Abstract. This study is devoted to the analysis of the dialectical relationship between economic abstractions and their paradoxes. Methodologically, it employs Hegelian and Marxian dialectics as an analytical framework for the examination of economic models. The central thesis of the paper is that the evolution of economic theories constitutes a dialectical process in which abstract theoretical constructions inevitably generate contradictions, while these contradictions, in turn, create the preconditions for the formation of new theoretical models that are more closely aligned with economic reality. Conceptually, the paper proposes a dialectical interpretation of the paradox of abstraction. In this model, theoretical generalization functions as an initial thesis that, when confronted with economic practice, reveals paradoxes and contradictions (antithesis), resulting in a synthesis, a more concrete theoretical framework consistent with empirical reality. On the basis of dialectical analysis, the equilibrium theories of Walras, Marshall, and Keynes are examined and presented as successive stages in the development of economic thought, moving from abstraction toward concreteness. The paper also interprets the formulation of economic policy as a dialectical and multi-criteria choice, in which the “best model” is not a universal truth but a political-economic decision determined by specific historical, institutional, and economic contexts. © 2026 Bull. Natl. Acad. Sci. Georg.

Keywords: abstraction, paradox, synthesis, dialectics, contradiction, political economy

Introduction

One of the central, yet continually debated, foundations of economic theory is abstraction, understood as a cognitive and methodological tool. As a result, economic science increasingly describes not only what actually occurs but also what “should” occur according to the logic of theoretical models. Economic science has found itself trapped between

the “blind” accumulation of empirical facts and rigid theoretical dogmas (Leishvili, 2013). Mainstream economics is based on assumptions that are not always true (Papava, 2024, p. 7). In this regard, the free-market model is a purely theoretical construct, an abstraction that does not exist in reality (Papava, 2024, p. 49). As a result, abstract economic models often fail to deliver accurate forecasts

or effective policy instruments, since they neglect institutional arrangements, geographic specificities, psychological behavior, and other contextual factors that shape real economic outcomes (Papava, 2018). Moreover, existing methodological approaches are inadequate for addressing complex and contemporary economic problems (Tokmazishvili, 2022).

The abstract explanation of economic processes reveals theoretical paradoxes and contradictions, which can simultaneously appear absurd while reflecting the dialectical nature of real processes; considering that two mutually opposing propositions cannot simultaneously constitute a paradox, their comprehension requires heterodox or eclectic approaches (Andreozzi, 2004).

Paradoxes of abstraction in economics reflect a natural dialectical tension. From a dialectical perspective, abstraction and paradox form a unity of analysis and synthesis, while their opposition constitutes a condition for theoretical development. In this interplay, the dialectical unity and contradiction of abstraction and paradox emerge, driving the continuous process of analysis and synthesis in economic theory.

This paper analyzes how abstract economic models create theoretical and practical paradoxes in economic science and how these contradictions are addressed through policy decision-making.

Methodological Foundations

Hegelian dialectics. The methodological foundation of this study is based on the Hegelian dialectical approach. According to Hegel's dialectical schema, abstraction represents the initial stage of cognition and appears as the "thesis", an idealized, simplified theoretical framework. Being one-sided, it is inherently contradictory (Hegel, 2018, Par. 438). When real-world processes fail to conform to this framework, a contradiction arises in the form of a paradox, functioning as the antithesis. Reality, in Hegelian terms, develops through internal contradictions (Hegel, 2010, Par. 956). The interaction

between thesis and antithesis is reflected in a synthesis. This interaction produces a more refined model or a heterodox integrated approach that reconciles theoretical simplification with empirical reality. In this sense, the synthesis constitutes a new qualitative state, incorporating the essential content of the previous stages while differing from them.

In Hegelian logic, the dialectical resolution of contradictions does not imply their elimination. On the contrary, opposing elements are preserved within a higher-order, more organized unity (Hegel, 2010).

If the world is governed by a dialectic of contradictions, economic processes and theories must likewise reflect this dialectical nature in reality. This approach is particularly evident in Karl Marx's theory, where economic processes, contradictions, and social changes are understood as a system of dialectical interactions.

In economics, abstract models, as the thesis, provide the initial framework for economic analysis and policy development, while paradoxes, as the antithesis, drive reflexive reconsideration and theoretical evolution. The resulting synthesis captures the ongoing developmental process of economic theory.

Marxian dialectics. Marx applies Hegelian dialectics to economic categories, emphasizing that dialectical contradictions operate in real social life. In capitalism, this contradiction is most clearly expressed in the conflict between labor and capital, which periodically produces socio-economic tensions.

In Marx's theory, the commodity represents a dialectical unity of use-value and exchange-value, becoming a bearer of value grounded in "abstract, socially necessary labor." Within this dual nature emerges the first contradiction of money: money formally resolves the internal contradiction of the commodity, but does not eliminate the underlying problem (Marx, 1990, vol. 1, p. 198).

In capitalist production, labor generates value, yet the worker does not appropriate the surplus; it is captured by the owner of capital. Capital accu-

mulation expands production while simultaneously increasing social inequality and labor alienation. The theoretical abstraction that labor is the sole source of value generates a paradox: the worker produces value, yet its monetary form is appropriated by the capitalist. Thus, labor is both the source of value and alienated from its own product.

Marx's dialectical approach shows that, in economics, abstraction and paradox are interdependent: abstraction provides the analytical foundation, while paradox reveals the structural contradiction between labor and capital. This contradiction cannot be resolved solely through money or market mechanisms; it requires a transformation of production relations. Only when ownership of labor's results and control over the means of production become socialized does the contradiction between labor and the appropriation of value dissolve.

Private property and capital accumulation simultaneously drive production expansion and technological progress, yet exacerbate social inequality, labor alienation, and class antagonism. Quantitative accumulation thus becomes a qualitative social contradiction, revealing that capitalism contains its own negation: "capitalist production itself produces its own negation" (Marx, 1990, vol. 1).

Through the dialectical transcendence of the old form, a new social formation emerges. The paradoxical contradiction between labor and capital is resolved as labor assumes the dominant position, providing the foundation for a more equitable social order.

Paradoxes of Abstraction in Contemporary Economic Theory

From a dialectical perspective, the paradoxes of abstraction in economic theory are particularly evident in the concepts of economic growth and equilibrium.

The paradox of economic growth. A central abstraction in contemporary economic thought is technological development as the universal driver

of progress. Technology increases labor productivity, reduces unit costs, expands production scales, and provides an objective basis for economic growth.

Yet technological progress simultaneously generates limits that constrain this very growth. It drives more intensive resource use and accelerates resource depletion. This produces a dialectical contradiction: economic growth relies on resources whose depletion ultimately threatens its continuation. In this sense, the economic system is simultaneously developing and self-limiting, and the slowdown of productivity dynamics at the global level constitutes a pressing challenge (IMF, 2020).

From this contradiction arises the need for a new synthesis. Economic thought and practice advance toward a higher, more concrete understanding: from a purely quantitative notion of growth to a qualitative interpretation, embracing sustainable, circular, and inclusive economic models – conceptualizing the economy as a socio-ecological whole.

Technology is no longer viewed solely as a tool for production expansion but as a means of conserving resources, enhancing efficiency, and promoting sustainability. Economic development thus shifts from the logic of growth to the logic of development.

This represents a dialectical synthesis – a resolution of the paradox of abstraction – where the old logic is transcended while the historical achievements of technological progress are preserved within a new socio-economic framework.

The Paradox of Economic Equilibrium

General equilibrium theory represents a classical and comprehensive form of economic abstraction. According to Léon Walras, the economy is a system of interrelated markets where prices ensure the balance of supply and demand – a central principle of the theory (Walras, 2003). Its analytical strength lies in its systemic perspective: each market is connected to all others, making it a foundational framework for studying economic phenomena.

However, Walras' model relies on strict abstractions: perfect information, instantaneous adjustments, and stable preferences – conditions rarely observed in reality. This creates a paradox: the model is logically coherent, yet limited in explaining dynamic economic processes. The assumption that prices perfectly balance the economy becomes paradoxical because full equilibrium is seldom achieved in practice.

A partial resolution to this contradiction is provided by **partial equilibrium theory**, as developed in Alfred Marshall's work. Marshall focuses on individual markets while treating other factors as temporarily constant (*ceteris paribus*), which reduces the level of abstraction and increases empirical applicability (Marshall, 1920). This theory assumes that individual markets are analyzed independently, and that short- and long-run periods play a decisive role in explaining economic phenomena.

Partial equilibrium is less abstract than Walrasian general equilibrium, yet it still embodies a paradox: markets tend toward equilibrium but never fully reach it. In dynamics, equilibrium expresses a "tendency," whereas in statics it represents a temporary condition. Equilibrium is thus partial and time-dependent.

While partial equilibrium better explains price formation in specific markets, it simultaneously overlooks intermarket connections. A new contradiction emerges: local market stability may coexist with instability in other markets. Partial equilibrium cannot fully account for how changes in one market affect the entire economic system.

The abstractions employed in partial equilibrium are closer to practical analysis and decision-making, yet systemic interconnections remain only partially captured.

Theory of disequilibrium. In John Maynard Keynes's theory, the central idea is that the economy can remain in a state of disequilibrium for extended periods, with demand determining output and employment. It is a less formal but more

reality-oriented approach, emphasizing that a free market cannot restore equilibrium on its own, making government intervention necessary. This perspective relies on relatively low abstraction, directly addressing dynamic processes such as unemployment, instability, expectations, and crises.

Keynes highlights the economy's naturally imperfect equilibrium, the cyclical nature of investment and consumption, and the inherent tendency toward crises. His analysis shows that classical abstract equilibrium models cannot account for demand shocks, investment cycles, or the long-term effects of unemployment (Keynes, 1936). From a dialectical perspective, Keynes demonstrates that equilibrium derived from abstraction generates contradictions, manifesting as disruptions and cyclical fluctuations, whose resolution requires political and institutional mediation

The theories of Walras, Marshall, and Keynes differ not only in analytical focus but also in their level and type of abstraction. Walras embodies the abstract ideal of equilibrium, Marshall emphasizes its dynamic tendencies, and Keynes reflects the paradoxical reality, in which equilibrium may not exist.

Individually, none fully captures economic reality, but together they provide a comprehensive picture of the system. Economic theory can thus be seen as a dialectical process, beginning with high-level abstraction and progressively addressing real economic contradictions, requiring continuous adjustment of theoretical models to align with changing realities.

This synthesis does not aim to produce a universal theory but to develop models approximating reality within specific historical and economic contexts. Accordingly, economic policy formation relies on combining multiple levels of abstraction to accurately assess conditions and select appropriate decisions.

Economic contradictions do not disappear in this process; they transform across market, institutional, social, and macroeconomic levels, requi-

ring ongoing political, institutional, and economic mediation. Within this dynamic framework, economic theory attains practical significance as a tool for understanding and managing a changing reality.

Conclusion

The “resolution” of paradoxes arising from abstractions in economic theory is not a universal choice in political economy; rather, it depends on which theoretical logic is temporarily prioritized within a specific historical and institutional context. When a policy decision favors one framework, additional abstractions must be introduced to adapt the model to real-world conditions, political constraints, and social conflicts.

In this process, each abstract model undergoes subsequent modifications, forming a framework for complex analysis. Each new assumption builds

upon the abstractions of the previous model while partially contradicting them. This interplay positions abstraction as a dialectical instrument, highlighting discrepancies between theoretical models and real economic processes. Within such a system, paradoxes serve as signals indicating the need for further model development.

Economic policy decisions rarely rely on a single model. Instead, they emerge from the integration of multiple theoretical frameworks constructed at varying levels of abstraction, reflecting the logic of multi-criteria decision-making. Under conditions of uncertainty, the optimal choice does not involve identifying a single “correct” solution but rather narrowing down alternative scenarios. Consequently, selecting the “best” model constitutes a policy decision grounded in the economy’s actual conditions and informed by an evaluation of available alternatives.

ეკონომიკა

აბსტრაქციები და პარადოქსები ეკონომიკურ თეორიაში: გადაწყვეტილებების ლოგიკა

მ. თოქმაზიშვილი*, შ. ლომინაშვილი*, მ. ლომინაშვილი-ფრუიძე*, მ. კავაძე**

* აკაკი წერეთლის სახელმწიფო უნივერსიტეტი, ბიზნესის, სამართლისა და სოციალურ მეცნიერებათა ფაკულტეტი, ეკონომიკის დეპარტამენტი, ქუთაისი, საქართველო

** ქუთაისის საერთაშორისო უნივერსიტეტი, საქართველო

(წარმოდგენილია აკადემიის წევრის ვ. პაპავას მიერ)

კვლევა ემდგნება ეკონომიკურ აბსტრაქციებსა და პარადოქსებს შორის დიალექტიკური კავშირის ანალიზს. მეთოდოლოგიურად გამოყენებულია ჰეგელისა და მარქსის დიალექტიკა,

როგორც ეკონომიკური მოდელების კვლევის ანალიტიკური ჩარჩო. ნაშრომის ცენტრალური თეზისია, რომ ეკონომიკური თეორიების ევოლუცია წარმოადგენს დიალექტიკურ პროცესს, რომლის ფარგლებშიც აბსტრაქტული კონსტრუქციები გარდაუვალად წარმოშობს წინააღმდეგობებს, რომლებიც ახალი, უფრო რეალობასთან მიახლოებული თეორიული მოდელების ფორმირების წინაპირობას ქმნის. კონცეპტუალურად შემოთავაზებულია აბსტრაქციის პარადოქსის დიალექტიკური განმარტება: თეორიული განზოგადება ფუნქციონირებს როგორც საწყისი თეზისი, რომელიც ეკონომიკურ პრაქტიკასთან შეჯახებისას ავლენს პარადოქსებსა და წინააღმდეგობებს (ანტითეზისი), რის შედეგადაც ყალიბდება სინთეზი, უფრო კონკრეტული და ემპირიულ რეალობასთან შესაბამისი თეორიული ჩარჩო. დიალექტიკური ანალიზის საფუძველზე გაანალიზებულია ვალრასის, მარშალისა და კეინზის წონასწორობის თეორიები, რომლებიც წარმოდგენილია როგორც ეკონომიკური აზრის განვითარების თანმიმდევრული ეტაპები აბსტრაქტულიდან კონკრეტულსკენ. ნაშრომში ეკონომიკური პოლიტიკის ფორმირება წარმოჩენილია როგორც დიალექტიკური და მრავალკრიტიერიუმთან არჩევანი, სადაც „საუკეთესო მოდელი“ არ არის უნივერსალური ჭეშმარიტება, არამედ იგი კონკრეტული ისტორიული, ინსტიტუციური და ეკონომიკური კონტექსტის შესაბამისად შერჩეული პოლიტიკურ-ეკონომიკური გადაწყვეტილებაა.

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