

ECONOMIC CONVERGENCE WITHOUT FINANCIAL DEEPENING: A SELF-REINFORCING STRUCTURAL TRAP IN ROMANIA

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Abstract

This paper addresses a central paradox in economic development: how can a country achieve rapid convergence in GDP per capita while maintaining persistently low levels of financial intermediation? The existing literature emphasizes the critical role of financial intermediation in supporting economic growth, efficient resource allocation, and institutional discipline [Levine, 2005; Beck et al., 2000]. However, Romania represents a notable deviation from this framework, combining strong economic growth with one of the lowest levels of financial intermediation in the European Union—approximately 23% of GDP compared to an EU average of around 75%. We argue that this apparent contradiction reflects not the absence of financing, but the presence of alternative mechanisms of economic coordination and capital allocation, including European funds, foreign direct investment, remittances, trade credit, and state-mediated resource allocation. While these mechanisms partially substitute for formal financial intermediation, they also reshape economic behaviour, weaken financial discipline, and reduce incentives for formalization. The analysis is based on a comparative framework using World Bank and European datasets, covering the period from the 1990s to the present, and benchmarking Romania against Central and Eastern Europe and advanced European economies. The empirical analysis focuses on three interconnected dimensions: the divergence between economic convergence and financial intermediation, the role of substitute financing mechanisms, and the structural constraints affecting bankable demand. A key contribution of this paper is the formulation of a self-reinforcing structural model of financial underdevelopment, in which limited bankable demand, institutional constraints, and the availability of substitute financing mechanisms interact to endogenously sustain low levels of financial intermediation despite ongoing economic convergence. The Romanian economy thus emerges as a structurally constrained system in which convergence is sustained through alternative mechanisms that simultaneously limit the expansion of formal financial intermediation and the long-term sustainability of growth.

Keywords: Financial intermediation; economic convergence; structural trap; bankable demand; informal economy; institutional economics; trade credit; EU funds; Central and Eastern Europe; Romania.

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Introduction

Over the past two decades, Romania has experienced one of the fastest rates of economic convergence in the European Union, reaching approximately 75–80% of the EU average in GDP per capita. This performance represents a

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historically unprecedented improvement in Romania's economic position, reflecting substantial structural transformation and integration into the European economy.

At the same time, financial intermediation has remained persistently low, at around 22–23% of GDP, significantly below both the European average and the levels observed in comparable Central and Eastern European economies. This divergence challenges the conventional assumption that financial deepening is a necessary condition for economic development and points to a structurally distinct growth configuration.

Standard statistical indicators do not fully capture the structure of the Romanian economy. A significant share of economic activity operates partially outside formal financial and institutional channels, creating a mismatch between measured financial depth and actual economic dynamics. In this context, low financial intermediation reflects not only financial underdevelopment, but also deeper structural characteristics, including limited transparency and incomplete formalization.

A key explanatory factor lies in the legacy of the transition period of the 1990s, which in the Romanian case can be described as a “lost decade”. Unlike several Central and Eastern European economies that advanced through coordinated reform frameworks such as the Visegrád process, Romania experienced a delayed and fragmented transition, marked by repeated episodes of institutional instability and social disruption, most notably the *mineriads*. Rather than consolidating market-oriented institutions, this period contributed to the persistence of informal practices and weak enforcement mechanisms. In economic terms, the stagnation is visible: GDP per capita in current USD remained broadly unchanged, from approximately 1,640 USD in the early 1990s to around 1,660 USD by 2000, indicating a decade of negligible real progress.

This divergence in initial conditions had long-term consequences. While other countries in the region entered a phase of earlier institutional consolidation and integration, Romania's delayed adjustment reduced its capacity to build a stable foundation for financial intermediation. Moreover, the timing of convergence proved structurally unfavourable: the acceleration of growth and financial deepening occurred only in the 2000s and was rapidly interrupted by the global financial crisis, limiting the time available for the organic consolidation of bank-based intermediation.

These early dynamics generated long-term path dependencies, shaping a structurally embedded form of economic coordination based on informal networks. Such arrangements—often referred to in the Romanian context as “*cumetrie*”, a form of relationship-based and network-driven access to economic opportunities—reflect non-transparent mechanisms of coordination that continue to influence market functioning, competition, and resource allocation.

The implications extend beyond financial intermediation into broader dimensions of economic performance. Romania exhibits relatively low fiscal revenue collection compared to the European average, reflecting both limited formalization and structural inefficiencies. Firms operating within the formal economy often face competitive disadvantages relative to those relying on informal or relationship-based mechanisms, contributing to distortions in market competition.

From a structural perspective, the Romanian economy can be understood through three interrelated dimensions: financial, fiscal, and legal. These dimensions interact in shaping institutional capacity, economic behaviour, and resource allocation. Weaknesses across these domains reduce incentives for formalization and contribute to the persistence of informal practices.

These dynamics are reinforced by resistance to institutional change. Drawing on insights from change management and strategic analysis literature, such resistance is embedded not only in cultural factors, but also in economic incentives, organizational structures, and historical legacies. When existing arrangements provide short-term advantages, economic actors face limited incentives to transition toward more transparent and rule-based systems.

At the same time, Romania's economic growth has been supported by alternative financing and coordination mechanisms, including European structural and investment funds, foreign direct investment, remittances, trade credit, and the role of the state in resource allocation. While these mechanisms compensate for low levels of financial intermediation, they also contribute to a fragmented system of economic coordination.

An important implication of this structure is the emergence of constrained "bankable demand." The combination of firm size distribution, informality, limited transparency, and behavioural factors reduces the capacity of firms and households to engage with the formal financial system, reinforcing persistently low financial intermediation.

In this context, the concept of "bankable demand" becomes central to the analysis. Rather than reflecting purely supply-side constraints, financial intermediation is shaped by the capacity of economic agents to meet the transparency, capitalization, and behavioural requirements of formal finance.

This paper argues that Romania represents a self-reinforcing structural trap in which convergence is sustained through mechanisms that simultaneously weaken the conditions required for deeper financial intermediation. This configuration supports short-term economic convergence, but generates long-term vulnerabilities, including weak fiscal capacity, limited institutional trust, and constrained financial development.

The empirical analysis that follows examines the divergence between economic convergence and financial intermediation, the role of substitute

financing mechanisms, and the structural constraints affecting bankable demand, in order to explain the persistence of this structural trap.

Literature review

The relationship between financial intermediation and economic growth has been extensively documented in the literature. Financial systems are widely understood to facilitate capital allocation, risk management, and productivity growth [Levine, 2005], while empirical evidence shows that financial depth is strongly associated with long-term economic development [Beck, Levine, and Loayza, 2000]. These contributions establish financial intermediation as a central mechanism of economic coordination.

However, subsequent research has nuanced this relationship. Differences in financial structure have been shown to affect growth outcomes [Demirgüç-Kunt and Levine, 2001], while other studies suggest that beyond a certain threshold, finance may exhibit diminishing returns for economic growth [Arcand, Berkes, and Panizza, 2012]. Together, these findings indicate that the finance–growth nexus is not linear, but conditional on broader institutional and structural factors.

Institutional economics provides a critical extension of this perspective. Informal institutions, path dependency, and historical legacies play a fundamental role in shaping economic performance [North, 1990], while inclusive institutional frameworks are essential for sustaining long-term development [Acemoglu and Robinson, 2012]. In the context of transition economies, persistent distortions such as soft budget constraints continue to influence firm behaviour and resource allocation beyond the initial reform period [Kornai, 1992].

Cultural and behavioural dimensions further enrich this framework. Trust, social norms, and cultural factors have been shown to influence financial participation and development [Guiso, Sapienza, and Zingales, 2006], while legal institutions and enforcement mechanisms shape access to external finance [La Porta et al., 1997]. These perspectives support the view that financial intermediation is deeply embedded in broader social and institutional contexts.

An important strand of literature highlights the role of alternative financing mechanisms in environments with weaker formal financial systems. Firms in such contexts rely more heavily on non-bank channels, including trade credit and informal finance, as substitutes for bank intermediation [Allen, Qian, and Qian, 2005]. Empirical evidence further shows that trade credit can exceed bank credit in less developed financial systems, reflecting structural constraints in access to formal finance [Demirgüç-Kunt and Maksimovic, 2001; Beck, Demirgüç-Kunt, and Maksimovic, 2011].

More recent contributions emphasize the importance of financial inclusion and the concept of “bankable demand,” suggesting that low levels of financial

intermediation may reflect not only supply-side limitations, but also demand-side constraints rooted in firm structure, informality, and institutional quality.

Despite these advances, the literature has paid limited attention to cases in which rapid economic convergence coexists with persistently low financial intermediation. Existing frameworks typically treat financial deepening as a driver of growth, or as a variable subject to diminishing returns, but rarely as an endogenous outcome of structural and behavioural factors that may constrain its own expansion.

This paper contributes to the literature by proposing that, in such contexts, financial underdevelopment may become part of a self-reinforcing structural mechanism. By integrating financial, institutional, and behavioural perspectives, the analysis advances the interpretation of economic convergence without financial deepening as a structurally constrained process, rather than a temporary deviation from standard development patterns.

Methodology

i. This study employs a comparative and longitudinal analytical approach to examine the relationship between economic convergence and financial intermediation in Romania relative to the European Union, with the objective of identifying structural divergences rather than estimating econometric causality.

ii. The empirical analysis is based on World Bank data covering the period 1995–2024, selected for consistency and cross-country comparability. Two core indicators are used: economic convergence, measured as GDP per capita in purchasing power parity expressed as a percentage of the EU average, and financial intermediation, proxied by domestic credit to the private sector as a percentage of GDP.

iii. The comparative framework includes Romania as the primary case study, the Central and Eastern European region (CEB) as a group of structurally comparable emerging economies, and the euro area as a benchmark for mature financial systems. Despite its evolving composition, the euro area remains a relevant proxy for financial depth and institutional stability.

iv. The analysis incorporates a periodization of the Romanian economy reflecting its structural evolution: reconstruction (1990–2000), expansion (2000–2008), forced adjustment following the global financial crisis (2008–2014), stabilization (2014–2020), and resilience (2020–2024). This periodization represents an original contribution of the research and supports the interpretation of long-term dynamics.

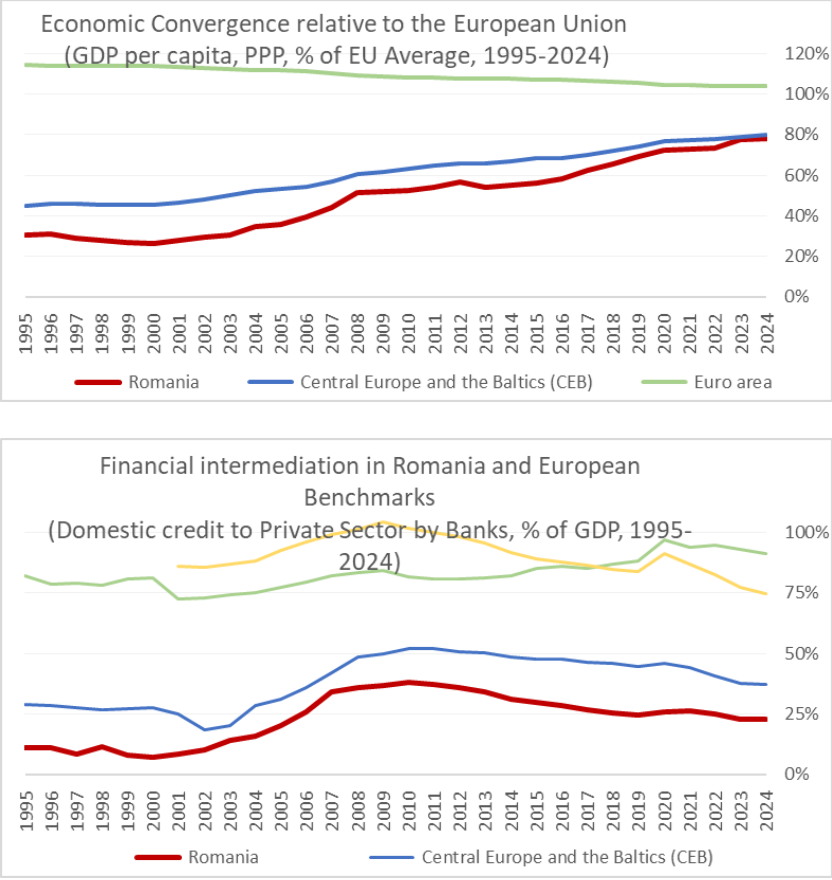
v. To interpret the observed divergence between convergence and financial intermediation, the quantitative analysis is complemented by a qualitative structural perspective capturing persistent economic behaviours,

informal practices, and institutional characteristics that influence the formation of bankable demand.

vi. The methodological framework integrates quantitative evidence with structural interpretation in order to explain how economic convergence can coexist with persistently low financial intermediation, while acknowledging the limits of purely data-driven analysis in capturing underlying economic mechanisms.

Results and Discussion

i. Divergence between economic convergence and financial intermediation



Taken together, the two figures reveal the core paradox of the Romanian growth model. The first figure shows a strong and sustained process of economic convergence, with Romania rising from approximately 30% of the EU average in GDP per capita in the mid-1990s to nearly 80% in recent years. This trajectory, however, did not begin immediately. The relative deterioration visible between 1995 and 2000 marks the final phase of a lost decade of

transition, characterized by institutional fragility, delayed adaptation to market economy principles, and the persistence of informal economic practices. The upward shift observed after 2000 reflects Romania's gradual exit from this initial phase of structural disorganization.

The second figure presents a fundamentally different trajectory. Financial intermediation in Romania follows a short phase of expansion prior to the global financial crisis, reaches its local peak around 2008–2010, and then enters a prolonged period of contraction and stagnation. Unlike the euro area, where financial intermediation remains broadly stable at high levels, and the broader CEB region, where deleveraging stabilizes at intermediate levels, Romania remains locked into structurally low credit-to-GDP ratios throughout the post-crisis period.

Read together, the two figures point to a growing divergence between economic convergence and financial deepening. Romania continues to converge in income terms even as domestic financial intermediation weakens and flattens. This divergence is visible, to a lesser extent, at the level of the CEB group, but it is far more pronounced in the Romanian case. By contrast, in advanced European economies, relative income stability is accompanied by a much more stable financial structure, suggesting that convergence and intermediation remain more closely aligned.

A further important result emerges in the most recent period. Between 2020 and 2024, the slope of Romania's convergence path becomes visibly flatter, while financial intermediation remains broadly stagnant at low levels. This simultaneous loss of momentum suggests that the alternative mechanisms that have supported convergence in the absence of financial deepening may be approaching their limits.

This raises the question of whether Romania's convergence model—built to a significant extent on non-bank, external, and structurally fragmented mechanisms—has begun to reach a structural ceiling in the absence of deeper domestic financial intermediation.

ii. Mechanisms of convergence without financial deepening

The divergence between economic convergence and financial intermediation raises a fundamental question regarding the underlying mechanisms supporting growth in the Romanian economy. If convergence has continued in the absence of financial deepening, alternative channels must have played a significant role.

Several structural mechanisms can be identified as partial substitutes for domestic financial intermediation. External sources of financing, including remittances and capital inflows, have supported consumption and investment without being fully intermediated through the domestic banking system. European funds have played an increasingly important role, particularly after

EU accession, acting as a non-repayable source of financing with significant macroeconomic impact.

At the same time, the structure of the domestic economy has allowed for the persistence of informal and semi-formal financing mechanisms. These include intra-firm financing, supplier credit, and various forms of relationship-based economic activity operating outside the formal financial system. Such mechanisms reduce the apparent demand for bank credit while limiting transparency and scalability.

This combination of external financing, public transfers, and informal mechanisms has enabled Romania to sustain economic convergence despite low levels of financial intermediation. However, these channels differ fundamentally from credit-based intermediation in terms of efficiency, allocation, and long-term sustainability.

iii. Structural origins of weak financial intermediation

The persistence of low financial intermediation in Romania cannot be explained solely by post-crisis developments. Its roots lie in the incomplete transformation of the 1990s, a lost decade of transition marked by institutional fragility, delayed adaptation to market economy principles, and the persistence of informal economic practices. These structural features continued to shape the corporate sector and the formation of bankable demand.

This legacy becomes visible in the evolution of financial intermediation itself. After a period of strong pre-2008 expansion, Romania entered, from 2010 onward, a structurally divergent trajectory relative to comparable economies in the region. Financial intermediation remained persistently low despite continued economic convergence, indicating that growth has been supported, to a significant extent, by mechanisms operating outside traditional bank-based intermediation.

This divergence is particularly significant because it unfolded in parallel with a strong increase in GDP per capita. Romania experienced real convergence in income terms while financial depth stagnated or declined, supporting the interpretation that growth has relied on alternative channels of financing and adjustment, consistent with the broader literature [Levine, 2005; Beck, 2008].

A central structural cause of this pattern is the limited base of bankable demand within the corporate sector. Evidence from the Romanian Association of Banks study *Financial Intermediation and the Entrepreneurial Footprint of Romania* (2023) shows that only around 15% of Romanian companies are bankable under current conditions, while even under support mechanisms the share increases only to approximately one third. At the same time, structural fragilities are widespread: firms with negative equity account for roughly one

third of total companies, indicating weak capitalization and limited capacity to absorb external financing [Asociația Română a Băncilor, 2023].

These vulnerabilities are consistent with broader structural evidence on the Romanian corporate sector. Corporate financing relies predominantly on internal funds, shareholder financing, and trade credit, while bank lending plays a comparatively limited role, with trade credit significantly exceeding bank credit in the overall financing structure [PwC, 2019].

At the same time, firm-level weaknesses further constrain bankability. Low productivity levels, structural fragmentation, and limited investment capacity reduce firms' ability to generate stable revenues and meet prudential lending standards, thereby restricting effective access to formal financing; PwC estimates indicate that labour productivity in Romania remains significantly below the EU average, while corporate financing relies predominantly on internal funds and trade credit rather than bank lending [PwC, 2019].

Taken together, these elements indicate that weak financial intermediation in Romania is not a temporary outcome, but the manifestation of a deeper structural configuration shaped by transition legacies, corporate sector fragmentation, and the persistence of partially formalized financing practices.

Crucially, these structural characteristics do not only limit financial intermediation at a given point in time, but also shape the mechanisms through which financial depth evolves over time. This suggests that the problem is not merely one of level, but one of dynamics: limited bankability does not simply coexist with weak financial intermediation, but contributes to reproducing it over time.

iv. The bankability constraint

The mechanism identified in this paper can be formalized as a self-reinforcing structural loop:

- (i) weak firm-level fundamentals reduce bankability,
 - (ii) limited bankability constrains financial intermediation,
 - (iii) reduced reliance on formal finance increases the use of substitute mechanisms,
 - (iv) substitute mechanisms weaken incentives for formalization and transparency,
- thereby reproducing the initial conditions that sustain low financial intermediation.

The structural features identified above converge into a central mechanism that shapes the Romanian financial system: the bankability constraint, understood as the limited systemic capacity to generate sustainable demand for formal credit.

Bankability should not be understood as the simple availability of credit, but as the systemic capacity of an economy to generate a sufficient volume of

firms and households capable of meeting the financial, institutional, and behavioural conditions required for sustainable access to formal financing.

In this context, low financial intermediation is not primarily the result of constrained credit supply, but the outcome of a structural equilibrium characterized by limited bankable demand.

The evidence presented in the previous section indicates that firm-level characteristics—such as weak capitalization, low productivity, and fragmented structures—reduce the pool of economically viable borrowers. However, the implications extend beyond static constraints and point to a dynamic mechanism.

Limited bankability reduces the effective demand for bank credit and constrains the expansion of financial intermediation. In turn, reduced reliance on formal financial systems increases the role of alternative financing mechanisms, including internal funds, trade credit, and relationship-based economic arrangements. While functional in the short term, these mechanisms weaken incentives for financial transparency, capital accumulation, and formalization.

This interaction generates a self-reinforcing dynamic. Lower financial transparency and weaker balance sheets reduce bankability; reduced bankability limits access to formal credit; reliance on substitute financing mechanisms diminishes incentives for formalization and financial discipline; and these effects reproduce the structural conditions that constrain financial intermediation.

In this sense, the Romanian case reflects not simply a coexistence between convergence and low financial depth, but the emergence of a self-reinforcing structural trap. Financial underdevelopment becomes endogenously sustained by the very mechanisms that allow economic activity to continue in the absence of deep intermediation.

Such a configuration can be understood as a stable but suboptimal equilibrium. Rather than representing a temporary deviation from standard development patterns, it reflects a structurally embedded growth model in which the expansion of financial intermediation is constrained by the internal characteristics of the economic system itself.

v. Interpretation and broader implications

The Romanian case cannot be adequately explained by the traditional framework linking financial deepening to economic convergence. Instead, it reflects a growth configuration in which convergence has been sustained in the absence of a corresponding expansion of domestic financial intermediation.

This configuration can be understood as structurally adaptive but ultimately self-limiting. Alternative mechanisms—external financing, European funds, and internal corporate arrangements—have supported growth without

requiring a proportional increase in credit-based intermediation. However, the greater the reliance on such mechanisms, the weaker the incentives for formalization and deeper financial integration, suggesting the emergence of a structural ceiling.

The persistence of the bankability constraint provides a unifying explanation. Financial depth appears not as an exogenous driver, but as an endogenous outcome shaped by the structure and quality of economic agents.

This interpretation has broader implications for emerging European economies. It suggests that convergence without financial deepening is possible, but only up to a point. As substitute mechanisms reach their limits, the absence of sufficiently developed financial intermediation may constrain further progress.

The recent flattening of both convergence and financial intermediation may therefore signal not a cyclical slowdown, but the emergence of such a structural ceiling. Future convergence will depend increasingly on the capacity of the domestic economy to generate transparent, scalable, and sustainable bankable demand.

Conclusions

This paper challenges the conventional assumption that financial deepening is a necessary condition for economic convergence. The coexistence of rising income levels and persistently low credit-to-GDP ratios points to the existence of a structurally distinct growth model.

The analysis suggests that this model has been sustained through a combination of external financing, public transfers, and internal corporate mechanisms that partially substitute for the role of the banking sector. However, these channels differ fundamentally from credit-based intermediation in terms of efficiency, scalability, and long-term sustainability.

The concept of a bankability constraint provides a coherent explanation for this divergence. Limited financial transparency, weak capitalization, and structural fragmentation within the corporate sector restrict the capacity of the economy to generate sustainable demand for formal credit, leading to an equilibrium characterized by persistently low financial depth.

The recent flattening of both convergence dynamics and financial intermediation may indicate that this model is approaching its structural limits. The central implication of the paper is that Romania's development pattern should not be understood simply as convergence without finance, but as convergence achieved through mechanisms that may themselves constrain the future expansion of formal financial intermediation. In this sense, the structural trap is not external to the growth model; it is embedded in the way that model functions.

In particular, the interaction between fiscal compliance, legal enforceability, and financial transparency plays a critical role in shaping access to formal finance. Where these dimensions remain fragmented or only partially enforced, a significant share of economic activity remains outside the scope of bank intermediation, reinforcing the persistence of low financial depth.

Rather than representing a temporary deviation, this configuration may reflect a stable but suboptimal equilibrium. Breaking this self-reinforcing structural trap therefore requires not only financial deepening, but broader adjustments in the institutional, behavioural, and firm-level conditions that shape the formation of bankable demand.

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