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Savings, Investment, and Economic Uncertainty: The Mediating Role of Institutional Quality

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Abstract

Economic uncertainty has become a persistent and structural feature of the global economy, shaping household and firm behavior beyond short-term cyclical fluctuations. This paper develops an integrated conceptual framework to examine how economic uncertainty influences savings and investment, with particular emphasis on the mediating role of institutional quality. Drawing on precautionary savings theory and irreversible investment theory, the framework highlights that economic uncertainty directly stimulates household savings through heightened precautionary motives while discouraging corporate investment via increased option values of waiting. Beyond these direct channels, the paper argues that economic uncertainty also operates indirectly by weakening institutional quality, thereby amplifying risk perceptions, undermining policy credibility, and increasing regulatory and legal uncertainty. Institutional quality is conceptualized using internationally recognized governance dimensions that shape the predictability of economic environments and the security of economic rights. The framework further incorporates income and the current account as core conditioning variables that influence savings capacity, investment demand, and the transmission of domestic and external shocks. By synthesizing insights from macroeconomic theory, institutional economics, and open-economy perspectives, this study advances the literature by repositioning institutional quality as a central transmission mechanism linking economic uncertainty to savings and investment outcomes. The paper formulates theoretically grounded propositions to guide future empirical research and policy analysis. Overall, the framework offers a coherent lens for understanding the heterogeneous responses of savings and investment to economic uncertainty across different institutional and macroeconomic contexts.

Keywords: Economic uncertainty; Institutional quality; Savings; Investment

1. Introduction

In recent decades, the global economy has been increasingly shaped by recurrent financial volatility, intensifying geopolitical tensions, public health crises, and the growing impacts of climate change. As a result, economic uncertainty has evolved from a temporary cyclical disturbance into a persistent structural feature of the modern macroeconomic environment (Bloom, 2014; IMF, 2022). Heightened uncertainty affects both micro-level decision-making and macro-level resource allocation, with particularly strong implications for savings and investment as the core drivers of capital accumulation and long-term economic growth. For households, uncertainty surrounding future income, employment stability, and social protection strengthens precautionary saving motives, reshaping intertemporal consumption and saving decisions (Carroll, 1997). For firms, uncertainty regarding demand conditions, policy direction, and production costs raises the option value of waiting, leading to delayed or scaled-down irreversible investment (Bernanke, 1983). Despite these well-established mechanisms, empirical evidence reveals substantial cross-country heterogeneity in savings

and investment responses to uncertainty. Economies characterized by strong institutional frameworks tend to exhibit relatively muted and temporary adjustments, whereas those with weaker institutional constraints experience sharper and more persistent fluctuations (Rodrik, 2001). This heterogeneity suggests that the transmission of economic uncertainty to savings and investment is shaped by deeper structural and institutional conditions rather than operating uniformly across economies.

A substantial body of literature has examined the relationship between economic uncertainty and savings or investment from different theoretical perspectives. Research grounded in Keynesian liquidity preference and precautionary savings theories documents a positive association between uncertainty and household savings, emphasizing heightened risk perception and self-insurance motives (Carroll, 1997; Guiso et al., 1992). In contrast, studies based on irreversible investment theory highlight the contractionary effects of uncertainty on corporate investment, as firms postpone capital expenditures to avoid irreversible losses (Bernanke, 1983; Bloom, 2009). At the same time, some contributions point to nonlinear or conditional effects, suggesting that moderate uncertainty may stimulate innovative investment in specific contexts (Aghion et al., 2005) or that saving responses vary with household wealth (Dynan, 1993). While these studies provide valuable insights, they predominantly focus on direct causal effects and offer limited explanations for the pronounced heterogeneity observed across countries. Moreover, although institutional quality is widely recognized as a key determinant of economic stability and growth (North, 1990; Acemoglu and Robinson, 2023), existing research largely treats institutions as moderating factors in the uncertainty–growth nexus, with insufficient attention paid to their potential mediating role in the transmission of uncertainty to savings and investment decisions.

Income and the current account further complicate the uncertainty–savings–investment relationship. Income constitutes the primary source of household savings and a fundamental driver of firms' investment demand, as emphasized by Keynesian consumption theory and investment accelerator models (Keynes, 1936; Fazzari et al., 1988). The current account, reflecting the intertemporal balance between domestic savings and investment, links internal economic dynamics with global capital flows (Obstfeld and Rogoff, 1996). Changes in economic uncertainty can therefore influence the current account by simultaneously affecting saving and investment behavior, while persistent external imbalances may feed back into domestic uncertainty through exchange rate and financing risks. However, income and the current account are often treated as exogenous controls, and their interaction with institutional quality and uncertainty remains under-theorized. To address these gaps, this study develops an integrated conceptual framework that incorporates economic uncertainty, institutional quality, savings, investment, income, and the current account. It clarifies the direct effects of uncertainty on savings and investment, systematically examines the mediating role of institutional quality, and formulates testable theoretical propositions to guide future empirical research and policy design.

2. Theoretical Foundations and Conceptual Framework

2.1 Economic Uncertainty, Savings and Investment: Theoretical Underpinnings

2.1.1 Keynesian Liquidity Preference Theory and Precautionary Savings

The theoretical link between economic uncertainty and household savings can be traced back to Keynes's (1936) liquidity preference theory, which posits that individuals hold liquid assets (a form of implicit savings) to cope with unforeseen contingencies, and this insight laid the foundation for precautionary savings theory. Precautionary savings theory further clarifies that economic uncertainty—characterized by unpredictable changes in future income, employment, or social security—strengthens households' motivation to accumulate savings as a risk buffer (Leland, 1968). When uncertainty rises, households face increased ambiguity about future cash flows, prompting them to reduce current consumption and increase precautionary savings to avoid potential financial distress. Recent empirical studies have continuously validated and expanded this mechanism: Carroll et al. (2017) updated the buffer-stock savings model and found that households with higher income uncertainty not only maintain a higher savings rate but also adjust savings dynamically in response to short-term uncertainty shocks; Guiso et al. (1992) extended their earlier research on Italian households and confirmed that job market uncertainty, exacerbated by global economic volatility, significantly boosts precautionary savings, with this effect being more pronounced among low-income groups. Additionally, Xu (2023) utilized cross-country household survey data and found that the positive impact of economic uncertainty on precautionary savings is universally significant across different income levels and regions, while Mody et al. (2012) emphasized that the enhancement of digital financial services has slightly mitigated this impact by improving the accessibility of liquid assets. Collectively, these theoretical and empirical findings confirm that economic uncertainty exerts a direct positive impact on household savings through the precautionary channel, with the strength of this impact being modulated by factors such as household income levels and financial market development.

2.1.2 Neoclassical Investment Theory and Irreversible Investment

The impact of economic uncertainty on corporate investment is primarily rooted in neoclassical investment theory and the theory of irreversible investment. Neoclassical investment theory (Jorgenson, 1963) argues that firms' investment decisions depend on the marginal efficiency of capital relative to the cost of capital, but this framework initially ignored the role of uncertainty. Bernanke (1995) and Dixit and Pindyck (1994) later supplemented the irreversible investment theory, emphasizing that most corporate investments (e.g., factory construction, equipment purchases) are irreversible—once invested, the capital cannot be fully recovered without significant losses. In the context of increasing global economic uncertainty in recent years, numerous latest studies have further verified and enriched this theoretical framework: Bloom et al. (2007) constructed a dynamic general equilibrium model incorporating uncertainty shocks and found that uncertainty shocks lead to an immediate and sharp decline in corporate investment, followed by a slow recovery as uncertainty eases, and this pattern is more prominent in capital-intensive industries. Gulen and Ion (2016) used firm-level panel data from multiple countries and confirmed that policy uncertainty, as an important dimension of economic uncertainty, significantly inhibits corporate investment by increasing the option value of waiting. Moreover, Wang et al. (2014) found that the negative

impact of economic uncertainty on investment is more severe for small and medium-sized enterprises due to their weaker risk-bearing capacity and more constrained financing channels. In contrast, Aghion et al. (2014) extended their earlier research and proposed that moderate uncertainty can stimulate innovative investment in high-tech industries, as firms may take risks to gain competitive advantages in uncertain markets, but this positive effect is only significant when firms have sufficient cash flow and technological reserves. Overall, the "wait-and-see" effect dominated by irreversible investment remains the mainstream explanation for the negative impact of economic uncertainty on investment, while the stimulating effect on innovative investment is conditional and limited.

2.1.3 The Distinct Causal Relationships Between Economic Uncertainty and Savings/Investment

It is crucial to emphasize that savings and investment are distinct dependent variables with different transmission mechanisms between economic uncertainty, and this distinction has been further highlighted in recent academic research. For savings, the core mechanism is the precautionary motivation of households, which is driven by the need to cope with future risks; the decision-making subject is households, and the key influencing factors include income expectations, employment stability, and social security levels. Recent studies such as Lusardi & Mitchell (2023) have confirmed that household savings decisions under uncertainty are closely related to their risk perception and social security coverage, with imperfect social security systems amplifying the precautionary savings motive. For investment, the core mechanism is the "wait-and-see" strategy of firms based on irreversible investment characteristics; the decision-making subject is firms, and the key influencing factors include market demand expectations, investment risk premium, and policy stability. Julio and Yook (2012) found that political uncertainty, a major component of economic uncertainty, significantly increases the investment risk premium of firms, thereby inhibiting investment decisions. Additionally, Mian and Sufi (2022) pointed out that the transmission of economic uncertainty to investment is also affected by the financial constraints of firms, with firms facing tighter financing constraints being more sensitive to uncertainty shocks. Furthermore, the mutual influence between savings and investment cannot be ignored: household savings constitute an important source of corporate investment funds (Gertler and Gilchrist, 1993), and changes in investment will affect employment and income, which in turn feedback on savings decisions. This study focuses on the direct causal relationship between economic uncertainty and each of the two variables, while treating their mutual influence as a secondary interactive effect to be discussed in subsequent chapters, which is consistent with the analytical framework adopted by most recent macroeconomic studies on savings-investment dynamics.

2.2 The Role of Core Variables: Income and the Current Account

2.2.1 Income as a Determinant of Savings and Investment

Income constitutes a fundamental determinant of both savings and investment, a role that is firmly grounded in classical and Keynesian economic theory and reinforced by contemporary empirical research. From the perspective of household savings, John Maynard Keynes (1936) proposes the absolute income hypothesis, according to which savings emerge as the residual of income after consumption, implying that higher income levels are associated with greater saving capacity. This framework is further refined by the permanent income hypothesis,

which argues that households base saving decisions on expected long-term income rather than short-term income fluctuations (Angus Deaton, 1992). Recent studies continue to support this distinction. For example, Carroll et al. (2017) show that sustained growth in permanent income significantly increases household savings, whereas temporary income shocks have limited effects, consistent with forward-looking consumption behaviour. Moreover, Banerjee and Duflo (2021) demonstrate that the marginal propensity to save varies systematically across income groups, with higher-income households exhibiting stronger saving responses, thereby enriching the implications of the absolute income hypothesis. From the investment perspective, income plays an equally important role. The investment accelerator principle emphasises that changes in income or output drive firms' investment decisions by shaping demand expectations (Clark, 1917). Subsequent research highlights the importance of internal income or cash flow as a key determinant of investment, particularly under financial constraints (Fazzari et al., 1988). More recent contributions indicate that income growth can partially offset the adverse effects of economic uncertainty by improving expected returns and easing financing constraints (Auerbach and Hassett, 2007; Crouzet and Mehrotra, 2020). Collectively, these insights establish income as a core determinant of both savings and investment through its influence on households' saving capacity and firms' demand expectations and financing ability.

2.2.2 The Current Account and External Transmission Channels

The current account plays a central role in linking domestic savings–investment dynamics with external economic conditions, a role that has become increasingly important in an era of deep global economic integration. Defined as the balance of trade in goods and services plus net factor income and transfers, the current account reflects the intertemporal allocation of savings and investment across borders. The intertemporal approach to the current account provides the core theoretical foundation, positing that current account balances arise from forward-looking decisions about consumption, savings, and investment over time (Obstfeld & Rogoff, 1996). Recent research has extended this framework by incorporating financial frictions and capital flow constraints. For instance, Gourinchas and Rey (2007) show that although the current account continues to reflect intertemporal savings–investment choices, cross-border financial frictions influence the speed and persistence of external adjustment. Economic uncertainty further complicates this relationship. Obstfeld (2022) demonstrates that heightened domestic uncertainty can simultaneously raise precautionary savings and depress investment, leading to an improvement in the current account balance. Conversely, uncertainty originating in global markets may reduce exports, weaken domestic income, and thereby alter savings behaviour and current account positions (Forbes et al., 2017). The feedback from the current account to domestic economic behaviour is also significant. Persistent current account deficits may increase vulnerability to exchange rate depreciation and external financing risks, amplifying domestic uncertainty and discouraging investment (Lane & Milesi-Ferretti, 2018). In contrast, sustained current account surpluses may strengthen macroeconomic buffers and reduce the sensitivity of savings and investment to uncertainty shocks (Ilzetzki et al., 2013). Thus, the current account operates both as an outcome of domestic savings–investment decisions and as a channel through which external uncertainty is transmitted to the domestic economy.

2.2.3 Integrating Income and the Current Account into Savings and Investment Models

Based on the foregoing theoretical discussion, this study positions income and the current account as core control variables in both the savings and investment models, consistent with standard practice in contemporary macroeconomic research. In the savings model, household savings constitute the dependent variable, while economic uncertainty represents the primary explanatory variable. Income is included to capture households' saving capacity and long-term income expectations, thereby mitigating omitted-variable bias arising from differences in income levels (Jappelli & Pistaferri, 2025). The current account is incorporated to control for the influence of external economic conditions on household income prospects and risk perceptions, particularly in economies with strong trade and financial linkages. In the investment model, corporate investment serves as the dependent variable, with economic uncertainty again treated as the core explanatory factor. Income or output growth is included to reflect demand-driven investment incentives, while the current account captures the role of external capital flows, exchange rate risks, and international financing conditions. Omitting income growth may lead to an overestimation of the negative effect of uncertainty on investment, as firms' investment decisions are jointly shaped by demand expectations and uncertainty (Auerbach & Hassett, 2007). Similarly, external imbalances reflected in the current account influence investment by altering capital availability and macroeconomic risk (Calvo & Velasco, 2022). Incorporating income and the current account therefore allows the empirical framework to isolate more accurately the direct effect of economic uncertainty on savings and investment, while recognising that interactions among income, external balances, and uncertainty may further shape economic behaviour (Carroll et al., 2017; Obstfeld, 2022).

3. Institutional Quality as a Mediating Variable

3.1 Definition and Dimensions of Institutional Quality

Institutional quality is rooted in the broader concept of institutions as defined by North (1990), who characterises institutions as the "rules of the game" in a society, encompassing formal rules such as laws, regulations, and constitutions, informal constraints including norms and customs, and the mechanisms that enforce these rules. Building on this definition, institutional quality refers to the effectiveness and efficiency with which these institutional arrangements structure economic interactions, reduce uncertainty, and resolve conflicts. In the context of this study, institutional quality is understood as a systemic attribute that shapes policy credibility, the predictability of the economic environment, and the protection of economic rights, all of which are central to savings and investment decisions. Given the research objectives of this paper and the need for cross-country comparability, institutional quality is operationalised using the Worldwide Governance Indicators (WGI) dataset published by the World Bank. The WGI framework has become a standard reference in institutional economics and macroeconomic research because it provides a conceptually coherent and internationally comparable measure of governance performance across countries and over time (Acemoglu et al., 2005; Rodrik, 2001). Relying on this widely used dataset ensures that the measurement of institutional quality is consistent with existing literature and suitable for analysing institutional heterogeneity across different economic contexts.

The WGI dataset captures institutional quality through six core governance dimensions: Voice and Accountability, Political Stability and Absence of Violence/Terrorism, Government Effectiveness, Regulatory Quality, Rule of Law, and Control of Corruption. Together, these dimensions provide a multidimensional representation of institutional quality that reflects both formal and informal aspects of governance relevant to economic decision-making. Prior research has demonstrated the validity of these dimensions in capturing institutional environments that influence macroeconomic outcomes. For instance, Acemoglu et al. (2005) show that the six WGI dimensions collectively encompass key institutional features associated with economic performance and stability, while Rodrik (2001) highlights their strong cross-country comparability and suitability for analyzing heterogeneous institutional effects. The dataset has also undergone continuous methodological refinement; Kaufmann & Kraay (2024) document recent updates that enhance data accuracy and temporal coverage, strengthening its applicability for contemporary research. Importantly, Besley and Persson (2024) emphasize that these governance dimensions directly shape the decision-making environment of households and firms by influencing risk perceptions, expected returns, and confidence in policy frameworks. Following common practice, this study constructs an overall institutional quality index by aggregating the six WGI dimensions, ensuring consistency, comparability, and empirical relevance (Alalade et al., 2023; Acemoglu et al., 2005). Building on this definition and measurement of institutional quality, the next section examines how institutional quality operates as a mediating mechanism through which economic uncertainty influences savings and investment behaviour.

3.2 Institutional Quality as a Mediating Mechanism

Institutional quality plays a critical mediating role in the relationship between economic uncertainty and savings–investment behavior by shaping how uncertainty is perceived, transmitted, and internalized by economic agents. Rather than influencing savings and investment solely through direct behavioral channels, economic uncertainty can also operate indirectly by weakening institutional arrangements that govern policy credibility, regulatory consistency, and the protection of economic rights. This indirect channel helps explain why the effects of uncertainty on savings and investment vary markedly across countries and over time (North, 1990; Rodrik, 2008). From a theoretical perspective, persistent economic uncertainty places substantial pressure on institutional systems, often compelling governments to adopt short-term, discretionary policy responses aimed at stabilisation. While such responses may be justified in the short run, repeated reliance on ad hoc interventions can undermine institutional quality when they deviate from established rules, weaken policy consistency, or reduce transparency. Over time, this process may erode key institutional dimensions such as government effectiveness, regulatory quality, and policy credibility, thereby altering the broader economic environment in which households and firms make decisions (Fernández-Villaverde et al., 2023). In this sense, institutional quality functions not merely as a background condition but as an endogenous channel through which economic uncertainty reshapes expectations and constrains economic behaviour.

The deterioration of institutional quality, in turn, modifies the behavioural response of both households and firms to economic uncertainty. For households, weaker institutions amplify concerns regarding future policy stability, social protection, and property rights enforcement. When confidence in institutional safeguards declines, households are more likely to increase precautionary savings as a self-insurance mechanism against perceived economic and policy

risks, reinforcing the precautionary savings motive triggered by uncertainty (Besley & Persson, 2024). For firms, institutional quality is central to investment decisions because it determines the predictability of the regulatory environment and the security of expected returns. Declines in regulatory quality, rule of law, or control of corruption increase exposure to policy reversals, contractual disputes, and rent-seeking behaviour, heightening investment risk beyond the standard "wait-and-see" effect implied by irreversible investment theory (Djankov et al., 2008; Acemoglu et al., 2005). Importantly, this mediating role of institutional quality is neither uniform nor unidirectional. Economies with strong institutional foundations tend to exhibit greater resilience to uncertainty shocks, whereas weaker institutional environments magnify indirect effects on savings and investment. Moreover, different dimensions of institutional quality—such as regulatory quality, political stability, and rule of law—may interact and reinforce one another, further amplifying the transmission of uncertainty (World Bank, 2023; Worldwide Governance Indicators).

3.3 Mechanism of Institutional Quality's Mediating Effect

Institutional quality mediates the impact of economic uncertainty on savings and investment primarily through its influence on policy credibility, regulatory consistency, and the protection of economic rights, as reflected in key dimensions of the World Bank's Worldwide Governance Indicators (WGI), including Government Effectiveness, Regulatory Quality, and Rule of Law. When economic uncertainty intensifies—due to financial crises, geopolitical conflicts, or prolonged macroeconomic volatility—governments often face strong pressure to implement rapid policy adjustments aimed at stabilisation. While such measures may be necessary in the short term, they can undermine institutional credibility when they are perceived as arbitrary, inconsistent with long-term commitments, or weakly implemented, thereby eroding Government Effectiveness and Regulatory Quality. For households, deterioration in these institutional dimensions heightens concerns regarding the sustainability of public policies, such as taxation and social security, as well as the protection of legal rights under the rule of law. As a result, households are more likely to increase precautionary savings to hedge against perceived policy and institutional risks (Besley & Persson, 2024). For firms, weakened Government Effectiveness and Regulatory Quality increase exposure to policy-related losses, while a declining Rule of Law raises the risk of contract violations and property rights infringement, discouraging long-term investment commitments. Empirical evidence suggests that policy inconsistency and weak legal enforcement significantly amplify investment sensitivity to uncertainty by increasing ambiguity about future returns (Djankov et al., 2008; Acemoglu et al., 2005). In this way, economic uncertainty indirectly affects savings and investment by undermining institutional credibility, with institutional quality functioning as a central mediating channel.

A second mediating pathway operates through Political Stability and Absence of Violence/Terrorism, closely interacting with Regulatory Quality in shaping economic behaviour under uncertainty. Periods of heightened uncertainty may induce governments to introduce temporary regulatory interventions—such as emergency capital controls or sector-specific relief measures—that, in weak institutional environments, are more likely to become permanent or be frequently revised, thereby disrupting regulatory predictability (Fernández-Villaverde et al., 2023). At the same time, uncertainty may intensify social tensions or political conflict, reducing political stability and increasing perceived risks of violence or unrest. For households, unstable regulatory frameworks and declining political stability raise concerns

over financial asset safety and livelihood security, encouraging shifts toward conservative asset holdings or higher overall savings rates (Calvo & Velasco, 2022). For firms, regulatory volatility increases compliance costs and the likelihood that investment projects become non-viable under future rule changes, while political instability heightens the risk of operational disruptions and expropriation, further discouraging investment (Djankov et al., 2008). Importantly, these mediating effects are not uniform: economies with strong initial institutional foundations exhibit greater resilience to uncertainty shocks, whereas those with weaker institutions experience more pronounced and persistent indirect effects. Moreover, different institutional dimensions may interact and reinforce one another—for example, declining political stability may further weaken regulatory quality and government effectiveness—amplifying the transmission of uncertainty (Rodrik, 2001; Besley & Persson, 2024; Uddin et al., 2021). Together, these mechanisms underscore the heterogeneous and context-dependent nature of institutional quality's mediating role.

3.4 Propositions on the Mediating Effect of Institutional Quality

Proposition 3a (Institutional quality and household savings).
Economic uncertainty increases household savings both directly and indirectly by weakening institutional quality; the indirect effect operates through reduced policy credibility and legal protection, strengthening precautionary saving motives.

Proposition 3b (Institutional quality and corporate investment).
Economic uncertainty reduces corporate investment both directly and indirectly through its adverse effect on institutional quality; weaker institutions amplify investment sensitivity to uncertainty by increasing regulatory and legal risks.

4. Integrated Conceptual Framework

Building on the theoretical foundations and transmission mechanisms discussed in Sections 2 and 3, this section develops an integrated conceptual framework that explains how economic uncertainty affects savings and investment through both direct behavioural channels and indirect institutional mechanisms. Economic uncertainty is treated as a fundamental exogenous force shaping decision-making by households and firms. At the household level, heightened uncertainty regarding future income, employment stability, and policy continuity strengthens precautionary motives, encouraging households to increase savings as a buffer against potential adverse shocks (Keynes, 1936; Carroll, 1997). At the firm level, uncertainty surrounding demand conditions, regulatory environments, and factor costs increases the option value of waiting, leading firms to postpone or scale back irreversible investment decisions (Bernanke, 1983; Dixit & Pindyck, 1994). These direct channels constitute the first layer of transmission in the framework. However, economic behavior is embedded within broader institutional environments that shape expectations, incentives, and perceived risks. As emphasized in institutional economics, the credibility of policies, the consistency of regulations, and the enforcement of economic rights condition how uncertainty is perceived and internalized by economic agents (North, 1990; Rodrik, 2008). Accordingly, the framework extends beyond direct behavioral responses by explicitly incorporating institutional quality

as a mediating mechanism that influences the magnitude and persistence of uncertainty's effects on savings and investment.

Institutional quality occupies a central position in the framework as an endogenous transmission channel linking economic uncertainty to savings and investment outcomes. When economic uncertainty intensifies, governments may adopt short-term or discretionary policy responses aimed at stabilization, particularly in economies with weaker institutional constraints. While such responses may be justified in the short run, repeated deviations from established rules can undermine policy credibility, regulatory consistency, and legal enforcement, leading to a deterioration in institutional quality (Acemoglu & Robinson, 2023). For households, weakened institutions heighten concerns about the sustainability of public policies, social protection systems, and property rights, reinforcing precautionary saving behavior beyond the direct effect of uncertainty itself (Besley & Persson, 2024). For firms, declining regulatory quality and rule of law increase exposure to non-market risks such as policy reversals, contractual disputes, and rent-seeking behavior, further discouraging long-term investment commitments (Djankov et al., 2008). In this sense, institutional quality does not merely moderate economic outcomes but actively mediates the transmission of uncertainty by reshaping expectations and risk perceptions. Framing institutional quality as a mediating variable, therefore, provides a coherent explanation for the heterogeneous responses of savings and investment to uncertainty observed across economies with different governance capacities.

Income and the current account are incorporated into the framework as core conditioning variables that influence both savings and investment while linking domestic economic dynamics with external conditions. Income affects household savings by determining saving capacity and shaping long-term income expectations, consistent with permanent income considerations (Deaton, 1992). Income growth also supports corporate investment by strengthening demand expectations and easing internal financing constraints, thereby partially offsetting the adverse effects of uncertainty (Fazzari et al., 1988; Auerbach & Hassett, 2007). The current account reflects the intertemporal balance between domestic savings and investment and captures the role of external capital flows, exchange rate risks, and international financing conditions (Obstfeld & Rogoff, 1996). Under heightened uncertainty, changes in savings and investment behavior may alter current account positions, while persistent external imbalances may feed back into domestic uncertainty through financial vulnerability and policy constraints (Lane & Milesi-Ferretti, 2018; Obstfeld, 2022). By integrating income and the current account into the conceptual structure, the framework highlights their dual roles as conditioning variables and transmission channels within the broader uncertainty–institution–savings–investment nexus.

To formalize the proposed mechanisms in a stylized and transparent manner, the relationships between savings, investment, and their key determinants can be expressed conceptually. The savings mechanism is represented as:

$$S = \alpha_0 + \alpha_1 EU + \alpha_2 IQ + \alpha_3 Y + \alpha_4 CA + \mu \qquad (1)$$

where S denotes aggregate savings, EU represents economic uncertainty, IQ denotes institutional quality, Y captures income, and CA refers to the current account balance. The term μ captures other unobserved influences on savings. Similarly, the investment mechanism can be expressed as:

$$I = \beta_0 + \beta_1 EU + \beta_2 IQ + \beta_3 Y + \beta_4 CA + \varepsilon \qquad (2)$$

where I denotes aggregate investment and ε is a disturbance term. These expressions are intended strictly as conceptual representations rather than estimable empirical models. The signs and interactions implied by the coefficients reflect theoretical expectations derived from precautionary savings theory, irreversible investment theory, and institutional economics (Carroll, 1997; Bernanke, 1983; North, 1990).

Figure 1 provides a visual synthesis of the integrated conceptual framework developed in this section. It illustrates how economic uncertainty influences savings and investment through direct behavioral channels and indirect institutional mechanisms, while income and the current account condition these relationships and connect domestic economic dynamics with external conditions. Institutional quality is explicitly positioned as a mediating factor that shapes how uncertainty is transmitted and internalized by households and firms, thereby affecting the strength and persistence of savings and investment responses. The framework also highlights the broader macroeconomic implications of these interactions, including balanced savings–investment dynamics, external balance, improvements in living standards, and steady economic growth. By integrating economic uncertainty, institutional quality, income, and the current account into a unified structure, Figure 1 reinforces the central argument of this study: that institutional quality plays a pivotal mediating role in explaining heterogeneous macroeconomic responses to uncertainty across different economic contexts. This conceptual framework serves as the foundation for the theoretical propositions developed in the subsequent section.

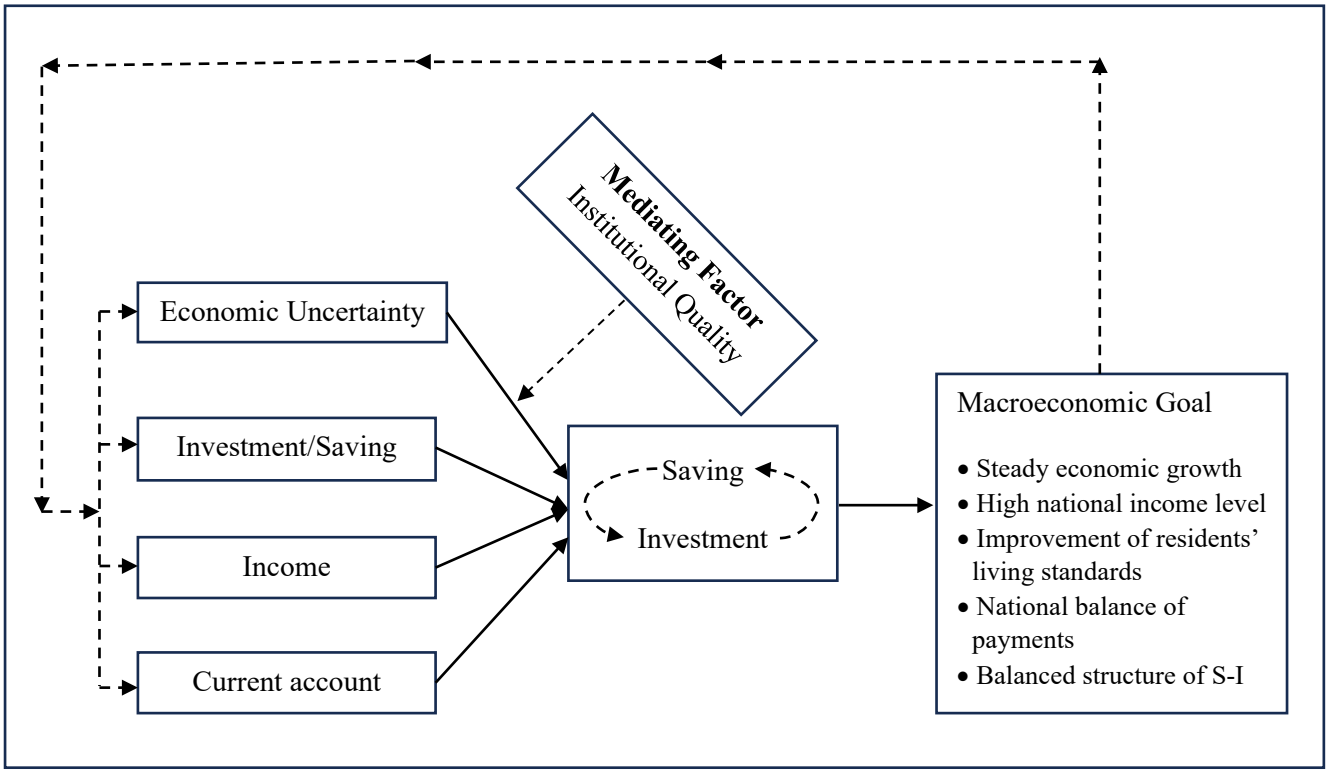

Figure 1: Integrated conceptual framework of economic uncertainty, institutional quality, savings, and investment

5. Conceptual Propositions

Based on the integrated conceptual framework, this study formulates a set of theoretical propositions that articulate the expected relationships among economic uncertainty, institutional quality, savings, investment, income, and the current account. These propositions are grounded in established economic theory and informed by insights from the existing literature, serving as a guide for future empirical research rather than empirically tested claims. Economic uncertainty is expected to influence household savings through both direct and indirect channels. Directly, heightened uncertainty strengthens precautionary motives, encouraging households to accumulate savings as a form of self-insurance against future income and employment risks (Carroll, 1997; Lusardi & Mitchell 2023). Indirectly, uncertainty may weaken institutional quality by undermining policy credibility and legal protection, thereby reinforcing households' perception of long-term risk (North, 1990; Rodrik, 2001). This leads to Proposition 1, which states that economic uncertainty increases household savings both directly and indirectly through institutional mediation. For corporate investment, economic uncertainty is expected to exert a predominantly negative influence. Directly, uncertainty raises the option value of waiting in the presence of irreversible investment, discouraging immediate capital expenditure (Bernanke, 1983; Dixit & Pindyck, 1994). Indirectly, weakened institutions increase regulatory and legal risks, further suppressing firms' willingness to invest. This mechanism underpins Proposition 2, which states that economic uncertainty reduces corporate investment through both direct and institutionally mediated channels.

Income and the current account further condition the transmission of economic uncertainty to savings and investment. Higher income levels expand households' saving capacity and stabilize expectations, supporting precautionary and long-term savings behavior (Deaton, 1992; Carroll et al., 2017). Income growth also supports corporate investment by strengthening demand expectations and easing internal financing constraints, thereby mitigating the adverse effects of uncertainty (Auerbach & Hassett, 2007). The current account reflects the intertemporal balance between domestic savings and investment and links internal economic dynamics with global financial conditions (Obstfeld & Rogoff, 1996). Under heightened uncertainty, changes in savings and investment behavior may alter current account positions, while persistent external imbalances may feed back into domestic uncertainty through exchange rate and financing risks (Lane & Milesi-Ferretti, 2018; Obstfeld, 2022). Institutional quality moderates these interactions by shaping the economy's capacity to absorb both domestic and external shocks. Accordingly, Proposition 3 states that institutional quality partially mediates the effects of economic uncertainty on both savings and investment, with stronger institutions dampening and weaker institutions amplifying these effects. Together, these propositions provide a coherent theoretical structure that links micro-level behaviour with macro-level outcomes under uncertainty.

6. Conclusions and Implications

This study develops a unified conceptual framework to explain how economic uncertainty influences savings and investment through direct behavioural responses and indirect institutional mechanisms. By explicitly incorporating institutional quality as a mediating

variable, the framework extends existing theories of precautionary savings and irreversible investment, explaining the heterogeneous responses to uncertainty observed across economies (Carroll, 1997; Bloom, 2009; Acemoglu & Robinson, 2023). The framework highlights that economic uncertainty does not operate solely through changes in expectations or risk preferences but also reshapes the institutional environment in which households and firms make decisions. Income and the current account are shown to play important conditioning roles, influencing both the capacity and incentives for saving and investment while linking domestic dynamics with external economic conditions (Keynes, 1936; Obstfeld & Rogoff, 1996). Economies with stronger institutional foundations are better equipped to absorb uncertainty shocks, as credible policies and stable governance structures mitigate indirect transmission channels. In contrast, weaker institutional environments magnify precautionary savings and suppress investment, leading to more persistent macroeconomic adjustments. These conceptual insights contribute to a deeper understanding of uncertainty-driven economic dynamics and provide a theoretical basis for interpreting cross-country differences in savings and investment behavior.

The study makes several theoretical and policy-relevant contributions. First, it reframes institutional quality as an endogenous mediating mechanism in the uncertainty–savings–investment nexus rather than as a residual control variable. Second, it integrates income and the current account into a single conceptual structure, highlighting their interactive roles in shaping uncertainty transmission and feedback effects. From a policy perspective, the framework suggests that mitigating the adverse effects of economic uncertainty requires more than short-term stabilization measures. Strengthening institutional quality—through improved policy credibility, regulatory consistency, and legal enforcement—can reduce indirect transmission channels and enhance economic resilience (Rodrik, 2008; Besley & Persson, 2024). Policies that support income stability and manage external imbalances may further dampen uncertainty-induced distortions in savings and investment. Finally, as a conceptual study, this paper does not provide empirical testing of the proposed relationships. Future research may empirically examine the propositions advanced here, explore heterogeneity across institutional dimensions and types of uncertainty, and analyse dynamic feedback effects in increasingly integrated global economies.

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