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Democracy, Institutions, and Economic Drivers of Financial Sector Growth in OECD and Non-OECD Economies

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Abstract

This paper explores the intriguing relationship between financial development and democracy from a modern point of view in the 146 countries of the globe from 1990 to 2024. Lastly, while democratic governance is normally outlined as the capability to govern transparently, answerably, and capaciously, these standardized varieties of fiscal systems are not without exception exactly linear, either positive or pertaining to most societies. The empirical literature finds a U-shaped function relationship between democracy and financial development through which the quality of financial systems initially is worse because of instability of the democracy and weakness of institutions, and then much improved as democracies mature and institutional trust is established. Disaggregated results corroborate the finding that in non-OECD countries, relatively fragile democratic frameworks are likely to retard financial growth, whereas consolidations of the democratic framework on the economic front encourage robust financial growth in the latter. Apart from political institutions, the results underscore the importance of human capital, economic prosperity, and trade integration among the steady incentives of financial deepening, as well as the more context-specific aspects of inflation and unemployment. The findings of the study are that democracy alone is no longer a sufficient precondition for the financial sector's development; only a very stable form of governance, good institutions, and other complementary reforms can make this possible. These findings a critical implications for policymakers in the developing countries, who need to closely interact with, and improve institutional frameworks and governance capacity, after carrying out democratic reforms, if a sustainable financial development is to be achieved.

Keywords: Democracy, Financial Development, Political Institutions, Institutional Quality

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1. INTRODUCTION

The financial system is one of the important pillars to achieve sustainable economic growth and national development. Conceptually, the financial system fulfills its trusted intermediary functions by mobilizing savings to even out channeling away this to productive events. This will help substantially in the capital formation or creation, job generation, and, on the whole, improvement in the standard of living (Rajan and Zingales, 2003). Developing financial markets establishes the foundations for institutional investors' confidence, innovation, and entrepreneurship, which are essential to the performance of national development. Indeed, a lot of the arrangements of the financial markets are anchored by the structure of institutions of the state, particularly the plural democracy. On the same token, democratic institutions tend to coincide with transparency, institutional legitimacy, and accountability, all of which are widely considered to be critical to (i) nurturing economic egalitarianism and (ii) facilitating the functioning of capital markets (Acemoglu et al. 2019). In this respect, the civil liberties and the political rights encourage the active participation of the citizens in civic life, and they represent an additional context that encourages the increase in intermediation in contractors' financial activity and the increase in investing activity (Siegle et al., 2004). Besides that, democratic regimes are normally associated with open competition, as also are forms of regulatory regimes conducive to financial stability and investor protection (La Porta et al., 1998). The correlation of democracy with financial development,

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however, does not appear to be largely linear or positive across the available income levels. Fortunately, the uncertainty about long-term financial commitments associated with the need for a democratic transition does not appear to be a likely explanation; neither institutional instability nor unpredictable policies are necessarily necessary to discourage domestic and foreign investment (North 1990). This is the autocompleteness of democratic hysteria, which erodes the confidence of markets and the disfigurement of the structuring of financial organizations (Humza et al. 2025).

More extensive case studies are provided about the retrospective and present relations in order to demonstrate the complexity of this endeavor. For instance, autocratic or feudal forms of government existed in comparatively economically underdeveloped settings (at least in part) in countries like France, England, or Russia in the previous centuries, which means that a non-democratic political system can also (under fairly specific institutional conditions) succeed in providing development (Przeworski et al, 2000; Sattar et al., 2025; Audi, 2025). As many countries have recent experience, it shows that political systems with some authoritarian elements, such as those in Singapore, can deliver good quality governance and economic growth. However, many of the Democratic countries, such as India, still have institutional inefficiencies and governance problems (though being highly democratic) (Kohli, 2004; Khalid et al., 2025; Ahmad et al., 2025; Iqbal & Hayat, 2025; Khan et al., 2025). While these studies suggest the potential capacity of a democracy to boost financial development, the conclusions are strongly contingent on the quality of institutions and the maturity of the surrounding environment in terms of stability of the policy environment, as well as the broader socio-political context (Irfan & Ahmad, 2025; Khalil et al., 2025). Thus, it is the mode of operation and incorporation of democratic institutions into economic systems that is arguably critical in explaining the developmental outcome.

There are three main reasons for the present research question. First, it has been noted that most literature on the democracy-financial development nexus is either outdated or does not provide contemporary empirical support for the arguments. Considering that political institutions and financial markets are constantly evolving, it is imperative to update and re-evaluate whether democratic governance can still maintain a meaningful effect on the financial sector development in the modern international setting (Khan et al., 2020; Ammar et al., 2025; Diaw & Collin, 2025; Anus et al., 2025). Moreover, debates are reflected in the question of which form of political regime (democratic vs. authoritarian) determines a country's financial performance and development (Menaldo & Yoo, 2015; Rafique et al., 2025; Marc et al., 2025). The understanding of this relationship in the present-day assumptions is important in light of the changing institutional environment of the developed and developing countries. Second, a wide field of empirical research is based on the assumption of a linear dependence of democratic institutions and financial development. The literature of Begovic et al. (2017), Girma and Shortland (2008), and Yang (2011) works on the linear assumption that democratic reforms lead to improved financial performance. However, more recent empirical evidence presents a tendency for this association to be non-linearly related. For instance, Ghardallou and Boudriga (2014) and Tarverdi et al. (2019) provide evidence that the democracy-finance relationship is more complex in the sense that it may possibly have non-linear or threshold effects. Therefore, the present study draws on a non-linear estimation strategy so that more detailed and precise informative interpretations can be made of the interactions of financial development with political institutions. The third is logically related to the actualities of many developing countries' practices. Weak financial systems are identified as a cause of low economic performance and slow growth. In many low- and middle-income countries, more than 30 percent of the adult population lacks access to formal financial services and even holds out on getting a basic bank account (Demirguc-Kunt et al., 2013; Marc, 2024; Umair et al., 2025; Younas et al., 2025). Generally, these countries have low compliance with major democratic standards, that are press freedom, respect for human rights, rule of law, etc. The breakdown of these democratic norms impedes progress towards attaining a lower level of income inequality and reaching successful economic growth outcomes (Nwosu & Folarin, 2025; Naeem et al., 2025; Audi et al., 2025; Nguyen, 2021; Menaldo and Yoo, 2015; Menyah et al., 2014). Additionally, many of these countries are autocratic military governments, while the rest are barely democratic at all. The insufficiency of commitment to create and work on democratic principles, most especially the revealing, accountability, and stability of systems, has been a key reason for the underdevelopment of financial frameworks in numerous elements of the developing global (Becerra et al., 2012; Ditta et al., 2025).

Pushing money in hard times: door-to-consumer effort for country improvement 41 Given the empirical and developmental realities of many lower- and middle-income countries, it has become all the more important that explicit and strategic work be undertaken to improve the structural bases of their financial systems. Identifying that democratic good governance can play a substantially meaningful role in financial institution building, developing countries are strongly advised to consider and amend their current political regimes. More democratic practices, in principle, could be a necessary step that leads towards institutional maturity and financial sector growth. This paper attempts to empirically analyze the possible non-linear relationship between democracy and financial development. To this end, a balanced panel dataset including 146 countries for the time period 1990 - 2018 is used. By eliciting the result via econometric procedures that involve both country and period fixed effects, the result of the analysis shows strong support for a U-shaped relationship between democratic governance and financial growth.

2. LITERATURE REVIEW

Democracy refers to a form of political organization characterized by citizen participation in governance, often through the mechanism of electoral representation. The origins of democratic governance can be traced back to Ancient Greece, particularly Athens around 507 BCE, where the concept of popular sovereignty was first institutionalized (Wilson, 2013). However, the widespread adoption of democracy as a political system is largely attributed to the transformative events of the eighteenth century, notably the American and French Revolutions. These historical milestones challenged

autocratic rule and laid the ideological groundwork for modern democratic governance based on liberty, equality, and participatory politics. The global expansion of democratic ideals continued into the twentieth century, catalyzed by pivotal socio-political events such as the women's suffrage movements, the civil rights campaigns in the United States, the dismantling of fascist regimes in Italy and Germany following the Second World War, the collapse of the Berlin Wall in 1989, and the dissolution of one-party states in Eastern Europe (Landman, 2018; Munck, 2016). Today, democracy is widely recognized as a dominant mode of governance, characterized by the rule of law, electoral accountability, civil liberties, and institutional checks and balances. Most democratic regimes operate under systems in which governmental authority is derived from the consent of the governed, typically through periodic elections. Parallel to the process of political transformation, the evolution of the financial system in a country plays a basic role in establishing its economic path. Financial development consists of a variety of features, such as improved access to financial services, improved financial stability, allocative efficiency of capital, speed of repayment of financial services, and institutional transparency. It also requires an enhancement of information, whose availability in the markets is relevant for better uses, and it requires a good structure of corporate governance and investor protection (Levine 2005). A properly functioning financial system helps to achieve efficient monetary intermediation, mobilization of savings by the populace, risk diversification, and entrepreneurship and innovation (Ghildiyal et al., 2015; Iqbal et al., 2025).

In a landmark paper, Goldsmith (1969) drew attention to the critical nature of the link between financial development and economic growth, and advocated the view that the more developed the structure of financial markets is, the faster and the more long-run is the growth of economies. On the other hand, underdeveloped financial systems are considered to hinder the process of capital formation, reduce investment, the growth of economies, and create inefficiencies. As regards the connection between democratic governance and financial development, there are several empirical works that have examined them and have enriched the couple's case to a different extent. For instance, Girma and Shortland (2008) examined the GMM method by using the GDFE approach on the panel data from 1975-2000 in order to determine whether political economy influences financial development and vice versa, and to evaluate and control a moderating relationship between political economy and financial development. They also found a statistically significant and positive effect of democracy on the money measures, an indication that a democracy may well provide the foundations of an enabling regime for the development and stability of the financial system.

Similarly, analysis of developed and developing economies using a pooled panel regression model was done by Boudriga and Ghardallou (2012), with data starting from 1984-2006. In their study, financial development was proxied using the standard indicators such as private credit, assets, and liquidity ratios of the banking sector as a share of Gross Domestic Product. The measurements did not reveal a negative correlation between the degree of democratic governance and the expansion of the finances, which proved that democratization was also important for developing the financial infrastructure. Yang (2011) also made an investigation of the relationship between democracy and financial development by using GMM panel regressions. As another positive evidence substantiating the thesis of this study, he has found that there exist positive correlations between the upward trend in the levels of democracy and the financial system development. The finding supports those put forward in earlier published studies by Mulligan et al. (2004), who found that democratic institutions are beneficial to the growth and efficiency of the financial sector. Furthermore, Begovic et al. (2017) carried out the causality analysis with the consideration of the data period from 1960 to 2013 and verified the directional causality of democracy in financial development. The findings provide further insight into the notion that the introduction of democratic practices improves the quality of institutions, thus instigating the growth of the financial markets. Findings that are similar to the findings of Ishtiaq et al. (2016), who published on the inclusiveness and interconnectedness of democracy, economic growth, and financial development using panel data between the years 1974 and 2013. Finally, they analyzed the results of their regression, which suggests that democracy increases financial development, which positively affects economic growth. Taken together, these empirical studies demonstrate a positive impact of democracy on the process of institutionalization, confidence building among investors, and policy stability, which are important foundations for the healthy growth of the financial systems and the real economy.

Although numerous empirical studies have illustrated a positive link between democracy and financial development, there is also a split in the literature, and some of those studies have revealed inconclusive, counterintuitive results. Dictatorship situations and explored the connection between democracy levels and financial development through the Generalized Method of Moments (GMM), Two-Stage Least Squares (2SLS) estimations on both panel and cross-sectional data (Yang, 2011). Interestingly, the results differed according to the econometric approach: Findings indicating a lack of a statistically significant association in GMM estimates were found, while estimates from the 2SLS model showed a positive association. In order to support such a perspective, Miletkov and Wintoki (2009) have recently conducted a longitudinal study between 1970 and 2000 to determine if democratic institutions have a causal effect on financial development. Using Granger causality tests, their results indicated a lack of significant causal relationship that exists between financial development and any of the legal or democratic institutions, emphasizing the importance of considering institutional quality and context. Huang (2010) added to this discussion even further with his investigation of non-transition economies with the use of GMM analysis. The study found that political institutions - such as democracy - have a short-term but the impact wanes over time in terms of their effect on financial development only. This threat of temporal mismatch implies that while democratization may work at the margin to promote financial reform, it is the state role and institutional fortification aspects in the long run that underpin the long-term continuity of the implementation of financial reform policies.

According to Nguyen (2021), the effect of democracy on financial systems is sometimes not direct to all but rather

dependent on the type of political regime in between. For example, parliamentary systems may provide greater mechanisms for local accountability and institutional checks than presidential ones and may thus achieve greater financial governance. Similarly, Yusuf et al. (2020) concluded that democracy alone does not have a consistent effect on short or long-term economic growth. Instead, political instability (found to be often related to reflective or weak democratic systems) was found to have a significant negative impact on economic performance and institutional credibility. To complicate the relationship further, recent studies suggest that the relationship is non-linear. Asongu (2014) and Ghardallou and Boudriga (2014) both found a U-shaped link between democracy and financial development, in which some early stages of democratization are likely to be associated with an institutional inefficiency, although in later stages, mature democratic systems eventually result in better financial outcomes. All democracies, however, do not guarantee progress financially. Menaldo and Yoo (2015) contend that only "popular democracies," defined as territorial regions that feature broad democratic participation by the people and inclusive policymaking, would be likely to pursue reforms that benefit the collective and the common good. Democracies with limited two Very fully-Britain (the U.S.S.R. included) have conducted countless comparative studies that show that are have not equally shared the benefits of monetary developments. On the other hand, there are certain threats against the concept of democratic governance that are pointed out by the critics of this system of government. Lipsky (2018) argues that democracies as a whole can sometimes be the cause of contribute to financial volatility due to electoral pressure, populist policymaking, and shortsightedness. In comparison, authoritarian regimes - despite the eviscerating enacted with respect to political freedom - tend to reduce access to financial resources by limiting the scope of the market activity that could be competing with business's growth, also the development of the financial system (Koutentakis & Chrissis, 2021; Ali et al., 2025). These form asymmetric observations with the issue of democratic finance being particularly critical in that institutional context, regime types, and political stability seem to play critical roles in determining outcomes.

The political structure of a country plays a key role in terms of the development of the financial institutions, their robustness. The empirical evidence underlines the findings that the quality and orientation of political regimes, their different policy frameworks, influence the expansion of the financial sector to a great extent (Becerra et al. 2012; Menaldo and Yoo 2015; Rajan and Zingales 2003; Ali et al., 2025). The foregoing review of literature demonstrates that there is no static relationship or fixed link between Democracy and financial development; rather, it varies as per different times and places of institutions (Ali et al., 2025). These insights taken together thus specify that while democratic institutions might constitute a good breeding ground for financial development overall, their success is conditional on other factors of institutional quality, stability of governance, and the level of democracy maturity. As such, it seems opportune to take an inspirational step of a systematic empirical study to understand the issue of the existence, the nature, and the direction of the relationship between democracy and financial development. Recognizing this possible linkage is important in informing policy intervention in developing countries in their aim to strengthen the financial infrastructure of the countries through political reforms.

3. METHODOLOGY

From a theoretical standpoint, the specification is grounded in three major perspectives: First, institutional theory suggests that political institutions—such as the degree of democracy—play a critical role in shaping financial development. Following Acemoglu and Robinson (2012), democratic systems are expected to provide better property rights, stronger checks and balances, and accountability mechanisms that foster trust and efficiency in financial systems. The inclusion of both democracy and democracy squared reflects the hypothesis of a potential non-linear relationship, consistent with arguments that too much political contestation or instability may hinder rather than promote financial sector growth (North, 1990; Rajan & Zingales, 2003). Second, human capital theory (Becker, 1964) supports the inclusion of school enrolment as a proxy for educational attainment. Financial development requires skilled labor to efficiently allocate and monitor resources, and higher enrollment enhances the human capital base necessary for financial innovation and intermediation. Third, macroeconomic stability and modernization theories justify the inclusion of GDP per capita, population growth, inflation, unemployment, and trade. Higher GDP per capita represents greater economic prosperity, which supports demand for financial services (Levine, 1997). Population growth may influence financial intermediation by expanding the customer base, although the effect can be ambiguous depending on institutional capacity. Inflation is included as a proxy for macroeconomic instability, with higher inflation typically undermining financial development by eroding confidence in financial contracts (Boyd, Levine, & Smith, 2001; Ali et al., 2025). Similarly, high unemployment reflects economic inefficiencies that weaken financial system depth, while trade openness is expected to promote financial development by integrating domestic markets with global financial flows (Baltagi, Demetriades, & Law, 2009; Ali et al., 2025). Formally, the functional form of the model can be written as:

$$FD_{it} = \alpha + \beta_1 DEM_{it} + \beta_2 DEM_{it}^2 + \beta_3 SCHOOL_{it} + \beta_4 GDPpc_{it} + \beta_5 POP_{it} + \beta_6 INF_{it} + \beta_7 UNEMP_{it} + \beta_8 TRADE_{it} + \epsilon_i$$

Where FD_{it} denotes financial development for country i at time t ; DEM and DEM^2 capture the direct and non-linear effects of democracy; $SCHOOL$ is school enrolment; $GDPpc$ is GDP per capita; POP is population growth; INF is inflation; $UNEMP$ is unemployment; and $TRADE$ is trade openness.

This model synthesizes institutional economics, human capital theory, and macroeconomic stability perspectives into a coherent framework. The inclusion of democracy and democracy squared is particularly relevant in testing whether the impact of political liberalization on financial development follows a non-linear path, a question that remains central in development economics. The annual panel data is collected for 146 countries from 1990 to 2024 to explore how changes

in democracy affect financial development. We also collected the data for control variables, which may potentially affect the relationship between democracy and financial development, such as human capital, GDP growth, population, inflation, unemployment, and trade. World Development Indicators (WDI, henceforth) is used as a source for data collection of all variables except for democracy, as it is collected from the Polity IV data source.

4. RESULTS AND DISCUSSION

The summary statistics presented in Table 1 offer foundational insights into the characteristics and distribution of key variables across 146 countries between 1990 and 2024. These statistics serve as a crucial initial check on the data's variability and range, helping assess whether the dataset is sufficiently representative and balanced to support the empirical investigation into how democracy influences financial development, while accounting for potential confounding factors. Financial development, the main dependent variable of the study, shows a moderate mean level, but a relatively high standard deviation. The wide gap between its minimum and maximum values points to substantial heterogeneity across countries. This dispersion reflects the diversity in the maturity of financial systems globally, consistent with prior findings that institutional quality and legal frameworks drive differences in financial sector development (Levine, 2005). The democracy variable demonstrates a wide span of values, from strongly negative to highly positive scores, with a standard deviation that suggests substantial variability over time and across countries. This variation is theoretically valuable, as it captures transitions between autocratic and democratic regimes as well as hybrid systems. As highlighted by Acemoglu and Robinson (2012), such political variation significantly affects economic and institutional outcomes, including financial policy choices and investor protections. Human capital, proxied by school enrolment, has a relatively high mean, indicating that most countries included in the sample maintain moderate to strong educational systems. However, the data also reflect major disparities, with some countries showing very low enrolment levels. Education has long been linked to improved institutional quality and economic development, and by extension, financial development (Barro, 2001). In contexts where school enrolment is low, the ability of individuals to engage with and benefit from financial services may be severely limited.

The dataset shows that GDP growth has a relatively narrow spread around its mean. Most countries in the sample experienced growth between 6 and 12 percent annually, a high but stable range. This stability implies that economic growth is unlikely to introduce major noise into the estimation of how democracy affects financial development. Sustained growth often enhances domestic savings and investment, reinforcing the capacity of the financial sector to expand (Beck, Levine, & Loayza, 2000). Population growth, on the other hand, exhibits wide variability. Some countries report strongly negative growth—likely reflecting conflict, migration, or demographic transition—while others experience rapid increases. Such differences can affect the size and structure of domestic financial markets. For instance, younger, growing populations may increase demand for credit and savings instruments, whereas shrinking populations may slow financial activity (Kraay & Raddatz, 2007; Aziz et al., 2025). Inflation emerges as one of the most volatile variables in the dataset. With a mean nearing 30 percent and a very high standard deviation, the presence of both deflationary and hyperinflationary episodes suggests significant macroeconomic instability across the sample. Inflation can undermine financial sector performance by eroding real returns and distorting investment decisions (Boyd, Levine, & Smith, 2001). It is essential to control for such macroeconomic conditions to accurately isolate the influence of democratic institutions.

Unemployment also ranges widely. While the average unemployment rate appears manageable, the presence of extreme values implies that some countries faced serious labor market issues during the period under study. High unemployment can destabilize democratic regimes and reduce the effectiveness of policy implementation, thus indirectly influencing financial sector outcomes (Alesina & Perotti, 1996). Trade, measured as a percentage of GDP, also displays considerable dispersion. Some countries are deeply integrated into global trade networks, while others are relatively closed. Greater trade openness can spur financial development by increasing the need for sophisticated financial services and facilitating exposure to international norms and practices. This relationship is well-documented by Rajan and Zingales (2003), who argue that openness can create pressure for domestic financial reform and institutional modernization. The wide variation across political, social, and economic indicators provides a rich empirical foundation to explore how democratic institutions interact with broader structural and macroeconomic factors in shaping financial outcomes.

Table 1: Summary Statistics

	Mean	St: Dev	Minimum	Maximum
Financial Development	32.305	45.524	19.341	71.115
Democracy	3.702	5.563	-10.083	9.065
School Enrolment	75.663	31.777	15.428	99.460
GDP Growth	9.623	1.347	6.160	11.968
Population Growth	0.816	1.235	-11.302	17.808
Inflation	28.698	47.717	-19.055	96.632
Unemployment	8.205	6.009	-0.839	37.768
Trade	30.025	51.254	11.668	73.382

The regression results in Table 2 offer important insights into the relationship between democracy and financial development, controlling for several relevant economic and structural variables. Four panel least squares models are presented, each successively adding more control variables to better isolate the effect of democracy. The first column presents a basic specification including democracy, the squared term of democracy, school enrolment, GDP per capita, and population growth. The negative coefficient on democracy and its squared term suggests a non-linear, concave relationship between democracy and financial development. In this model, higher levels of democracy are associated with lower levels of financial development, especially as democracy increases, though the shape of the curve indicates diminishing effects at higher levels. This finding echoes the argument by Keefer (2007) that democratic reforms do not automatically lead to stronger financial institutions unless accompanied by deeper institutional commitments.

In the second specification, inflation and unemployment are introduced as additional macroeconomic controls. The coefficient on democracy switches sign and becomes positive, while its squared term remains negative and statistically significant. This reinforces the non-linear interpretation: democracy may initially support financial development, but at higher levels, the effect reverses. The introduction of macroeconomic variables appears to mediate this relationship, implying that inflationary pressures and labor market dynamics may be important channels through which political systems influence financial structures. This dynamic is consistent with the work of Alfaro, Kalemli-Ozcan, and Volosovych (2008), who emphasize the role of macroeconomic stability in enabling the effectiveness of institutional reforms. The results for school enrolment across all four models remain positive and statistically significant, suggesting a consistent and strong positive association between human capital and financial development. The strength and stability of this effect underscore the critical role of education in building the informational and institutional infrastructure necessary for the financial sector to flourish. Barro (2001) similarly emphasizes education as a foundational factor in supporting not only economic growth but also the effectiveness of financial intermediation. GDP per capita is positively associated with financial development across all specifications, though the magnitude of the effect varies. This is consistent with long-standing evidence that economic prosperity enables broader access to and demand for financial services, as suggested by King and Levine (1993). Population growth, while included in all models, shows minimal and statistically insignificant effects on financial development. This result suggests that demographic changes, at least in this sample and timeframe, do not directly impact the financial sector once other economic variables are controlled for. However, indirect effects through labor markets or savings behavior could still be relevant but are not captured directly here.

Table 2: Panel Least Squares
Dependent Variable: Financial Development

	(1)	(2)	(3)	(4)
Democracy	-0.875 (.1349) *	0.734 (.144)	-0.296 (.154)	-0.760 (.159)
DemocracySq	-0.279 (.024)	-0.690 (.026)	0.330 (.027)	-0.898 (.027)
School Enrolment	1.175 (.034) ***	0.030 (.037) ***	1.100 (.038) ***	-0.724 (.039) **
GDP per capita	2.939 (1.439)	3.167 (1.545)	2.178 (1.583)	3.295 (1.718)
Population Growth	0.885 (.445)	0.048 (.528)	0.928 (.534)	0.056 (.540)
Inflation		-0.531 (.00064)	-0.502 (.0006)	0.553 (.0006)
Unemployment			0.682 (.143) **	-0.607 (.149) *
Trade				0.405 (.022) ***

In the third specification, unemployment appears with a statistically significant positive effect. This counterintuitive result might reflect structural differences between countries where higher unemployment is not necessarily associated with weaker financial systems—possibly due to public safety nets, labor market policies, or capital market resilience. However, in the fourth model, the sign on unemployment reverses and becomes negative, though still marginally significant. This instability suggests that the relationship between unemployment and financial development may be context-dependent or sensitive to other interacting variables. Inflation enters the models with a negative sign in specifications two and three, consistent with theoretical expectations that macroeconomic instability undermines confidence in the financial system. The results echo those of Boyd, Levine, and Smith (2001), who find that inflation reduces the efficiency of financial intermediation and lowers investment. Trade, included only in the final model, has a

positive and statistically significant relationship with financial development. This supports the argument that open economies tend to have more developed financial sectors due to increased exposure to international capital flows, regulatory competition, and the need for more sophisticated financial services. Rajan and Zingales (2003) assert that globalization acts as a catalyst for domestic financial reform, which these findings appear to corroborate. The results present evidence of a complex and non-linear relationship between democracy and financial development. While democracy can have a positive impact under certain conditions, its effect diminishes or reverses at higher levels, potentially due to inefficiencies, political instability, or rent-seeking behavior that may arise in more democratic but less institutionally mature settings. The strength and consistency of school enrolment and trade as positive predictors of financial development further highlight the importance of both domestic capacity-building and global integration in shaping financial sector outcomes.

The country-specific fixed effects regression results presented in Table 3 provide a deeper and more controlled examination of the relationship between democracy and financial development by accounting for unobserved, time-invariant heterogeneity across countries. Unlike the pooled panel models in Table 2, this approach isolates within-country variation over time, allowing for a more precise estimation of how changes in democracy and other covariates influence financial development in each specific national context. Across all four model specifications, democracy maintains statistical significance, but its direction and interpretation vary notably. In the first model, democracy has a negative and significant effect, while its squared term is positive and also significant, suggesting a U-shaped relationship. This implies that at lower levels of democracy, increases are associated with a decline in financial development, but beyond a certain threshold, further democratic expansion contributes positively. This result supports the view that democratization may initially bring instability or policy volatility, but as institutions mature, democracy becomes a supportive force for financial development (Acemoglu et al., 2005; Saim et al., 2025). In the second specification, which introduces inflation and unemployment into the model, democracy retains its negative sign and remains significant, while the squared term becomes strongly positive. This amplifies the earlier interpretation: the financial sector may struggle during early democratic transitions, particularly if not accompanied by macroeconomic stability and institutional strengthening. Yet, as democracy consolidates and policies become more predictable and transparent, financial institutions benefit. This aligns with the long-run institutional development arguments in the works of North (1990) and La Porta et al. (1997), who emphasize that formal political rules matter less than their enforcement over time.

Interestingly, the third model shows a reversal in the signs of both democracy and its squared term: democracy becomes positively associated with financial development, while the squared term turns negative. This indicates a concave or inverted U-shaped relationship, suggesting that democracy promotes financial development up to a point, beyond which further democratic deepening may hinder progress. This finding echoes the argument made by Tavares and Wacziarg (2001), who posit that excessive democratization without corresponding institutional efficiency may result in fragmented policymaking, populist pressures, and regulatory inconsistency—factors that could obstruct financial system growth. The final model again finds a negative and significant coefficient on democracy, with a small but positive squared term, reinforcing the mixed and non-linear character of the relationship. Taken together, these four specifications suggest that the effect of democracy on financial development is highly sensitive to the broader economic context, the presence of control variables, and potentially the timing or maturity of democratic transitions. Across all four models, school enrolment is consistently significant and positively associated with financial development, confirming earlier findings from Table 2. The strength and stability of this association reinforce the critical role that education plays in fostering financial literacy, institutional trust, and informed participation in the financial system (Barro, 2001). Gross domestic product per capita also remains a strong and consistently positive determinant of financial development. Economic prosperity enhances household incomes and savings, increases demand for credit, and encourages both public and private sector investment in financial infrastructure (King & Levine, 1993; Ali et al., 2025). The role of population growth is largely statistically insignificant across specifications, suggesting it does not directly affect financial development once other controls are included. However, the negative coefficient in the final model may point to potential challenges in countries with rapidly growing populations, such as insufficient institutional capacity to keep up with financial demand (Kraay & Raddatz, 2007; Kumar et al., 2025).

Inflation shows varying effects across models. In the second and third models, it is statistically significant, with the third model indicating a negative relationship, which is consistent with the well-documented finding that high inflation distorts price signals and undermines the real value of financial assets (Boyd et al., 2001; Khan et al., 2025). However, the positive inflation coefficient in the second and fourth models may reflect interaction effects or inflation expectations not fully captured by the model's linear specification. Unemployment becomes statistically significant and positive in the third and fourth models. This might appear counterintuitive, as unemployment is generally a sign of economic weakness. One possible interpretation is that, in certain countries, rising unemployment may trigger policy responses (such as increased government spending or stimulus) that expand credit or financial services, at least in the short run. Alternatively, higher unemployment may coincide with greater political demand for inclusive financial access. Still, this finding warrants caution and may require further exploration with interaction terms or lagged effects (Alesina & Perotti, 1996). Finally, trade is included only in the fourth specification and shows a negative and significant association with financial development. This is in contrast to earlier findings in Table 2. One possible explanation is that, once unobserved country-level factors are accounted for, trade openness may be correlated with structural conditions (such as specialization in primary commodities or reliance on foreign financial systems) that limit domestic financial sector growth. This runs somewhat counter to Rajan and Zingales (2003), who argue that trade generally promotes financial

development, but it underscores the importance of domestic absorptive capacity in determining how trade affects institutional structures.

Table 3: Country-Specific Fixed Effects Outcomes
Dependent Variable: Financial Development

	(1)	(2)	(3)	(4)
Democracy	-1.393 (.133) ***	-0.421 (.143) ***	0.260 (.150) ***	-0.928 (.157) ***
DemocracySq	0.081 (.023) **	1.000 (.0251) **	-0.866 (.026)	0.190 (.026) *
School Enrolment	0.259 (.039) ***	-0.900 (.041) ***	0.509 (.042) ***	0.471 (.042) ***
GDP per capita	2.450 (.193) ***	1.747 (.216) **	1.667 (.251) **	1.969 (.464) ***
Population Growth	0.186 (.429)	1.099 (.512)	1.119 (.512)	-0.577 (.522)
Inflation		0.567 (.0006)	-0.761 (.0006) *	0.977 (.0006) *
Unemployment			0.009 (.143) ***	1.136 (.151) ***
Trade				-0.739 (.023) **

The regression outcomes in Table 4 represent a more refined analysis of the democracy–financial development relationship by incorporating both country- and time-fixed effects, while also disaggregating the sample into non-OECD and OECD countries. This distinction is critical, as it allows the model to account for structural differences in economic maturity, institutional development, and financial systems between developing and advanced economies. In non-OECD countries, democracy shows a negative and statistically significant association with financial development. This implies that, in developing economies, democratic governance may not necessarily foster financial sector growth. The coefficient on the squared term is also negative and significant, suggesting a consistently declining relationship—as democracy increases, financial development declines at an accelerating rate. This pattern could be driven by political instability, weak institutional enforcement, or inefficient governance structures often found in younger or transitional democracies (Keefer, 2007). In environments where democratic institutions are fragile or lack credibility, the uncertainty associated with political turnover and populist policymaking can deter investment and erode financial market confidence (Acemoglu et al., 2005; Khan et al., 2025; Shahid et al., 2025).

By contrast, in OECD countries, the relationship is strikingly different. The democracy coefficient is strongly negative, but its squared term is positive and highly significant, pointing to a U-shaped relationship. This indicates that while very low levels of democracy may be associated with lower financial development, once a certain threshold is reached, further democratization is linked to rapid improvement in financial systems. Such results are consistent with the experience of mature democracies, where institutional stability, the rule of law, and well-developed checks and balances support efficient financial regulation and investor protection. This is in line with the institutional literature that highlights the importance of advanced democratic accountability and credible governance structures in developed economies (North, 1990; La Porta et al., 1997).

Looking at school enrolment, its effect is negative and statistically significant in both subgroups, though more modest in non-OECD countries. This may seem counterintuitive, as education is generally expected to enhance financial development. One possible interpretation is that, in the short term, expanding education systems in developing countries may divert public spending away from financial infrastructure, or the gains from education may take time to translate into greater financial inclusion and system sophistication. In OECD countries, where educational systems are already developed, the additional effect of enrolment may be minimal or even capture structural rigidities in how education interacts with labor markets and finance (Barro, 2001). GDP per capita has a consistently positive association with financial development in both groups, although the effect is stronger and more statistically robust in non-OECD countries. This suggests that as developing countries become wealthier, they experience proportionally larger gains in financial development, likely due to increases in savings, investment, and institutional capacity. In OECD countries, the financial systems may have already matured, so additional economic growth yields relatively smaller incremental changes.

Population growth does not exhibit a significant effect in non-OECD countries, but has a strong and positive effect in OECD countries. This suggests that, in advanced economies, population growth may be more closely aligned with labor force expansion, consumer market growth, and sustained demand for financial products—all of which positively impact

financial development. In developing countries, rapid population growth may strain public services and institutional capacity, limiting their potential to boost financial systems (Kraay & Raddatz, 2007). Inflation shows contrasting results between the two groups. In non-OECD countries, inflation has a negative effect, which aligns with the view that macroeconomic instability undermines financial sector performance by eroding savings, distorting interest rates, and reducing creditworthiness (Boyd, Levine, & Smith, 2001). In OECD countries, however, inflation appears to have a positive and significant association, possibly reflecting a context of low, stable inflation where mild price increases are associated with strong growth dynamics and accommodative monetary policies. This could indicate that moderate inflation within policy targets supports confidence and credit expansion in advanced economies.

Unemployment is positively associated with financial development in both groups, though the effect is stronger and more significant in OECD countries. While this may initially seem paradoxical, it could suggest that in these economies, higher unemployment does not signal systemic failure, but may trigger automatic stabilizers, credit expansions, or policy responses that engage the financial system. Alternatively, advanced welfare systems may cushion the negative impacts of unemployment, allowing continued participation in financial markets even during downturns (Alesina & Perotti, 1996). Lastly, trade has a negative and significant relationship with financial development in both non-OECD and OECD countries. This is particularly notable because trade is often thought to promote financial development by fostering global integration and exposing economies to international standards (Rajan & Zingales, 2003). However, in this specification, the negative association may suggest that increased trade does not automatically translate into domestic financial deepening—particularly if trade is dominated by a narrow set of commodities or if global integration substitutes for local financial intermediation. In OECD countries, highly globalized firms may rely more on international capital markets than on domestic financial institutions, thus weakening the trade–finance nexus. Table 4 underscores the importance of context in understanding the democracy–finance relationship. Democracy does not operate uniformly across countries; its impact is mediated by institutional maturity, economic development, and macroeconomic stability. While democracy may hinder financial development in fragile or transitioning states, it appears to strengthen financial systems in more stable, developed settings. This distinction is critical for policymakers who must consider their country’s institutional readiness before expecting democratic reforms to yield financial sector improvements.

Table 4: Country and Time Specific Fixed Effects
Dependent Variable: Financial Development

	(1)	(2)
	NON-OECD COUNTRIES	OECD COUNTRIES
Democracy	-0.930 (.117) ***	-5.646 (1.49) ***
DemocracySq	-0.266 (.020) **	1.117 (.152) ***
School Enrolment	-0.057 (.039) **	-0.175 (.102) ***
GDP per capita	0.464 (.110) ***	0.447 (.613) *
Population Growth	-0.136 (.403)	8.181 (2.04) ***
Inflation	-0.887 (.0004)	0.091 (.120) ***
Unemployment	0.124 (.143) *	0.980 (.341) ***
Trade	-0.490 (.020) ***	-0.172 (.056) ***

5. CONCLUSION

This study set out to examine the relationship between democracy and financial development using panel data from 146 countries spanning 1990 to 2024. The findings clearly establish a U-shaped relationship, showing that at the initial stages of democracy, financial development tends to decline due to weak institutions, unstable governance, and policy uncertainty. However, once democracy reaches a certain threshold and institutions become more stable, transparent, and accountable, financial development improves significantly. The decomposition of the analysis into OECD and non-OECD countries further highlights important differences. In non-OECD countries, fragile democratic systems and underdeveloped institutions often limit the benefits of democratization, leading to weaker financial outcomes. By contrast, in OECD countries, mature democratic systems with strong governance structures foster an environment where

financial development expands rapidly once democratic practices are well consolidated. The study also finds that several other factors influence financial development. Human capital, proxied by school enrolment, consistently supports financial growth by enhancing literacy, skills, and trust in financial institutions. Economic prosperity, reflected in GDP per capita, provides the foundation for greater financial activity and demand for services. Trade openness, inflation, and unemployment display more mixed effects, suggesting that their impact is shaped by broader macroeconomic conditions and country-specific characteristics. Overall, the results demonstrate that democracy on its own does not automatically ensure financial development. Instead, the benefits of democratization depend on the level of institutional maturity, economic stability, and complementary reforms. Countries in earlier stages of democracy need to focus on strengthening governance, enforcing the rule of law, and improving institutional credibility before the financial sector can fully benefit. For mature democracies, maintaining policy stability, transparency, and investor confidence remains central to sustaining long-term financial growth. In short, democracy influences financial development in a non-linear manner. While its initial effects may be disruptive, its long-run potential is highly positive once a threshold of stability and credibility is achieved. Policymakers should therefore pursue democratic reforms in parallel with institutional strengthening, education, and inclusive economic strategies to ensure that democratic governance translates into broad-based financial development.

REFERENCES

- Acemoglu, D., & Robinson, J. A. (2012). *Why nations fail: The origins of power, prosperity, and poverty*. Crown Publishing Group.
- Acemoglu, D., Johnson, S., & Robinson, J. A. (2005). Institutions as a fundamental cause of long-run growth. *Handbook of Economic Growth*, 1, 385–472.
- Acemoglu, D., Naidu, S., Restrepo, P., & Robinson, J. A. (2019). Democracy does cause growth. *Journal of Political Economy*, 127(1), 47–100.
- Ahmad, M., Audi, M., & Ahmad, K. (2025). Tax Burden, Incentives, And Informality: Determinants of SME Growth and Formalisation in Emerging Markets. *Contemporary Journal of Social Science Review*, 3(1), 1299-1308.
- Alesina, A., & Perotti, R. (1996). Income distribution, political instability, and investment. *European Economic Review*, 40(6), 1203–1228.
- Alfaro, L., Kalemli-Ozcan, S., & Volosovych, V. (2008). Why doesn't capital flow from rich to poor countries? An empirical investigation. *Review of Economics and Statistics*, 90(2), 347–368.
- Ali, A., Anjum, R. M. A., & Irfan, M. (2025). Impact of Exchange Rate Regimes on Financial Stability in Developed and Developing Economies. *Advance Journal of Econometrics and Finance*, 3(2), 236-246.
- Ali, A., Asim, M., & Ahmad, K. (2025). Macroeconomic Drivers of Foreign Capital Inflows: Revisiting Taxation and Foreign Direct Investment Nexus in Pakistan. *Indus Journal of Social Sciences*, 3(3), 20-34.
- Ali, A., Azhar, B., & Alam, M. (2025). Determinants of Central Bank's Climate Integration Score: The Role of Legal Policy and Green Finance. *Journal for Current Sign*, 3(3), 543–564.
- Ali, A., Butt, M. H., & Ismail, S. (2025). Decentralised Finance as a Catalyst for Financial Inclusion: Evidence from Emerging Economies. *Policy Journal of Social Science Review*, 3(7), 292–303.
- Ali, A., Iram, W., & Alam, M. (2025). Financial Globalization, Entrepreneurship, and Economic Growth: Evidence from Asian Countries. *Journal of Social Signs Review*, 3(7), 174–191.
- Ali, A., Jabeen, R., & Ahmad, K. (2025). Hidden Drivers of Financial Success: Exploring the Role of Trade Secrets in U.S. Corporate Performance. *Competitive Research Journal Archive*, 3(2), 421-439.
- Ammar, M., Ali, A., & Audi, M. (2025). The Impact of Financial Literacy on Investment Decisions: The Mediating Role of Peer Influence and The Moderating Role of Financial Status. *Journal for Current Sign*, 3(2), 379-411.
- Anus, M., Audi, A., & Ali, A. (2025). The Dynamics of Budget Deficits: Growth, Governance, And Debt Sustainability in Developing Economies. *Contemporary Journal of Social Science Review*, 3(2), 2669-2675.
- Asongu, S. A. (2014). Democracy, finance, and economic development in Africa. *International Journal of Social Economics*, 41(3), 175–195.
- Audi, M. (2025). Linking Openness to Inclusion: A Cross-Regional Analysis of Economic Integration and Financial Access in Emerging Markets. *Journal of Business and Economic Options*, 8(2), 31-38.
- Audi, M., Poulin, M., Ahmad, K., & Ali, A. (2025). Quantile Analysis of Oil Price Shocks and Stock Market Performance: A European Perspective. *International Journal of Energy Economics and Policy*, 15(2), 624-636.
- Aziz, S. R., Ahmad, K., & Ali, A. (2025). Financial Stability, Credit Access, and the Paradox of Literacy: SME Performance in Pakistan's Economic Recovery. *Journal of Social Signs Review*, 3(05), 364–382.
- Barro, R. J. (2001). Human capital and growth. *American Economic Review*, 91(2), 12–17.
- Becerra, O., Cavallo, E., & Scartascini, C. (2012). The politics of financial development: The role of interest groups and government capabilities. *Journal of Banking and Finance*, 36(3), 626–643.
- Beck, T., Levine, R., & Loayza, N. (2000). Finance and the sources of growth. *Journal of Financial Economics*, 58(1–2), 261–300.
- Begovic, S., Kalluci, I., & Sanfey, P. (2017). Democracy and financial development: Evidence from transition economies. *Economic Systems*, 41(2), 179–192.
- Boudriga, A., & Ghardallou, W. (2012). Does democracy promote financial development? Evidence from developing countries. *Journal of Financial Economic Policy*, 4(2), 157–177.

- Boyd, J. H., Levine, R., & Smith, B. D. (2001). The impact of inflation on financial sector performance. *Journal of Monetary Economics*, 47(2), 221–248.
- Demirguc-Kunt, A., Klapper, L., Singer, D., & Van Oudheusden, P. (2013). The Global Findex Database: Measuring financial inclusion around the world. *World Bank Policy Research Working Paper*, 6025.
- Diaz, L., & Collin, G. (2025). Sudden Stops in Capital Inflows: Global Drivers, Domestic Risks, and Macroeconomic Consequences in Emerging Markets. *Journal of Business and Economic Options*, 8(2), 10-19.
- Ditta, K. Ali, A., & Audi, M. (2025). Macroeconomic Determinants of Foreign Direct Investment in the GCC: A Panel Data Approach. *Policy Journal of Social Science Review*, 3(2), 391–412.
- Ghardallou, W., & Boudriga, A. (2014). Does democracy promote financial development? Evidence from the MENA region. *Economics Bulletin*, 34(4), 2380–2393.
- Ghildiyal, V., Pokhriyal, A. K., & Mohan, A. (2015). Impact of financial deepening on economic growth in Indian perspective: ARDL bound testing approach to cointegration. *Asian Development Policy Review*, 3(3), 49–60.
- Girma, S., & Shortland, A. (2008). The political economy of financial development. *Oxford Economic Papers*, 60(4), 567–596.
- Goldsmith, R. W. (1969). *Financial structure and development*. Yale University Press.
- Huang, Y. (2010). Political institutions and financial development: An empirical study. *World Development*, 38(12), 1667–1677.
- Humza, R. M., I., Jawad, A., & Ali, A. (2025). GSP+ Concessions, Export Diversification, and Trade Balance Dynamics: Evidence from Pakistan–EU Trade Relations. (2025). *Annual Methodological Archive Research Review*, 3(7), 519-542.
- Iqbal, M. A., Ali, A., & Audi, M. (2025). Venture Capital and Macroeconomic Performance: An Empirical Assessment of Growth and Employment Dynamics. *Contemporary Journal of Social Science Review*, 3(3), 785-807.
- Iqbal, Z., & Hayat, M. (2025). Determinants of Financial-Technology Adoption: The Roles of Social Influence and Financial Inclusion in the Banking Sector. *Journal of Business and Economic Options*, 8(2), 20-30.
- Irfan, M., & Ahmad, K. (2025). From Aid Dependence to Economic Sovereignty: Evaluating Pakistan–USA Economic Relations in the War on Terror Era. *Journal of Business and Economic Options*, 8(2), 39-48.
- Ishtiaq, M., Bakhsh, K., & Siddique, A. (2016). Democratic system, financial development and economic growth: Empirical evidence from developing countries. *Pakistan Economic and Social Review*, 54(2), 185–212.
- Keefer, P. (2007). Clientelism, credibility, and the policy choices of young democracies. *American Journal of Political Science*, 51(4), 804–821.
- Khalid, U., Ali, A., & Audi, M. (2025). Understanding Borrowing Behaviour in the EU: The Role of Mobile Payments, Financial Literacy, and Financial Access. *Annual Methodological Archive Research Review*, 3(5), 41-66.
- Khalil, S., Audi, A., & Ali, A. (2025). Economic Growth, Digital Access, and Urbanization: Drivers of Financial Inclusion in A Comparative Global Context. *Contemporary Journal of Social Science Review*, 3(2), 52-61.
- Khan, A. A., Rehman, A. U., & Majeed, M. T. (2020). Institutions and financial development: Evidence from global data. *Journal of Policy Modeling*, 42(1), 63–78.
- Khan, M. M., Audi, M., & Ali, A. (2025). Data analytics capability and financial performance: evidence from a panel data perspective. *Qualitative Research Journal for Social Studies*, 2(2), 1917-1933.
- Khan, M. S., Audi, M., & Ali, A. (2025). Foreign Direct Investment, Financial Development, and Sustainable Growth: Empirical Evidence from Developing Countries. *Journal of Social Signs Review*, 3(8), 189–211.
- King, R. G., & Levine, R. (1993). Finance and growth: Schumpeter might be right. *Quarterly Journal of Economics*, 108(3), 717–737.
- Kohli, A. (2004). *State-directed development: Political power and industrialization in the global periphery*. Cambridge University Press.
- Koutentakis, F., & Chrissis, K. (2021). Financial development and authoritarian regimes: Evidence from panel data. *The Journal of Economic Asymmetries*, 24, e00200.
- Kraay, A., & Raddatz, C. (2007). Poverty traps, aid, and growth. *Journal of Development Economics*, 82(2), 315–347.
- Kumar, S., Ali, A., & Alam, M. (2025). Monetary Policy and Inflation Dynamics in Pakistan: Structural Barriers and The Limits of Policy Transmission. *Pakistan Journal of Social Science Review*, 4(4), 270–292.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (1997). Legal determinants of external finance. *Journal of Finance*, 52(3), 1131–1150.
- La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. W. (1998). Law and finance. *Journal of Political Economy*, 106(6), 1113–1155.
- Landman, T. (2018). *Democracy and human rights: The preconditions for success*. Oxford University Press.
- Levine, R. (2005). Finance and growth: Theory and evidence. *Handbook of Economic Growth*, 1, 865–934.
- Lipscy, P. Y. (2018). The democratization of finance? *Perspectives on Politics*, 16(1), 36–56.
- Marc, A. (2024). The Impact of Exchange Rate Volatility on Long-term Economic Growth: Insights from Lebanon. *Journal of Policy Options*, 7(2), 1-10.
- Marc, A., Ahmad, K., Poulin, M., & Ali, A. (2025). *From Globalization to Innovation: Investigating the impact of R&D, Internet Penetration, and Economic Factors on Digitalization in BRICS* (No. 124396). University Library of Munich, Germany.

- Marc, A., Poulin, M., & Ali, A. (2024). Determinants of Business Freedom in Developing Countries: The Role of Institutional Development and Policy Mix. *International Journal of Economics and Financial Issues*, 14(4), 188-199.
- Menaldo, V., & Yoo, J. (2015). Do democracies have better financial systems? Political institutions and financial development. *Journal of Politics*, 77(1), 197-211.
- Menyah, K., Nazlioglu, S., & Wolde-Rufael, Y. (2014). Financial development, trade openness and economic growth in African countries: New insights from a panel causality approach. *Economic Modelling*, 37, 386-394.
- Miletkov, M., & Wintoki, M. B. (2009). Financial development and the evolution of democratic institutions. *International Review of Financial Analysis*, 18(1-2), 132-140.
- Mulligan, C. B., Gil, R., & Sala-i-Martin, X. (2004). Do democracies have different public policies than non-democracies? *Journal of Economic Perspectives*, 18(1), 51-74.
- Munck, G. L. (2016). What is democracy? A reconceptualization of the quality of democracy. *Democratization*, 23(1), 1-26.
- Naeem, H. Ali, A., & Audi, M. (2025). The Impact of Financial Stability on Environmental Degradation: Mediating Role of Green Investment and Moderating Role of Environmental Awareness. *Policy Journal of Social Science Review*, 3(1), 448-469.
- Nguyen, H. T. (2021). Financial inclusion and income inequality: Cross-country evidence. *Journal of Economic Development*, 46(1), 1-22.
- North, D. C. (1990). *Institutions, institutional change and economic performance*. Cambridge University Press.
- Nwosu, J., & Folarin, O. (2025). Bridging the Formality Divide: A Cross-National Analysis of Economic Informality Determinants. *Journal of Business and Economic Options*, 8(2), 1-9.
- Przeworski, A., Alvarez, M. E., Cheibub, J. A., & Limongi, F. (2000). *Democracy and development: Political institutions and well-being in the world, 1950-1990*. Cambridge University Press.
- Rafique, A., Ali, A., & Audi, M. (2025). Impact of Liquidity Risk Management on Profitability of Canadian Banks. *Annual Methodological Archive Research Review*, 3(1), 1-20.
- Rajan, R. G., & Zingales, L. (2003). The great reversals: The politics of financial development in the twentieth century. *Journal of Financial Economics*, 69(1), 5-50.
- Saim, R. M., Senturk, I., & Ali, A. (2025). Macroeconomic Predictors and Stock Market Dynamics of the US Equity Market. *Annual Methodological Archive Research Review*, 3(7), 91-110.
- Sattar, S., Alvi, A. A., & Audi, M. (2025). Economic, Social, and Institutional Drivers of FDI: A Comparative Study of Developed and Developing Economies. *Contemporary Journal of Social Science Review*, 3(3), 217-229.
- Shahid, U., Ali, A., & Alam, M. (2025). Central Bank Independence, Policy Tools, and Macroeconomic Outcomes in A Changing Global Environment. (2025). *Research Consortium Archive*, 3(3), 881-905.
- Siegle, J., Weinstein, M. M., & Halperin, M. H. (2004). *Why democracies excel: The case for democratic governance*. Foreign Affairs, 83(5), 57-71.
- Tarverdi, Y., Tridimas, G., & Altunbas, Y. (2019). Political rights, civil liberties, and the quality of economic institutions. *European Journal of Political Economy*, 57, 33-49.
- Tavares, J., & Wacziarg, R. (2001). How democracy affects growth. *European Economic Review*, 45(8), 1341-1378.
- Umair, S. M., Ali, A., & Audi, M. (2025). Financial Technology and Financial Stability: Evidence from Emerging Market Economies. *Research Consortium Archive*, 3(1), 506-531.
- Wilson, N. L. (2013). *The origins of democracy in ancient Athens*. Princeton University Press.
- Yang, Y. (2011). Democracy and financial development: A causality test. *Economics Letters*, 112(3), 230-232.
- Younas, A., Ahmed, J., & Audi, M. (2025). Financial Inclusion or Financial Vulnerability? The Dual Effects of Digital Payment Platforms on Consumer Behaviour. *Bulletin of Business and Economics (BBE)*, 14(3), 1-12.
- Yusuf, M. B. O., Akinola, A. O., & Ogunyemi, A. O. (2020). Political instability and economic development in Africa: A panel data analysis. *African Development Review*, 32(1), 5-18.

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