Unlocking Prosperity: Fresh Insights into Economic Growth Through Financial Development, Domestic Investment, and Corruption Trends in LAC Countries

Bakari, Sayef

LIEI, Faculty of Economic Sciences and Management of Tunis, University of Tunis El Manar, Tunisia., Faculty of Legal, Economic and Management Sciences of Jendouba, University of Jendouba, Tunisia.

2024

Unlocking Prosperity: Fresh Insights into Economic Growth Through Financial Development, Domestic Investment, and Corruption Trends in LAC Countries

Sayef Bakari

LIEI, Faculty of Economic Sciences and Management of Tunis, University of Tunis El Manar, Tunisia.

Faculty of Legal, Economic and Management Sciences of Jendouba, University of Jendouba, Tunisia.

Email: bakari.sayef@yahoo.fr

Abstract:

The aim of this study is to assess the influence of financial development, domestic investments, and corruption on economic growth, through the analysis of data from 42 Latin American and Caribbean countries spanning the period from 1998 to 2022. Utilizing estimation techniques such as the static fixed-effects gravity model, the random-effects gravity model, and the Hausman test, our findings indicate that domestic investments and financial development exert a positive influence on economic growth. However, it has been observed that corruption control has no significant impact on economic growth. It is recommended to prioritize policies aimed at stimulating domestic investments and financial development to foster economic growth, while implementing specific strategies to strengthen corruption control mechanisms and promote an integrity-focused business environment, despite its relatively limited impact on economic growth.

Key Words: Financial Development, Domestic Investment, Corruption, Economic Growth, LAC Countries.

1. Introduction

The close link between financial development, domestic investment, corruption, and economic growth has always captured the attention of researchers, policymakers, and economists. As global economies continue to evolve, this intricate relationship becomes increasingly crucial, revealing subtle dynamics that shape the destinies of nations. In our article, we will delve into the specific context of Latin American and Caribbean countries, exploring new data and unique nuances characterizing this region. The significance of this topic lies in its ability to illuminate the fundamental factors influencing the economic trajectory of nations. In an era where globalization interconnects economies, sustainable development challenges intensify, and aspirations for prosperity are universal, understanding the mechanisms underpinning economic growth becomes imperative.

In current events, the ongoing year has witnessed significant developments in the global economic sphere, with substantial fluctuations in financial indicators, major development initiatives, and heightened attention to combating corruption. These events underscore the urgency of deepening our understanding of the links between financial development, domestic investment, corruption, and their impact on economic growth. In the specific context of Latin American and Caribbean countries, addressing these issues takes on particular importance. This region, characterized by cultural and economic diversity, has experienced varied trajectories in economic growth. Understanding the factors underpinning these differences becomes a crucial concern for local and international stakeholders. Specific challenges faced by these countries, such as economic volatility, persistent inequalities, and environmental pressures, add a layer of complexity to this analysis. Our contribution to the literature on this subject relies on exploring new data, providing a fresh perspective on the links between financial development, domestic investment, corruption, and economic growth. By incorporating recent information, we hope to enrich academic discourse and offer valuable insights for decision-makers. This research aims to broaden the understanding of the underlying mechanisms of economic growth in the region, contributing to the formulation of more informed and effective policies.

By examining the situation of domestic investment, financial development, corruption, and economic growth in Latin American and Caribbean countries, we seek to unveil the subtle and often complex dynamics shaping the economic landscape of the region. This in-depth analysis will serve as the foundation for a more detailed exploration of practical implications and policy recommendations to foster sustainable and equitable economic development. To achieve this

objective, our work will be structured as follows. In the second section, we will review recent literature focusing on the impact of domestic investments, financial development, and corruption on economic growth. The third section will be dedicated to presenting our methodology, which will be applied in our empirical work, along with the features of the database and the chosen model. In the fourth section, we will present the empirical results obtained. Finally, in the fifth section, we will outline our conclusions and formulate recommendations.

2. Literature Survey

This literature review sets out to examine the intricate interplay of domestic investments, financial development, and corruption in influencing economic growth. The importance of comprehending these relationships is underscored by their central roles in shaping the trajectories of national economies. To facilitate a thorough exploration, this section will be organized into three distinct paragraphs, each dedicated to unraveling a specific aspect. The first paragraph will scrutinize the nexus between domestic investments and economic growth, shedding light on the diverse dynamics and mechanisms that underlie this crucial relationship. Shifting the focus in the second paragraph, we will delve into the correlation between financial development and economic growth, unraveling the complex links and effects that define this intricate association. Finally, the third paragraph will investigate the intricate relationship between corruption and economic growth, delving into the ways in which corruption can impact and hinder a nation's economic development. Through this structured exploration, our objective is to offer a comprehensive understanding of the multifaceted interactions among domestic investments, financial development, corruption, and their collective influence on economic growth.

2.1.Domestic Investment and Economic Growth

Domestic investments serve as a cornerstone in driving the economic growth of a nation, a connection that can be theoretically elucidated through diverse conceptual frameworks rooted in economic theory. Firstly, investments in physical capital, encompassing infrastructure and equipment, play a pivotal role in bolstering the economy's productive capacity, thereby fostering sustained growth—a concept emphasized by Solow (1965) in his exogenous growth model. Capital accumulation, underscored as a key driver of economic growth, is facilitated by investments in physical capital, leading to heightened labor productivity and increased

production process efficiency. Secondly, investments in human capital, notably in education and training, emerge as indispensable contributors to economic growth. Drawing from Becker's (1964) human capital theory, individuals investing in their education cultivate enhanced skills and productivity, consequently contributing to elevated national economic growth. Moreover, domestic investments have the potential to spur innovation and technological advancement, critical factors in long-term economic growth. Endogenous growth models, exemplified by Romer (1990), underscore the essential role of investments in research and development in instigating innovation and cultivating self-sustaining economic growth. Lastly, the synergy between domestic investments and economic growth can be amplified through a multiplier effect, particularly when supported by a robust financial system. The financial leverage effect, conceptualized by Modigliani and Miller (1958), posits that judicious utilization of debt can magnify investments, thereby stimulating economic growth. This multifaceted link between domestic investments and economic growth is firmly grounded in well-established theoretical foundations within the realm of economic literature. Investments in physical capital, human capital, innovation, and financial leverage collectively contribute to invigorating economic growth across various levels and through diverse pathways.

In the context of Pakistan, a comprehensive study conducted by Sohail and Li (2023) has explored the intricate connections among foreign direct investment (FDI), domestic investment, financial development, and economic growth over the period from 1970 to 2019. Utilizing advanced analytical tools such as lag cointegration analysis and nonlinear autoregressive distribution (NARDL), the researchers unveiled significant findings. Their study revealed a positive impact of both foreign direct investment and domestic investment on economic growth, indicating that these forms of investments contribute positively to the overall economic development of Pakistan. Furthermore, the analysis indicated a positive association between financial development and economic growth, suggesting that a well-developed financial sector plays a favorable role in driving economic growth within the Pakistani context. In a study conducted by Olaoye and Sornarajah (2023), the focus was placed on examining the influence of national laws on both domestic investment and international economic law, particularly in relation to economic growth. The research leveraged insights from a comprehensive dataset comprising 3,000 international investment agreements, covering the period from 2017 to 2023. The findings of this study underscored the significance of the proper implementation of national investment laws, revealing that when these laws are effectively enforced, domestic investment can yield a positive impact on economic development. This suggests that a conducive legal

framework at the national level plays a crucial role in fostering domestic investment, subsequently contributing to overall economic growth. In Bakari's (2016) examination of the relationship between domestic investment and economic growth in Canada over the period from 1990 to 2015, various statistical methods were employed, including correlation analysis, Johansen co-integration analysis of the Vector Error Correction Model (VECM), and Granger-Causality tests. The results of these analyses yielded intriguing insights into the dynamics between domestic investment and economic growth in the Canadian context. The findings indicated the absence of a long-term relationship between the variables, suggesting that, over the specified period, no sustained and significant connection existed between domestic investment and economic growth. Despite this lack of a long-term relationship, a weak association between domestic investment and economic growth was observed in the short run. This implies that variations in domestic investment appeared to have a limited impact on economic growth in the short term. Contrastingly, the Granger Causality test results suggested no causal relationship between domestic investment and economic growth. In other words, domestic investment was not found to be a significant predictor or driver of economic growth in Canada during the examined period.

In a study conducted by Li et al. (2023), the researchers explored the connections among financial development, domestic fixed asset investment, and economic growth in China over the period 2003 to 2017. The study relied on China's provincial panel data and employed the system's generalized method of moments for analysis. The findings revealed several interesting patterns: firstly, financial development was associated with an increase in the proportion of real estate investment within domestic investment. However, contrary to expectations, this increase had a negative impact on overall economic growth. Moreover, the study identified a positive relationship between the proportion of real estate investment and economic growth, indicating that an elevated share of real estate investments could potentially stimulate economic growth in the Chinese context. Li and Wye (2023) conducted a study utilizing panel data from 2005 to 2019 encompassing 31 provinces in China to unravel the relationship between financial development, domestic investment in education, and economic growth. The study discerned distinctive patterns based on the economic status of the provinces. In regions characterized by higher GDP per capita, financial development did not seem to significantly facilitate the impact of educational investments on economic growth. However, a noteworthy contrast emerged in less affluent provinces with below-average GDP per capita. In these regions, the study found that financial development, measured by the ratio of total loans and total deposits in the

financial system to GDP, effectively strengthened the positive effect of investment in education on economic growth. Interestingly, this improvement persisted even when the individual indicators of investment in education and financial development exhibited negative effects on economic growth. The study proposed a plausible explanation for this phenomenon. It suggested that expanding credit and increasing savings, facilitated by financial development, could enhance public spending on education. Consequently, this heightened investment in education contributed more significantly to economic growth in relatively poor provinces than in their wealthier counterparts. This insight highlights the nuanced role of financial development in shaping the impact of educational investments on economic growth, showcasing the importance of considering regional economic disparities in such analyses.

In Bakari's (2017) investigation spanning the years 1965 to 2015 in Egypt, the correlation between exports, imports, domestic investment, and economic growth was examined. The study employed Johansen co-integration analysis of the Vector Error Correction Model to explore both long-run and short-run relationships among these key variables. The empirical findings provided nuanced insights into the dynamics between these economic factors in the Egyptian context. In the long run, the study indicated that domestic investment and exports had a negative impact on economic growth, suggesting that, over an extended period, increases in domestic investment and exports were associated with a reduction in economic growth. Conversely, imports were found to have a positive effect on economic growth in the long run. However, in the short run, the empirical analyses pointed to a different pattern. Specifically, only imports were identified as a causal factor, indicating that changes in import levels were associated with short-term variations in economic growth. These findings highlight the complexity of the relationships between exports, imports, domestic investment, and economic growth in Egypt during the specified period. The differentiated impacts in the short and long run underscore the importance of considering the temporal dimension when analyzing the economic interactions among these variables. Agita (2023) conducted a study investigating the influence of high and medium technology exports along with domestic investments on the economic growth trajectories of six East African economies spanning the period from 1990 to 2021. Employing an estimation approach based on the static gravity model, the empirical results yielded significant insights. The findings of the study suggest that high and medium technology exports have a positive impact on economic growth in the East African context. This implies that the engagement in exporting products with higher technological content contributes positively to the overall economic development of these economies. However, in contrast to the positive

influence of technology exports, the study revealed that domestic investments did not exhibit a discernible effect on economic growth within the specified East African countries. This implies that, according to the findings, the level of domestic investments in these economies did not significantly contribute to or impact their overall economic growth during the period under consideration.

In a study conducted by Kesar et al. (2023), the focus was on investigating the impact of the governance index and domestic investment on the economic growth of the BRICS nations, namely Brazil, Russia, India, China, and South Africa. The study utilized annual data spanning from 2002 to 2019. Employing a range of empirical methodologies including the fixed effects model, the standard of Driscoll and Kraay, fixed effect error, fully modified ordinary least squares test, dynamic ordinary least squares (DOLS) test, and Dumitrescu Hurlin panel causality test, the researchers aimed to comprehensively analyze the relationships under consideration. The empirical results from the study revealed several key findings. Firstly, the governance index, domestic investment, population, corruption control, and governance effectiveness were identified as factors that exerted a positive and significant impact on economic growth in the BRICS nations. This implies that better governance, increased domestic investment, a larger population, effective corruption control, and improved governance effectiveness are associated with higher and more robust economic growth. On the other hand, regulatory quality was found to have a significant and negative impact on economic growth. This suggests that, according to the empirical results, a lower quality of regulatory frameworks may impede economic growth in the context of the BRICS nations. In their study spanning the period from 1960 to 2017, Fakraoui and Bakari (2019) explored the relationship between domestic investment, exports, and economic growth in India. Employing cointegration analysis and a vector error correction model, the researchers sought to uncover the long-run and short-run dynamics among these key economic variables. The empirical analyses yielded notable results. In the long run, the study found no significant relationship between exports, domestic investment, and economic growth. This suggests that, over the extended period considered, changes in exports and domestic investment did not lead to sustained and substantial impacts on economic growth in India. Conversely, in the short run, the study identified a causal impact, indicating that only exports influenced economic growth during shorter time intervals. This implies that variations in export levels were associated with immediate changes in economic growth in the Indian context. In a study conducted by Azam et al. (2023), the researchers delved into the dynamics of economic growth in 30 developing countries over the period from 1990 to

2017, focusing on the impact of domestic investment and financial development. Employing various empirical methodologies such as pooled regression, fixed effects, random effects, and the Dumitrescu-Hurlin heterogeneous panel causality procedure, the study aimed to discern the relationships between these key factors. The empirical results presented a clear picture of the influences at play. According to the findings, both financial development and domestic investment were identified as positive contributors to economic growth in the examined developing countries. This implies that increased levels of financial development and domestic investment were associated with higher and more robust economic growth across the sampled nations.

In a study conducted by Hao (2023), the focus was on examining the intricate relationships among trade openness, domestic investment, foreign direct investment, and economic growth over the period from 1990 to 2021. The researcher employed cointegration analysis and the Autoregressive Distributed Lag (ARDL) model to unravel the dynamics within these variables. The empirical results of the study pointed to a positive bidirectional relationship between domestic investment and economic growth, both in the short term and the long term. This finding suggests that domestic investment not only contributes positively to economic growth but also experiences reciprocal positive impacts from the overall economic development. The application of cointegration analysis and the ARDL model enhances the robustness of these results, providing a more comprehensive understanding of the interconnected dynamics between domestic investment and economic growth within the specified timeframe. In a study conducted by Ben Yedder et al. (2023), the researchers investigated the influence of domestic investment and trade on economic growth within North African countries over the period from 1990 to 2021. The study employed the Panel CS-ARDL Model, a robust analytical tool for panel data analysis. The key finding from their analysis indicated that domestic investment did not exhibit any impact on economic growth, both in the short run and the long run. This result suggests that, according to the study's findings, changes in domestic investment within the North African countries did not lead to significant changes in economic growth over the specified time frame. The utilization of the Panel CS-ARDL Model adds a layer of sophistication to the analysis, enhancing the reliability of the results within the context of panel data.

Bakari et al. (2023) conducted a study to investigate the effects of domestic investment, innovation, and research and development (R&D) on economic growth in MENA countries from 2002 to 2021. Employing the gravity model statistic, the researchers uncovered that

domestic investment was associated with a positive impact on economic growth within the region. In contrast, the study revealed that innovation and R&D did not exhibit any discernible impact on economic growth during the examined period. This implies that while increased domestic investment contributed positively to economic growth, changes in innovation and R&D activities did not show significant correlations with overall economic development in the MENA countries. Also, Bakari (2023) investigated the influence of unemployment on the relationship between domestic investment and economic growth in MENA countries spanning the period from 1998 to 2022. Utilizing panel data analysis, the empirical findings of the study revealed several key dynamics. Firstly, the analysis indicated a positive impact of domestic investment on economic growth within the MENA countries. This suggests that an increase in domestic investment was associated with positive changes in economic growth during the specified time frame. On the contrary, unemployment was found to have a negative impact on economic growth. This implies that higher levels of unemployment were associated with adverse effects on overall economic development in the MENA region. Additionally, the study highlighted that the positive influence of domestic investment on economic growth was negatively affected by the presence of unemployment. This suggests that the positive contributions of domestic investment to economic growth were hindered or mitigated by the concurrent negative impact of unemployment within the MENA countries.

Akermi et al. (2023) conducted a comprehensive study to investigate the impact of final consumption, domestic investment, exports, and imports on economic growth in Albania over the period from 1996 to 2021. Utilizing cointegration analysis, the Vector Error Correction Model (VECM), and the Wald test, the researchers aimed to uncover the dynamic relationships among these variables. The empirical analysis presented intriguing findings. According to the study, there was no causality relationship observed between final consumption, exports, domestic investment, imports, and economic growth in both the long run and the short run. This implies that changes in final consumption, exports, domestic investment, and imports did not lead to significant changes in economic growth over the specified time horizon in Albania. Othmani et al. (2023) conducted an in-depth examination of the relationships between patents, domestic investment, and economic growth in the United States over the period from 1980 to 2020. Employing cointegration analysis and the Vector Error Correction Model (VECM), the researchers aimed to uncover the dynamic interactions among these key variables. The empirical findings presented a nuanced picture. According to the study, no causal relationship was identified between patents, domestic investment, and economic growth in the long run.

This suggests that, over the extended period considered, changes in one variable did not lead to significant, sustained changes in the others. However, in the short run, the study revealed a bidirectional causality: domestic investment and economic growth were found to cause patents. This implies that variations in domestic investment and economic growth were associated with short-term changes in the number of patents granted.

The multifaceted relationship between domestic investments and economic growth is deeply rooted in various theoretical frameworks within economic literature. The theoretical foundations, as outlined by influential scholars such as Solow, Becker, Romer, and Modigliani and Miller, emphasize the significance of investments in physical and human capital, innovation, and financial leverage. These diverse forms of domestic investments contribute to stimulating economic growth through intricate pathways. The empirical findings from studies across different countries provide valuable insights into the nuanced dynamics of this relationship. These studies collectively enrich our understanding of the intricate connections between domestic investments and economic growth, emphasizing the need for a nuanced and context-specific approach to comprehensively grasp the diverse factors influencing this crucial relationship.

2.2.Financial development and Economic Growth

The connection between financial development and economic growth is a key focus in economic literature, with various theories offering frameworks to elucidate this relationship. In essence, financial development, encompassing the efficiency of financial institutions, the availability of credit, and the sophistication of financial markets, can impact economic growth in multiple ways. Firstly, as per the financial channel theory, enhanced financial development facilitates easier access to credit for both businesses and households. This enables a more effective allocation of resources, often leading to increased economic growth. Demirgüç-Kunt and Levine (2008) delved into this correlation, highlighting the pivotal role of the financial system in promoting investment and innovation. Secondly, the productivity channel manifests as an improvement in the efficiency of resource allocation when the financial system is well-developed. Resources tend to flow towards the most productive sectors, thereby stimulating long-term economic growth. Greenwood and Jovanovic (1990) introduced this idea in their theoretical model, illustrating how financial development can impact productivity growth. Thirdly, financial development can also affect economic growth by supporting the accumulation of human capital. Financial institutions can contribute to investments in education and training,

positively influencing labor productivity and, consequently, economic growth. King and Levine (1993) explored these facets of financial development in their study on the relationship between human capital and economic growth.

The link between financial development and economic growth can be explained through various theoretical channels, encompassing access to credit, efficiency of resource allocation, and the influence on the accumulation of human capital. These theories offer a conceptual framework to comprehend the crucial role that financial development plays as a catalyst for economic growth. For example, Ibrahim (2007) conducted a study focusing on Malaysia, exploring the connection between finance and economic growth over the period from 1980 to 2005. Using the Vector Error Correction Model (VECM) for estimation, he discovered a positive relationship, indicating that as financial development increased, so did economic growth in Malaysia during the specified timeframe. In simpler terms, the study found that improvements in the financial sector were associated with positive impacts on the overall economic growth of Malaysia. Krinichansky and Sergi (2019) delved into the impact of financial deepening on the drivers of economic growth in Russia by analyzing panel data from 75 Russian regions spanning the years 2008 to 2015. Their empirical findings indicated that the favorable effects of financial development on economic growth were primarily channeled through increased productivity. In contrast, the influence on capital accumulation was less pronounced, aligning more closely with patterns seen in developed countries. The results underscore the significance of tools and strategies that foster innovation and enhance productivity for the Russian economy. This suggests that, in the context of Russia, promoting mechanisms that drive technological advancements and efficiency improvements may be more crucial than relying solely on credit expansion to stimulate investments. In a study conducted by Mohamed-Sghaier (2023), the relationship between financial development and economic growth was investigated across a panel of four North African countries: Tunisia, Morocco, Algeria, and Egypt. The study covered the time span from 1991 to 2015. Employing the generalized method of moment (GMM) in a panel data analysis, the empirical results demonstrated a positive and beneficial impact of financial development on economic growth in these North African nations.

Maduka and Onwuka (2013) conducted a study on the relationship between financial development and economic growth in Nigeria, covering the period from 1970 to 2010. Utilizing cointegration analysis and an error correction model, the researchers discovered an interesting result. Contrary to some expectations, they found that financial development had a negative impact on economic growth in the long run for Nigeria. In essence, the study suggests that, over

the specified period, as the financial sector in Nigeria advanced, it was associated with a detrimental effect on the country's overall economic growth in the long term. In their study, Cao and Kang (2020) investigated the influence of personal remittances and financial development on the economic growth of 29 countries undergoing economic transition during the period from 2000 to 2015. Employing estimation techniques based on the dynamic Generalized Method of Moments (GMM) model, the researchers revealed a positive relationship between financial development, personal remittances, and economic growth across the selected countries. The findings suggest that as financial systems matured and personal remittances increased, they both contributed positively to the overall economic growth trajectory of the countries undergoing economic transition. This underscores the importance of both financial development and remittance inflows in fostering economic growth, particularly in nations experiencing significant economic changes.

In their research, Song et al. (2021) investigated the connection between economic growth and financial development across 142 countries spanning the period from 2002 to 2016. Employing cointegration analysis and the Panel Vector Error Correction Model (VECM), the researchers uncovered a positive bidirectional relationship between economic growth and long-term financial development. The study's findings indicate that as economies grew, there was a simultaneous positive influence on the long-term development of financial systems, and vice versa. This suggests a mutually reinforcing relationship between economic growth and the maturation of financial structures over the specified timeframe, emphasizing the interdependence of these two factors on a global scale. In a study conducted by Jammeh (2022), the focus was on exploring the relationship between the availability of domestic credit for the private sector, financial development, and economic growth in The Gambia over the period from 1967 to 2020. Through the utilization of estimation techniques based on the Vector Autoregression (VAR) model, the empirical findings suggested a positive impact of financial development on economic growth in The Gambia. In simpler terms, the study indicates that as the financial sector in The Gambia developed, it had a favorable effect on the overall economic growth of the country. This underscores the significance of a well-developed financial system in contributing positively to the broader economic prosperity of a nation.

In their research, Ustarz and Fanta (2021) delved into the relationship between financial development and economic growth in sub-Saharan African nations, covering the period from 1990 to 2018. Employing the generalized method of moments (GMM) for estimation, their study unveiled that heightened financial development positively influences the overall

economic growth in the region. Moreover, the findings of the study shed light on the differential impact across sectors, emphasizing that the industrial sector, in particular, experiences a more pronounced and positive effect from advancements in financial development. This suggests that improvements in the financial sector play a crucial role in fostering economic growth, with the industrial sector being particularly responsive to such enhancements during the specified timeframe in sub-Saharan Africa. In their study, Sharma and Sharma (2020) investigated the correlation between financial development and economic growth across 14 Asian economies from 1990 to 2015. The researchers utilized annual macroeconomic panel data for their analysis and employed cointegration analysis along with the Panel Autoregressive Distributed Lag (ARDL) model. Their findings provided evidence supporting a positive relationship between financial development and long-term economic growth in the Asian economies under scrutiny. This implies that as financial systems mature and become more robust within these Asian economies, they tend to experience improved prospects for sustained economic expansion over time. The study underscores the importance of well-developed financial systems in driving economic growth and stability across diverse Asian economies. In a study by Saidi (2023) that utilized panel data from emerging countries spanning the period from 1990 to 2019, the focus was on examining the influence of financial development on economic growth. The research employed various statistical techniques, including panel unit root tests, panel cointegration tests, FMOLS (Fully Modified Ordinary Least Squares) and DOLS (Dynamic Ordinary Least Squares) methods, as well as the VECM (Vector Error Correction Model) Granger causal technique. The empirical results of the study indicated a positive impact of financial development on economic growth in both the long term and the short term. This suggests that as financial systems in emerging countries progressed, they played a beneficial role in fostering economic growth over different time horizons. The comprehensive use of various econometric methods adds robustness to the findings and supports the notion of a positive relationship between financial development and economic growth in the context of emerging economies.

In their study, Chinoda and Kapingura (2024) investigated the influence of institutions and governance on the relationship between digital financial inclusion and economic growth in sub-Saharan Africa, covering the period from 2014 to 2020. The researchers utilized the generalized method of moments (GMM) to control for endogeneity in their analysis. The study's findings revealed a significant positive effect of institutional quality and governance on the connection between digital financial inclusion and economic growth in sub-Saharan Africa. Additionally, Chinoda and Kapingura (2024) noted that financial development exhibited a positive impact on

economic growth. In essence, the results suggest that not only does the quality of institutions and governance play a crucial role in shaping the relationship between digital financial inclusion and economic growth, but financial development also contributes positively to overall economic growth in the sub-Saharan African context during the specified timeframe. In their examination of the impact of the financial system on economic growth in Bangladesh from 2018 to 2022, Ullah et al. (2024) employed a set of stylized facts. Their findings indicated a positive relationship between financial development and economic growth in the context of Bangladesh. In other words, the study suggests that as the financial system in Bangladesh advanced and developed during the specified period, it had a favorable effect on the overall economic growth of the country. This underscores the potential role of a well-functioning financial system in contributing positively to economic development in the specific case of Bangladesh.

In conclusion, the extensive body of research presented underscores the intricate and multifaceted relationship between financial development and economic growth. Theoretical frameworks such as the financial channel theory, productivity channel, and human capital accumulation channel offer conceptual lenses to understand how financial development, encompassing factors like credit accessibility and market sophistication, can influence economic growth. Empirical studies across diverse regions, including Malaysia, Russia, North African countries, Nigeria, and sub-Saharan Africa, provide nuanced insights into the specific dynamics of this relationship. While some studies highlight the positive impact of financial development on economic growth, as exemplified in Malaysia and North African nations, others, like the case of Nigeria, suggest a more complex scenario where long-term effects may not always align with conventional expectations. The findings also shed light on the differential impacts across sectors, emphasizing the role of financial development in promoting innovation and productivity, especially in the industrial sector. Furthermore, studies exploring the influence of personal remittances, digital financial inclusion, and institutional quality on this relationship contribute to a comprehensive understanding of the various factors at play. The research on Asian economies, Bangladesh, and emerging countries further emphasizes the positive association between financial development and economic growth, reinforcing the idea that a well-functioning financial system can serve as a catalyst for sustained economic expansion. Overall, this body of literature reinforces the importance of a robust and efficient financial system in fostering economic growth, with implications for policymaking and strategies aimed at promoting financial development in different global contexts.

2.3.Corruption and Economic Growth

The correlation between corruption control and economic growth is a prominent subject in economic literature, holding substantial implications for a nation's developmental trajectory. From a theoretical standpoint, corruption, characterized by the misuse of power for personal gain, can impede economic growth through various mechanisms. Firstly, corruption may result in a misallocation of resources, discouraging productive investments and hindering overall economic development. Shleifer and Vishny's (1993) 'expropriation of foreigners' theory suggests that corruption might dissuade foreign investors, leading to a reduction in the capital flows essential for economic growth. Secondly, corruption can create an unstable and uncertain economic environment, deterring investors and posing obstacles to long-term economic development. Sachs and Warner's (1995) 'resource curse' theory explores how corruption, often linked with abundant natural resources, can constrain economic growth by introducing economic distortions. Thirdly, corruption can adversely affect institutional quality, establishing barriers to economic efficiency. Olson's (1993) 'state capture' theory highlights how corruption can lead to the degradation of institutions, impeding economic growth. Empirical evidence supports these theoretical frameworks. Mauro (1995) conducted a study examining the relationships between corruption, investments, and economic growth, revealing a significant negative correlation between corruption and economic growth. Moreover, a comprehensive analysis by Kaufmann et al. (2010) underscored the pivotal role of corruption control in fostering effective governance and economic growth. In summary, corruption control is theoretically connected to economic growth through diverse channels. Research emphasizes the critical importance of addressing corruption to cultivate an environment conducive to investment, institutional stability, and efficient resource allocation, ultimately promoting sustained and long-term economic growth.

In the study conducted by Gyimah-Brempong (2002), the researcher assessed the influence of corruption on economic growth in 13 African countries over the period from 1993 to 1999. Using a dynamic panel data estimator, the empirical findings revealed that corruption has a negative impact on economic growth. In other words, the study suggests that higher levels of corruption in these African countries were associated with a reduction in their economic growth during the specified timeframe. This underscores the detrimental effect that corruption can have on the overall economic development of nations, highlighting the importance of addressing and mitigating corruption for sustained economic growth. In their study focusing on 18 African countries, Anoruo and Braha (2005) investigated the impact of corruption on economic growth

during the period from 1984 to 2000. Employing an estimation method based on the Fully Modified Ordinary Least Squares (FMOLS) model, their findings indicated that corruption has a negative effect on economic growth. In simpler terms, the study suggests that higher levels of corruption in these African countries were associated with a slowdown in their economic growth over the specified period. This underscores the notion that corruption can act as a hindrance to economic development, emphasizing the need for anti-corruption measures and good governance practices to promote sustained and positive economic growth. Swaleheen (2011) conducted a study examining the impact of corruption on economic growth across 117 countries over the period from 1984 to 2007. Utilizing dynamic panel estimators, the researcher concluded that corruption has a negative effect on economic growth. In essence, the findings suggest that in these 117 countries, higher levels of corruption were associated with a detrimental impact on their economic growth during the specified timeframe. This underscores the consistent theme across various studies that corruption can act as a hindrance to economic development, emphasizing the importance of addressing corruption to foster positive and sustainable economic growth.

In their assessment of African countries, D'Agostino et al. (2012) investigated the impact of corruption on economic growth over the period from 1996 to 2007. The empirical results of their study indicated that corruption has a negative effect on economic growth. In simpler terms, the findings suggest that within the context of African nations during the specified timeframe, higher levels of corruption were associated with a detrimental impact on economic growth. This aligns with the broader understanding that corruption can act as a barrier to economic development, emphasizing the need for effective anti-corruption measures to promote positive and sustainable economic growth in African countries. In their study focused on 34 OECD countries, Baklouti and Boujelbène (2020) investigated the impact of corruption on economic growth over the period from 1995 to 2014. Employing the generalized method of moments (GMM) with fixed effects, the researchers found empirical evidence indicating that an increase in corruption is associated with a decrease in economic growth. In simpler terms, the study suggests that, within the context of these 34 OECD countries, a rise in corruption levels correlates with a negative impact on economic growth during the specified timeframe. This aligns with the broader consensus in the literature that corruption acts as a deterrent to economic development, emphasizing the importance of addressing corruption for fostering positive and sustainable economic growth in advanced economies. In their study focused on Middle East and North African countries during the period from 2011 to 2017, Bakari and Benzid (2021)

explored the impact of corruption, investment freedom, and democracy on domestic investment. Employing an estimation based on the Generalized Method of Moments (GMM) model, their findings indicated that corruption has a negative impact on national investment. Conversely, the degree of investment freedom and the level of democracy were found to have a positive impact on national investment. In simpler terms, the study suggests that higher levels of corruption were associated with a decrease in domestic investment, while increased investment freedom and democratic governance were linked to a positive effect on national investment in the Middle East and North African countries during the specified period. This underscores the complex interplay between institutional factors and investment dynamics in these regions. In their study focusing on the BRICS countries over the period 1991-2017, Nguyen and Duong (2021) analyzed the impact of corruption on economic growth. Using the Bayesian linear regression method, they concluded that corruption control has a positive effect on economic growth. In other words, the study suggests that, according to their findings, better corruption control is associated with more sustained economic growth within the BRICS countries during the specified period. These conclusions underscore the importance of implementing effective mechanisms to combat corruption in order to promote economic development in these countries.

In their study focusing on 48 middle-income countries during the period from 1996 to 2019, Mongi and Saidi (2023) investigated the impact of corruption on economic growth. Employing a multivariate panel model, their findings indicated that corruption has a negative effect on economic growth. In simpler terms, the study suggests that within the context of these 48 middle-income countries, higher levels of corruption were associated with a detrimental impact on economic growth during the specified timeframe. This aligns with the broader consensus in the literature that corruption acts as a hindrance to economic development, emphasizing the need for effective anti-corruption measures to foster positive and sustainable economic growth in middle-income countries. In their study focused on a sample of 123 countries during the period from 2000 to 2017, Tawiah et al. (2023) investigated the link between corruption and green growth. Using an estimation method based on the method of moments generalized by the system, their findings revealed a negative and significant relationship between corruption and green growth. In simpler terms, the study suggests that, according to their results, higher levels of corruption are associated with a detrimental impact on the advancement of environmentally sustainable, or ‘green,’ growth. This emphasizes the importance of addressing corruption to promote environmentally friendly and sustainable economic development globally. In their

examination of the impact of corruption on economic growth in Nigeria over the period 1996 to 2021, David et al. (2024) utilized multiple estimation techniques, including the bootstrap autoregressive distributed lag (ARDL) bounds-testing, dynamic ordinary least squares (DOLS), fully modified OLS (FMOLS), and canonical cointegration regression (CCR) estimators, along with the Toda–Yamamoto causality test. Surprisingly, their findings diverged from conventional expectations, indicating that corruption has a significant positive impact on economic growth in the long run. Moreover, the results of the causality test suggest the existence of a bi-directional causal relationship between corruption and economic growth. This unexpected outcome prompts a reconsideration of the conventional understanding of the relationship between corruption and economic growth in the specific case of Nigeria during the specified period.

The intricate relationship between corruption control and economic growth is a focal point in economic literature, with corruption's potential to impede development through resource misallocation, foreign investment deterrence, and institutional degradation. Empirical evidence from various studies, spanning African nations, OECD countries, and BRICS nations, consistently underscores the negative impact of corruption on economic growth. However, surprising findings in the case of Nigeria challenge conventional wisdom, suggesting a significant positive influence of corruption on economic growth, highlighting the nuanced nature of this association. These divergent results emphasize the importance of tailored anti-corruption measures and context-specific analyses to comprehensively understand and address the complex dynamics between corruption and economic growth.

3. Empirical Methodology

The selection of countries for this analysis follows the criteria set by the World Bank's ranking and analytical framework. The study focuses on 42 nations in Latin America and the Caribbean, chosen based on the availability of relevant data. These countries represent a diverse range, including Antigua and Barbuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia, Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Curacao, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Sint Maarten, St. Kitts and Nevis, St. Lucia, St. Martin (French part), St. Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, Uruguay, Venezuela, and Virgin Islands (U.S.). The study spans from 1998 to 2022.

The primary objective of the research is to investigate how financial development, domestic investment, and corruption collectively influence economic growth in these countries. To achieve this, the study employs a statistical method known as linear panel data estimation, which allows for a comprehensive analysis by incorporating seven variables. This approach ensures that each variable has enough flexibility or 'degrees of freedom' to effectively capture and express its impact on economic growth. The subsequent table in the research outlines these variables and details their respective sources of data, providing transparency and clarity about the analytical framework used in the study.

Table n°1: Description of Variables

No	Variable	Indicator Name	Descriptions	Source
1	Y	GDP (constant 2015 US$)	Economic Growth	WDI
2	DI	Gross fixed capital formation (constant 2015 US$)	Domestic Investment	WDI
3	L	Labor force, total	Labor	WDI
4	X	Exports of goods and services (constant 2015 US$)	Exports	WDI
5	M	Imports of goods and services (constant 2015 US$)	Imports	WDI
6	FD	Broad money (constant 2015 US$)	Financial Development	WDI
7	CC	Control of Corruption : Percentile Rank	Control of Corruption	WGI

Source: built by authors

In order to understand how financial development, domestic investment, and corruption influence economic growth in our research, we will utilize a method of estimation based on a production function. A production function is a mathematical equation that helps us analyze and quantify the relationship between inputs (such as financial development, domestic investment, and corruption) and the output, which, in this case, is economic growth. The choice to use a production function is particularly relevant when studying countries characterized by open economies. An open economy involves a significant level of international trade and interaction, and the production function provides a systematic way to capture and model the complex dynamics involved. Now, let's delve into the fundamental model that guides our analysis. The model is structured to incorporate the key variables of interest—financial development,

domestic investment, and corruption. By formulating this model, we aim to gain insights into how these factors interplay and contribute to or hinder economic growth within the context of open economies. The basic model is presented as follows:

$$\mathbf{Y = F\ (DI, L; FD\ CC, X, M)\ \ (1)}$$

Equation (1) is a concise representation of the production function, where Y represents economic growth, DI is domestic investment, L is the labor force, FD is financial development, CC is the control of corruption, and X and M are exports and imports, respectively. Equation (2) is an expansion of the production function, incorporating these variables into a more detailed and nuanced form. In this equation, 'A' represents the constant level of technology employed in the country. The impact of each variable—domestic investment (DI), labor force (L), financial development (FD), control of corruption (CC), exports (X), and imports (M)—is quantified by the respective coefficients β_1, β_2, β_3, β_4, β_5, and β_6.

$$\mathbf{Y_{it} = A\ \ DI^{\beta_1}\ \ L^{\beta_2}\ \ FD^{\beta_3}\ CC^{\beta_4}\ X^{\beta_5}\ \ M^{\beta_6}\ \ \ \ (2)}$$

Equation (2) provides a more detailed understanding of how each factor influences economic output, considering the varying degrees of impact denoted by the β coefficients. It offers a comprehensive framework for analyzing the intricate relationships between domestic investment, labor force, financial development, corruption control, exports, and imports in the context of economic growth.

Equation (3) represents the transformation of all variables within the model by taking their logarithms. This conversion aims to linearize the Cobb-Douglas production function, a nonlinear model, making it more amenable to linear regression analysis. By applying logarithms to each variable, the relationship among them becomes additive, enabling a simplified and linear interpretation of the Cobb-Douglas production function. The transformed equation is as follows:

$$\mathbf{Ln\ (Y_{it}) = Ln\ (A) + \beta_1\ Ln\ (DI_{it}) +\ \beta_2\ Ln\ (L_{it}) +\ \beta_3\ Ln\ (FD_{it}) +\ \beta_4\ Ln\ (CC_{it}) +}$$
$$\mathbf{\beta_5\ Ln\ (X_{it}) +\ \beta_6\ Ln\ (M_{it}) +\ \varepsilon_{it}\ \ (3)}$$

Here, **'Ln'** represents the natural logarithm, and **'ε_{it}'** is the error term capturing unobserved factors affecting economic growth. The logarithmic transformation presented in Equation (3) is a common technique in econometrics. It is employed to achieve linearity in the model, making

it easier to estimate coefficients through linear regression methods. This linearized form facilitates a more convenient and interpretable analysis of the underlying economic relationships. This logarithmic transformation is a common technique in econometrics, allowing for a more convenient and interpretable analysis of the underlying economic relationships. Finally, in Equation (4), the notation is further simplified, with the constant term **'Ln (A)'** replaced by '$\boldsymbol{\beta_0}$':

$$\mathbf{Ln}\,(\mathbf{Y_{it}}) = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}\,\mathbf{Ln}\,(\mathbf{DI_{it}}) + \boldsymbol{\beta_2}\,\mathbf{Ln}\,(\mathbf{L_{it}}) + \boldsymbol{\beta_3}\,\mathbf{Ln}\,(\mathbf{FD_{it}}) + \boldsymbol{\beta_4}\,\mathbf{Ln}\,(\mathbf{CC_{it}}) + \boldsymbol{\beta_5}\,\mathbf{Ln}\,(\mathbf{X_{it}}) + \boldsymbol{\beta_6}\,\mathbf{Ln}\,(\mathbf{M_{it}}) + \boldsymbol{\varepsilon_{it}} \quad \mathbf{(4)}$$

This form of the equation is maintained for the purpose of subsequent analysis, where the transformed variables allow for a straightforward interpretation of the impact of each factor on economic growth within a linear framework. The statement suggests that the authors are drawing upon a body of existing research by citing various scholars such as Gopinath and Echeverria (2004), Amin et al. (2009), Eita (2016), Vemuri and Siddiqi (2009), Othmani et al. (2015), Bakari and Benzid (2021), Bakari (2022), Bakari (2021), Bakari et al. (2022), Kahouli and Maktouf (2013), Bakari and Mabrouki (2018), Kahouli et al. (2014), Kahouli and Maktouf (2014), Kahouli and Maktouf (2015), and Miled et al. (2022). These scholars have evidently contributed to the literature on the static gravity model in the context of empirical research on economic growth. The 'static gravity model' is a theoretical framework often used in economics to analyze and understand patterns of trade and economic interactions between countries. This model is being highlighted as a widely accepted and comprehensive approach to empirical research on economic growth.

The static gravity model typically considers factors such as the size of economies, distances between them, and other relevant variables that might influence economic interactions. In the specific case discussed, the authors are proposing a foundational model for their research, presumably based on or inspired by the static gravity model. This foundational model is structured to incorporate key elements and variables that are relevant to their investigation into economic growth. The use of such a model suggests a systematic and established approach, leveraging the insights and methodologies from the cited scholars to contribute to the ongoing discourse on economic growth. Equation (5) is a panel data regression model designed to explore the relationship between economic growth (represented by **'Ln (Y)'** and explanatory variables (denoted by **'Ln (EV)'**. The equation is formulated as follows:

$$\mathbf{Ln\ (Y)_{it}} = \boldsymbol{\alpha_{1i}} + \boldsymbol{\beta_{1i}}\ \mathbf{Ln\ (EV)_{it}} + \boldsymbol{\gamma_i} + \boldsymbol{\varepsilon_t} \qquad \mathbf{(5)}$$

Here's a breakdown of the key components:

- **$\mathbf{Ln(Y)_{it}}$:** This is the dependent variable, representing the natural logarithm of economic growth. The subscript **'it'** indicates that it varies across both individual countries (indexed by **'i'** and time periods (indexed by **'t'**).

- **$\boldsymbol{\alpha_{1i}}$:** This parameter captures the country-specific effect that remains unobserved. It introduces variability in the intercept across different countries.

- **$\boldsymbol{\beta_{1i}}$:** This parameter represents the coefficient associated with the explanatory variable, **' $\mathbf{Ln\ (EV)_{it}}$'**, indicating the impact of these variables on economic growth. Like **'$\boldsymbol{\alpha_{1i}}$'**, it varies across individual countries.

- **$\boldsymbol{\gamma_i}$:** This term denotes the country-specific effect that remains constant over time. It reflects unobservable characteristics specific to each country.

- **$\boldsymbol{\varepsilon_t}$:** This is the error term, representing unobserved factors affecting economic growth that are not captured by the model. The subscript **'t'** indicates that it varies over time.

- **'i' and 't':** These indices refer to the individual dimensions of the panel, with **'i'** representing countries and **'t'** representing time.

In essence, Equation (5) models the interplay between economic growth, explanatory variables, country-specific effects, and error terms across both individual countries and different time periods. This type of panel data analysis allows for a more nuanced understanding of the factors influencing economic growth, considering both cross-sectional and time-series dimensions in the dataset.

In the domain of panel data analysis, a significant theoretical challenge revolves around developing equations that effectively account for individual effects. These effects, representing unobserved characteristics unique to each entity in the panel, can manifest in two primary forms: fixed individual effects and random individual effects. Although a comprehensive exploration of the extensive theories underpinning these effects is not the primary focus, we aim to illuminate the two primary types widely discussed in the literature. To address the nuanced decision of selecting between fixed and random effects, researchers often turn to the

Hausman test as a pivotal tool. Instead of delving exhaustively into various theoretical frameworks, the emphasis is on elucidating the practical application of this test in the context of panel data analysis.

The Hausman test serves as a crucial determinant for choosing between fixed and random effects estimates, offering a method to identify the most suitable model for a given dataset based on the nature of individual effects. In practical terms, the interpretation of the Hausman test results guides the decision-making process. If the probability resulting from the Hausman test is at least 5%, researchers retain the fixed-effects model. This suggests that individual characteristics specific to each entity in the panel are better captured by a fixed-effects model. On the contrary, if the probability exceeds 5%, the random effects model is retained. This indicates that unobservable individual effects are better modeled as random, capturing broader trends across the entire panel.

The systematic application of the Hausman test empowers researchers to make informed decisions about the most suitable model for their panel data analysis. This approach ensures a judicious selection between fixed and random effects, thereby enhancing the robustness and reliability of the findings derived from the analysis. Ultimately, the practical application of the Hausman test contributes to the methodological rigor of panel data studies, allowing researchers to navigate the intricate landscape of individual effects with greater confidence.

4. Empirical Results

This section focuses on empirical results aimed at estimating the impact of domestic investments, financial development, and corruption control on economic growth in the Latin American and Caribbean (LAC) countries. We will initiate this exploration by presenting descriptive statistics and conducting a correlation analysis, thus allowing for an initial understanding of the relationships among key variables. Subsequently, we will assess cross-sectional dependence using appropriate tests.

To deepen our understanding, we will employ a static panel gravity model to estimate the complex relationships between the studied factors. Finally, to ensure the robustness of our results, we will conduct diagnostic tests to assess the validity and reliability of our estimations. This comprehensive methodological approach aims to provide a thorough and rigorous analysis of the impact of these variables on economic growth in the countries of the LAC region.

Table n°2: Descriptive statistics and correlations analysis

Descriptives Statistics							
	Ln (Y)	**Ln (DI)**	**Ln (L)**	**Ln (FD)**	**Ln (CC)**	**Ln (X)**	**Ln (M)**
Mean	23.47553	23.05405	14.45901	22.90231	3.783168	23.22406	23.40570
Median	23.42506	22.85349	14.73731	22.71575	3.935443	23.14026	23.24585
Maximum	28.27364	26.68943	18.50115	28.33687	4.531427	26.96958	27.03109
Minimum	19.84358	19.19099	10.70228	19.31514	0.061875	19.34196	19.60531
Std. Dev.	2.072310	1.596693	1.951139	1.957597	0.697092	1.513249	1.365187
Jarque-Bera	27.71856	8.118540	20.25258	34.94798	802.0072	3.192012	19.87757
Probability	0.000001	0.017262	0.000040	0.000000	0.000000	0.202704	0.000048
Correlations Analysis							
	Ln (Y)	**Ln (DI)**	**Ln (L)**	**Ln (FD)**	**Ln (CC)**	**Ln (X)**	**Ln (M)**
Ln (Y)	1						
Ln (DI)	0.9924	1					
Ln (L)	0.9085	0.8950	1				
Ln (FD)	0.9744	0.9701	0.8660	1			
Ln (CC)	0.1519	0.1643	-0.1401	0.2412	1		
Ln (X)	0.9605	0.9670	0.8463	0.9538	0.2144	1	
Ln (M)	0.9702	0.9802	0.8962	0.9578	0.1192	0.9710	1

Source: Authors' calculations using EViews 12 software.

The information provided in Table 2 is crucial for understanding the characteristics and relationships among the variables under consideration. In descriptive statistics, the comparison of maximum and minimum values across all variables indicates variability and changes in their magnitudes over the observed time period. This suggests that there are dynamic patterns and trends within the dataset, which can be important for interpreting the subsequent analyses. The Jarque test probabilities being significant and below the 5% threshold are noteworthy. The significance implies that the data deviates from a normal distribution, and the probabilities being below 5% suggest that the variables exhibit homogeneity. In the context of panel data, this is particularly important, as it indicates that the variables share common characteristics and can be appropriately estimated together. Moving to correlation analyses, the statement asserts that the natural logarithms of the independent variables - Ln (DI), Ln (L), Ln (FD), Ln (CC), Ln (X), and Ln (M) - are positively correlated with the natural logarithm of the dependent variable, Ln (Y). This implies that as the values of the independent variables increase, there is a corresponding positive change in the dependent variable. This information is essential for understanding the direction and strength of relationships, providing valuable insights into the interplay between domestic investments, financial development, corruption control, and other factors on the economic growth represented by Ln (Y).

Table n°3: Cross-Section Dependence Tests

Ln (Y)	
Test	**Prob.**
Breusch-Pagan LM	0.0000
Pesaran scaled LM	0.0000
Bias-corrected scaled LM	0.0000
Pesaran CD	0.0000
Ln (DI)	
Test	**Prob.**
Breusch-Pagan LM	0.0000
Pesaran scaled LM	0.0000
Bias-corrected scaled LM	0.0000
Pesaran CD	0.0000
Ln (L)	
Test	**Prob.**
Breusch-Pagan LM	0.0000
Pesaran scaled LM	0.0000
Bias-corrected scaled LM	0.0000
Pesaran CD	0.0000
Ln (FD)	
Test	**Prob.**
Breusch-Pagan LM	0.0000
Pesaran scaled LM	0.0000
Bias-corrected scaled LM	0.0000
Pesaran CD	0.0000
Ln (CC)	
Test	**Prob.**
Breusch-Pagan LM	0.0000
Pesaran scaled LM	0.0000
Bias-corrected scaled LM	0.0000
Pesaran CD	0.0000
Ln (X)	
Test	**Prob.**
Breusch-Pagan LM	0.0000
Pesaran scaled LM	0.0000
Bias-corrected scaled LM	0.0000
Pesaran CD	0.0000
Ln (M)	
Test	**Prob.**
Breusch-Pagan LM	0.0000
Pesaran scaled LM	0.0000
Bias-corrected scaled LM	0.0000
Pesaran CD	0.0000

Source: Authors' calculations using EViews 12 software.

Table 3 presents the results of tests aimed at assessing cross-sectional dependence among variables. The clear and consistent observation of significant probabilities for all variables in these tests indicates the presence of cross-sectional dependence. This finding is significant as it confirms the relevance of the variables, we have chosen to be estimated in the context of panel data. In other words, the detection of cross-sectional dependence enhances the validity of our modeling approach using panel data. It suggests that the variables share common characteristics that make them suitable for joint estimation. This coherence among variables is crucial for obtaining robust and reliable results in our analysis of economic growth in Latin American and Caribbean countries. Thus, this information strengthens the credibility of our methodology and confirms that our choice of modeling is appropriate for exploring the complex relationships among the studied variables.

Table n°4: Panel Static Gravity Model Estimation

Dependent Variable: LOG(Y)				
Methods	**Fixed Effect Model**		**Random Effect Model**	
Independents Variables	**Coefficient**	**Prob.**	**Coefficient**	**Prob.**
C	2.889639	0.0000	3.190493	0.0000
LOG(DI)	0.790305	0.0000	0.809797	0.0000
LOG(L)	0.110095	0.0000	0.128361	0.0000
LOG(FD)	0.231882	0.0000	0.213285	0.0000
LOG(CC)	-0.029033	0.1101	-0.019200	0.2600
LOG(X)	0.066742	0.0078	0.088805	0.0003
LOG(M)	-0.216710	0.0000	-0.264975	0.0000
Hausman Test				
Test Summary	**Chi-Sq. Statistic**		**Chi-Sq. d.f.**	**Prob.**
Period random	18.992500		6	0.0042

Source: Authors' calculations using EViews 12 software.

Table n°4 presents the results of estimating the gravity model, which includes both the fixed effects gravity model and the random effects gravity model, along with the Hausman test. As mentioned in the preceding section, the purpose of applying the Hausman test is to assess the static gravity model to be selected. Table n°3 indicates that the probability from the Hausman test is below 5%, with a value equivalent to 0.42%. Therefore, in this scenario, the static gravity model with fixed effects will be retained. This decision is pivotal for ensuring the accuracy and reliability of our modeling approach in examining the relationships between variables within our study context.

The conclusions of this analysis reveal that domestic investments have a positive and significant impact on economic growth, with a 1% increase in domestic investments (Ln (DI)) leading to a 0.790305% increase in economic growth (Ln (Y)). Similarly, the labor force has a positive and significant effect on economic growth, with a 1% increase in the labor force (Ln (L)) resulting in a 0.110095% increase in economic growth (Ln (Y)). Financial development also demonstrates a positive and significant impact on economic growth, as a 1% increase in financial development (Ln (FD)) leads to a 0.231882% increase in economic growth (Ln (Y)). Exports positively and significantly contribute to economic growth, with a 1% increase in exports (Ln (X)) resulting in a 0.066742% increase in economic growth (Ln (Y)). Conversely, imports have a negative and significant effect on economic growth, with a 1% increase in imports (Ln (M)) causing a decrease of 0.216710% in economic growth (Ln (Y)). Finally, regarding the corruption control variable (Ln (CC)), it exhibits a non-significant impact on economic growth (Ln (Y)), indicating that corruption control has no measurable effect on economic growth.

Table n°5 : Diagnostics Tests

R-squared	0.991176	Adjusted R-squared	0.990581
F-statistic	1664.881	Jarque-Bera	4.043897
Prob(F-statistic)	0.000000	Probability	0.132397

Source: Authors' calculations using EViews 12 software.

To ensure the credibility of our results, we subjected our analysis to a series of diagnostic tests for a thorough validation. The outcomes of these tests are presented in Table 5. It is noteworthy that both the R^2 and adjusted R^2 coefficients surpass the 60% threshold, with respective values of 0.991176 and 0.990581. These figures indicate the robustness of our estimation and the high quality of our model, underscoring the ability of our explanatory variables to account for the variation in the dependent variable, economic growth. Furthermore, the probability of the Fisher test is below 5%, registering at 0.00%, confirming the effectiveness of the estimated coefficients in explaining the relationships between variables.

Finally, although the probability of the Jarque-Bera test exceeds 5%, reaching 13.2397%, this result does not undermine the overall strength of the model and our findings. In conclusion, these in-depth analyses allow us to confidently assert that domestic investments, exports,

financial development, and the labor force have a positive impact on economic growth. Conversely, we confirm that imports have a negative effect on economic growth. Lastly, our results suggest that corruption control does not seem to significantly influence economic growth.

5. Conclusions and Recommendations

In this study, we examined how financial development, domestic investments, and corruption influence economic growth in 42 countries in Latin America and the Caribbean between 1998 and 2022. Utilizing estimation methods such as the fixed-effects gravity model, the random-effects gravity model, and the Hausman test, we found that domestic investments and financial development have a positive impact on economic growth. However, we observed that corruption control does not have a significant effect on economic growth.

Domestic investments and financial development exert positive impacts on economic growth across all 42 countries in Latin America and the Caribbean, as highlighted by our findings. These positive effects can be understood through various economic mechanisms. Firstly, domestic investments play a crucial role in stimulating domestic demand. When businesses and households invest in sectors such as infrastructure, education, and health, it generates economic activities, creates jobs, and increases household income. These effects of economic expansion have a multiplier impact on growth, promoting the development of national production. Furthermore, domestic investments contribute to the accumulation of physical capital, enhancing the overall productivity of the economy. High-quality infrastructure, advanced technologies, and modern production capacities resulting from domestic investments can improve the efficiency of production processes, thus stimulating long-term economic growth. This aligns with economic growth theories such as the Solow model, which emphasizes capital accumulation as a driver of growth. On the other hand, financial development facilitates access to credit for businesses and individuals. A robust financial system efficiently allocates resources, promoting productive investments. Companies can secure funding to expand their operations, introduce new technologies, and increase production capacity. This can also encourage entrepreneurship, fostering the creation of new businesses and innovation—factors known to drive economic growth, as indicated in the works of Schumpeter and endogenous growth models. Domestic investments and financial development have synergistic positive effects on economic growth. Domestic investments stimulate domestic demand and the accumulation of physical capital, while financial development facilitates access to credit,

promoting investment efficiency. These two factors work in tandem to create an environment conducive to long-term economic growth in the studied region.

The observation that corruption control has no significant effect on economic growth within this set of 42 countries in Latin America and the Caribbean raises interesting questions in terms of economic interpretation. One possible explanation may stem from the complexity of interactions between corruption and economic growth. Corruption can act as a hindrance to economic growth in certain circumstances, notably by introducing inefficiencies, creating barriers to investment, and disrupting normal market functioning. However, in other contexts, the effects of corruption may be mitigated by other factors, such as well-implemented economic policies, robust institutions, or other determinants of growth. Another explanation could lie in how corruption control is measured or implemented. Corruption perception indices may not fully capture the nuances of corruption in different national contexts. Additionally, even with control efforts, resolving corruption issues may take time and may not immediately translate into tangible economic improvements. Moreover, in some cases, a weak correlation between corruption control and economic growth could also reflect a high prevalence of external factors overshadowing the impact of corruption. Larger structural issues such as socioeconomic inequalities, political crises, or external shocks could mask the effects of corruption on economic growth. Finally, it is essential to recognize that the relationship between corruption and economic growth is complex and context dependent. What works in one region or period may not be applicable elsewhere. Thus, in this set of countries, other determinants of economic growth may override the direct impact of corruption. In summary, the lack of a significant effect of corruption control on economic growth may result from various contextual factors, measures, and complex interactions that require a deep understanding of the economic and institutional dynamics specific to this particular region.

In the context of this study, several recommendations can be formulated. Firstly, it is crucial for the governments of the studied countries to strengthen their policies aimed at stimulating financial development. This could involve implementing incentive measures to encourage financial innovation, consolidating financial institutions, and promoting financial inclusion at all levels of society. Additionally, governments may consider adopting tax policies favorable to the financial sector to foster an environment conducive to economic growth. Secondly, the findings suggest that domestic investments play a positive role in economic growth. Therefore, it is recommended that governments continue to promote an investment-friendly climate by implementing political and economic reforms that instill investor confidence. Fiscal incentives,

simplification of administrative procedures, and ensuring political stability can be significant drivers to attract more domestic investments. However, the lack of a significant impact of anti-corruption efforts on economic growth underscores the need for a reassessment of existing anti-corruption strategies. It is recommended that governments intensify their efforts to eradicate corruption by strengthening anti-corruption institutions, implementing mechanisms for increased transparency, and ensuring the effective enforcement of anti-corruption laws. A multidimensional approach involving public awareness, training of officials, and international cooperation could also be beneficial. In conclusion, these recommendations aim to guide public policies towards sustainable and inclusive economic growth, emphasizing the reinforcement of financial development, the promotion of domestic investments, and a strengthened fight against corruption. The implementation of these measures could contribute to creating an environment conducive to economic prosperity in the studied region.

References

Agita, R. (2023). High and medium technology exports, gross capital formation and economic growth in East Africa (Doctoral dissertation, Makerere University). http://dspace.mak.ac.ug/handle/10570/11511

Akermi, N., Ben Yedder, N., & Bakari, S. (2023). Impact of Final Consumption, Domestic Investment, Exports, and Imports on Economic Growth in Albania (No. 118308). University Library of Munich, Germany. https://mpra.ub.uni-muenchen.de/118308/

Amin, R. M., Hamid, Z., & Saad, N. M. (2009). Economic integration among ASEAN countries: evidence from Gravity model. East Asian Development Network (EADN) Working Paper, (40). https://eadn.org/index.php/research-reports/eadn-working-papers

Anoruo, E., & Braha, H. (2005). Corruption and economic growth: The African experience. Journal of Sustainable Development in Africa, 7(1), 43-55. https://www.africabib.org/rec.php?RID=P00004799

Azam, A., Ateeq, M., Shafique, M., Rafiq, M., & Yuan, J. (2023). Primary energy consumption-growth nexus: The role of natural resources, quality of government, and fixed capital formation. Energy, 263, 125570. https://doi.org/10.1016/j.energy.2022.125570

Bakari, S. (2016). Does Domestic Investment Produce Economic Growth in Canada: Empirical Analysis Based on Correlation, Cointegration and Causality. International Academic Journal of

Science and Engineering 5 (1), 56-72. https://doi.org/10.9756/IAJSE/V5I1/1810006

Bakari, S. (2017). The relationship between export, import, domestic investment and economic growth in Egypt: Empirical analysis. Euro Economica, 36(02), 34-43. https://www.ceeol.com/search/article-detail?id=723944

Bakari, S. (2021). The Nexus Between Domestic Investment and Economic Growth in G7 Countries. Does Internet Matter?. Journal of Applied Economic Sciences (JAES), 16(72), 238-243. https://www.ceeol.com/search/article-detail?id=984111

Bakari, S. (2022). The Impact of Natural resources, CO2 Emission, Energy use, Domestic Investment, Innovation, Trade and Digitalization on Economic growth: Evidence from 52 African Countries (No. 114323). University Library of Munich, Germany. https://mpra.ub.uni-muenchen.de/114323/

Bakari, S. (2023). The nexus between domestic investment and economic growth in MENA countries; Does unemployment matter? (No. 118349). University Library of Munich, Germany. https://mpra.ub.uni-muenchen.de/118349/

Bakari, S., & Benzid, L. (2021). Modeling the Impact of Corruption, Degree of Freedom to Invest and Democracy on Domestic Investment: Evidence from MENA Countries (No. 108385). University Library of Munich, Germany. https://mpra.ub.uni-muenchen.de/108385/

Bakari, S., & Mabrouki, M. (2018). The Impact of Agricultural Trade on Economic Growth in North Africa: Econometric Analysis by Static Gravity Model (No. 85116). University Library of Munich, Germany. https://mpra.ub.uni-muenchen.de/85116/

Bakari, S., El Weriemmi, M., & Mabrouki, M. (2022). The Impact of digitalization and trade openness on economic growth: new evidence from richest Asian countries. Journal of Research, Innovation and Technologies, 1(2), 7. https://www.ceeol.com/search/article-detail?id=1086324

Bakari, S., El Weriemmi, M., & Yedder, N. B. (2023). The Impact of Domestic Investment, Innovation and R&D on Economic Growth in Mena Countries. Journal of Smart Economic Growth, 8(2), 1-23. https://www.jseg.ro/index.php/jseg/article/view/228

Baklouti, N., & Boujelbene, Y. (2020). Shadow economy, corruption, and economic growth: An empirical analysis. The Review of Black Political Economy, 47(3), 276-294.

https://doi.org/10.1177/0034644619885349

Becker, G. S. (1964). Human Capital: A Theoretical and Empirical Analysis, with Special Reference to Education. National Bureau of Economic Research. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1496221

Cao, S., & Kang, S. J. (2020). Personal remittances and financial development for economic growth in economic transition countries. International Economic Journal, 34(3), 472-492. https://doi.org/10.1080/10168737.2020.1765187

Chinoda, T., & Kapingura, F. M. (2024). Digital financial inclusion and economic growth in Sub-Saharan Africa: the role of institutions and governance. African Journal of Economic and Management Studies, 15(1), 15-30. https://doi.org/10.1108/AJEMS-09-2022-0372

D'Agostino, G., Dunne, P. J., & Pieroni, L. (2012). Government spending, corruption and economic growth (No. 38109). University Library of Munich, Germany. https://mpra.ub.uni-muenchen.de/38109/

David, J., Gamal, A. A. M., Mohd Noor, M. A., & Zakariya, Z. (2024). Oil rent, corruption and economic growth relationship in Nigeria: evidence from various estimation techniques. Journal of Money Laundering Control, Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/JMLC-10-2023-0160

Demirgüç-Kunt, A., & Levine, R. (2008). Finance, Financial Sector Policies, and Long-Run Growth. World Bank Policy Research Working Paper No. 4469. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1081783

Eita, J. H. (2016). Estimating export potential for a small open economy using a gravity model approach: evidence from Namibia. The Journal of Developing Areas, 50(4), 273-288. https://www.jstor.org/stable/26415534

Fakraoui, N., & Bakari, S. (2019). Tie Among Domestic Investment, Exports And Economic Growth: Empirical Analysis From India. Journal of Smart Economic Growth, 4(1), 1-15. https://jseg.ro/index.php/jseg/article/view/55

Gopinath, M., & Echeverria, R. (2004). Does economic development impact the foreign direct investment-trade relationship? A gravity-model approach. American Journal of Agricultural

Economics, 86(3), 782-787. https://www.jstor.org/stable/3697823

Greenwood, J., & Jovanovic, B. (1990). Financial Development, Growth, and the Distribution of Income. Journal of Political Economy, 98(5), 1076–1107. https://www.journals.uchicago.edu/doi/epdf/10.1086/261720

Gyimah-Brempong, K. (2002). Corruption, economic growth, and income inequality in Africa. Economics of governance, 3, 183-209. https://doi.org/10.1007/s101010200045

Hao, Y. (2023). The dynamic relationship between trade openness, foreign direct investment, capital formation, and industrial economic growth in China: new evidence from ARDL bounds testing approach. Humanities and Social Sciences Communications, 10(1), 1-11. https://doi.org/10.1057/s41599-023-01660-8

Ibrahim, M. H. (2007). The role of the financial sector in economic development: the Malaysian case. International Review of Economics, 54, 463-483. https://doi.org/10.1007/s12232-007-0023-4

Jammeh, I. Y. (2022). The Relationship between Domestic Credit, Financial Development and Economic Growth in the Gambia. International Journal of Social Sciences Perspectives, 10(2), 43-60. https://doi.org/10.33094/ijssp.v10i2.598

Kahouli, B., & Maktouf, S. (2013). The proliferation of free trade agreements and their impact on foreign direct investment: an empirical analysis on panel data. Journal of Current Issues in Globalization, 6(3), 423. https://novapublishers.com/product-category/journals/economics-and-politics/

Kahouli, B., & Maktouf, S. (2014). The link between regional integration agreements, trade flows and economic crisis: A static and dynamic gravity model. International Journal of Development Issues, 13(1), 35-58. https://doi.org/10.1108/IJDI-11-2013-0082

Kahouli, B., & Maktouf, S. (2015). Trade creation and diversion effects in the Mediterranean area: Econometric analysis by gravity model. The Journal of International Trade & Economic Development, 24(1), 76-104. https://doi.org/10.1080/09638199.2013.873479

Kahouli, B., Omri, A., & Chaibi, A. (2014). Environmental regulations, trade, and foreign direct investment: evidence from gravity equations. Work Pap, 189. https://faculty-

research.ipag.edu/wp-content/uploads/recherche/WP/IPAG_WP_2014_189.pdf

Kaufmann, D., Kraay, A., & Mastruzzi, M. (2010). The Worldwide Governance Indicators: Methodology and Analytical Issues. World Bank Policy Research Working Paper No. 5430. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=1682130

Kesar, A., Bandi, K., Jena, P. K., & Yadav, M. P. (2023). Dynamics of governance, gross capital formation, and growth: Evidence from Brazil, Russia, India, China, and South Africa. Journal of Public Affairs, 23(1), e2831. https://doi.org/10.1002/pa.2831

Kesar, A., Bandi, K., Jena, P. K., & Yadav, M. P. (2023). Dynamics of governance, gross capital formation, and growth: Evidence from Brazil, Russia, India, China, and South Africa. Journal of Public Affairs, 23(1), e2831. https://doi.org/10.1002/pa.2831

King, R. G., & Levine, R. (1993). Finance and Growth: Schumpeter Might Be Right. The Quarterly Journal of Economics, 108(3), 717–737. https://doi.org/10.2307/2118406

Krinichansky, K. V., & Sergi, B. S. (2019). Financial development and economic growth in Russia. In Modeling Economic Growth in Contemporary Russia (pp. 1-28). Emerald Publishing Limited. https://doi.org/10.1108/978-1-78973-265-820191001

Li, S. G., Xu, X. Y., Liu, Q. H., Dong, Z., & Dong, J. C. (2023). Financial Development, Real Estate Investment and Economic Growth. Applied Economics, 1-18. https://doi.org/10.1080/00036846.2022.2154313

Li, X., & Wye, C. K. (2023). The effect of investment in education on China's economic growth: The role of financial development. The Chinese Economy, 56(1), 69-87. https://doi.org/10.1080/10971475.2022.2058182

Maduka, A. C. and Onwuka, K. O. (2013). Financial Market Structure and Economic Growth: Evidence From Nigeria Data. Asian Economic and Financial Review, 3(1): 75-98. https://archive.aessweb.com/index.php/5002/article/view/976

Mauro, P. (1995). Corruption and Growth. The Quarterly Journal of Economics, 110(3), 681–712. https://doi.org/10.2307/2946696

Miled, K. B. H., Younsi, M., & Landolsi, M. (2022). Does microfinance program innovation reduce income inequality? Cross-country and panel data analysis. Journal of Innovation and

Entrepreneurship, 11(1), 7. https://doi.org/10.1186/s13731-022-00195-7

Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. The American Economic Review, 48(3), 261–297. https://www.jstor.org/stable/1809766

Mohamed-Sghaier, I. (2023). Trade openness, financial development and economic growth in North African countries. International Journal of Finance & Economics, 28(2), 1729-1740. https://doi.org/10.1002/ijfe.2503

Mongi, C., & Saidi, K. (2023). The Impact of Corruption, Government Effectiveness, FDI, and GFC on Economic Growth: New Evidence from Global Panel of 48 Middle-Income Countries. Journal of the Knowledge Economy, 1-26. https://doi.org/10.1007/s13132-023-01509-0

Nguyen, D. V., & Duong, M. T. H. (2021). Shadow economy, corruption and economic growth: an analysis of BRICS countries. The Journal of Asian Finance, Economics and Business, 8(4), 665-672. https://doi.org/10.13106/jafeb.2021.vol8.no4.0665

Olaoye, K. F., & Sornarajah, M. (2023). Domestic investment laws, international economic law, and economic development. World Trade Review, 22(1), 109-132. https://doi.org/10.1017/S1474745622000374

Olson, M. (1993). Dictatorship, Democracy, and Development. The American Political Science Review, 87(3), 567–576. https://doi.org/10.2307/2938736

Othmani, A., Ben Yedder, N., & Bakari, S. (2023). The Cointegration Relationship between Patent, Domestic Investment and Economic Growth in United States of America (No. 118245). University Library of Munich, Germany. https://mpra.ub.uni-muenchen.de/118245/

Othmani, A., Slimani, S., & Bakari, S. (2015). Les Effets de la Corruption sur le Commerce Extérieur de la Tunisie: Une Approche du Modèle de Gravité Statique durant la Période 1999-2012 (No. 80894). University Library of Munich, Germany. https://mpra.ub.uni-muenchen.de/80885/

Romer, P. M. (1990). Endogenous Technological Change. Journal of Political Economy, 98(5), S71-S102. https://doi.org/10.1086/261725

Sachs, J. D., & Warner, A. M. (1995). Natural Resource Abundance and Economic Growth.

NBER Working Paper No. 5398. https://www.nber.org/papers/w5398

Saidi, K. (2023). Does Financial Development and Renewable Energy Matter for Economic Development? A Study of Emerging Economies. Journal of the Knowledge Economy, 1-17. https://doi.org/10.1007/s13132-023-01443-1

Sharma, S., & Sharma, S. K. (2020). Financial development and economic growth in selected Asian economies: A dynamic panel ARDL test. *Contemporary Economics*, 201-218. http://dx.doi.org/10.5709/ce.1897-9254.400

Shleifer, A., & Vishny, R. W. (1993). Corruption. The Quarterly Journal of Economics, 108(3), 599–617. https://doi.org/10.2307/2118402

Sohail, H. M., & Li, Z. (2023). Nexus among foreign direct investment, domestic investment, financial development and economic growth: a NARDL approach in Pakistan. International Journal of Economics and Business Research, 25(2), 249-269. https://doi.org/10.1504/IJEBR.2023.127931

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. The Quarterly Journal of Economics, 70(1), 65–94. https://doi.org/10.2307/1884513

Song, C. Q., Chang, C. P., & Gong, Q. (2021). Economic growth, corruption, and financial development: Global evidence. Economic Modelling, 94, 822-830. https://doi.org/10.1016/j.econmod.2020.02.022

Swaleheen, M. (2011). Economic growth with endogenous corruption: an empirical study. Public Choice, 146, 23-41. https://doi.org/10.1007/s11127-009-9581-1

Tawiah, V., Zakari, A., & Alvarado, R. (2023). Effect of corruption on green growth. Environment, Development and Sustainability, 1-31. https://doi.org/10.1007/s10668-023-03152-w

Ullah, N., Barua, C., Haque, E., Arif Hosen Raja, M., & Tahsinul Islam, M. (2024). Nexus Between Financial System and Economic Growth: Evidence from Bangladesh. University Library of Munich, Germany. https://mpra.ub.uni-muenchen.de/119937/

Ustarz, Y., & Fanta, A. B. (2021). Financial development and economic growth in sub-Saharan Africa: A sectoral perspective. *Cogent Economics & Finance*, 9(1), 1934976.

https://doi.org/10.1080/23322039.2021.1934976

Vemuri, V. K., & Siddiqi, S. (2009). Impact of commercialization of the internet on international trade: A panel study using the extended gravity model. The International Trade Journal, 23(4), 458-484. https://doi.org/10.1080/08853900903223792

Yedder, N. B., El Weriemmi, M., & Bakari, S. (2023). The Impact of Domestic Investment and Trade on Economic Growth in North Africa Countries: New Evidence from Panel CS-ARDL Model. EuroEconomica, 42(2), 22-41. https://dj.univ-danubius.ro/index.php/EE/article/view/2626