

Impact of Foreign Reserves on Financial Development in BRICS Countries: The Moderating Role of Institution Quality

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Abstract

This study examines the relationship between foreign reserves, financial development, and institutional quality in BRICS countries. Based on a country's Foreign Reserves, like gold reserves, foreign currencies, Special Drawing Rights (SDRs), and foreign reserves in the IMF, its influence on a country's financial developments and institutions. In addition, trade openness, quality of natural resources (such as renewable energy), and GDP were taken as control variables. The result reveals that when a country's economy is sound, its Foreign Reserves influence its overall financial development positively and enhance its institutions. In a country facing an economic crisis, foreign reserves are less influential, failing to exert a positive, sustained influence on financial developments and institutions. Financial developments strengthen a country's financial system, boosting its economy and reducing poverty. Sound institutions lay a foundation for a country's stability and risk management. The study shows that Foreign Reserves play a significant role in holding back a country's financial development in BRICS states. Furthermore, its influence is stronger when Institutional Quality is high.

Keywords: BRICS, Financial Development, Foreign Reserves, Institutional Quality.

Introduction

Foreign Reserves, comprising foreign currency holdings, gold, and other assets managed by central banks, play a vital role in ensuring economic and financial stability. These reserves serve as a barrier against external shocks, maintain exchange rate stability, and support trade and investment flows. However, their effectiveness is not guaranteed in isolation; the role of institutional quality as a moderating factor is crucial in determining how effectively reserves are utilized to foster financial development (Ibrahim & Law, 2020). Financial development is critical for economic growth, particularly in emerging economies. It involves improving the depth, efficiency, and accessibility of financial institutions, markets, and services, enabling efficient resource allocation and risk management. Foreign reserves, as a macroeconomic tool, facilitate this process by reducing exchange rate volatility, mitigating external vulnerabilities,

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and building investor confidence. However, evidence suggests that foreign reserves alone do not guarantee financial development. In countries with weak governance or high levels of corruption, reserves may be misused or fail to address structural deficiencies in the financial sector (Arora et al.). On the other hand, countries with strong institutional frameworks effectively leverage their reserves to promote financial innovation, deepen credit markets, and attract foreign investment. This highlights the need for a detailed examination of how institutional quality moderates the relationship between foreign reserves and financial development.

Over the last 20 years, the BRICS nations—Brazil, Russia, India, China, and South Africa—have become significant actors in the world economy. By building substantial foreign exchange reserves, these countries, which together account for over 40% of the world's population and over 25% of its GDP, have sought to strengthen their economic resilience (World Bank, 2022). Foreign Reserves, which are mostly held in foreign assets and currencies, are essential for maintaining liquidity, boosting investor confidence, and protecting economies from outside shocks.

Sustainable financial development, however, is not ensured by foreign reserves alone. Important moderating factors include institutional quality and the effectiveness of financial systems (Kaufmann & Kraay, 2024). Maintaining financial stability and economic growth in emerging economies like the BRICS depends heavily on the quality of the institutions in place. Poor regulatory performance, corruption, and rent-seeking are frequently responsible for the outcomes of weak institutions, and these issues deter foreign investment and delay financial development (Acemoglu & Robinson, 2019).

Examining BRICS in the context of financial development provides valuable insights into how emerging economies can strike a balance among institutional reforms, external reserve accumulation, and sovereign financial policies. Examining the size and diversity of the BRICS group; comparative research provides a useful opportunity to identify trends, problems, and solutions that other developing countries can use. Policymakers can better understand the occurrences in which Foreign Reserves transform from a shock buffer to a driver of sustainable growth by considering the moderating role of Institutional Quality in the relationship between foreign reserves and financial development.

The findings of empirical research on the connection between foreign reserves and financial development are not entirely compatible. According to some studies, there is a positive correlation between foreign reserves and improved credit accessibility, financial intermediation, and capital market stability. While strong institutional frameworks can direct reserves into profitable investments, stabilize financial markets, and promote private-sector growth, weak institutions may lead to reserves being mishandled or underutilized. Because of this, the relationship between foreign reserves and financial development is most likely not uniform or linear, but rather depends on the caliber of institutions in a nation.

This study is important for understanding financial development in BRICS countries, which, despite rapid growth, face institutional challenges. The research focuses on the joint impact of foreign reserves, financial development, and institution quality, with institution quality as the moderating variable, given a gap in the literature where the variables are analyzed individually. The research uses panel data spanning 23 years (2000-2023) to analyze the impact of governance, politics, and regulatory effectiveness on the finance sector. This study aims to provide insights into how the emerging economies can use their better reserves to support sustainable financial development.

Literature Review

Foreign Reserves and Financial Development

Between 2019 and 2023, the literature on the role of Foreign Reserves expanded significantly,

amid heightened global irresolution driven by geopolitical shocks, pandemic recovery dynamics, and U.S. monetary tightening. Recent studies focus on how reserve accumulation affects economic resilience, currency stability, external debt sustainability, and overall financial development, particularly in emerging and lower and middle-income countries. Foreign reserves are vital in supporting financial development by enhancing economic stability and reducing external risks (Ben Belgacem et al., 2024). Foreign reserves are essential for both sustaining debt sustainability and defending against external shocks in lower-middle-income nations with fixed exchange rate regimes. While weak reserves combined with fixed exchange systems run the risk of rapidly increasing debt, stronger reserves help reduce distress under fixed agreements (Adekunle, 2023).

Foo et al. (2023) examine 21 developing nations and find that the main elements influencing reserve accumulation are preventative (lower interest rates, looser monetary policy) and mercantilist (higher trade volume, exchange rate undervaluation). They also attest that growing public debt tends to lead to a decline in reserve holdings. According to IMF recommendations, reserve adequacy should take into account all costs associated with holding reserves to meet precautionary needs. "How much is enough" remains a critical question as BRICS countries face geopolitical risks and expand international trade (IMF, 2022). The COVID-19 pandemic highlighted the importance of reserves in addressing liquidity constraints.

One of the main forces behind macroeconomic stability, economic growth, and poverty reduction is financial development. It includes the growth and effectiveness of markets (such as stock and bond markets), financial institutions (such as banks), and tools that facilitate asset allocation and mobilization. Financial development has advanced at varying rates across the BRICS nations, depending on factors such as domestic reforms, oversight of foreign reserves, management, and institutional quality. Financial Development is measured by criteria such as institutional efficiency, stock market capitalization, financial involvement, and private sector credit (Sviridzenka et al., 2016).

Foreign Reserves are essential to strengthening financial systems. Having sizable reserves improves a nation's creditworthiness and its capacity to respond to external shocks, both of which can benefit financial development. Foreign reserves can improve investor confidence and facilitate countercyclical monetary policies in developing nations such as the BRICS, thereby supporting domestic financial markets (Aizenman et al., 2021). Financial development in Latin American countries, for instance, is positively correlated with foreign capital inflows, such as FDI and portfolio investment (Islam & Mondal, 2023). The depth and accessibility of the financial sector, however, may not be directly supported by reserves that are not utilized efficiently (Amin et al., 2022).

According to Khan et al. (2023), financial development is now largely resolved by institutional quality, especially in developing nations. Strong institutions help build deeper, more effective financial systems by reducing corruption, fostering legal certainty, and safeguarding investor rights.

Institutional Quality as Moderator

Khan et al. (2020) maintain that inclusive institutions are important to sustained growth. Strong institutions can support financial development and economic resilience in the BRICS, especially amid global economic uncertainty.

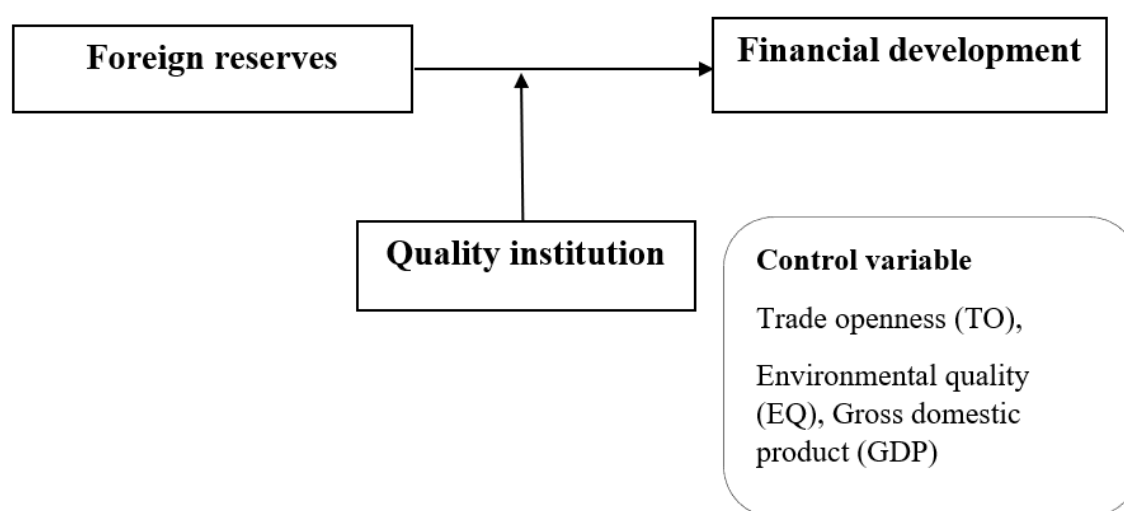
institutional quality refers to the effectiveness, stability, and credibility of a country's institutions, including legal systems, governance structures, regulatory frameworks, and enforcement techniques. It encompasses dimensions such as the rule of law, control of corruption, government effectiveness, accountability, and regulatory quality (Kaufmann & Lafarre, 2021). Institutional Quality is considered a critical enabler of sustainable development in developing economies and BRICS nations, as it facilitates effective markets, attracts foreign

investment, and ensures policy implementation (Rodrik, 2025).

According to Khan et al. (2025), the effectiveness of a nation's foreign reserve management is determined by its institutional quality. Good institutions guarantee financial prudence, the rule of law, sound policy, and transparency, which are essential for attracting capital and maintaining reserve growth. Studies comparing the BRICS countries indicate that China and India have more stable reserve trajectories than South Africa and Brazil, where political unpredictability and corruption affect the acceptability of reserves, due to their stronger bureaucratic capabilities and policies (Luna, 2020). Khan, Weili, et al. (2022), using dynamic panel techniques across 189 countries, conclude that improved institutional governance, particularly political stability, corruption control, and sound regulatory policies, has a positive effect on financial development. It is interesting to note that the rule of law had a weaker effect in many emerging markets, suggesting institutional limitations in these markets. Yousaf and Riaz (2024) describe, through theoretical frameworks, how formal and informal institutions boost financial development, including legal theory, the political economy of finance, and cultural finance. All aspects of institutional quality, such as rule of law, government effectiveness, regulatory quality, and corruption control, continuously increase the efficiency of the financial system, especially in lower-income countries, according to a global study of 108 countries conducted between 1996 and 2020 the environmental efficiency of energy use averages 61% over BRICS (2001–2020), with South Africa top most, China lowest. Institutional quality significantly improves these plans, as shown in a system GMM analysis. Better institutions drive better organized energy use, reducing carbon emissions (Rasheed et al., 2022).

According to Chhabra et al. (2023), in 2023, they tentatively examine the joint effects of trade openness and institutional quality on economic growth in the BRICS countries (Brazil, Russia, India, China, and South Africa). Using the strongest panel methods, the results show that while both factors contribute to GDP growth on their own, their interaction enhances favorable outcomes, underscoring the significance of robust governance frameworks for optimizing trade benefits. The effectiveness of financial inclusion programs was found to be hindered by institutional inefficiencies, according to Lima et al. (2021) analysis of the role of digital banking and institutional quality during the COVID-19 pandemic. Legal ambiguity, corruption, and bureaucratic setbacks have reduced the appeal of the Brazilian business environment to foreign investors.

Figure 1: Theoretical Framework and Hypothesis Development



This study based on the Keynesian International Reserve Theory Keynes, having satisfactory the foreign reserves helps a nation to maintain the stability in exchange rates, support its own the monetary policy, and boost the investor confidence. Building on the Keynes's early work from the 1930, this theoretical approach highlights the buffer function of the reserves against the exogenous shocks to the capital flows or trade. These days, emerging economies build up the reserves not only to protect currency place or fixed the exchange rate regimes, but also to control the global capital flow volatility, also the lower exchange rate risk, and give the monetary and capitalist policies the freedom to be the implemented without interference from the outside sources (Obstfeld et al., 2010).

Hypothesis₁: Foreign reserves significantly positive impact on financial development.

Law and Habibullah (2009), theory debates that the advantages of the financial development and the macroeconomic financing such as the foreign reserves are conditional on the attribute of the institutions. In another word the financial and economic outcomes do not have spontaneous improve with the higher reserves behalf on their effectiveness depends on the institutional quality crosses a certain boundary level. When the institutions are strong elements by the rule of law, their transparency, accountability, and control of corruption reserves are more likely to be managed the efficiently, creating investor boost confidence, supporting the credit gathering, and deepening the capital markets

Hypothesis₂: The outcomes of reserves depend on the better than a minimum level of the institutional quality.

According to institutional theory, the economies and financial systems are framed by their institutions, which are specified as formal and informal laws, rules, governance complex, and also the property rights (North, 1990). The efficient of management and utilization of the resources, including the foreign reserves, is determined by the institutions in the setting of the financial development. The effective regulatory structure, sheer governance, and the contract enforcement are all the trade mark of the high institutional quality, which boosts the investor confidence and guarantees that the reserves are used to effectively the stabilize financial markets and the economic growth.

Hypothesis₃: Institutional quality has the sense the positive effect of the foreign reserves on financial development.

Data and Methodology

In this article this study engages with a quantitative design to examine the impact of foreign reserves on financial development in BRICS nations that cover the period 2000–2023. Collected Secondary panel data from World Development Indicator. To address the econometric unease such as unobserved the heterogeneity and endogeneity the panel estimators like that fixed effects and random effects are applied, with the Hausman test leading the selection. The model specifications are incorporates an interaction term between the foreign reserves and institutional quality to follow the moderating effect to consistent with studies that linking with institutional quality, foreign reserves, and financial development. The ethical standards are maintained through only use for publicly available data and secondary sources.

Econometric Model

We will use fundamental econometric model to examine the effect of foreign reserves on financial development in mutual understanding with finance study (Ma & Matsumoto, 2023)

$$FD_{it} = \beta_0 + \beta_1 FR_{it} + \beta_2 TO_{it} + \beta_3 EQ_{it} + \beta_4 GDP_{it} + e_{it}$$

$$InFD_{it} = \beta_0 + \beta_1 InFR_{it} + \beta_2 InIQ_{it} + \beta_3 (InFR_{it} \times InIQ_{it}) + \beta_4 TO_{it} + \beta_5 EQ_{it} + \beta_6 GDP_{it} + e_{it}$$

WHERE: FR and IQ= interaction term among trade openness and inflation rate

Following (Khan, Khan, et al., 2022), to analyses the moderating impact of Institutional Quality

on the effect of Foreign Reserves on FD, We have added the interaction term between independent variables i.e. foreign reserves and institutional quality

Where

FD: Financial development

FR: Foreign reserves

IQ: Institutional quality

TO: Trade openness

EQ: Environment quality

GDP: Gross domestic product

β_0 = Constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: regression coefficient/slope

i: observational unit i.e. country

t: time/ periods

e: within error term

Table 1: Data Source and Measurements

Variables	Measurement	Sources
Foreign Reserve FR	Total reserves (includes gold, current US\$) (Oman, 2025)	World Development Indicator
Financial Development FD	Domestic credit to the private sector (%of GDP) (Khatun & Bist, 2019)	World Development Indicators
Institutional Quality IQ	control of corruption index (Hunjra et al., 2020)	World Development Indicators
Trade Openness TO	imports of goods and services (% of GDP) (Malefane & Odhiambo, 2018)	World Development Indicators
Environmental Quality EQ	renewable energy consumption (% of total final energy consumption) (Józwik et al., 2023)	World Development Indicators
Gross Domestic Product GDP	GDP growth rate (annual %) (Chughtai et al., 2015)	World Development Indicators

Empirical Results

This study based BRICS countries form the period 2000 to 2023. We used stata software to analyze the data. A throughout discussion of regression model, correlation matrices, and descriptive statistics is provided. However, the relevant discussion of the concerned result is also reported.

Table 2: Descriptive statistics

Variables	Means	Stand. dev	Min	Max
FD	1.833641	0.2536484	1.226285	2.289308
FR	11.37249	0.6685271	9.882345	12.5910
IQ	1.586983	0.1923258	1.041582	1.846416
TO	12.57453	0.7144411	11.17408	13.85812
EQ	1.188715	0.4204198	0.50515	1.69897
GDP	0.622130	0.3521154	-.7128926	1.153231

Table 3: Correlation analysis

Variables	FD	FR	IQ	TO	EQ	GDP
FD	1					
FR	0.2371** 0.0107	1				
IQ	0.4322*** 0.0000	0.3130*** 0.0004	1			
TO	0.0172 0.8554	0.6836*** 0.0000	0.4843*** 0.0000	1		
EO	0.1035 0.2841	0.0090 0.9259	0.6037*** 0.0000	0.2351** 0.0134	1	
GDP	0.0143 0.8848	0.3242*** 0.0006	0.0430 0.6648	0.3162*** 0.0008	0.1475** 0.1447	1

If correlation is 1%, 5% and 10% level of significant represent by ***, **, * respectively.

Regression analysis and correlation analysis utilized in inferential statistical analysis to determine the relationship of all variables.

Result of Foreign Reserves and Financial Development Nexus

Table 4: Fixed Effect Model

FDCPS	Coefficient	Standard error	t	p>t
FR	0.209718	0.035056	5.98	0.000***
TO	0.168866	0.039781	4.24	0.000***
EQ	0.801472	0.087016	9.21	0.000***
GDP	0.046559	0.018931	2.46	0.016**
_cons	3.603342	0.341516	10.55	0.000***

R-sq: within=0.8229, between=0.7226, overall=0.7013, F-statistics=104.56 and Prob>F=0.000, Number of observation=115, variables having 1%, 5% and 10% respectively represented by ***, **, *

Table 4 showed fixed effected models for direct effect of TO on FD in BRICS nations. The domestic credit to the private sector as proportion of GDP was utilized for FD. In this approach of panel data analysis, we discovered the proxy is highly substantial and direct relationship with FR. This FD proxy is significantly also positive relationship with the control variable of TO and IQ But the relationship of FD with GDP is moderate significant. The F test result of fixed effect is which is significant. The F-test of the fixed effect is statistically significant; the fixed effect value is high within, between and overall of r-sq coefficient determines the values than random effects.

Table 5: Random effect Model

FD	Coefficient	Standard error	t	p>t
FR	0.186966	0.051950	3.60	0.000***
T0	0.135224	0.051910	2.60	0.009***
EQ	0.105093	0.065326	1.61	0.108
GDP	0.017056	0.078047	0.22	0.827
_cons	1.534712	0.519015	2.90	0.004***

R-sq: within=0.7406, between=0.7729, overall=0.8363, Wald chi²=14.39 and Prob>F=0.000, Number of observation=115, variables having 1%, 5% and 10% respectively represented by ***, **, *

In the table 5 we see that the our proxy demonstrated a strong and direct relationship with independent variable of Foreign reserves at 1% level of significant. In this table show that the control variables of TO is significant at level of 1% with FD. But the others two control variables EQ and GDP the relationship with FD is insignificant. If we compare that the fixed effect model the value of r-sq within and between is slightly shorter than overall R2 values. R-sq of fixed effect model is greater than the random effect model.

Table 6: Hausman test

Variables	Fixed	Random	Differences
FR	0.2097188	0.1869661	0.0227526
TO	0.1688664	0.1352248	0.3040912
EQ	0.8014726	0.1050931	0.9065656
GDP	-0.0465592	0.0170568	-0.0295024
Chi2=51.65 or Prob=0.000			

We now see that in table 6 that the random effect model over the fixed effect model of the χ^2 value is 51.65 which is significant. We don't use another test like Breusch and Pagan Lagrangian Multiplier (BPLM). We determined that random effect model is appropriate and we don't need the Pooled OLS our model is fixed.

Result of moderating effect of institutional quality in foreign reserves nexus

In order to investigate the moderator interaction i.e. institutional quality with the IV Foreign Reserves and DV of financial development in order to meet the study purpose and further determined statistical significance.

Table 6: Fixed effects statistics of moderated model for FD

FD	Coefficient	Standard Error	T	P>t
FR	0.65098	0.130423	4.49	0.000***
IQ	3.178639	0.880223	3.61	0.001***
INTERACTION	0.26337	0.751232	3.15	0.000***
TO	0.26337	0.038688	4.04	0.000***
EQ	0.72698	0.093517	7.77	0.000***
GDP	0.058363	0.018595	3.14	0.002***
_CONS	8.671612	1.464152	5.92	0.000***

R-sq: within=0.8243, between=0.8042, overall=0.8182, Wald χ^2 =64.91 and Prob>F=0.000, Number of observation=115, variables having 1%, 5% and 10% respectively represented by ***, **, *.

We can see in this, the result of fixed effect model, which has p-value of 0.000, indicates a significant positive moderating impact on institutional quality on the relationship between foreign reserves and financial development. In this case both, foreign reserves and institutional quality have a significant impact on financial development also control variables have a significant on financial development. This model is well-fit with a strong F value of 64.91. Fixed effects inside R2 is slightly larger than random effect, while fixed effects between R2 and overall R2.

Table 7: Random effects statistics of moderated model for FD

FD	Coefficient	Standard Error	T	P>t
FR	1.85741	0.321975	5.77	0.000***
IQ	12.5413	2.17529	5.77	0.001***
INTERACTION	0.944008	0.191061	5.10	0.000***
TO	0.027078	0.029754	0.91	0.363
EQ	0.369060	0.045231	8.16	0.000***
GDP	-0.053544	0.041856	-1.28	0.201
_CONS	-21.54251	3.751159	-5.74	0.000***

R-sq: within=0.8053, between=0.8306, overall=0.8299, Wald $\chi^2=260.80$ and Prob>F=0.000, Number of observation=115, variables having 1%, 5% and 10% respectively represented by ***, **, *.

Result from this model's random effects of the financial development show that institutional quality has positive significant moderating effect on financial sector development. With the 1% significance threshold, the control variable of environment quality is the significant impact on the financial development but the other two control variable TO and GDP have insignificant impact on the financial development. When random effect model compare with fixed effect model is lower, but the between and overall is r-sq is greater. Our model fits the both techniques since the Wald χ^2 value is 260.80 which are significant.

Table 8: Hausman Test

Variables	Fixed	Random	Difference
TR	0.650980	1.85741	-1.20643
IQ	3.178639	12.5413	-9.36268
Interaction	0.263370	-.9744008	0.711030
T0	0.156173	0.027078	0.129095
EQ	0.726989	0.369060	1.096044
GDP	-0.058363	0.053544	-0.004819

$\chi^2 = -375.26$

After using the hausman test, it is evidence our fixed model is not inadequate because the χ^2 value is insignificant (-375.26). therefore we made random effect model our temporary choice and used to BPLM test to confirm it. The result showed a highly significant χ^2 value 34.67 and Prob=0.000, suggesting that pooled our OLS pooled not required our random effect model is finalized.

Table 9: VIF of independent variables

Variables	VIF	1/VIF
InTO	2.32	0.430979
InIQ	2.08	0.480973
InFR	2.00	0.500772
InEQ	1.65	0.604619
InGDP	1.20	0.8030120
Mean	1.85	

All VIF value is acceptable because the range i.e. <10. Therefore it can be concluded that the data have no multicollinearity.

Table 10: Heteroskedasticity

Variable	Chi2	Prob > chi2
InFDPCS	2.24	0.13141

In this table there is no evidence in heteroskedasticity. Because according to test p-value, which was found to be higher than significance level is 0.05. So , it is not rejected.

Discussion

The findings verify that the financial development of the BRICS nations is greatly influenced by foreign reserves. According to Ahmed et al. (2023), this result supports the claim that reserves serve as a tool to improve stability by reducing exchange-rate volatility and preserving investor confidence. The governments of the BRICS countries have protected their financial systems from external shocks by maintaining adequate reserves, which is especially important amid the worldwide unpredictability of 2020–2022. Ever since the theory of interest groups and financial development was proposed (Rajan & Zingales, 2003), as well as the Keynesian theory (Keynes, 1937), in the context of the foreign reserves nexus. These results confirm that the financial sector will expand if the BRICS countries can effectively manage their foreign reserves. This is justified by the idea that more foreign reserves encourage restrictions, as well as more lending and investment, to meet the demand of escalating competitiveness. Foreign reserves and financial development in the BRICS economies are positively and significantly correlated, according to the study's findings. This result aligns with the Keynesian international reserve theory, which promotes the expansion of the financial sector by stabilizing exchange rates, boosting investor confidence, and serving as a buffer against external shocks (Aizenman & Lee, 2007). More reserves enable governments to keep cash on hand and avoid balance-of-payments problems, fostering a stable environment that encourages the growth of financial markets. Large reserves have increased macroeconomic stability and reduced the BRICS's susceptibility to external volatility, thereby promoting deeper financial intermediation and the growth of the capital market. Due to increased confidence and lower risk premiums, nations with larger reserves typically have better financial sector performance, according to prior empirical research (Bindu et al., 2022; Obstfeld et al., 2010)

Foreign Reserves are positively and meaningfully affected by long-term financial development. Higher levels of financial intermediation, banking efficiency, etc., are associated with greater accumulation of reserves, according to a recent study by Bindu et al. (2022) using panel data from BRICS nations (1960–2022). The idea that reserves and financial development are positively correlated: whereas reserves may serve as a buffer and insurance, more advanced financial systems also encourage the accumulation of reserves. (Huang, 2024) Provide a mutual finding demonstrating that the financial development benefits BRICS innovation in green growth, suggesting that a robust financial sector offers greater stability and growth advantages. This finding aligns with previous research that emphasizes the role of reserves in reducing risk. Building up reserves makes a nation more resilient to sudden halts, balance-of-payments crises, and speculative attacks. In countries with growing capital markets, such as China and India, this stability enhances the scope and efficiency of the financial industry (Abaidoo & Agyapong, 2022). Empirical studies that concentrate on institutional and financial dynamics also demonstrate the positive correlation. Foreign reserves support financial development, according to Acheampong (2019), particularly when combined with robust governance frameworks. Foreign investors are reassured by sufficient reserves that a nation can fulfill its external commitments, which boost portfolio inflows and expand domestic markets. The BRICS region faces concerns such as political instability and corruption, making the positive link between institutional quality and financial development all the more compelling.

Enhancing institutional quality has been shown to foster an environment conducive to the growth of credit innovation and financial products, and to improve financial intermediary governance. For example, nations such as China and India have shown that institutional reforms, such as strengthening regulatory quality and enforcement, have deepened capital markets and improved the performance of the banking industry. This beneficial link is supported by recent research. For example, Ai et al. (2024) found that robust institutions make financial systems more elastic, thereby ensuring stability in the face of external shocks. Similarly, as flexibility, transparency, and investor trust increase, institutional advancements in emerging economies support sustainable financial development (Buitrago et al., 2023). These results demonstrate that institutional quality is not only a supplementary element but also an essential driver of the financial sector in the BRICS.

Conclusion

The main goal of the study was to determine how Institutional Quality affected the relationship between BRICS financial development and foreign reserves. We use secondary data from the World Bank indicators, and researchers used the World Bank and economic surveys. To determine the moderating effect, two econometric models were primarily used. An interaction term was created to evaluate the moderating effect and direct impact of foreign reserves on financial development. These models were run to proxy for financial development using fixed- and random-effects models in Stata. The outcomes were a positive, similar relationship between FR and FD. The study concludes that across the BRICS nations, Institutional Quality positively moderates the relationship between Foreign Reserves and the financial sector's development.

Study Limitations and Future Research

The recent study is framed by the BRICS countries. The implications of this study may raise concerns about generalizability to other economies, as there is variation in terms and conditions across developing, emerging, and developed economies. However, a forthcoming study on other developing, emerging, and developed countries, i.e., the G7, SAARC, and NATO, can be conducted, which may yield more robust implications for the conclusion regarding financial development. The present did not use the financial sector's domestic credit data (% of GDP) to measure financial development because the data were unavailable. Future research can use this proxy's data to obtain more extensive or complete results. The study recommends additional research to examine the relationships among the FR, FD, and IQ; this will help determine whether the variable promotes financial development. The study recommends conducting the follow-up investigation using a different moderating factor, preferably as political stability and financial globalization, to explore the various impacts that other variables have on the dependent and independent variables. This will be pivotal in developing policies and making recommendations to significantly enhance the growth of the countries. This study mainly used random- and fixed-effect models, as required by the data. However, future studies may incorporate more advanced methodologies to further develop the study's theme.

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