Brazil On The Rise: The Interplay Of Political Instability, FDI, And Resurgent Economic Growth

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ABSTRACT

Similar to numerous other emerging economies, Brazil has experienced a significant increase in foreign investment during the past few years. In 2022, the global inflows of FDI amounted to US$ 1.29 trillion, reflecting a 12% decrease compared to the previous year. This decline can be attributed mostly to substantial divestments undertaken in Brazil. The objective of this study is to examine and assess the subsequent aspects of political stability on FDI and Brazil's broader economic growth. The present study used an ARDL technique to analyze the years 1996 to 2022, utilizing secondary data. The results suggest that the presence of political stability has a positive impact on foreign investment, commercial activities, and the overall economy of Brazil in the long term. The stability of policies is intricately linked to the political system of a nation and exhibits a positive correlation with both FDI and foreign portfolio investments. It is recommended that the administration abstain from implementing any arbitrary modifications presently in order to retain policy coherence.

KEYWORDS: Political Stability; Foreign Direct Investment; FDI; Economic Growth; Portfolio Investment.

ABBREVIATIONS: FDI: Foreign Direct Investment; ARDL: Autoregressive Distributed Lag; UNCTAD: United Nations Conference on Trade and Development; ADF: Augmented Dickey-Fuller; PP: Phillips Perron; GDP: Gross Domestic Product; CUSUM: Cumulative Sum of Squares.

1. INTRODUCTION

Like numerous other developing countries, Brazil has witnessed a substantial surge in foreign investment over the past few years, encompassing both direct investment and portfolio investment [1,2]. The levels of investment have attained historically elevated levels. The Brazilian context is notable for its prominent position as the principal beneficiary of foreign resources among developing economies until the late 1970s, as well as its holding of a substantial accumulation of foreign-owned wealth. Notwithstanding the presence of these attributes, Brazil has encountered significant limitations in its capacity to tap into international capital markets for a duration surpassing a decade. The improvements can be ascribed to the favorable global circumstances and the execution of several governmental efforts, notably in the latter half of the 1980s but with increased focus starting from 1991 for portfolio investment and 1994 for direct investment [3,4]. The increased accessibility to capital flows has had significant effects on the Brazilian economy. This includes reducing financing costs for economic entities, facilitating the financing of current account imbalances, aiding in domestic price stabilization, and promoting economic growth, among other benefits. Nevertheless, similar to most policy decisions, the reliance on external funding has generated substantial internal scrutiny, notably from individuals who express apprehension regarding the possible hazards associated with an increasing dependency on the volatilities of the global financial market [4]. Hence, there is ambiguity around predictions of the near future. Optimistic persons tend to emphasize the attractiveness of an economy that offers abundant opportunities for investors, whilst pessimistic individuals tend to direct their attention toward the potential repercussions of the recent Asian crisis and the inherent vulnerabilities of the global monetary system [5].

Brazil has a history of political turmoil, with recent impeachments and corruption scandals. This can create uncertainty for investors, potentially deterring FDI. Despite political instability, Brazil has seen a rise in FDI in recent years. This could be due to factors like a large domestic market, abundant natural resources, and a skilled workforce. Furthermore, in Brazil, there was a 12% decline in global inflows of FDI in 2022, amounting to a total of US$ 1.29 trillion. The primary factor contributing to this reduction may be attributed to the substantial divestments undertaken in Brazil. The worldwide influx of FDI

witnessed an expansion of 11% in the year 2022, except for Brazil, in the analysis. Based on the findings of the UNCTAD [6], there was a notable decrease of 6% in the worldwide valuation of cross-border mergers and acquisitions in 2022 when compared to the previous year. The primary cause of this loss may be ascribed primarily to reduced sales of enterprises operating in the United States, the European Union, and Asia, with respective decreases of 53%, 8%, and 17%. However, a significant rise in FDI declarations was observed in the year 2022, namely in sectors of substantial technological and political importance, with the renewable energy sector emerging as the most prominent one.

The global value of FDI project announcements witnessed a significant surge of 64%, amounting to around US$ 1.2 trillion. Nevertheless, Brazil's economy has shown signs of recovery after a period of stagnation. This growth could be partly attributed to increased FDI inflows. The objective of this study is to examine and assess the implications of political stability on FDI and the overall economic growth of Brazil. The study seeks to analyze the interplay between political instability, FDI, and economic growth in Brazil. It also seeks to find the answer to the following question: How has political instability in Brazil impacted FDI inflows? To what extent has recent FDI contributed to Brazil's economic growth? And can Brazil achieve sustainable economic growth in the face of potential future political instability? All these will be achieved using econometric models to quantify the relationship between political instability, FDI, and economic growth in Brazil.

This study looks at how political stability affects economic development and FDI from 1996 to 2021. The two types of foreign investments that can be made in any country are FDI and foreign portfolio investments. Furthermore, imports and exports are components of international trade. This analysis is an effort to measure the impact of political stability on imports and foreign portfolio investments for the first time. Exports and FDI were the only subjects addressed in previous literature.

The remaining parts of this study are structured as follows: Sections 2 and 3 present the literature review and methodology, respectively. Section 4 provides results and discussions, and Section 5 advances the conclusion and recommendations.

2. LITERATURE REVIEW

2.1. THEORETICAL FRAMEWORK

Numerous economic theories can be employed to elucidate the relationship among political instability, FDI, and economic growth in countries like Brazil. The theory of institutions, encompassing both formal and informal standards, is crucial in influencing economic behavior. According to the political risk theory, investors should take political risk into account when choosing their investments. Violence, corruption, and political instability are all viewed as risk factors. According to the modernization theory, developing nations can thrive economically by implementing established nations' methods. Theory of Dependency According to this view, there is a fundamental inequality in the connection between industrialized and developing nations. The selected theory is dependent upon the particular characteristics of the relationship that this research seeks to establish.

2.2. ENDOGENOUS GROWTH THEORY

This theory highlights how government initiatives and spending on infrastructure, R&D, and human resources contribute to economic growth. Even with FDI, a nation can't achieve sustainable economic growth and fully benefit from foreign investment unless it has a highly educated labor population, a robust technological foundation, and well-developed infrastructure. An extensive theoretical framework for understanding the innate elements that drive economic growth is offered by the Endogenous Growth Theory. The endogenous growth theory lays more emphasis on internal variables than the neoclassical growth theory, which primarily emphasizes the influence of external forces on economic expansion.

Technological improvement is widely regarded as a pivotal factor within the framework of the endogenous growth theory. The current undertaking encompasses more than the mere procurement of new equipment or machines. Instead, it encompasses the advancement and incorporation of groundbreaking technologies, which subsequently enable improved production. These advancements often emerge due to sustained investment in research and development, enabling countries to foster innovation and subsequently improve their economic performance. Over time, the phenomenon of invention creates a self-perpetuating cycle in which it drives economic growth, leading to the generation of further resources for following innovative endeavors.

Beyond the implementation of mechanical systems and operational procedures, this concept underscores the essential role played by human capital in not only driving but also sustaining economic progress. By focusing on the skills, knowledge, and innovation capabilities of individuals within an organization or economy, it acknowledges human capital as a critical determinant of productivity, competitiveness, and overall economic development. Individuals who have had extensive education, possess advanced skills, and have undergone rigorous training demonstrate the capacity to adapt to evolving technologies, produce novel ideas, and actively participate in innovative practices. Moreover, they serve a crucial function in

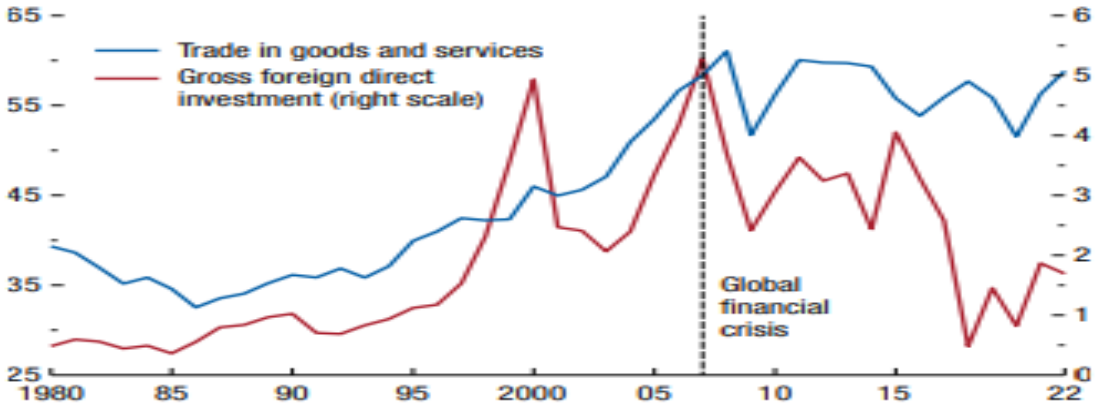
promoting the widespread distribution of technology and knowledge within the economy, hence amplifying the effects of technological advancements. The allocation of resources toward education and training serves a multifaceted purpose that extends beyond the basic formation of a labor force. The process involves the nurturing and enhancement of cognitive abilities that will propel the advancement of society by generating novel concepts and promoting ingenuity [7,8].

The impact of internal factors on a country's economic development is of paramount importance, with external factors, such as political stability, playing a substantial role in defining this trajectory. The presence of political stability creates an environment of predictability, allowing for optimal utilization of technological advancements and FDI. Conversely, the presence of political instability can create an environment marked by uncertainty, discouraging possible foreign investors and potentially hindering the advancement of innovation. Hence, it can be demonstrated that the factors that propel development, albeit originating internally inside a system, are subject to the effect of diverse political processes present in a broader ecosystem.

The escalation of geopolitical tensions and the unequal distribution of benefits resulting from globalization have played a role in fostering cynicism towards multilateralism and generating a greater attraction towards policies that prioritize domestic interests. The current geopolitical landscape is marked by significant challenges to international relations, namely Brexit, trade disputes between the United States and China, and Russia's invasion of Ukraine. These events have the potential to disrupt global economic integration, prompting a policy-driven reversal known as geo-economic fragmentation. This process covers various routes, namely commerce, capital, and migration fluxes. The user's text is already academic and does not require any rewriting. FDI refers to the cross-border investment made by foreign investors to establish a durable and substantial impact on domestic firms. The occurrence of a deceleration in globalization, commonly known as "globalization," is not a recent phenomenon. The majority of nations trace their economic conditions back to the period following the global financial crisis. There has been a notable decline in FDI, as seen by the worldwide FDI decreasing from 3.3 percent of GDP in the 2000s to 1.3 percent between 2018 and 2022 (Figure 4.1; for a comprehensive analysis of current FDI trends). The prolonged era of globalization has been influenced by various causes. Notably, the dispersion of capital flows along geopolitical fault lines and the possible formation of regional geopolitical blocs are new features that may have significant adverse effects on the global economy. There is a growing trend among firms and politicians to explore measures aimed at relocating industrial processes to nations that are considered trustworthy and have similar political preferences. The objective is to reduce the vulnerability of supply chains to geopolitical tensions.

Figure 4.1. "Slowbalization"
(Percent of GDP)

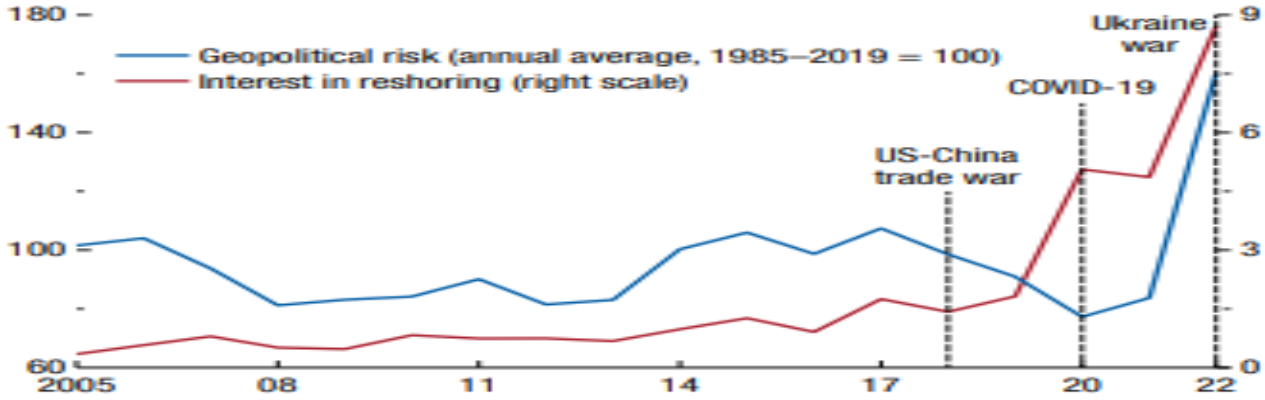
Foreign direct investment sharply declined after the global financial crisis.



Source: IMF staff calculations.

Figure 4.2. Rising Geopolitical Tensions and Foreign Direct Investment Fragmentation
(Index; frequency of mentions of reshoring on right scale)

Recent years have seen increasing geopolitical risk and companies' interest in reshoring and friend-shoring.



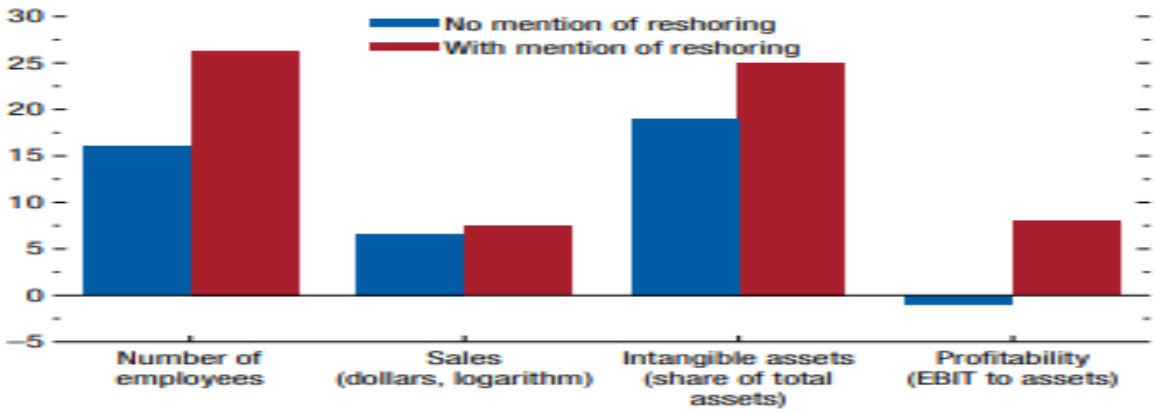
Sources: Bailey, Strezhnev, and Voeten (2017); Hassan and others (2019); NL Analytics; and IMF staff calculations.
Note: The interest in reshoring measures the frequency of mentions of reshoring, friend-shoring, or near-shoring in firms' earnings calls.

An extensive analysis of earnings call data from a significant sample of multinational corporations indicates a significant increase in companies' preference for reshoring and friend-shoring practices (as depicted in Figure 4.2). This phenomenon aligns with a concomitant increase in the mean geopolitical separation between pairs of nations. In a recent official communication, Janet Yellen, the incumbent US Treasury Secretary [9], suggested that US firms should contemplate diversifying their dependence away from countries entangled in geopolitical conflicts with the United States. Conversely, she espoused the adoption of a strategy realignment towards "friend-shoring" of supply chains, underscoring the significance of cultivating diverse alliances with a plethora of reliable nations. In the European context, the French government has been urging the European Union (EU) to accelerate its production goals, ease regulations on state aid, and develop a comprehensive strategy known as "Made in Europe" in order to counteract the domestic production subsidies provided by the United States under the Inflation Reduction Act [10]. The importance of friend-shoring goes beyond simple statements and is evident in the implementation of investment-screening processes that are motivated by national security goals [6]. The recent adoption of comprehensive strategies by important nations to strengthen their domestic strategic manufacturing sectors suggests an impending change in the flow of foreign capital. The implementation of a series of legislative measures in response to the increasing trade tensions between the United States and China holds particular importance. Several notable legislative acts have been introduced to address various aspects of the semiconductor industry. These include the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and the Science Act, which aims to provide support and incentives for semiconductor production in the United States. Additionally, the Inflation Reduction Act has been proposed in the United States to address inflationary concerns. Furthermore, the European CHIPS Act has been introduced to enhance the European Union's capabilities in semiconductor manufacturing. The aforementioned laws possess the capacity to influence the production and sourcing strategies of multinational firms, resulting in efforts to reorganize their supply-chain networks (Box 4.1). The potential reorganization of supply chains can bolster national security and maintain a competitive edge in technology. Furthermore, the promotion of variety might be bolstered in the event that the existing pool of inputs is primarily obtained from a singular or restricted group of overseas suppliers. In such instances, the act of procuring goods domestically or from neighboring countries would broaden the scope of potential options. However, it is crucial to acknowledge that a considerable degree of home bias in input sourcing is prevalent in most nations.

Given the circumstances, it is likely that the practice of reshoring or friend-shoring with established partners will lead to a reduction in diversity and an elevation in vulnerability to macroeconomic shocks for the majority of countries. Nevertheless, this particular pathway may potentially exert a substantial influence on the global implications associated with the emergence of geopolitical blocs. The type of investment being referred to is frequently associated with the dissemination of knowledge to local businesses and the facilitation of economic expansion, particularly in emerging markets and developing countries [11–13].

Figure 4.3. Interest in Reshoring and Firm Characteristics

Firms more likely to reshore are larger and more productive.



Sources: Compustat; Hassan and others (2019); NL Analytics; and IMF staff calculations.
Note: Simple averages across firms that mentioned or did not mention reshoring, friend-shoring, and near-shoring in earnings calls. Differences across groups are statistically significant. EBIT = earnings before interest and taxes.

The prospective shift of FDI towards source countries has the potential to yield negative implications for the economies of present host nations. The potential outcomes of reshoring and friend-shoring include a decrease in capital and technical progress. This is because companies that prefer these practices are typically larger, more financially successful, and have a greater level of knowledge intensity, as illustrated in Figure 4.3.

2.3. POLITICAL INSTABILITY, FOREIGN DIRECT INVESTMENT, AND ECONOMIC GROWTH

The empirical research has extensively focused on the correlation between political instability, FDI, and economic growth. This review examines a selection of important studies that provide a deeper understanding of the intricate relationship between various factors, providing valuable insights into the research methods employed, the outcomes obtained, and the potential consequences of these findings.

One area of scholarly investigation focuses on analyzing the effects of political instability on FDI and economic growth. In their research, Rani and Batool [14] employed time series data spanning from 1980 to 2013 and employed the ARDL model. The study's results indicated that, over a limited time period, the influence of political instability on FDI was found to be statistically negligible. However, in the long term, political instability was observed to have a considerably adverse effect on economic development. On the contrary, there exists a favorable correlation between FDI and economic growth, which holds in both the short-term and long-term perspectives. This underscores the necessity for governments to adopt measures aimed at bolstering political stability in order to attract FDI and promote economic growth.

Expanding upon the aforementioned topic, the study conducted by Brada *et al.* [15] delved into the ramifications of political stability on FDI inflows inside transition economies. The study conducted by the researchers demonstrated that nations characterized by political stability are likely to experience greater advantages from FDI compared to countries with political instability. This statement highlights the significance of political stability as a primary catalyst for the augmentation of FDI inflows, hence carrying significant consequences for emerging economies.

The research conducted by Landry [16] has centered on the region of Sub-Saharan Africa, examining the impact of political instability and FDI on the region's economic growth. In the study conducted by Landry, dynamic panel techniques and the three-stage least squares model were employed to analyze data spanning the time frame of 1984-2015. The results of the study revealed that political instability has both direct and indirect effects on economic growth and FDI inflows. The research highlights the importance of enhancing the political environment in order to realize the advantages associated with FDI.

Sweidan [17] investigated the correlation between political instability and economic growth in the Middle Eastern region, using Jordan as a specific case study. The study utilized time series data spanning from 1967 to 2009 and employed ARDL Kalman filter (ML) models to examine the relationship between political instability and economic growth, as well as real government expenditures. The findings of the study indicated that political instability had a statistically significant adverse

impact on both economic growth and real government expenditures. This statement emphasizes the crucial significance of political stability in facilitating economic development in the Middle East.

An alternative viewpoint regarding the correlation between political instability, FDI, and economic growth centers on specific Arab nations. The study undertaken by Elbargathi [18] encompassed a time frame spanning from 1996 to 2016, employing the Vector Error Correction Model as the analytical framework. The research conducted has successfully shown a robust and enduring correlation between political indicators and the phenomenon of economic growth. Notably, the indicators pertaining to the control of corruption and the rule of law have emerged as particularly influential factors in this relationship. The aforementioned findings underscore the significance of governance quality in the context of economic development.

Nevertheless, it is important to note that empirical investigations may not always yield consistent findings. In their study, Kurecic and Kokotovic [19] investigated the correlation between political stability and FDI within a panel of 11 economies characterized by their small size. The researchers discovered the existence of a durable association between these two variables. In contrast, the analysis did not yield any empirical evidence supporting the existence of a panel link in the case of larger and more developed economies. This observation implies that the association between political stability and FDI can exhibit variations among several country classifications.

In addition to the aforementioned studies, Roudaki and Shingal [20] provided valuable insights into the impact of political stability on the distribution of FDI across various industries in developing nations. The findings of their study indicate that the level of political stability has a substantial impact on the allocation of FDI across different sectors. This relationship has important consequences for the process of economic diversification.

In their study, Sequeira *et al.* [21] conducted an analysis of the interplay between political stability, FDI, and its impact on economic growth in Latin America. The results of their study indicated a substantial and statistically significant correlation between FDI and economic growth, with a special emphasis on nations that exhibit political stability.

In the realm of post-communist nations, particularly in Eastern Europe, the scholarly work conducted by Zhukov and Kireyeva [22] delved into the examination of political risk as a mediator in the connection between political stability and FDI. The research conducted by the authors highlights the crucial role played by the perception of political risk in shaping decisions about FDI, with a specific emphasis on politically unstable contexts.

3. METHOD(S)

The study used an ARDL technique to analyze the data collected from secondary sources, covering the period from 1996 to 2022. The selection of the time frame is driven by the accessibility of data, specifically for the governance variable, as well as the substantial shifts in governance that have occurred throughout the study. The data sources for this study would include the World Bank Development Indicators database, Governance Indicators, and UNESCO platform statistics. The study utilized and modified a model proposed by Bénétrix *et al.* [23], drawing upon the Solow growth model. The functional model that requires computation is depicted as

$$GDPi,t = \beta 0 + \beta 1FDIi, \beta 2PSi,t + \beta 3CCi,t + \beta 4VAi,t + \beta 5GEit + \beta 6RLi,t + \beta 7QRit\ Ui,t \ldots\ldots\ldots 1$$

Where;

GDP = GDP Growth Rate

PS = Political Stability

AV = Accountability and Voice

(CC) = Control of Corruption

(GE) = Government Effectiveness

(QR), = Quality of Regulation

(RL) = Rule of Law

βj, j = 1, 2, ...and 6 are parameters to be estimated

ε = random error term

3.1. ECONOMETRIC METHODOLOGY

3.1.1. UNIT ROOT TEST

The initial stage in every empirical investigation involves the evaluation of the stationarity of each variable. In order to ensure the absence of spuriousness in the regression findings, the time series data must exhibit stationarity. One of the most widely used methods for assessing stationarity is the Dicky-Fuller Generalized Least Square approach, which is particularly well-suited for analyzing small sample data sets. In addition, the ADF and PP tests have been employed in our study.

3.1.2. AUTOREGRESSIVE DISTRIBUTIVE LAG MODEL

The ARDL limits testing strategy is a method for conducting co-integration analysis in the second stage. The endogeneity concern has been addressed through the utilization of the ARDL methodology. In the ARDL framework, the determination of an optimal number of lags is undertaken to effectively mitigate concerns related to endogeneity and autocorrelation. The ARDL approach considers the endogeneity of all variables and conducts simultaneous estimation of both long-run and short-run coefficients. To evaluate the cointegration connection between the variables being examined, the ARDL model is employed and computed subsequently:

$$\Delta lnGDP = C_0 + \delta_1 lnGDP_{t-1} + \delta_2 lnFDI_{t-1} + \delta_3 lnPS_{t-1} + \delta_4 ln\, AV_{t-1} + \delta_5 lnCC_{t-1} + \sum_{i=1}^{P} \emptyset i \Delta lnGE_{t-1} + \sum_{j=0}^{q1} \emptyset j \Delta lnQR_{t-J} + \sum_{i=0}^{q2} \emptyset j \Delta lnRL_{t-1} + + \varepsilon_t \quad (2)$$

Where δ_i the long-run multipliers C_0 is the intercept ε_t are white noise errors

Having established the existence of cointegration, the conditional ARDL (p, q1, q2) long-run model for GDP_t can be estimated as:

$$lnFDI = C_0 + \sum_{i=1}^{P} \emptyset ilnFDI_{t-1} + \sum_{j=0}^{q1} \emptyset jlnPS_{t-J} + \sum_{i=0}^{q2} \emptyset jlnAV_{t-1} + \sum_{i=0}^{q3} \gamma ilnCC_{t-J} + \sum_{i=0}^{q4} \gamma jlnGE_{t-1} + \sum_{i=0}^{q5} \gamma jlnQR_{t-1} + \sum_{i=0}^{q5} \gamma jlnRL_{t-1} + \varepsilon_t \quad (3)$$

Using Akaike Information Criteria (AIC), it includes lag length selection orders of the ARDL (p, q1, q2) model. Subsequently, by estimating an error correction model linked to the long-run estimations, the short-run dynamic parameters are determined. It is said as follows:

$$\Delta PS_t = \mu + \sum_{i=1}^{P} \emptyset i \Delta lnPS_{t-1} + \sum_{j=0}^{q1} \emptyset j \Delta lnAV_{t-J} + \sum_{i=0}^{q2} \emptyset j \Delta lnCC_{t-1} + \sum_{i=0}^{q3} \gamma i \Delta lnGE_{t-1} + \sum_{i=0}^{q4} \gamma j \Delta lnQR_{t-1} + \sum_{i=0}^{q5} \gamma jlnRL_{t-1} + \varepsilon_t \quad (4)$$

Here, φ, ϕ, and γ are the short-run dynamic coefficients of the model's convergence to equilibrium, and ϑ is the speed of adjustment.

3.2. DESCRIPTION OF VARIABLES

The World Bank publishes statistics pertaining to the six governance indicators categorized by teams. The authors provide a detailed account of the methodology employed in the development of these determinants, which are believed to exert a substantial influence on the commercial environment and mitigate risk inside the country. The values span a range of -2.5 to 2.5, with higher numerical values indicating more robust endeavors to foster good governance.

4. RESULTS AND DISCUSSION

4.1. UNIT ROOT TEST

ADF @ 5%			
Variable	Level	1st Diff.	Integration order
lnRGPD	-0.096430	-6.70711 (0.0000)	I(I)
lnFDI	-4.517151(0.0002)	-8.392029	I(0)
lnPS	-0.748626	-5.433325 (0.0003)	I(I)
lnCC	-1.487310	-4.70085	I(I)
lnVA	-3.986205	-5.160494(0.0004)	I(I)
lnGE	-1.487310	-6.727200	I(I)
lnRL	-3.986205	-3.2118952(0.0324)	I(I)
LnQR	-1.487310	-4.404904(0.0024)	I(I)
PP @ 5%			
lnRGPD	-0.232824	-6.368771 (0.0000)	I(I)
lnFDI	-4.517151	-17.83065	I(0)
lnPS	-0.806977	-5.433325 (0.0002)	I(I)
lnCC	-1.445740	-4.212322(0.0037)	I(I)
lnVA	-3.988145	-5.160494(0.0004)	I(I)
lnGE	-1.487310	-6.727200	I(I)
lnRL	-3.986205	-3.2118952(0.0324)	I(I)
LnQR	-1.487310	-4.406958 (0.0024)	

Source: Researchers' Computation Using Eviews 10 (2023)

From the above table, the results of the ADF and Phillip Perron tests for stationarity are shown above. The alternative hypothesis is H1 = β < 0, and the null hypothesis is Ho = β = 0 (i.e., β has a unit root). For both tests, the level and differenced variables' findings are displayed. On certain variables, the tests fail to reject the existence of the unit root for the data series in levels, but on other variables, the null hypothesis is rejected, suggesting that these variables are a combination of I (0) and I(I). Phillip Perron.

4.2. BOUND TESTS FOR CO-INTEGRATION

F- statistic	**Lower bound**	**Upper bound**	**K(n-1)**	**Sign. level**	**Remarks**
6.293472	2.2	3.09	7	10%	Cointegration
	2.79	3.67		5%	
	3.29	4.37		1%	

Source: Researchers' Computation Using Eviews10 (2023)

The F-statistic value of 6.293472 is observed in the ARDL bound test result presented above. According to the authors, the magnitude of the statistic exceeds the bottom and upper bounds of the t-statistic at a significance level of 5%. The rejection of the null hypothesis that there is "no Cointegration" is justified. Hence, it can be inferred that all the variables being examined exhibit a significant and enduring interdependence. The ARDL cointegration approach was employed to estimate the relationships in both the short-run and long-run.

4.3. SHORT RUN ESTIMATION

Variable	**Coefficient**	**Standard error**	**t- statistic**	**p. value**
Constant	3.373224	1.968038	1.714003	0.1058
$\Delta lnRGDP_t(-1)$	0.876397	0.069243	12.65688	0.0000
$\Delta lnFDI_t$	0.045248	0.025060	1.805590	0.0898
$\Delta lnGE_t$	0.119675	0.068104	-1.757245	0.0980
$\Delta lnCC_t$	0.143796	0.097132	-1.480422	0.1582

ΔlnPSAV$_t$	0.013463	0.040058	0.336080	0.7412
ΔlnROL$_t$	0.143140	0.146678	0.975876	0.3437
$\Delta lnRQ_t$	0.148319	0.103839	1.428353	0.1724
$\Delta lnVA_t$	0.238605	0.093670	2.547301	0.0215
R-squared	0.994043			
Adjusted R-squared	0.991064			

Source: Researchers' Computation Using Eviews 10 (2023)*Prob. (F-statistic): 0.000000, Durbin-Watson stat: 1.995611

The table presented above displays the short-term estimated outcome. It reveals a year's worth of data on per capita GDP, indicating a significant and positive impact on its current value. The variable in question exhibits a statistically significant influence of 8.7% on its own, as indicated by a coefficient of 0.87639. FDI exhibits a statistically significant positive value. This implies that a one-unit increase in FDI will result in a corresponding decrease of 0.4% in GDP. The influence of government effectiveness on the economy is shown to be favorable, but statistically inconsequential. While observing the data, it was found that there was a positive correlation between control of corruption and real per capita GDP, although this correlation was not statistically significant. Similarly, there was also a positive correlation between political stability and real per capita GDP, although this correlation was also not statistically significant. Conversely, a statistically small yet positive correlation was observed between the rule of law and real per capita GDP in the short term. In terms of regulatory quality, there is a positive link that lacks statistical significance. There is a favorable but statistically negligible relationship between voice and accountability and the economy.

4.4. RESULT OF ESTIMATED LONG-RUN COEFFICIENTS

Variable	Coefficient	Strd.err.	t- statistic	Prob.
Constant	27.29081	0.920144	29.65928	0.0000
LNFDI	0.366073	0.246721	1.483755	0.1573
G_E	0.968225	0.753104	-1.285646	0.2169
C_C	1.163372	0.806978	-1.441641	0.1687
PSAV	0.108919	0.355262	0.306588	0.7631
R_Q	1.158063	1.493645	0.775327	0.4495
ROL	1.199966	0.458121	2.619319	0.0186
V_A	1.930417	1.302870	1.481666	0.1579
ECT	-0.123603	0.013410	-9.217476***	0.0000

Source: Researchers' Computation Using Eviews 10 (2023)

The long-run estimates of the variables are shown in the Table above. The 0.366073 coefficient indicates that, assuming all other factors remain constant, an increase in FDI as a percentage will result in an average increase in GDP of 3.6%. As a result, there is a statistically insignificant positive link between FDI and the gross domestic product of the Brazilian nation. There is a negligible positive correlation between government effectiveness and GDP, as indicated by the 0.968225 coefficient, which when there is effective governance, the economy will boost. Similarly, the -1.163372-coefficient suggested that, while keeping other factors equal, control of corruption will cause a positive change in the economy. Also, the long-run estimate revealed that political stability has a positive impact on economic well-being, with a 0.108919 coefficient, even though it is statistically significant. Quality of regulation also shows a positive impact on the economy, it reveals a 1.158063 coefficient, and it is also statistically insignificant according to the long-run estimates. The rule of law also shows that there exists a positive relation with the economy, with a 1.199966 coefficient, and it is statistically significant only at the 10% level of significance. Voice and accountability, also with 1.930417 coefficients, show a positive relationship with the economy, even though it is statistically insignificant. Also, according to the estimated rule of law, there exists a positive relationship with the GDP 1.199966 coefficient, which signifies a more than 100% effect and is statistically insignificant. The same trend is revealed by voice and accountability, as it depicts a positive impact on the economic well-being of the Brazilian nation.

Finally, the rate of adjustment towards the long-run equilibrium, as indicated by the coefficient of the Error Correction Term (-0.123603), is statistically significant and negative. The process of correction proceeds quickly. As such, the model self-corrects by 1.2% to reach equilibrium.

4.5. VALIDITY TESTS

***Breusch-Godfrey Serial Correlation LM Test:**			
F-statistic	0.580461	Prob. F(1,20)	0.7796
Obs*R-squared	0.421610	Prob. Chi-Square(1)	0.68893
****Heteroskedasticity Test: Breusch-Pagan-Godfrey**			
F-statistic	7.264734	Prob. F(8,21)	0.1231
Obs*R-squared	12.73198	Prob. Chi-Square (8)	0.1338
Scaled explained SS	6.465681	Prob. Chi-Square (8)	0.5952
*****Ramsey RESET Test**			
Equation: UNTITLED Specification: GDP GDP (-1) LNFDI LGE (-1) LCC PSAV RoL RQ V-A C Omitted Variables**:** Squares of fitted values			
	Value	**Df**	**Probability**
t-statistic	1.616779	15	0.1268
F-statistic	2.613976	(1,15)	0.1268

Sources: Researchers' Computation (2023) Using E Views 2010

*Durbin Watson stat; **indicates; model is Homoskendastic, ***Ramsey test result

The diagnostic tests are shown in the table above, which attests to the model's passing all post-estimation testing. The model has a normal distribution and is devoid of serial correlation. The CUSUM test result and the recursive residuals' cumulative sum of squares (CUSUMQ). The plots (CUSUM and CUSUMQ) are still within the 5% significance level critical limitations (see appendix).

5. CONCLUSION AND RECOMMENDATION

The impact of political instability on FDI might vary depending on the type of investor and the specific political events. Not all FDI is beneficial. Some might lead to exploitation of resources or create pressure for lower environmental or labor standards. Sustainable economic growth requires not only investment but also factors like political stability, a well-educated workforce, and infrastructure development.

From 1996 to 2021, the effect of political stability on FDI and economic growth is examined in this study. FDI and foreign portfolio investment are the two forms of foreign investment that can be made in any nation. Moreover, imports and exports are a part of international trade. This analysis represents the first attempt to quantify Political sta-bility's effect on imports and foreign portfolio investments. The only topics covered in earlier literature were export and FDI. We used the ARDL model to examine both the short- and long-term relationships between the variables. After testing each variable's unit root, it is discovered that every variable is stationary, either at first difference or at level. Here, the models are additionally examined for stability using the CUSUM test and serial correlation using the LM test. Results show that political stability has a positive long-term impact on international trade and investment and the economic well-being of Brazil. These findings coincide with the findings of Rani and Batool [14], Brada *et al.* [15], Landry [16], Sweidan [17], and Elbargathi [18]. Even though they used political instability proxies in their studies, the ARDL models are found free from serial correlation. The CUSUM test also evinced the stability of the ARDL models.

The political structure of the country is intimately linked to policy stability, which is highly correlated with FDI and foreign portfolio investments. In reality, in order to preserve policy coherence, it is recommended that the government make no arbitrary adjustments at this time. It is also suggested that any democratic government that takes over should have a legal obligation to maintain the long-term, continuous policy.

Findings from this study may pave the way for further research to compare Brazil's experience with FDI and economic growth to other developing countries or analyze specific instances of FDI in Brazil and how they interacted with the political climate.

CONFLICT OF INTEREST

None.

ORCID

KTA – not available

MAM – not available
SUS – not available

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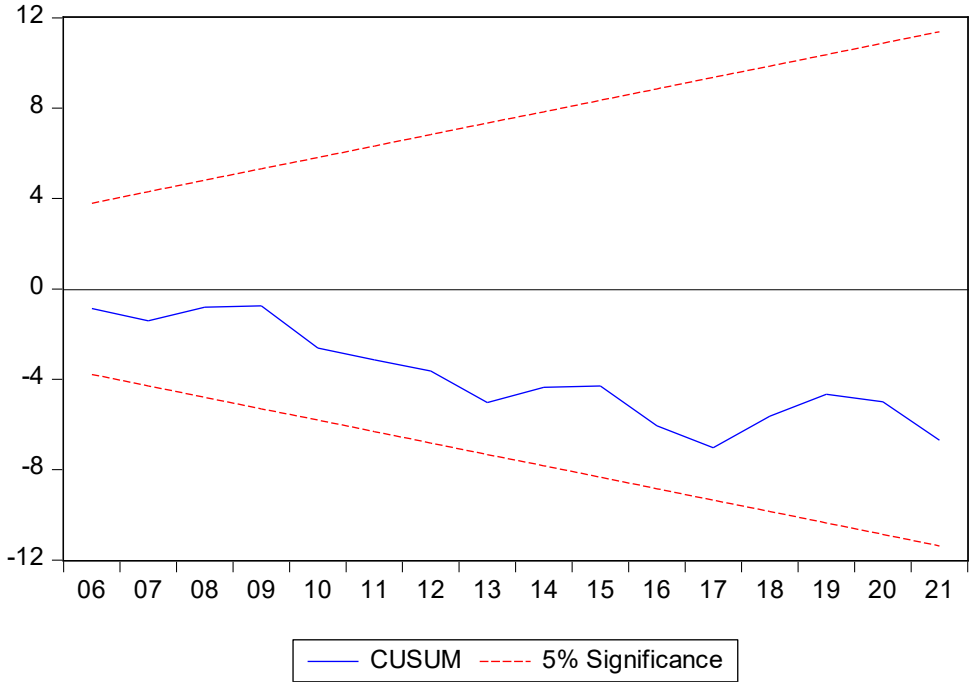
APPENDIX


12
8
4
0
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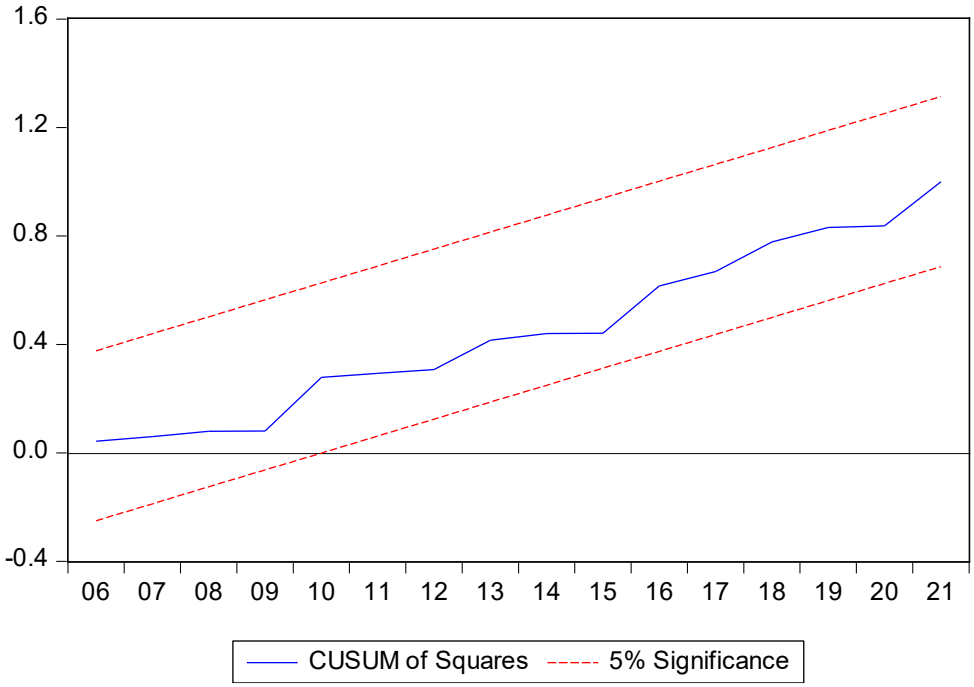
06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21
CUSUM
5% Significance


1.6
1.2
0.8
0.4
0.0
-0.4
06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21
CUSUM of Squares
5% Significance

Long run and bound test

ARDL Long Run Form and Bounds Test
Dependent Variable: D(LNGDP)
Selected Model: ARDL(1, 0, 0, 0, 0, 0, 0, 0)
Case 2: Restricted Constant and No Trend
Date: 10/30/23 Time: 18:21
Sample: 1996 2021
Included observations: 25

Conditional Error Correction Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.373224	1.968038	1.714003	0.1058
LNGDP(-1)*	-0.123603	0.069243	-1.785068	0.0932
LNFDI**	0.045248	0.025060	1.805590	0.0898
G_E**	-0.119675	0.068104	-1.757245	0.0980
C_C**	-0.143796	0.097132	-1.480422	0.1582
PSAV**	0.013463	0.040058	0.336080	0.7412
R_Q**	0.143140	0.146678	0.975876	0.3437
ROL**	0.148319	0.103839	1.428353	0.1724
V_A**	0.238605	0.093670	2.547301	0.0215

* p-value incompatible with t-Bounds distribution.
** Variable interpreted as Z = Z(-1) + D(Z).

Levels Equation
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LNFDI	0.366073	0.246721	1.483755	0.1573
G_E	-0.968225	0.753104	-1.285646	0.2169
C_C	-1.163372	0.806978	-1.441641	0.1687
PSAV	0.108919	0.355262	0.306588	0.7631
R_Q	1.158063	1.493645	0.775327	0.4495
ROL	1.199966	0.458121	2.619319	0.0186
V_A	1.930417	1.302870	1.481666	0.1579
C	27.29081	0.920144	29.65928	0.0000

EC = LNGDP - (0.3661*LNFDI -0.9682*G_E -1.1634*C_C + 0.1089*PSAV
+ 1.1581*R_Q + 1.2000*ROL + 1.9304*V_A + 27.2908)

F-Bounds Test Null Hypothesis: No level relationship

Test Statistic	Value	Signif.	I(0)	I(1)
			Asymptotic: n=1000	
F-statistic	6.293472	10%	1.92	2.89
k	7	5%	2.17	3.21
		2.5%	2.43	3.51
		1%	2.73	3.9
			Finite	
Actual Sample Size	25		Sample: n=30	
		10%	2.277	3.498
		5%	2.73	4.163
		1%	3.864	5.694

Error correction form

ARDL Error Correction Regression
Dependent Variable: D(LNGDP)
Selected Model: ARDL(1, 0, 0, 0, 0, 0, 0, 0)
Case 2: Restricted Constant and No Trend
Date: 10/30/23 Time: 18:23
Sample: 1996 2021
Included observations: 25

ECM Regression
Case 2: Restricted Constant and No Trend

Variable	Coefficient	Std. Error	t-Statistic	Prob.
CointEq(-1)*	-0.123603	0.013410	-9.217476	0.0000

R-squared	0.558832	Mean dependent var	0.035152
Adjusted R-squared	0.558832	S.D. dependent var	0.035824
S.E. of regression	0.023795	Akaike info criterion	-4.599529
Sum squared resid	0.013589	Schwarz criterion	-4.550774
Log likelihood	58.49411	Hannan-Quinn criterion.	-4.586006
Durbin-Watson stat	1.995611		

* p-value incompatible with t-Bounds distribution.

F-Bounds Test Null Hypothesis: No level relationship

Test Statistic	Value	Signif.	I(0)	I(1)
F-statistic	6.293472	10%	1.92	2.89
k	7	5%	2.17	3.21
		2.5%	2.43	3.51
		1%	2.73	3.9