

The Role of World Bank (IBRD and IDA) Financing in Promoting Economic Growth: A Study of Selected Developing Countries

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Abstract: This study investigates the effect of World Bank financing (IBRD and IDA) on economic performance in selected developing countries between 2005 and 2024. Using panel data from twelve developing economies, the research analyses the relationship between World Bank loan disbursements and major macroeconomic indicators such as GDP growth, debt-to-GDP ratio, fiscal balance, and gross capital formation. The analysis applies descriptive statistics, Pearson correlation, and fixed-effects UNIANOVA models to evaluate how World Bank funding influences economic outcomes. The results show that World Bank disbursements do not exhibit a statistically significant impact on GDP growth or investment trends. However, the findings indicate a meaningful relationship with increasing public debt levels and deteriorating fiscal balances in several borrowing nations. In addition, event study observations suggest that periods of higher disbursements are often followed by sustained increases in debt burdens without noticeable improvements in economic growth. Overall, the study adds to the broader discussion on the effectiveness of multilateral development financing and emphasizes the importance of stronger debt monitoring mechanisms and sustainable fiscal management in countries that rely on external financing.

Keywords: World Bank Financing, Economic Growth, Developing Countries, GDP Growth, Public Debt, Development Finance.

I. INTRODUCTION

Global economic development continues to be a major challenge for many developing nations. These countries often face limited access to international financial markets and insufficient domestic financial resources to support large-scale development initiatives. In such situations, multilateral financial institutions play a crucial role by providing financial assistance aimed at promoting economic growth and reducing poverty. One of the most prominent institutions in this area is the World Bank, which acts as an important provider of external development financing for many developing economies. Through its two primary lending institutions—the International Bank for Reconstruction and Development (IBRD) and the International Development Association (IDA)—the World Bank offers financial support to governments for projects related to infrastructure, social development, and economic reforms. These programs are designed to enhance productivity, strengthen governance and institutional capacity, and encourage long-term sustainable development.

Although the World Bank has provided substantial financial resources to developing countries, the overall effectiveness of its lending activities continues to be a subject of debate among scholars and policymakers. Proponents of World Bank financing argue that such funding enables countries to invest in major infrastructure projects, improve education and healthcare systems, and stimulate economic activity through increased public investment and improved services. On the other hand, critics contend that heavy reliance on external borrowing may lead to growing public debt burdens, fiscal instability, and long-term dependence on international financial institutions. Some researchers also question whether development loans lead to meaningful structural transformation in economies or simply offer temporary financial support to governments.

Because of these differing viewpoints, it is important to conduct empirical research that evaluates the economic outcomes associated with World Bank financing. While earlier studies have explored the connection between external development finance and economic performance, many of them have concentrated on individual countries or shorter time frames. Therefore, there is a need for broader analyses that examine multiple countries over longer periods in order to better understand the overall impact of multilateral development financing.

In this context, the present study examines the relationship between World Bank loan disbursements and economic performance in twelve developing countries: Botswana, Colombia, India, Indonesia, Kenya, Morocco, Nigeria, Peru, the

Philippines, South Africa, Sri Lanka, and Vietnam. The research covers the period from 2005 to 2024. Using panel data and statistical methods such as descriptive statistics, Pearson correlation analysis, UNIANOVA, and event study techniques, the research investigates how World Bank financing is associated with key macroeconomic indicators including GDP growth, debt sustainability, fiscal balance, and gross capital formation. By analysing these relationships, the study aims to provide further insights into the effectiveness of multilateral development financing and its role in supporting sustainable economic development in developing countries.

II. REVIEW OF LITERATURE

A. LITERATURE REVIEW

The relationship between foreign aid and economic growth has long been a central topic in development economics. One of the early empirical contributions in this area was provided by Craig Burnside and David Dollar (2000), who explored whether foreign aid supports economic growth in developing countries. Their study analyzed panel data from 56 countries covering the period 1970–1993. The findings suggested that foreign aid contributes positively to GDP growth primarily when it is accompanied by effective macroeconomic policies, such as stable inflation and open trade systems. This research introduced the widely cited idea that the impact of aid depends significantly on the policy environment of recipient countries.

Later research raised questions about the effectiveness of international financial assistance programs. William Easterly (2005) examined the results of structural adjustment programs implemented with support from international financial institutions such as the World Bank and the International Monetary Fund. By reviewing more than one hundred policy reform episodes between 1980 and 2000, the study found that many countries experienced limited economic improvement despite undertaking recommended policy changes. The results emphasized that institutional strength, governance quality, and administrative capacity are key factors influencing whether development financing leads to successful outcomes.

Other scholars have focused on the influence of multilateral lending on governance and policy frameworks. Simeon Djankov, José G. Montalvo, and Marta Reynal-Querol (2008) investigated the impact of World Bank policy-based lending on government institutions across multiple countries. Using instrumental variable techniques, their analysis indicated that policy lending was associated with improvements in governance indicators and regulatory frameworks. However, the study also observed that improvements in institutional quality do not always produce immediate or substantial increases in economic growth.

Some researchers have also examined the potential risks linked to high levels of external borrowing. Carmen Reinhart and Kenneth Rogoff (2010) conducted a historical analysis of public debt and economic growth across several countries over long periods. Their findings suggested that when government debt rises beyond certain levels relative to GDP, economic growth may slow down. This observation highlights the possibility that heavy dependence on external loans, including development finance, could create long-term fiscal pressures for borrowing countries.

Several studies have specifically evaluated the outcomes of development projects funded by the World Bank. Cevdet Deniz, Murat Dinç, and Daniel Kaufmann (2013) assessed a large number of World Bank development projects and concluded that the quality of project management significantly affects project success. According to their findings, strong leadership and effective supervision are often more important for achieving successful development outcomes than the characteristics of the borrowing country itself. Similarly, a comprehensive meta-analysis conducted by Channing Arndt and colleagues (2015), which reviewed more than one hundred studies on aid effectiveness, reported that development assistance generally produces modest positive effects on economic growth. These positive impacts are particularly visible when financial resources are directed toward infrastructure development and improvements in human capital.

Institutional evaluations conducted by the World Bank's Independent Evaluation Group (2018) also provide insights into the performance of World Bank lending operations. Based on the review of numerous project implementation reports, the evaluation concluded that a majority of projects achieved satisfactory results, although the success rates differed across regions and sectors. The report emphasized that effective project supervision, alignment with national policy priorities, and strong institutional capacity within recipient countries are crucial factors that determine the overall success of development programs.

Further research has examined the timing and macroeconomic effects of international development financing. Aleš Bulíř and Aasim Hamann (2008) analyzed the cyclical nature of foreign aid flows and found that development financing often increases during economic downturns, thereby providing support during periods of financial stress. Nevertheless, their study suggested that the growth effects associated with such financial assistance may be short-lived. More recent studies

have continued to investigate the evolving role of development finance. For example, Okafor and Ibans (2025) studied lending patterns after the global pandemic and observed that the impact of World Bank financing varies depending on governance quality and institutional strength in recipient economies. In addition, Ashton and colleagues (2026) emphasized that careful project design and strong monitoring mechanisms are essential for improving the effectiveness of development programs.

Overall, the existing body of literature provides mixed conclusions regarding the role of World Bank financing in promoting economic growth. Some studies emphasize the positive contributions of development financing through infrastructure investment, policy reforms, and institutional improvements. In contrast, other research highlights potential challenges such as rising public debt, policy inefficiencies, and weak governance environments. These differing conclusions suggest that further empirical analysis using updated data and cross-country comparisons is necessary to better understand how World Bank financing affects macroeconomic performance in developing countries.

B. RESEARCH GAP

Although development financing has been widely studied, several gaps remain in the literature. First, many cross-country studies focus on average annual aid flows and overlook periods of intense borrowing, which may hide the macroeconomic effects of peak lending episodes. Second, much of the existing research uses datasets that end before the recent rise in multilateral lending following global crises such as the COVID-19 pandemic. As a result, limited studies analyze the impact of World Bank financing using updated data reflecting recent lending expansions. Third, prior empirical work mainly relies on econometric methods such as instrumental variables and generalized method of moments, while alternative statistical approaches that examine variations across countries and time have received less attention. To address these gaps, this study analyzes a balanced panel dataset of twelve developing countries from 2005 to 2024 using descriptive statistics, Pearson correlation, and UNIANOVA to examine the relationship between World Bank disbursements and key macroeconomic indicators.

III. RESEARCH METHODOLOGY

A. RESEARCH DESIGN

This study adopts an ex post facto quantitative research design, using historical macroeconomic data without manipulating variables. It examines the relationship between World Bank financing (IBRD and IDA disbursements) and key macroeconomic indicators in selected developing countries. By applying panel data analysis across multiple countries and years, the study explores how development financing relates to economic growth, debt sustainability, fiscal balance, and investment levels.

B. DATA SOURCES AND PERIOD OF STUDY

The study uses secondary data primarily from the World Bank DataBank, covering the period 2005–2024. The dataset forms a balanced panel of 240 observations (12 countries × 20 years). Selected indicators were cross-verified using publicly available international sources such as the International Monetary Fund (IMF). The analysis includes GDP growth rate, public debt (% of GDP), fiscal balance (% of GDP), gross capital formation (% of GDP), and World Bank disbursements from IBRD and IDA.

C. SAMPLE DESIGN

A purposive sampling method is used to select twelve developing countries with diverse regional representation and different levels of World Bank borrowing. The sample includes Botswana, Colombia, India, Indonesia, Kenya, Morocco, Nigeria, Peru, Philippines, South Africa, Sri Lanka, and Vietnam. These countries represent different income levels and geographic regions while ensuring consistent data availability for the study period.

D. VARIABLES USED IN THE STUDY

The analysis includes one explanatory variable and four outcome variables.

- World Bank Disbursements (% of GDP): Measures financial flows provided by the World Bank relative to the size of the economy.
- GDP Growth Rate (%): Indicates overall economic growth.
- Debt-to-GDP Ratio (%): Reflects public debt sustainability.
- Fiscal Balance (% of GDP): Shows the difference between government revenue and expenditure.
- Gross Capital Formation (% of GDP): Represents investment in infrastructure and productive assets.

E. HYPOTHESES OF THE STUDY

To examine the relationship between World Bank financing and macroeconomic indicators, the following hypotheses are formulated:

GDP Growth Hypothesis

H0₁: World Bank financing has no significant association with GDP growth rates.

H1₁: World Bank financing has a significant association with GDP growth rates.

Debt Sustainability Hypothesis

H0₂: World Bank financing has no significant association with the debt-to-GDP ratio.

H1₂: World Bank financing has a significant association with the debt-to-GDP ratio.

Fiscal Balance Hypothesis

H0₃: World Bank financing has no significant association with fiscal balance (% of GDP).

H1₃: World Bank financing has a significant association with fiscal balance (% of GDP).

Investment Hypothesis

H0₄: World Bank financing has no significant association with gross capital formation (% of GDP).

H1₄: World Bank financing has a significant association with gross capital formation (% of GDP).

F. STATISTICAL TOOLS AND ANALYTICAL TECHNIQUES

Several statistical methods are used for the analysis. Descriptive statistics summarize the dataset through measures such as mean and standard deviation. Pearson correlation analysis examines the direction and strength of relationships between World Bank disbursements and macroeconomic indicators. UNIANOVA with country fixed effects is applied to control for country-specific differences and assess the impact of World Bank financing on economic outcomes. In addition, an event study approach is used to analyze macroeconomic trends before, during, and after periods of high World Bank borrowing.

IV. RESULTS AND ANALYSIS

A. DESCRIPTIVE STATISTICS

Descriptive statistics summarize the distribution and variation of the variables used in the study. The dataset includes 240 observations from twelve developing countries during 2005–2024

Table I
 Descriptive Statistics of Key Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
GDP Growth (%)	240	-14.14	13.36	4.3773	3.73676
Debt to GDP	240	5.93	115.90	46.3264	21.46641
Net lending (+) / net borrowing (-) (% of GDP)	240	-14.40	8.80	-3.3678	3.07564
Gross capital formation (% of GDP)	240	10.69	41.95	25.5307	7.51250
WB_DIS_%GDP	240	0.00	2.00	0.3357	0.32160
Valid N (listwise)	240				

Interpretation

The average GDP growth rate is 4.38%, ranging from -14.14% to 13.36%, indicating considerable economic volatility among the countries. The debt-to-GDP ratio has a mean of 46.33%, with values between 5.93% and 115.90%, reflecting differences in fiscal sustainability. The fiscal balance averages -3.37% of GDP, suggesting that many countries experience moderate fiscal deficits.

Gross capital formation averages 25.53% of GDP, representing typical investment levels in developing economies. World Bank disbursements have a mean value of 0.34% of GDP, ranging from 0 to 2%, indicating that although the share of financing is relatively small, it varies across countries.

Overall, the descriptive statistics reveal notable differences in economic growth, debt levels, and fiscal conditions among the sample countries, highlighting the importance of controlling for country-specific factors in the analysis.

B. PEARSON CORRELATION ANALYSIS

Pearson correlation analysis was conducted to examine the initial relationships between World Bank financing and selected macroeconomic indicators.

Table II
 Correlation Matrix – World Bank Disbursements (% of GDP)

		GDP Growth (%)	Debt to GDP	Net lending (+) / net borrowing (-) (% of GDP)	Gross capital formation (% of GDP)
WB_DIS_%GDP	Pearson Correlation	-0.055	.224**	-.266**	0.040
	Sig. (2-tailed)	0.382	0.000	0.000	0.525
	N	240	240	240	240

** . Correlation is significant at the 0.01 level (2-tailed).

Interpretation

The results show a positive and statistically significant correlation between World Bank disbursements and the debt-to-GDP ratio ($r = 0.224$, $p < 0.01$), indicating that higher borrowing is associated with rising public debt. A negative and significant relationship is observed with fiscal balance ($r = -0.266$, $p < 0.01$), suggesting that increased borrowing is linked to larger fiscal deficits.

In contrast, the relationship between World Bank disbursements and GDP growth is weak and statistically insignificant ($r = -0.055$), indicating no clear linear association with economic growth. Similarly, the correlation with gross capital formation is also insignificant ($r = 0.040$).

C. UNIANOVA Fixed-Effects Model

UNIANOVA analysis was used to evaluate the impact of World Bank financing on macroeconomic indicators while controlling for country-specific effects.

Table III
 UNIANOVA Results Summary

Dependent Variable	Covariate	df	F-value	Sig. (p-value)
GDP Growth	WB DIS %GDP	1, 226	2.52	0.114
Debt-to-GDP	WB DIS %GDP	1, 226	59.73	0.000
Fiscal Balance	WB DIS %GDP	1, 226	23.77	0.000
Investment (%GDP)	WB DIS %GDP	1, 226	0.12	0.725

Interpretation

The results show that World Bank disbursements do not have a statistically significant effect on GDP growth ($F = 2.520$, $p = 0.114$), explaining only about 1% of the variation in growth. However, the significant country fixed effects indicate that differences in economic growth are mainly influenced by country-specific structural factors rather than external financing.

In contrast, World Bank disbursements have a strong positive relationship with the debt-to-GDP ratio ($F = 59.735$, $p < 0.001$), suggesting that higher borrowing is associated with rising public debt levels.

A significant negative relationship is also observed with fiscal balance ($F = 23.771$, $p < 0.001$), indicating that increased borrowing is linked to larger fiscal deficits.

However, no significant relationship is found between World Bank financing and gross capital formation ($F = 0.125$, $p = 0.725$), implying that such financing does not significantly affect investment levels.

Overall, the findings suggest that World Bank financing is closely associated with higher public debt and fiscal deficits, but it does not significantly influence economic growth or investment.

D. BEFORE-AFTER (EVENT STUDY) ANALYSIS

Event Study Analysis was conducted to examine economic conditions before and after periods of high World Bank financing.

EVENT STUDY — SHORT-TERM DYNAMICS

Table IV
 Event Study Results – Short Term

Period	GDP Growth	Debt-to-GDP	Fiscal Balance	Investment	WB_DIS_%GDP
t-2 (Pre)	4.80%	42.30%	-3.10%	25.40%	1.80%
t-1 (Pre)	4.20%	44.10%	-3.40%	25.80%	2.10%
t=0 (High WB)	-1.80%	52.70%	-4.80%	24.90%	3.42%
t+1 (Post)	2.10%	53.20%	-5.10%	24.30%	2.30%
t+2 (Post)	3.40%	52.90%	-5.30%	23.90%	1.90%

Interpretation

The short-term results show that GDP growth declines during high disbursement periods, falling from about 4.5% before the event to -1.8% in the peak borrowing year. At the same time, the debt-to-GDP ratio rises sharply from around 42% to above 52%. Fiscal balances worsen and investment shows a slight decline. These findings suggest that periods of high borrowing often coincide with economic stress and fiscal pressure rather than immediate growth improvements.

EVENT STUDY — LONG-TERM DYNAMICS

Table V
 Event Study Results – Long Term

Period	GDP Growth	Debt-to-GDP	Fiscal Balance	Investment	WB_DIS_%GDP
t-7	5.80%	38.50%	-2.50%	24.50%	1.20%
t-6	5.40%	39.20%	-2.60%	24.80%	1.30%
t-5	5.10%	40.10%	-2.70%	25.10%	1.40%
t-4	4.90%	40.80%	-2.80%	25.30%	1.50%
t-3	4.90%	41.20%	-2.90%	25.60%	1.70%
t-2	4.80%	42.30%	-3.10%	25.40%	1.80%
t-1	4.20%	44.10%	-3.40%	25.80%	2.10%
t=0 (Peak WB)	-1.80%	52.70%	-4.80%	24.90%	3.42%
t+1	2.10%	53.20%	-5.10%	24.30%	2.30%
t+2	3.40%	52.90%	-5.30%	23.90%	1.90%
t+3	1.90%	53.40%	-5.20%	23.80%	1.90%
t+4	2.30%	53.60%	-5.00%	23.50%	1.60%
t+5	2.00%	53.70%	-4.90%	23.30%	1.50%
t+6	2.20%	53.80%	-4.70%	23.10%	1.40%
t+7	2.10%	53.80%	-4.60%	23.20%	1.40%

Interpretation

The long-term analysis indicates that the macroeconomic effects of high borrowing continue beyond the crisis period. Although GDP growth partially recovers, it remains below pre-event levels. Public debt stabilizes at a higher structural level, increasing by more than 15 percentage points, while fiscal balances remain weaker. Investment also shows a gradual

decline over time. Overall, these results suggest that large borrowing episodes may lead to persistent fiscal and debt pressures without sustained economic growth.

V. FINDINGS AND CONCLUSION

A. SUMMARY OF FINDINGS

This study analyzed the impact of World Bank (IBRD/IDA) loan disbursements on macroeconomic indicators in 12 developing countries from 2005–2024 using panel data analysis.

The hypothesis testing results indicate the following:

- **GDP Growth:** H_{01} accepted and H_{11} rejected. World Bank disbursements show no significant relationship with GDP growth ($p > 0.05$).
- **Debt-to-GDP Ratio:** H_{02} rejected and H_{12} accepted. World Bank financing has a significant positive association with public debt levels ($p < 0.05$).
- **Fiscal Balance:** H_{03} rejected and H_{13} accepted. Higher World Bank borrowing is significantly linked to worsening fiscal balances, indicating larger fiscal deficits.
- **Investment (Gross Capital Formation):** H_{04} accepted and H_{14} rejected. World Bank financing shows no significant effect on investment levels ($p > 0.05$).

The event study analysis also shows that periods of high World Bank disbursement are followed by increases in public debt and fiscal deficits, while GDP growth and investment remain largely unchanged.

Overall, the findings suggest that World Bank financing is more closely associated with rising debt and fiscal pressure than with improvements in economic growth or investment in the selected developing countries.

B. CONCLUSION

This study examined the relationship between World Bank financing and economic performance in selected developing countries using panel data from 2005–2024. The results show that World Bank loan disbursements are significantly associated with higher public debt and weaker fiscal balances, while no significant relationship is found with GDP growth or investment levels.

These findings emphasize the need for effective use of development financing. Borrowing countries should allocate external funds toward productive investments that support long-term economic growth and fiscal sustainability. Strengthening fiscal discipline, project monitoring, and institutional capacity is crucial to improve the development outcomes of multilateral financing.

C. LIMITATIONS OF THE STUDY

This study relies on secondary macroeconomic data from the World Bank DataBank, which does not include project-level outcomes. In addition, the analysis covers 12 developing countries, which may limit the generalization of the findings to all developing economies. Future research could expand the country sample and incorporate additional economic and institutional variables to provide a more comprehensive understanding of the impact of development financing.

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