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The Effect of Supranational Organizations on Investment Project Success

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Honors Thesis

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Abstract

Supranational organizations, such as the World Bank, associate with member countries from across the world that cede an aspect of their authority and sovereignty. 137 countries partner with supranational organizations for the purpose of seeking benefits whether financially, militarily, or politically. Without understanding the effectiveness of supranational organizations, international communities risk becoming negatively impacted through the means of inaccurate support via financial aid through investment projects. This study analyzes the relationship between investment project success and support with supranational organizations. This paper proposes that bilateral support and multilateral support in collaboration with supranational organizations reveals a positive correlation when partnering together rather than investment projects that do not partner. Support for this proposition is found from 4,273 investment projects from 137 countries. The database examined was taken from the Private Participation in Infrastructure (PPI) 2022 annual report provided by the World Bank. The application of this study is to illustrate the effectiveness of supranational entities in terms of investment project success through the means of bilateral and multilateral support to provide a more insightful view to foreign aid in investment projects.

Keywords: investment project, World Bank, supranational organizations, bilateral support, multilateral support

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The Effect of Supranational Organizations on Investment Project Success

With the advancements of technology and the expansion of global growth, it has become more evident than before for firms to focus on financial security. Developmental objectives can shift the meaning of financial security for both firms and countries. Recently, investment projects have become the epicenter for firms seeking ways to acquire financial security. These investment projects are partnering with supranational organizations in various parts of the world and various sectors of business to achieve the goal of financial success. However, in the space of academia, there is a lack of significant amounts of study on the accuracy of these partnerships with supranational organizations on the international scale. Efficiency is a necessary goal of any financially successful firm, yet the effectiveness of investment project success while partnering with supranational entities has barely been focused on. The purpose of this analysis is to understand the aspects of investment projects and supranational organizations and determine an accurate understanding of the effectiveness of partnership between the two in relation to bilateral and multilateral support.

On the national scale, financial insecurity has been a major issue for developing countries around the world. There have been many economic and financial studies conducted on the topic of discovering the reasons that contribute to financial insecurity, but there have been limited studies on the aid effectiveness provided by supranational organizations. In his article, Louise Ashton adds, "The identification of key determinants of aid effectiveness is a long-standing question in the development community. Aid effectiveness at the project level involves a variety of dimensions in terms of investment project financing" (Ashton et al., 2023; 117). Supranational organizations have a significant role in addressing financial insecurity through investment projects with firms across numerous countries. These organizations bring a unique set of

resources and capabilities, which has been researched to contribute to more effective solutions. "In the absence of aid, growth would have been far worse. Moreover, the multidimensionality of development objectives further complicates empirical analysis," exclaim François Bourguignon and Mark Sundberg (Bourguignon & Sundberg, 2007; 317). To fully appreciate the potential impact supranational organizations pose on investment project financing, it is essential to understand the multidimensional nature of the term aid effectiveness.

Within the scope of international development and foreign aid, aid effectiveness is often referred to as the degree to which foreign assistance achieves its intended objectives and creates a positive impact towards its recipient project. Mark Sundberg and François Bourguignon ascertain, "Aid effectiveness encompasses several critical dimensions ranging from resource allocation, capacity-building efforts, and risk mitigation" (Bourguignon & Sundberg, 2007; 318). Supranational organizations have the ability to allocate resources more efficiently and often engage in capacity-building efforts enhancing the firm and or country's ability to manage and implement investment projects effectively. The measure of aid effectiveness has been studied in a variety of aspects and with different supranational organizations. However, the methodology and variables of these studies are often changed and lead to critiques from opponents of foreign developmental aid.

Project Context

This analysis and study seeks to determine whether project success is affected by project partnering with supranational organizations, such as the World Bank. This study builds upon scholarly contributions to provide an evidence-based evaluation of the effectiveness of such collaborations. The description of investment projects and project success is based on scholars in the field of international aid (Jandhyala, 2016), collaboration with the World Bank (Ashton et al.,

2023), and economic effectiveness (Bartošová et al., 2015). The definition of "project success" within this study encompasses the aspects of economic growth, sustainability, and development. This paper assesses support for the theoretical framework by taking a sample of 4.273 investment projects from 137 countries. Selecting a diverse set of investment projects allows the study to examine whether supranational aid varies across sectors and or regions. To help determine project success and aid effectiveness, bilateral and multilateral support towards investment projects will also be determined. According to the World Bank, "Bilateral support includes support from agencies of one specific government, which are usually development agencies or export-credit agencies. While multilateral support involves the collaboration between supranational organizations and multiple countries" (PPI Database, 2023). This study finds that when investment projects partner with the World Bank and are financially supported by bilateral and multilateral facets, these projects are more successful than those projects that are not. The results provide an insight to the effectiveness of these partnerships and add reasoning for other or new investment projects to find support in bilateral or multilateral entities. The findings and insights from this study can inform better decision-making in the realm of international development and foreign aid, contributing to more effective and impactful investment projects around the world.

Background and Hypotheses

Supranational Organizations

Many supranational organizations have existed since a little after World War I and are commonly understood as entities that are able to help and sustain countries. They have since evolved to play a crucial role in the global political and economic landscape. Through her article, Srividya Jandhyala describes, "Supranational organizations are organizations that have countries

as members and are designed to govern, coordinate, and facilitate a wide spectrum of cross-border issues that cannot otherwise be addressed domestically" (Jandhyala, 2016; 8). A key characteristic of supranational organizations is their ability to provide assistance and support to member countries. They do so by pooling resources, expertise, and influence from multiple countries to address common challenges such as environmental issues. Firms and or countries that become partners with supranational organizations are in turn allowed to receive the numerous benefits that become available. In turn, allowing firms and countries to plan and develop investment projects that are proposed to create a positive impact. Firms and or countries gain access to third-party aid, which can come in the form of financial assistance, technical expertise, and even knowledge sharing. As the world continues to face complex global issues, supranational organizations remain vital in addressing these challenges through cooperation and collaboration with firms and or countries.

The World Bank

As one of the world's most well-known supranational organization, the World Bank has been functioning for a little more than 70 years. Despite the calls to radically reform the institution or even close the organization as a whole, the World Bank continues to remain a foreground leader in international aid. As a former employee of the World Bank, Martin Ravallion exclaims, "The World Bank is far more than a development aid agency, but the motivations for aid are at the core of the rationale for the bank's existence" (Ravallion, 2015; 4). The World Bank is seen as different from private financial institutions, despite having similar goals of project lending. Martin Ravallion continues, "Over its history, the bank has made many efforts to adapt, re-invent and rationalize its role, especially given the development of the global financial markets" (Ravallion, 2015; 6). Recently, the World Bank has been able to adapt itself to

be able to partner with investment projects across the world. Although the goal of these partnerships is to promote social welfare and create better financial security, the efficiency gains captured is what is relevant to this study. However, the World Bank is not the sole entity that offers aid towards international investment projects.

The International Monetary Fund

Closely related to the World Bank, the International Monetary Fund (IMF) is also a supranational organization that works to foster financial stability and global monetary adherence. The IMF was established upon the aftermath of the Great depression through the Bretton Woods agreement. Many see the IMF as a financial safety net in case of economic depressions, acts of war, or even investment projects. According to Bernhard Reinsberg, "The IMF acts as a lender of last resort to countries where access to alternative sources of external finance is limited and its terms are onerous. The IMF is by far the most important actor within the Global Financial Safety net and important insights can be generated into governance dynamics of low-and-middle income countries" (Reinsberg et al., 2022; 108). The IMF is not only seen as a vital lender of money to many countries, but also to investment projects. Unlike commercial lending, money loaned from the IMF to investment projects looks to support a range of activities at a given time. Therefore, broadening the scope of use and spreading the idea of looking at supranational organizations for different types of aid. Chungshik Moon and Woo Byungwon state, "The amount of global Foreign Direct Investment inflows, for example, has increased 36 times from approximately \$50 billion in 1980 to \$1.8 trillion in 2015. Foreign Direct Investment is particularly important for developing countries, as Foreign Direct Investment has become one of the largest sources of foreign capital in the developing world. Both proponents and opponents of

the IMF recognize that IMF programs may be closely linked to FDI flows" (Moon & Byungwon, 2022; 219).

Defining Terms: "Investment projects," "Bilateral support," and "Multilateral support"

Investment projects. Investment projects (and investment project financing) are used across many economic sectors. From infrastructure to human development, investment projects vary from country to country or even firm to firm depending on the type of needs that a developing country may request aid in. Studies have been conducted on numerous investment projects throughout the world, due to the large volume of different types of investments being conducted. Structurally different than the average business investment, investment projects on the global scale look towards development and growth of a particular sector or commodity. In a recent study, the evaluation of economic efficiency of investment projects was conducted. "Investment project risk is similar to business risk, related to the probability of occurrence of key parameters, such as economic efficiency, from their expected values," exclaims Viera Bartošová (Bartošová et al., 2015; 68). Evaluating economic efficiency of investment projects is vital to ensure that resources and aid are being used effectively. Investment projects are understood as a cornerstone of economic development and success is often contingent on efficient financing, evaluation, and inherent risks and uncertainties. Though there is no lack of studies being conducted in terms of investment projects, there is a wide source of articles that do not align directly to this particular study. Literature specialized on these issues often contains differing classification of methods of evaluation of economic efficiency of investment projects, but also different approaches to risk and uncertainty (Bartošová et al., 2015; 70).

Bilateral support. The World Bank works with bilateral agencies and donors to allow funds to flow directly from co-financers to the recipient country and finance activities of a specific investment project. "Bilateral support includes support from agencies of one specific government, which are usually development agencies or export-credit agencies, which have a mandate to support domestic businesses in pursuing investments abroad" (PPI Database, 2023). Allowing for direct involvement of a country or firm, bilateral support enables for a more focused and tailored support that often aligns with interests of the donor country or firm. Under these arrangements, third-party resources are deployed in a coordinated manner to the World Bank operations that are led by the International Bank for Reconstruction and Development (Trust Funds and Partner Programs).

Multilateral Support. Multilateral support involves multiple firms or countries collaborating by pooling resources and expertise to back investment projects. "Multilateral support involves agencies to work together by means of equity, guarantees, loans, quasi-equity, and syndication" (PPI Database, 2023). Equity from this standpoint is being invested by means of multilateral institutions. Guarantees may include "political risk coverage and partial credit guarantees, which turn medium-term finance into a longer-term arrangement by guaranteeing longer maturity or offering liquidity guarantees in the form of put options and take-out financing" (PPI Database, 2023). Quasi-equity through multilateral support are "products that have both debt and equity characteristics and some of them are convertible debt, subordinated loan investments, and preferred stocks" (PPI Database, 2023). Often referred to as a B-loan, syndication is when "a multilateral institution arranges the financing with resources of other investors, however the institution is always the lender-of-record" (PPI Database, 2023). Through

the means of financial support, multilateral support by multilateral institutions helps investment projects with implementation of development.

Hypotheses

This study proposes that supranational organizations, specifically the World Bank, are able to effectively aid investment projects across the world and are suited to have a positive impact when in collaboration. Given the substantial resources, technical expertise, and international credibility that supranational organizations channel into investment projects, it is assumed that the aid is being used appropriately and effectively. The study anticipates that countries and firms that collaborate with supranational organizations, such as the World Bank, are more likely to achieve successful outcomes in investment projects. The study will also highlight the role of bilateral and multilateral support when combined with the involvement of supranational organizations by leading to greater project success.

Hypothesis 1: When partnering with supranational organizations with aid from bilateral support, investment projects will be more likely to be successful than distressed or terminated.

Hypothesis 2: When partnering with supranational organizations with aid from multilateral support, investment projects will be more likely to be successful than distressed or terminated.

Project Method

Data is gathered and collected from the Private Participation in Infrastructure (PPI)

Project database provided by the World Bank. The Private Participation in Infrastructure Projects

Database is a product of the World Bank's Public Private Partnership group. The purpose of the database is to identify and disseminate information on private participation in infrastructure projects in low- and middle-income countries. The PPI has data on over 6,400 infrastructure projects in 137 countries and is a leading source of PPI trends in the developing world. The

database highlights the contractual arrangements used to attract private investment, the sources and destination of investment flows, and information on the main investors. Within this study, 4,273 investment projects were selected from 137 different countries. Of these investment projects selected, economic sectors comprised the areas in which the investment projects created contracts, developed plans, and implemented the projects. The economic sectors included airports, electricity, renewable energy, water and sewerage plants, railways, roads, natural gas, and other infrastructure. The selection of the number of investment projects and countries in this study were not categorized into different regions of the world and the types of infrastructure projects, rather this study looked at a more holistic, global context. The data was reviewed and compared with academic articles, selected upon the criteria of using the same PPI data or having done research on the topics of supranational organizations, investment project risk, and bilateral and multilateral support (James & Vaaler, 2018; 2022, Jandhyala, 2016). Variable names and descriptions, data sources, and expected impact on project success are shown in Table 1.

Procedure

Data was retrieved from the Private Participation in Infrastructure Project database (PPI) and a sample of 4,273 investment projects was created. Investment projects were not limited to any specific region, level of development, or economic sector. Descriptive statistics were used to summarize key project metrics from 1990 to 2023. These metrics used (variables) were bilateral support, multilateral support, private entity sponsors, access to renewable energy, the cost of the project, the average country sovereignty rating, checks and balances score of institutions, and the equity percentage that the government of each host country owns in every project. The use of the statistics allowed for a thorough examination of the dataset, highlighting patterns and trends within the investment projects. These metrics were used in regression and correlation analyses, in

order to assess the relationship between the extent of supranational organizational involvement and project success indicators. Furthermore, to gauge the effectiveness of the supranational organization partnerships, quadrants were created to highlight the successful and unsuccessful investment projects coupled with bilateral and multilateral support, respectively. The graphs and tables were then created to showcase the results and data that were ultimately collected in this research.

Methodology

Sample

In order to interpret the various data and discovered results, the understanding of project success (Project success) and project status must be met. Project success, as per the information provided by the Private Participation in Infrastructure Project Database, is denoted into the binary values of 1 and 0. The determination of a value of 1 ascertaining to "success" and the determination of a value of 0 ascertaining to "failure." In this study, "failure" refers to the project status of being cancelled or distressed. This understanding of success and failure can help to comprehend Table 2 and Table 3 of investment projects with bilateral or multilateral support, respectively. Within the correlation and regression analysis, project success is the dependent variable, while all other variables are independent variables. On the other hand, the project status of investment projects is broken down into different aspects depending on the stages of the investment project itself. According to the PPI Database, project status corresponds to four different sectors. These sectors are understood as active, cancelled, concluded, and distressed (PPI Database, 2023). For any project that is active it is to say that it is still ongoing and has no conclusive means of being successful or unsuccessful. A project that is cancelled is one that has been shut down due to being infective or harmful to its intended purposes and is understood as

unsuccessful. Concluded projects are those that are considered successful and have been completed within its strategic timeframe. Furthermore, distressed projects are those that come upon obstacles such as financial closure, contracts being violated, or suppliers backing down from agreements.

Variables

Understanding the background of project success and project status, the independent variables can then be explained. These independent variables are bilateral support, multilateral support, private entity sponsors, access to renewable energy, the cost of the project, the average country sovereignty rating, checks and balances score of institutions, and the equity percentage that the government of each host country owns in every project. Already having a basis on the metrics of bilateral and multilateral support, the private entity sponsors (understood as More than two sponsors) are private entities within the PPI Database that together have an equity participation of at least 20% in the project contract and 5% in divestitures. The access to renewable energy (understood as Renewable nohydro) is defined by the main infrastructure services provided by the project to the public and could include energy, transportation, water, information and communication technology, or municipal solid waste. The cost of the project (understood as Project cost) is the natural log of the total investment project cost in millions of U.S. dollars. The average country sovereignty rating (understood as Sovrating avg) is the annual average sovereign rating conducted by Fitch, Moody's, and Standard and Poor's Investment Bank Credit Analysis of long-term foreign currency-denominated debt. The checks and balances score of each institution (understood as Lnchecks) are the natural logs provided by the World Bank's database of political institutions. The percentage of equity each host country's government controls in an investment project is collected as well (understood as

Host_own_percent). A comprehensive breakdown of these variable names and descriptions can be found in Table 1.

Results

Table 2 shows the quadrant of successful and unsuccessful investment projects in alignment with bilateral support. Following the binary process of project success, a value of 1 determines the use of bilateral support, while the value of 0 determines no bilateral support. Of the total number of investment projects taken from the database, only 220 investment projects were successful through the means of aid from bilateral support, while 2 projects were seen as unsuccessful with bilateral support aid. Taking into consideration Table 3, 824 investment projects were successful in collaboration with multilateral support while 145 were seen as unsuccessful. Significantly, bilateral support garnered a higher success rate than multilateral support, despite the relatively high number of projects in the multilateral aspect. However, these findings do not explain that bilateral support in its entirety is more successful than multilateral support but rather both offer positive effectiveness towards the projects they are partnered with. It is further explained that both bilateral and multilateral support have their share of advantages.

Referring to Table 3, the understanding of high multilateral support projects compared to bilateral support projects can be realized. Many of the multilateral projects deemed successful were projects that were already distressed or on the verge of being cancelled. However, multilateral support institutions were able to join and provide sufficient amount of aid in order to save the projects from being unsuccessful. In this study, this is identified as a selection bias playing out. That is, multilateral support may be given or opt to partner with projects that may already be more likely to fail. For example, a multilateral institution partnering with a firm on an investment project in a much less developed country (developing country). This would explain

for the relatively large numbers of unsuccessful projects compared to bilateral support, however, both dependent variables identify that support in general increases the likelihood of project success. The results align with *Hypothesis 1 and Hypothesis 2*, explaining that when partnering with supranational organizations with aid from bilateral or multilateral support, investment projects will be more likely to be successful than distressed or terminated.

Table 4 shows the correlation analysis of project success in regard to the numerous independent variables, while Table 5 shows the regression analysis. Table 4 indicates a positive correlation with bilateral support in terms of project success as well as multilateral support. Bilateral support identifies a mean of 0.05 and standard deviation of 0.22, while multilateral support identifies a mean of 0.23 and a standard deviation of 0.42 (showcasing positive results and explained previously by the total number of investment projects within each area of support). The same results can be found in the regression analysis of Table 5. Three out the six independent variables are identified being statistically significant (Project_cost, Sovrating_avg, and Renewable_nohydro) and contribute to the success of bilateral and multilateral supported projects. Each variable provides positive implications in terms of project success which can be found in Table 5. This is explained by the larger, more expensive an investment project is combined with a high-country sovereign rating and large number of renewable resources created than the more likely that project is going to be successful.

*Table 2 shows the statistical matrix of successful and unsuccessful investment projects with bilateral support. Table 3 shows the statistical matrix of successful and unsuccessful investment projects with multilateral support. Table 4 shows correlations of investment project success, in relation to bilateral and multilateral support, and related variables 1990-2023. Table 5 shows results from regression analysis of investment project success, in relation to bilateral and multilateral support, and related variables 1990-2023

Limitations

One view of limitations to consider is the large number of investment projects that were selected from the dataset. Given that the PPI dataset used in this study was immensely large,

there is potential for further refinement by breaking down the data into smaller, manageable segments. Subsequent research could focus on analyzing specific subsets of the data to derive more specific insights. These subsets could be determined by other variables provided by the PPI Database, such as financing structure, geographical location, or the percentage of involvement of specific supranational organizations. By narrowing the scope of data, future research could examine deeper into the intricacies of project success and the effectiveness of supranational organization partnerships. Furthermore, while this study focused solely on partnerships with the World Bank, there is an opportunity for insight into the roles and impacts that other supranational organizations might play. Organizations such as the International Monetary Fund (IMF) may offer different perspectives and approaches in partnership with investment projects. Exploring other entities could possibly provide a more comprehensive understanding of multilateral support and its role in project success.

The true understanding of bilateral and multilateral support, in the context of this study, also presents as a limitation. While both concepts were previously defined, their complexities within the scope of investment projects may not be fully captured. It is understood that bilateral support involves direct assistance from another entity, while multilateral support involves the collaboration of multiple entities for assistance. However, the extent and impact of bilateral and multilateral support may vary on investment project outcomes depending on funding mechanisms, benefits from the project, and the scope of the project itself. Acknowledging the complexity of these concepts is not to diminish their value within this project, but to highlight the potential implications of analyzing the results.

While the results of this study may not be applicable universally due to variations in project statuses, it is evident that alternative descriptive statistics could provide different

analytical insights. Considering a two-stage regression approach would possibly help with comparing investment project growth and assessing the total impact of partnering with a supranational organization. This approach would enable comparisons across similar project types, years, and specific countries; ultimately, offering valuable insights into the effectiveness of such partnerships. Despite the limitations that hinder this study, the contributions, data analyzed, and additional findings can guide international business scholars, foreign aid investors, and management scholars in navigating the complexities of foreign investment projects when partnered with supranational organizations.

Conclusion

The present study and the data collected help to uncover the positive correlation associated with partnering with supranational organizations in investment projects. This correlation highlights the symbiotic relationship between bilateral and multilateral support collaboration with supranational organizations. The results of the study provide empirical support for the hypothesis, demonstrating a clear and statistically significant positive correlation between investment project success and partnerships with supranational organizations, such as the World Bank. By shedding light onto these dynamics, this research contributes to the deeper understanding of the complexities between supranational organizations and investment projects that are selected. In doing so, it offers valuable insights for policymakers, foreign aid developers, and even the supranational organizations themselves.

While this study offers practical implications for real-world applications, it also serves as a catalyst for further research in this field. The findings presented in this paper can serve as a beacon for future scholars, inspired to continue in exploring and analyzing the concepts pertaining to investment projects and the role of supranational organizations. By building upon

the foundation that is laid by this study, future research can dive deeper into the aspects of organizational partnerships, additional variables, and discover new understandings of this area of study.

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Table 1. Variable names and descriptions, data sources, and expected impact on project success, 1990-2023

| Variable Name | Variable Description and Data Sources | | | |
|------------------------|--|--------------------|--|--|
| Project_success | 0-1 Dummy that equals one (and zero otherwise) meeting the objectives of time, cost and quality in which meets the project's stakeholders; as well as avoiding the classification status of cancelled or distressed. Source: PPI Database | Dependent Variable | | |
| Project_cost | Natural log of the total investment project cost in millions of US dollars. Source: Refinitiv (2021) | No expectation | | |
| More_than_two_sponsors | Sponsors are private entities that together have an equity participation of at least 20% in the project contract for Greenfields, brownfields, and management and lease contracts, and 5% for divestitures. Source: PPI Database | No expectation | | |
| Sovrating_avg | Annual average sovereign rating by Fitch, Moody's, and Standard and Poor's Investment Bank Credit Analysis of long-term foreign currency-denominated debt converted to a 0-16 scale (AAA = 16, AA+ = 15, B- = 1, Below B- (Default) or No Rating = 0). Source: Bloomberg (2021). | No expectation | | |
| Lnchecks | Natural log of the checks and balances score provided by The World Bank's database of political institutions. James & Vaaler (2018) | No expectation | | |
| Renewable_nohydro | Classified according to the four infrastructure sectors covered- Energy, Transport, Water, ICT, Municipal Solid Waste and is defined by the main infrastructure services provided by the project to the public. Source: PPI Database | No expectation | | |
| Host_own_percent | The equity percentage that the government of the host country owns in the investment project. Source: James & Vaaler (2018) | No expectation | | |
| Bilateral_support | 0-1 Dummy that equals one (and zero otherwise) if the investment project is concluded to have bilateral support. Bilateral support includes support from agencies of one specific government, which are usually development agencies. Source: PPI Database | Positive | | |
| Multilateral_suppport | Negative | | | |

Table 2. Quadrant of Successful and Unsuccessful Investment Projects with Bilateral Support

| | bilateralsupport | | | | | | |
|-------|------------------|-----|-------|--|--|--|--|
| | 0 | 1 | Total | | | | |
| 0 | 272 | 2 | 274 | | | | |
| 1 | 3,779 | 220 | 3,999 | | | | |
| Total | 4,051 | 222 | 4,273 | | | | |

=1 if | Projectstatus is Active or =0 if | Projectstatus is Concluded

Table 3. Quadrant of Successful and Unsuccessful Investment Projects with Multilateral Support

| multilateralsupport | | | | | | | |
|---------------------|-------|-----|-------|--|--|--|--|
| | 0 | 1 | Total | | | | |
| 0 | 129 | 145 | 274 | | | | |
| 1 | 3,175 | 824 | 3,999 | | | | |
| Total | 3,304 | 969 | 4,273 | | | | |

=1 if | Projectstatus is Active or =0 if | Projectstatus is Concluded

Table 4. Results from correlation analysis of investment project success, in relation to bilateral and multilateral support, and related variables 1990-2023

| 1. Project_success | Mean 0.94 | S.D. 0.25 | Min 0.00 | Max 1.00 | 1 1.00 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---------------------------|--------------|--------------|-------------|-------------|-----------|-------------|----------------|-----------------|-------|-------|-------|------|------|
| 2. Project_cost | 210.38 | 490.91 | 0.05 | 14800.0 | 0.04 | 1.00 (0.01) |) | | | | | | |
| 3. More_than_two_sponsors | 0.08 | 0.27 | 0.00 | 1.00 | 0.01 | 0.14 | 1.00 | | | | | | |
| 4. Sovrating_avg | 4.67 | 2.90 | 0.00 | | 0.30 | 0.13 | -0.05 | 1.00 | | | | | |
| 5. Lnchecks | 1.28 | 0.54 | 0.00 | , | 0.05 | 0.03 | -0.07 | 0.24 | 1.00 | | | | |
| 6. Renewable_nohydro | 0.25 | 0.44 | 0.00 | 1.00 | , | -0.09 | -0.02 | 0.25 | -0.08 | 1.00 | | | |
| 7. Host_own_percent | 9.71 (0.2 | 18.52 | 0.00 | , | -0.02 | 0.09 | -0.02 | -0.04 | 0.06 | -0.24 | 1.00 | | |
| 8. Bilateral_support | 0.05 | 0.22 | 0.00 | , | 0.05 | 0.09 | 0.11 (0.02) | -0.10 | -0.08 | 0.15 | -0.07 | 1.00 | |
| 9. Multilateral_support | 0.23 | 0.42 | 0.00 | 1.00 | -0.19 | 0.01 | 0.08 (0.89) | -0.22 (0.00) | -0.06 | -0.00 | 0.00 | 0.15 | 1.00 |

^{*}Note that Table 4 denotes years of 1990-2023, however, due to the delay of data testing is stopped in 2015 given that some projects continue to be active in host countries.

Table 5. Results from regression analysis of investment project success, in relation to bilateral and multilateral support, and related variables 1990-2023

VARIABLES

| Project_cost | -0.000** -0.000** |
|---------------------------------------|--------------------------------|
| | (0.0) (0.000) |
| More_than_two_sponsors | 0.344* 0.375** |
| | (0.229) (0.224) |
| Sovrating_avg | 0.257*** 0.236*** |
| | (0.056) (0.048) |
| Lnchecks | 0.098 0.140 |
| | (0.195) (0.183) |
| Renewable_nohydro | 1.017** 0.943** |
| | (0.480) (0.442) |
| Host_own_percent | 0.002 0.002 |
| | (0.004) (0.004) |
| Bilateral_support | 0.709** |
| | (0.348) |
| Multilateral_support | -0.498* |
| | (0.261) |
| Constant | 0.840** 0.935*** |
| | (0.340) (0.300) |
| Observations | 4,273 4,273 |
| Robust standard errors in parentheses | *** p<0.01, ** p<0.05, * p<0.1 |