Apex Journal of Business and Management
Volume 02, Issue 01, 2024. PP. 35-48
https://doi.org/10.61274/apxc.2024.v02i01.004
Research Article

Comparative Study of Macroeconomic Variables and Corporate Bond Issuance Behavior: A Case of Nepal and Bangladesh

Badri Prasad Joshi[1], Bharat Singh Thapa[2]
[1]MBA Scholar, Apex College, Kathmandu, Nepal
[2]Assistant Professor, Tribhuvan University, Kathmandu, Nepal

ARTICLE INFO

Corresponding Author
Badri Prasad Joshi
Email
badrip.joshi@apexcollege.edu.np
Article History
Received: 15 January 2024
Accepted: 10 March 2024
Orcid
https://orcid.org/0009-0004-9136-9483
Zenodo DOI
https://doi.org/10.5281/zenodo.10896398
Cite
Joshi, B.P., & Thapa, B.S. (2024). Comparative Study of Macroeconomic Variables and Corporate Bond Issuance Behavior: A Case of Nepal and Bangladesh . *Apex Journal of Business and Management (AJBM).* 2(1), 35-48. *https://doi.org/10.61274/apxc.2024.v02i01.004*

ABSTRACT

The primary objective of this study is to investigate how various macroeconomic variables—such as the size of the economy, size of the bank, size of corporate debt, openness of the economy, and exchange rate variability—affect the issuance behavior of corporate debt in Nepal and Bangladesh. Using secondary data collected from the World Bank and respective countries' official websites spanning 27 years from 1993 to 2019, the research employs an analytical and descriptive research design. Statistical tests, including correlation, regression analysis, and t-tests, were conducted using STATA, SPSS, and Excel. The findings reveal a strong correlation between the size of corporate debt and corporate debt issuance behavior in both Nepal and Bangladesh. T-tests indicate significant differences in the openness of the economy, size of the bank, and issuance behavior of corporate debt between the two countries. Hypothesis testing underscores a significant relationship between the size of corporate debt and the issuance behavior of corporate debt in both Nepal and Bangladesh. This research contributes valuable insights for policymakers, financial analysts, and businesses seeking to navigate the complexities of corporate bond markets in these regions.

Keywords: *Corporate bond, Issuance behavior, Comparative study, Financial markets, Economic size, Openness of economy, Exchange rate variability.*

Introduction

Corporate bonds play a crucial role in financing corporations, providing them with the necessary capital for various projects and operations. These debt securities involve the payment of pre-established interest rates to investors, either at fixed or variable rates, with the principal amount repaid upon maturity (Ross, Westerfield & Jordan, 2015). The corporate debt market is essential for a well-functioning financial system, offering an avenue for corporations to raise funds and investors to diversify their portfolios.

In Nepal, the corporate bond market is still in its early stages of development, primarily dominated by government securities (Kviback, 2000). The country's capital market, represented by the Nepal Stock Exchange (NEPSE), is evolving, with limited corporate bond issuance. Despite regulatory efforts to encourage banks to issue debentures, the market faces challenges such as a weak supply of and demand for corporate bonds, insufficient blue-chip issuers, and a lack of diverse financial instruments (Nepal Rastra Bank, 2019).

On the other hand, Bangladesh has two full-fledged automated stock exchanges, the Dhaka Stock Exchange (DSE) and the Chittagong Stock Exchange (CSE), overseen by the Bangladesh Securities and Exchange Commission (BSEC) (Bangladesh Bank, 2021). However, the corporate debt market in Bangladesh remains underdeveloped, with a low volume of issues and trade. Companies often prefer bank financing over bond markets to avoid stringent disclosure and governance requirements, contributing to the small size of the debt market in the country (Jahur & Qadir, 2010).

The inefficiency and limited development of corporate bond markets in both Nepal and Bangladesh underscore the need for a comprehensive analysis of macroeconomic variables influencing corporate bond issuance behavior. This research aims to explore how factors such as the size of the economy, bank size, corporate debt size, openness of the economy, and exchange rate variability impact corporate debt issuance in these two South Asian nations. Through statistical tests and analyses, the study seeks to provide insights into the dynamics of corporate bond markets in Nepal and Bangladesh, identifying areas for improvement and potential avenues for market growth. A comparative study of macroeconomic variables and corporate bond issuance behavior in Nepal and Bangladesh is essential to understand the unique economic and financial dynamics of these two countries. Mishra & Aithal. (2021a&b) have conducted extensive research on various aspects of the Nepalese economy, including green financing, profitability in commercial banks, and foreign aid movements (Mishra & Aithal, 2022: Mishra& Aithal,2023). By extending their research to include Bangladesh, a comparative analysis can provide valuable insights into the factors influencing corporate bond issuance in these two South Asian nations. This study could help identify the impact of macroeconomic indicators on corporate bond markets, offering practical implications for policymakers, investors, and financial institutions in both countries. Additionally, such research can contribute to the existing literature on emerging markets' financial systems and their interplay with macroeconomic variables, further enriching the global understanding of financial markets and economic development (Mishra, Kandel & Aithal, 2021).

Problem Statement

Amidst various financing methods, corporate bonds have emerged as a vital, reliable, and cost-effective source of funding for companies globally. The disruptions experienced in the financial markets during 2008 highlighted the crucial role corporate bonds play in facilitating global finance, fostering growth, employment, and prosperity (ICMA, 2013). However, despite their significance, the corporate bond markets in Bangladesh and Nepal face challenges in terms of size, maturity, and development compared to their South Asian counterparts.

This study aims to delve into the comparative trends analysis of corporate bond market development in Bangladesh and Nepal. The primary problem revolves around understanding the dynamics of corporate bond issuance and its impact on companies, investors, and economies in these two countries. Corporate bonds offer predictable cash flows, making them advantageous for both issuers and investors. They are considered a cheaper and less risky financing option compared to equity finance, which depends on uncertain profitability (ICMA, 2013).

Furthermore, the study seeks to analyze the macroeconomic benefits of private sector bond markets, emphasizing how they can diffuse stresses on the banking sector, provide long-term funds for investments, lower funding costs, and enhance flexibility in meeting specific investor and borrower needs (Hassan et al., 2020). The research also considers the impact of the lack of a well-developed corporate bond market on the banking system and the potential for crony capitalism, poor lending criteria, and excess borrowing (Dickie & Fan, 2005).

Recognizing the critical role of corporate bond markets in economic welfare and growth, this study addresses the underdeveloped state of these markets in Bangladesh and Nepal. By identifying the determinants influencing the issuance behavior of corporate debt, the research aims to provide insights for policymakers and stakeholders to formulate strategies that foster the growth and development of the corporate bond markets in these two countries.

Research Objective

The overarching objective of this study is to compare the bond issuance behavior of firms between Nepal and Bangladesh.

Literature Review

This comprehensive review delves into various aspects of bond market development, encompassing economic impact, necessary conditions, market dynamics, investor behavior, and the role of legal and financial environments in Nepal and Bangladesh. Addressing these factors is crucial for fostering robust and sustainable bond markets in both countries.

Impact of Well-Functioning Bond Markets on Economic Factors:

Herring and Chatusripitak (2000) explored consequences of the absence of a well-functioning bond market, emphasizing its impact on savings, investment quality, quantity, and risk management. Concluded that a deficiency in the bond market might reduce economic efficiency and increase vulnerability to financial crises.

Requirements for Robust Bond Market Development in East Asia:

Fabella and Madhur (2003) identified eight conditions for robust domestic bond market development, including a stable macroeconomic environment, a healthy government bond market, post-crisis banking sector restructuring, improved corporate governance, regulatory framework strengthening, tax treatment rationalization, investor base broadening, and regional bond market center growth.

Role of Clear Rules and Stable Macroeconomic Environment:

Yoshitomi & Shirai (2001) observed that clear rules and a stable macroeconomic environment correlate with rapid development in corporate bond markets. A robust banking sector operating on market principles reinforces, rather than weakens, the bond market.

Constraints on Bond Market Trading Size:

Rohleder et al. (2018) emphasized the importance of larger bond sizes and good long-term performance for the survival of bonds. Small trades are more expensive, making it crucial for bonds to have significant size and strong performance for survival.

Foreign and Domestic Investment Impact:

Park et al. (2018) explored foreign and domestic investment in the global bond market, highlighting the importance of well-developed financial markets and economic stability. Greater market size ensures information availability and corporate governance quality, attracting institutional investors.

Financial Structure and Bond Market Development:

Hardie and Rethel (2018) explored the relationship between financial structure and domestic bond market development. Found that financial market actors play a pivotal role, impacting bond market development based on their preferences and actions.

Fund Flow Performance and Investor Behavior:

Hui (2019) investigated fund flow performance, revealing that investors are inclined to buy bonds when trading at high prices. Bonds are not considered attractive during over performance, indicating a preference for other investment avenues.

Specific Contributions of Bond Markets to the Economy:

Jiang et al. (2011) highlighted the transparent pricing provided by bond market trading, competition for the banking sector, and the potential for a derivative market. Bonds offer longer maturity assets, aiding specialist savers with long-term liabilities.

Role of Bonds in Risk Reduction and Financial Flexibility:

Herring and Chatusripitak (2000) stressed the role of bonds in offering longer maturity assets, benefiting specialist savers and reducing the concentration of risk compared to banks. Bond markets also enable governments to trade their bonds, enhancing monetary policy flexibility.

Impact of Legal Environment on Capital Market Development:

Porta et al. (1997) found that countries with poor investor protections have smaller and narrower capital markets. Improved legal environments are essential for developing robust capital markets.

Bond Market Development Post 1997-98 Financial Crises:

Eichengreen & Luengnaruemitchai (2004) addressed the need for diversified financial systems and highlighted the vulnerability of Asian economies due to underdeveloped bond markets post the 1997-98 financial crises.

Challenges and Policies Influencing Bond Market Development:

Rajan & Zingales (2001) noted that entrenched interests might resist market competition, but policies suppressing alternative supply sources are less tenable in economies exposed to international competition.

Role of Bonds in Risk Reduction for Savers:

Harwood (2000) stated that bonds serve as a means for investors to reduce risk in their savings. Investor preference for bonds is contingent on the credit quality of issuers.

Corporations' Issuance of Corporate Bonds:

Maeda (2009) explored corporations' issuance of bonds, emphasizing their reasons, such as expansion, acquiring new assets, and creditworthiness influencing bond ratings.

Status of Market in Nepal:

Primary Market Dynamics in Nepal:

Ordinary shares, especially through rights offerings, are more active in the primary market compared to alternative mechanisms like preference shares, debentures, mutual funds, and citizen unit schemes. Ordinary shares dominate initial public offerings, often experiencing high oversubscription (Gurung, 2017).

Early Stages of Bond Market Development in Nepal:

Nepal's bond market is at an early stage of development, with government debt securities dominating. Corporate bond market activity is minimal due to a lack of issuers and investors. Corporate debentures are notably absent, attributed to past defaults, corporate governance issues, transparency concerns, and a lack of credit rating systems (Sophastienphong et al., 2008).

Challenges and Recommendations for Debenture Market in Nepal:

The Nepalese debenture market faces challenges, including the need for investor and executive education, careful analysis of investment factors, and enhanced awareness of the investment environment. Both investors and executives should gain proper knowledge before making investment decisions (Manandhar & Shah, 2018).

Status of Market in Bangladesh

Dominance of Government Debt Securities in Bangladesh:

Bangladesh's debt market is small, with government debt securities, such as treasury bills, treasury bonds, and National Savings Certificates, dominating. Corporate bond issues are occasional and stagnant due to a lack of varied corporate debt supply (Jahur & Qadir, 2010).

Barriers to Bond Market Development in Bangladesh

Weak regulations, inadequate market infrastructure, limited investors, capital gain challenges, illiquid assets in the secondary market, underdeveloped tax systems, high interest rates, and other factors pose significant barriers to developing the bond market in Bangladesh (Hossain, 2012).

Obstacles and Factors Influencing Bond Market in Bangladesh:

High issue costs, expensive trading, high government borrowing interest rates, high saving interest rates, and the absence of alternative financial instruments are identified as obstacles to bond market development in Bangladesh. Important factors include risk and return considerations, government policies, liquidity, management factors, and investment policies (Mortaza & Shadat, 2016; Akter et al., 2019).

Importance of Bond Market Development for Bangladesh:

A developed bond market provides an additional avenue for both the government and private investors to accumulate resources for long-term investments, supplementing existing financial sources. Policy initiatives and capacity-building efforts are essential for overcoming challenges and fostering bond market development (Mortaza & Shadat, 2016).

Factors Affecting Bond Market Development in Bangladesh:

The effectiveness of bond market development in Bangladesh is contingent on factors such as stable government, effective fiscal and monetary policies, updated regulatory procedures, and a liberalized financial system. Challenges, including weak regulations and unpredictable demand, contribute to the weakness of bond markets in Asian countries (Hossain, 2012; Aman et al., 2019).

Challenges and Perceptions of Corporate Bond Market in Bangladesh:

Bangladesh's corporate bond market is perceived as narrow compared to other Asian countries. Investor preference for common stock and commercial bank deposits, coupled with perceived inefficiency in the bond market, hinders its development. Challenges include insufficient bond supply, high returns in other markets, and limited investor awareness (Akter et al., 2019).

Global Recognition of Corporate Bond Market Development:

Global institutions, including the IMF, EBRD, and OECD, acknowledge the importance of developing deep, liquid, and stable corporate debt markets. Despite efforts, these markets remain underdeveloped relative to banking and equity markets in many countries, characterized by limited quality issuance and inadequate market infrastructure (Luengnaruemitchai & Ong, 2005).

This comprehensive review sheds light on the current state of bond market development in Nepal and Bangladesh, addressing challenges, dynamics, and recommendations. Understanding these aspects is vital for formulating effective policies and strategies to foster robust and sustainable bond markets in both countries.

Methodology

Research Design

This study delves into the corporate debt issuance behavior in Bangladesh and Nepal by analyzing data pertaining to corporate debt size, bank size, economic dimensions, and exchange rate variability. Employing a quantitative approach, the research adopts a descriptive research design to facilitate in-depth analyses, including descriptive and regression methods. This design proves suitable for the study, enabling the exploration of the nature and extent of the relationship between independent variables and corporate debt issuance behavior in Nepal and Bangladesh.

Population and Sample

The target population encompasses all issued and listed corporate debt in Nepal and Bangladesh. The sample consists of the total issued listed corporate debt from 1993 to 2019, providing a comprehensive representation of the research population.

Sources of Data and Collection Techniques

The model incorporates variables such as debt size (bond issuance/GDP), economy size (log of current GDP), natural openness of the economy (export of goods and services/GDP), banking system size (domestic credit of the banking system/GDP), and exchange rate variability (percentage difference in the average exchange rate between the current and previous year). Data on corporate bonds were collected annually in Nepal and Bangladesh from 1993 to 2019.

The debt size data were sourced from the website, while macro-variables were obtained from the World Bank. The research exclusively relies on secondary data.

Secondary Data

The secondary data sources include:

- World Bank data (WB)
- Securities Board of Nepal (SEBON)
- Annual reports of the Nepal Stock Exchange (NEPSE)
- Annual reports of Dhaka Stock Exchange (DSE)
- Annual reports of Chittagong Stock Exchange (CSE)
- The Bangladesh Securities and Exchange Commission (BSEC)

Data spanning from 1993 AD to 2019 in Bangladesh and Nepal, covering 27 years, were collected through official websites for thorough analysis.

Data Processing

Upon completion of data collection, the gathered information underwent a meticulous process of organization, coding, and categorization. The data were then accurately recorded in STATA, SPSS, and Microsoft Excel files to ensure precision and consistency with the intended information.

Techniques of Data Analysis

Descriptive Analysis

Descriptive statistics, such as mean, standard deviation, mode, range, variance, and graphical representations, were employed to summarize and describe the collected data. These methods provide a comprehensive overview without extending beyond the available dataset.

Trend Analysis

Trend analysis, a crucial tool for establishing patterns of change in the past, was utilized to predict future patterns or conditions. This method aids in portraying trends in the issuance behavior of corporate debt in Nepal and Bangladesh. Graphical representations were employed to offer a clear visualization of these trends. Long-term directional movements in the time series, analyzed with at least 15 to 20 years of data, contribute to the understanding of overall trends.

Measure of Central Tendency

The mean, median, and mode, collectively known as measures of central tendency, were employed to describe the tendency of observations to cluster around a specific value or category. The choice of which measure to use depended on the type of variable under consideration, ensuring an appropriate representation of the 'average' of the distribution.

Standard Deviation

The standard deviation, a statistical measure of dataset dispersion relative to its mean, was calculated to assess the variability within the data. This involved determining the deviation of each data point relative to the mean. A higher standard deviation indicated a greater spread within the dataset, offering insights into the extent of variability in the data.

Data Analysis Software

Microsoft Excel, STATA, and SPSS were the primary tools utilized for data analysis and interpretation. These software platforms provided the necessary capabilities to process, analyze, and present the collected data effectively. The integrated use of these tools ensured a robust and comprehensive analysis of the research data.

Results and Discussion

Trend analysis

This section deals with the descriptive analysis of the data collected through the secondary data. Descriptive statistics is the discipline of quantitatively describing the main features of the collection of data. Descriptive statistics help us to simplify large amounts of data sensibly associated with these variables.

Size of the Economy

Analyzing the size of the economy between Nepal and Bangladesh. Bangladesh's economy is larger than Nepal's. Bangladesh is leading in the size of the economy from the start of the 1993 A.D. According to the World Bank data, Bangladesh had the size of 33.17 billion USD in comparison to Nepal of 3.66 billion USD in 1993. Bangladesh's economy is rising faster than the Nepalese economy. In 2019 Nepal had a size of 30.64 billion USD. Bangladesh had 302.6 billion USD. From the following chart, we can see Nepal is lagging to Bangladesh since 1993. The following chart is presented by taking the log of the economy size.

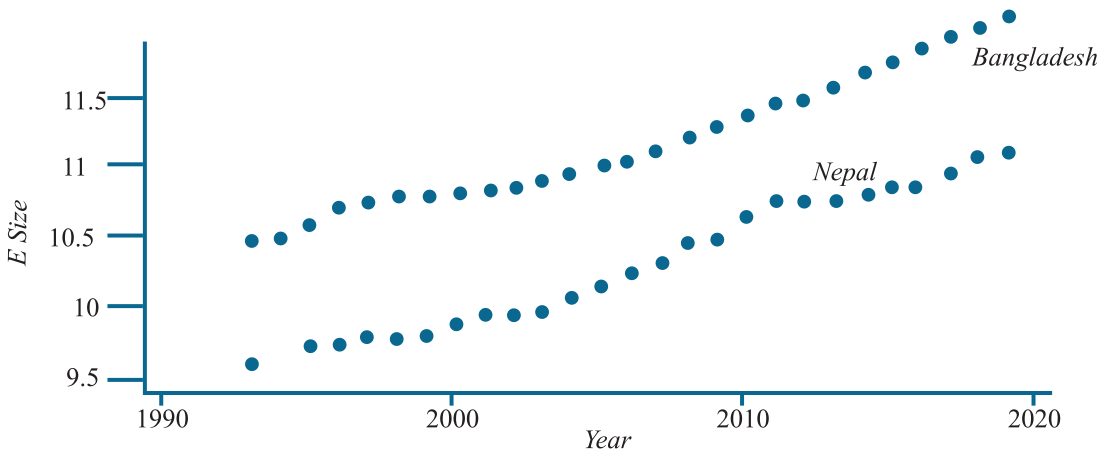

Figure 1: Comparison of Size of Economy between Nepal and Bangladesh (Source: World Bank)

Bank size

Bank size is measured in terms of the domestic credit to the private sector by banks (% of GDP). In 1993 Nepal had 14.26 % and Bangladesh had 15.29 %. But in 2019 Nepal had 87.97 % and Bangladesh had 45.15 %. In this indicator, Nepal is leading Bangladesh. From the following chart also we can see Nepal leading Bangladesh after 1993.

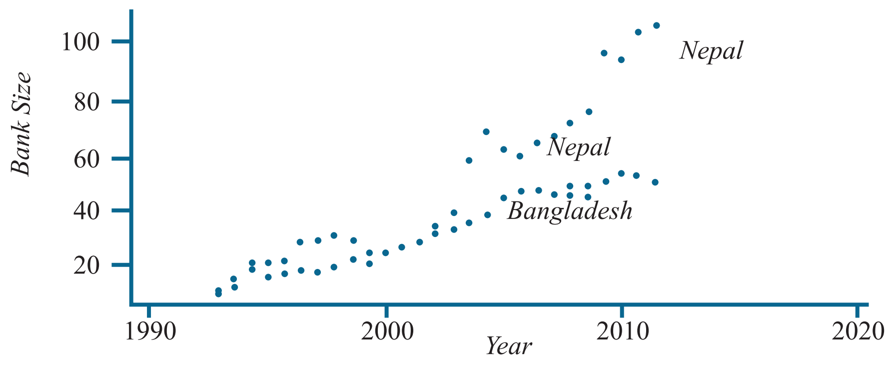

Figure 2: Comparison of Size of Bank between Nepal and Bangladesh (Source: World Bank)

Exchange Rate Variability

Exchange rate variability is calculated by a change in the value of the local currency in comparison to USD at the end of the year. The exchange rate of the Bangladeshi Taka (BDT) was 39.56 per 1 USD but Nepali Rupee (NPR) had 48.6 per 1 USD in 1993. Both currencies depreciated in comparison to the USD. In 2019 BTD had an exchange rate of 84.45 and NRP had 112.60 per USD.

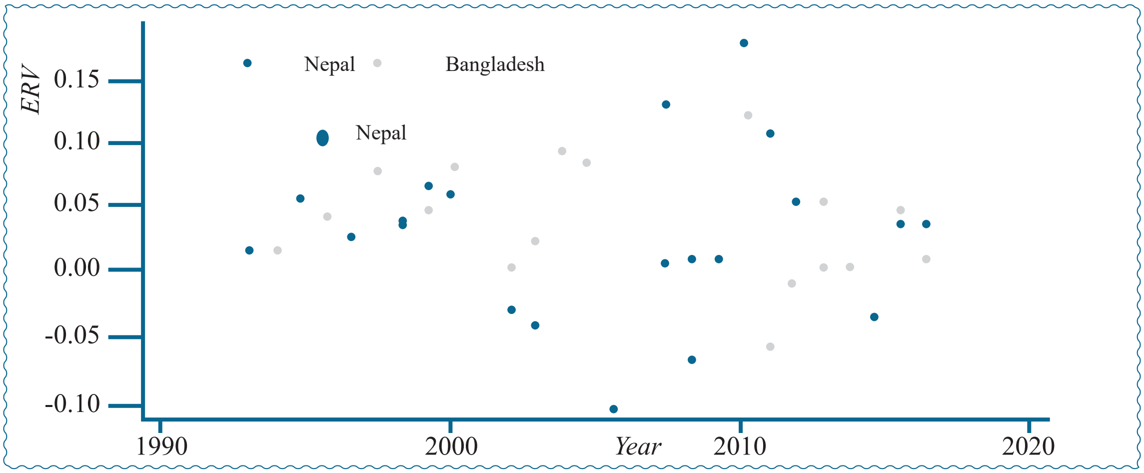

Figure 3: Comparison of Size of Exchange Rate Variability between Nepal and Bangladesh (Source: World Bank)

Corporate Debt Size

The size of the debt is calculated by the size of issuance of corporate debt in a particular year and divided by the respective country's GDP. The corporate debt size of Nepal is comparatively larger than the size of Bangladesh. In 1993 Bangladesh had a size of 0.000300996 and Nepal had 0. In 2019 corporate size of Nepal had around 0.006796097 and Bangladesh had 0.0000391340. According to the time series data, Nepal's corporate debt market is increasing in comparison to the Bangladesh corporate debt market. In the following chart also we can see the rising trend of corporate debt in Nepal. This is because of the regulatory change made by the central bank of Nepal.

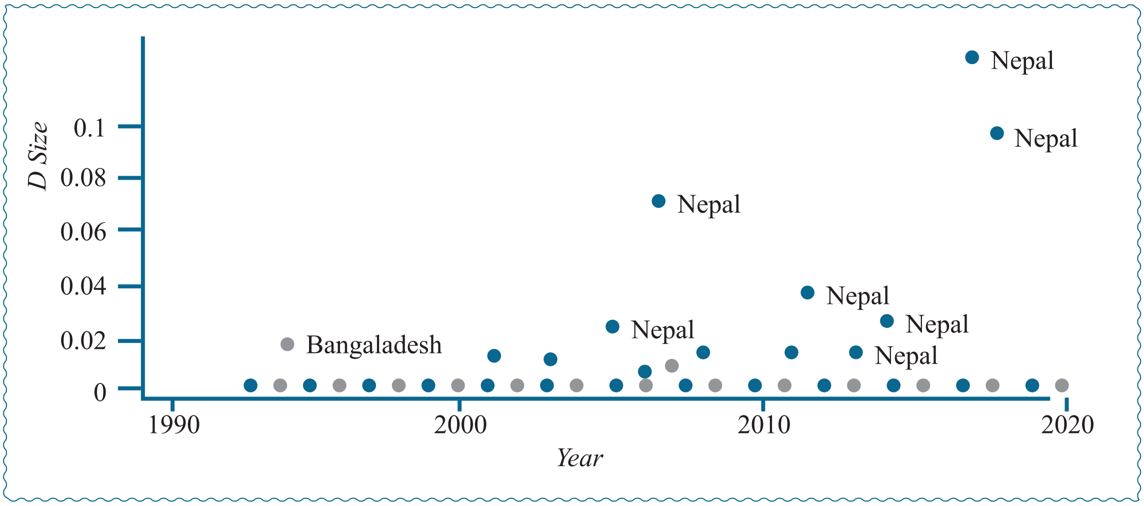

Figure 4: Comparison of Size of Debt between Nepal and Bangladesh

Issuance behavior is measured by the number of issuance of corporate debt in Nepal and Bangladesh in a particular year. Comparing the data between Nepal and Bangladesh Nepal has more issuance since 1993 than Bangladesh. From 1993 to 2019 Bangladesh has 15 corporate debt issuance and Nepal has 59 corporate debt issuance. Nepal had the most issuance of 12 in 2018 and 2019. Bangladesh corporate debt market is slow since 2000. From the following chart, Nepal is leading in a number of issuance of corporate debt in comparison to Bangladesh.

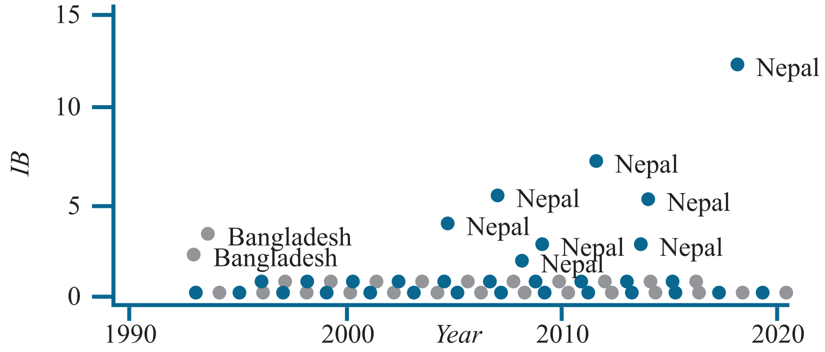

Figure 5: Comparison of Issuance Behavior of corporate Debt between Nepal and Bangladesh (Source: World Bank)

Openness of the Economy

Economic openness, in political economy, the degree to which nondomestic transactions (imports and exports) take place and affect the size and growth of a national economy. The degree of openness is measured by the actual size of registered imports and exports within national economy. This measure is presently used by most political economists in empirically analyzing the impact and consequences of trading on the social and economic situation of a country.

The Openness Index is an economic metric calculated as the ratio of a country's total trade, the sum of exports plus imports, to the country's gross domestic product.= (Exports + Imports)/(Gross Domestic Product) The interpretation of the Openness Index is: the higher the index the larger the influence of trade on domestic activities, and the stronger that country's economy. Bangladesh's openness index in 1993 was at the level of 0.1803 and Nepal's index was at around the level of 0.4718. Nepal's economy is more open in comparison to Bangladesh. In 2019 Nepal's openness index was at the level of 0.5492 and Bangladesh's openness index was at around 0.3064

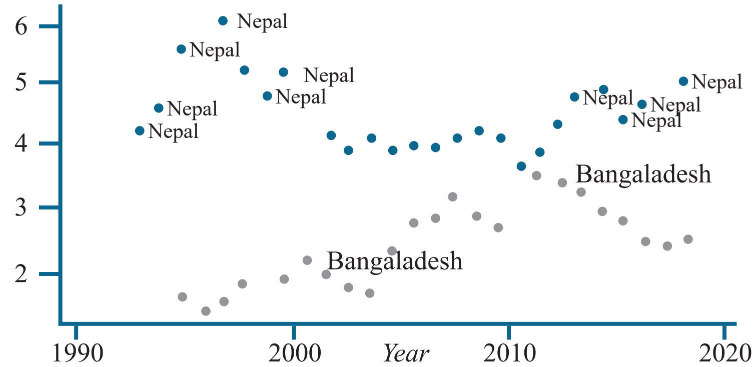

Figure 6: Comparison of Openness of Economy between Nepal and Bangladesh (Source: World Bank

Descriptive Analysis

Descriptive statistics try to describe the relationship between variables in a sample or population. Descriptive statistics provide a summary of data in the form of mean, median, and mode. It is valuable when it is not possible to examine each member of an entire population (Ali & Bhaskar, 2016)

Descriptive statistics, in short, help describe and understand the features of a specific data set by giving short summaries about the sample and measures of the data. Measures of central tendency include the mean, median, and mode, while measures of variability include standard deviation, variance, minimum and maximum variables, kurtosis, and skewness (Hayes, 2021). Here for the descriptive data analysis mean, standard deviation, minimum, maximum are calculated of all variables.

Table 1 presents descriptive statistics of the dependent variable issuance behavior (number of issuance of corporate debt) and independent variable (size of the economy, size of corporate debt, and size of the banking industry, exchange rate variability, and openness of the economy of Nepal Bangladesh.

Table 1: Descriptive Statistics

Country (Nepal)					
Variable	Obs.	Mean	Std. Dev.	Min	Max
Debt Size	27	0.001154	0.0022425	0	0.009434
Openness	27	0.5031968	0.0573447	0.4182825	0.6403553
E Size	27	9.998315	0.2987764	9.563486	10.48631
Bank Size	27	43.69774	22.43735	14.26362	87.96673
ERV	27	0.0381421	0.0584659	-0.087149	0.1513882
IB	27	2.185185	3.408553	0	12
Country (Bangladesh)					
D Size	27	0.0001003	0.0002079	0	0.0008543
Openness	27	0.2884943	0.0686989	0.1800309	0.4032318
E Size	27	10.94115	0.2895619	10.5207	11.48083
Bank Size	27	31.77848	10.74128	15.29432	47.41129
ERV	27	0.029609	0.0337564	-0.0459235	0.1039785
IB	27	0.5555556	0.8915558	0	3

Table 1 shows that from 1993 to 2019 debt size of Nepal ranges from a minimum of 0 to a maximum of 0.009434 with a mean of 0.001154. The standard deviation of the debt size of Nepal is 0.0022425 which shows that the debt size varies 0.0022425 to the mean value. Comparing the debt size to Bangladesh the mean size of Nepal is larger than Bangladesh with a low standard deviation. The size of corporate debt in Bangladesh ranges from a minimum of 0 to a maximum of 0.0008543 with a mean value of 0.0001003

The openness of the economy represents the import and export status of the country. Import and export of Nepal are high in comparison to Bangladesh. The openness index for Nepal ranges from a minimum of 0.4182825 to a maximum of 0.6403553 with a mean of 0.5031968. The standard deviation for Nepal is 0.0573447 and for Bangladesh, it is 0.0686989. This indicates that Nepal's mean value is less dispersed as compared to Bangladesh. The maximum value of the openness of the economy for Nepal is in 1997. For Bangladesh, it is maximum in 2012. Minimum value for the openness economy for Nepal was in 2011 and for Bangladesh, it was in 1994.

The mean value of the size of the economy was

9.998315 for Nepal. It was 10.94115. This was slightly higher in comparison to the size of the economy. The value size of the economy in Nepal ranges from a minimum of 9.563486 to a maximum of 10.48631. The standard deviation for the economic size of Nepal is 0.2987764 and for Bangladesh, it is 0.2895619 which shows the size of the economy in Nepal is more dispersed from the mean value.

Comparing the bank size between Nepal and Bangladesh the mean bank size of Nepal is 43.69774 which larger than the mean value for Bangladesh. This had a mean size of 31.77848. The size of the bank ranges from a minimum of 14.26362 to a maximum of 87.96673 for Nepal. Similarly, for Bangladesh, the size of the bank ranges a minimum of 15.29432 to 47.41129. Comparing the standard deviation between Nepal and Bangladesh Nepal has 22.43735 and Bangladesh had 10.74128. This shows that the size of the economy of Nepal is highly dispersed in comparison to Bangladesh.

Exchange rate variability is the fluctuation of the respective country currency in comparison to the United States dollar (USD). The mean value of the exchange rate variability for Nepal is 0.0381421 which higher than Bangladesh which has 0.02960. The exchange rate variability ranges from minimum -0.087149 to a maximum of 0.1513882 for Nepal. It ranges from a minimum of -0.0459235 to a maximum of 0.1039785.

The mean value of the issuance behavior of corporate debt in Nepal is 2.185185 and for Bangladesh, this value is 0.5555556. This shows that Nepal is issuing more corporate debt than Bangladesh. The issuance behavior ranges from minimum 0 to 12 for Bangladesh and it ranges 0 to 3 for Bangladesh. The standard deviation for Nepal for this variable is 0.5555556 in comparison to Bangladesh which had 0.8915558.

Table 2: Descriptive Statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
D Size	54	0.0006271	0.0016646	0	0.009434
Openness	54	0.3958456	0.1251805	0.1800309	0.6403553
E Size	54	10.46973	0.5579884	9.563486	11.48083
Bank Size	54	37.73811	18.43242	14.26362	87.96673
ERV	54	0.0338756	0.0474808	-0.087149	0.1513882
IB	54	1.37037	2.601134	0	12

This 2 shows the descriptive statistics of the overall country (Both Nepal and Bangladesh). There is altogether 54 observations. This table shows the minimum, maximum, mean, and standard deviation. The mean value of the corporate debt size is 0.0006271 and it ranges from a minimum of 0 to a maximum of 0.009434 with a standard deviation of 0.0016646. Similarly, the openness for both of the countries ranges from a minimum of 0.1800309 to a maximum of 0.6403553 with a mean value of 0.3958456. The standard deviation for the openness of the economy was 0.1251805. The size of the economy for both countries ranges from a minimum of 9.563486 to a maximum of 11.48083 with a mean value of 10.46973. The standard deviation for the size of the economy was 18.43242. It represents the size of the economy is highly dispersed from the mean value. Accordingly, the size of the bank also ranges from a minimum of 14.26362 to a maximum of 87.96673 with a mean of 37.73811 and a standard deviation of 18.43242. The exchange rate variability ranges from minimum -0.087149 to 0.1513882 with a mean of 0.0338756 and standard deviation of 0.0474808. Finally, the issuance behavior of corporate debt in both Nepal and Bangladesh ranges from a minimum from 0 to 12 with a mean value of 1.37037 and a standard deviation of 22.601134.

Conclusion

The completion of this research involved meticulous data collection, analysis, and interpretation, primarily relying on secondary sources. The dataset spans from 1993 to 2019 and was acquired from reputable sources such as the World Bank and the stock exchanges of Nepal and Bangladesh. The utilization of STATA and SPSS software facilitated a comprehensive analysis, incorporating descriptive analysis in STATA.The initial steps of data analysis involved descriptive analysis, where the average values and standard deviations of each variable under study were determined.

The study unearthed intriguing insights into the issuance behavior of corporate debt in Nepal and Bangladesh. Notably, the issuance behavior of corporate debt ranged from a minimum of 0 to a maximum of 12 in Nepal, while in Bangladesh, the range extended from a minimum of 0 to a maximum of 3. These findings underscore the variability in corporate debt issuance patterns within the studied regions.

The findings of this study have implications for policymakers, investors, and researchers in understanding the dynamics of corporate debt issuance. Policymakers can use these insights to formulate strategies that foster a conducive environment for corporate debt markets. Investors can leverage the understanding of macro-variables' impact on corporate bonds for more informed investment decisions through the comparative trends. For researchers, this study opens avenues for further exploration into the intricate relationships between macroeconomic factors and corporate debt dynamics.

In conclusion, this research advances our comprehension of the intricate interplay between macroeconomic variables and corporate debt issuance. By exploring these relationships, it contributes valuable insights to the broader discourse on corporate finance and provides a foundation for future research endeavors in this domain.

References

Akter, A., Himo, R. H., & Siddik, A. B. (2019). *Corporate Bond Market: The Case of Bangladesh*.

Ali, Z., & Bhaskar, S. (2016). Basic statistical tools in research and data analysis. *Indian Journal of Anaesthesia*, 55. doi:10.4103/0019-5049.190623

Bangladesh Bank. (2021). *Capital Markets*. From Bangladesh Bank: https://www.bb.org.bd/en/index.php/financialactivity/capmarket

Dickie, P., & Fan, X. E. (2005). *Banks and Corporate Debt Market Development. Asian Development Bank*. Asian Development Bank. https://www. adb.org/publications/banks-and-corporate-debt-market-development

Eichengreen, B., & Luengnaruemitchai, P. (2004). Why doesn't Asia have bigger bond markets? BIS Papers No 30. https://www.bis.org/publ/bppdf/bispap30e.pdf

Fabella, R., & Madhur, S. (2003). *Bond Market Development in East Asia: Issues and Challenges.* https://www.adb.org/sites/default/files/ publication /28182/wp035.pdf

Gurung, J. B. (2006). Growth and Performance of Securities Market in Nepal. *Journal of Nepalese Business Studie*s. https://www.nepjol.info/index. php/JNBS/article/view/43

Gurung, J. B. (2017). Status of Primary Market Response in Nepal. *The Journal of Nepalese Bussiness Studi,* 10(1). doi:https://doi.org/10.3126/jnbs.v10i1.19133

Hardie, I., & Rethel, L. (2019). *Financial structure and the development of domestic bond markets in emerging economies*.

Hassan, S., Bhuiyan, M., Md. Abud Darda, M., Hossain, M., & Habib, M. (2020). Bond Market Development in Bangladesh: Capacity Building, Challenges and Policy Initiatives. *Academy of Strategic Management Journal*, 19(4). https://www.abacademies.org/articles/bond-market-development-in-bangladesh-capacity-building-challenges-and-policy-initiatives-9445.html

Hayes, A. (2021, February 24). Descriptive Statistics. *Investopedia*. https://www.investopedia.com/terms/d/descriptive_statistics.asp

Herring, R. J., & Chatusripitak, N. (2000). *The Case of the Missing Market: The Bond Market and Why It Matters for Financial Development.*

Hossain, M. A. (2012). Underdeveloped Bond Market in Bangladesh: Reasons and Measures to Improve. http://www.bankingandfinance.ait.asia/sites/default/files/report/report_abidhossain.pdf

Hui, C.-H. (2019). *Emerging Market Bond Funds: Flow-Performance Relationship and Long-Term Institutional Investors*. https://papers.ssrn.com/sol3 /papers.cfm?abstract_id=3390971

ICMA. (2013). ICMA. International Capital Market Association. *International Capital Market Association*. https://www.icmagroup.org/

Jahur, M. S., & Qadir, S. N. (2010). Development Of Bond Market In Bangladesh: Issues, Status And Policies. *Management Research and Practice*, 2 (3). https://ideas.repec.org/a/rom/mrpase/v2y2010i3p299-313.html

Jiang, G., Tang, N., & Law, E. (2002). The costs and benefits of developing debt markets: Hong Kong's experience. *BIS Papers chapters*. https://ideas.repec.org/h/bis/bisbpc/11-07.html

Kviback, M. (2000). Nepal Survey: Issues in Local Bond Market Development. (*A. Harwood, Ed.)* Washington, D.C. doi:https://doi.org/10.1596/0-8213-4819-1

Luengnaruemitchai, P., & Ong , L. L. (2005). An Anatomy of Corporate Bond Markets: Growing Pains and Knowledge Gains. *IMF Working Paper*.

Maeda, M. (2009). The Complete Guide to Investing in Bonds and Bond Funds How to Earn High Rates of Return Safely.

Manandhar, R., & Shah, A. K. (2018). Investors and Executives Perspective towards Debenture Market in Nepal. *SOMTU Journal of Business and Management Research*, 1(1), 169-180.

Mishra, A. K., & Aithal, P. S. (2021 a). Foreign Aid Contribution for the Development of Nepal. *International Journal of Management, Technology, and Social Sciences (IJMTS)*, 6(1), 162-169. https://doi.org/10.5281/zenodo.4708643

Mishra, A. K., & Aithal, P. S. (2021 b). Foreign Aid Movements in Nepal. I*nternational Journal of Management, Technology, and Social Sciences (IJMTS)*, 6(1), 142-161. https://doi.org/10.5281/zenodo.4677825

Mishra, A. K., & Aithal, P. S. (2022). An Imperative on Green Financing in the Perspective of Nepal. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 6(2), 242-253. https://doi.org/10.5281/zenodo.7221741

Mishra, A. K., & Aithal, P. S. (2023). Assessing the Association of Factors Influencing Green Banking Practices. *International Journal of Applied Engineering and Management Letters (IJAEML)*, 7(3), 36-54. https://doi.org/10.5281/zenodo.8234076

Mishra, A. K., Kandel, D. R., & Aithal, P. S. (2021). Profitability in Commercial Bank – A Case from Nepal. *International Journal of Case Studies in Business, IT, and Education (IJCSBE)*, 5(1), 61-77. http://doi.org/10.5281/zenodo.4752052

Mortaza, M. G., & Shadat , W. B. (2016). *Cost-Benefit Analysis Of Establishing A Secondary Bond Market In Bangladesh.*

Nepal Rastra Bank. (2019). *Monetary Policy for 2019/20*. Nepal Rastra Bank. https://www.nrb.org.np/contents/uploads/2020/04/Monetary_ Policy_in _English-2019-20_Full_Text-new.pdf

Park, D., Taniguchi, K., & Tian, S. (2018). Foreign and Domestic Investment in Global Bond Markets. *ADB Economics Working Paper Series, No. 535*. https://www.econstor.eu/bitstream/10419/203375/1/1014311667.pdf

Porta, R. l., Silanes, F. L.-d., Shleifer, A., & Vishny, R. W. (1997). Legal Determinants of External Finance. *The Journal of Finance*. https://www.jstor.org/stable/2329518?seq=1

Rajan, R. G., & Zingales, L. (2001). *The Great Reversals: The Politics of Financial Development in the 20 th Century*.

Rajaram, & Ghose, P. (2006). *Indian Corporate Bond Market*.

Rohleder, M., Scholz, H., & Wilkens, M. (2018). Success and failure on the corporate bond fund market. *Journal of Asset Management*.

Ross, S., Westerfield , R., & Jordan, B. (2015). *Essentials of Corporate Finance*. New York: McGraw-Hill.

Sophastienphong, K., Mu, Y., & Saporito, C. (2008). *South Asian Bond Markets*. Washington, D.C: The World Bank. https://openknowledge.worldbank.org/bitstream/handle/10986/6584/454970PUB0Box3101OFFICIAL0USE0ONLY1.pdf?sequence=1&isAllowed=y

Yoshitomi, M., & Shirai, S. (2001). Designing a Financial Market Structure in Post-Crisis Asia: How to Develop Corporate Bond Markets. *ADB INSTITUTE WORKING PAPER*. https://www.econstor.eu/bitstream/10419/111108/1/adbi-rp15.pdf