Global Evidence on Political Stability and Aging Population: Implications for Bond Market Development

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ABSTRACT

This study examines the impact of political stability and aging populations on financial market development, particularly in the fixed income market. Amid global demographic shifts marked by declining fertility rates and increasing life expectancy, many nations face rising proportions of elderly individuals relative to their working-age populations. These changes exert substantial pressure on government finances, healthcare, and pension systems, ultimately affecting bond market development. Using data from 53 economies across five regions—Middle East and Africa, Latin America and the Caribbean, Europe, Asia, and North America—spanning the period from 1996 to 2022, we explore these dynamics. Our empirical analysis employs panel fixed-effect regression models to identify the determinants of bond market development. The findings reveal that political stability significantly enhances bond market development. Stable political environments lower risk premiums and attract both domestic and foreign investments, fostering growth in both government and corporate bond markets. This effect is consistent across high-income and middle-income countries. Conversely, the aging population negatively impacts bond market development, particularly in the corporate bond sector. As aging populations are associated with lower productivity and economic growth, the availability of capital for investment diminishes and borrowing costs increase. Our study underscores the critical roles of political stability and demographic trends in shaping bond market development, providing valuable insights for policymakers and financial market participants. This dual focus on political stability and demographic shifts offers a comprehensive understanding of the factors influencing bond markets, highlighting the need for policies that address both economic and demographic challenges.

Keywords: Bond market development, Political Stability, Aging population.

Received 23 November 2023 | Revised 10 June 2024 | Accepted 9 August 2024.

1. INTRODUCTION

One of the significant challenges confronting the global economy is the aging population, compounded by a globally declining fertility rate. Many nations are witnessing a steady increase in the proportion of elderly individuals relative to the working-age population. This demographic shift is primarily driven by the post-war baby boomer generation reaching retirement age and a continuous decline in fertility rates across the world.

Globally, fertility rates have fallen significantly. For instance, the global fertility rate decreased from 3.2 births per woman in 1990 to 2.4 in 2019 (World Bank, 2023). Concurrently,

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

life expectancy has increased, with many countries experiencing averages above 80 years (OECD, 2024). Countries like Japan and South Korea are at the forefront of this trend. Japan, for instance, has the world's highest percentage of people aged 65 and over, with 28.4% of its population in this age group as of 2022. The country's total fertility rate (TFR) is 1.3, well below the replacement level of 2.1, while its life expectancy is among the highest globally at 84.5 years (World Bank, 2023). Similarly, South Korea is experiencing rapid aging, with its aged population percentage doubling from 7.3% in 2000 to 14.4% in 2018. South Korea's TFR is even lower at 0.84, one of the lowest in the world, and its life expectancy is 83.5 years (World Bank, 2022). China, although younger than Japan and South Korea, is also seeing a significant rise in its elderly population due to past policies like the one-child policy, which has resulted in a TFR of 1.7 and a life expectancy of 77.3 years. By 2040, the proportion of people aged 60 and above is expected to reach 28% (World Bank, 2023).

A similar picture is seen in Europe, where countries like Italy and Germany face comparable challenges. Italy has a TFR of 1.24 and a life expectancy of 83.6 years, while Germany has a TFR of 1.54 and a life expectancy of 81.2 years. Both countries are experiencing significant economic pressures related to healthcare and pensions due to their aging populations. For instance, by 2050, the old-age dependency ratio in Germany is projected to be 52%, meaning there will be more than one elderly person for every two working-age individuals, significantly impacting economic growth and increasing the financial burden on the working population (Eurostat, 2022).

The impact of these demographic changes is profound. The working-age population, typically defined as individuals aged 15 to 64, which peaked at 66% of the total global population around 2012, is now declining (World Bank, 2023). By 2050, the elderly population is expected to nearly double, rising from 9% to 16% of the global population (World Bank, 2023). The working-age population is shrinking in many developed countries, further exacerbating the economic challenges posed by aging populations. For example, in Japan, the working-age population has been declining since the mid-1990s and is projected to decrease by approximately 40% from its peak by 2060 (World Bank, 2023). This reduction results in fewer workers to support the growing number of retirees, increasing the dependency ratio. In South Korea, the working-age population peaked in 2016 and has been declining since, with projections indicating a significant decrease by 2060. China faces similar issues. Its working-age population began to decline in 2012, and this trend is expected to continue, posing a threat to its economic growth and ability to sustain its elderly population. In Italy and Germany, the shrinking workforce also presents substantial challenges. In Italy, the working-age population is projected to decline by 23% by 2050, and in Germany, the ratio of working-age individuals to retirees is expected to fall to 1.5:1 by 2060 (Eurostat, 2022).

These demographic changes are closely linked to rising global debt. As the proportion of elderly individuals increases, so does the need for healthcare and pension funding. This places significant financial pressure on governments, leading many to increase borrowing to cover these costs. The higher dependency ratio means fewer working-age individuals are contributing to the economy, reducing the tax base and making it harder to sustain public services without accruing additional debt. Countries with rapidly aging populations, such as Japan, South Korea, Italy, and Germany, are particularly affected as their shrinking workforces are less able to support the growing number of retirees. This dynamic exacerbates fiscal deficits and drives up national debt levels. For example, Japan's public debt is over 260% of GDP, largely driven by social security and healthcare costs for its aging population (International Monetary Fund, 2023). South Korea's national debt has been increasing rapidly, reaching 45.9% of GDP in 2022, with projections indicating continued growth due to rising social welfare expenditures (Ministry of Economy and Finance, 2023). Italy's debt-to-GDP ratio

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

stood at approximately 145% in 2022, with significant portions allocated to pensions and healthcare (Eurostat, 2023). Germany, although having a lower debt-to-GDP ratio of 69% in 2022, faces rising costs related to its aging population, putting pressure on future borrowing (Eurostat, 2023). [1]

These countries illustrate how high debt levels are often tied to aging populations and increased social spending. For example, Italy faces significant pension and healthcare liabilities (Eurostat, 2023; IMF, 2023). The United States, with an aging population and substantial healthcare costs, also faces rising debt levels (World Bank, 2023). Belgium, Spain, and France similarly experience the pressures of supporting a growing elderly population with fewer working-age individuals (Eurostat, 2023; IMF, 2023).

Furthermore, the increased healthcare costs associated with aging populations contribute significantly to rising public expenditure. Governments are compelled to allocate more resources to medical services, long-term care, and social security benefits (d'Albis, Augeraud-Véron, Bonnet, & Chojnicki, 2015). In the absence of substantial economic growth or increased productivity, these expenditures often lead to higher public debt (Munnell, Soto, & Golub-Sass, 2008). The situation is further complicated by declining fertility rates, which limit the growth of the future workforce necessary to support economic expansion and service existing debt (Oliveira Martins & de la Maisonneuve, 2006; Zweifel, Felder, & Meiers, 1999).

Therefore, in this study, we aim to explore the effect of the aging population on the expansion of debt market. Our sample includes 53 economies from 5 regions namely Middle East and Africa, Latin America and Caribbean, Europe, Asia and North America. Our finding illustrates an important role of aging population for bond market development. We further analyze our hypothesis under different political stability environment and we discover that our baseline result remains unchanged.

The remaining of this paper is organized as follows. Section 2 shows literature review and hypothesis development. Section 3 briefly discusses data and sample. Section 4 presents the empirical and robustness test. Section 5 suggests a possible policy implication. The last section concludes the paper.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1 Bond Market Development

The development of bond markets is influenced by various economic, financial, and policy-related factors. This section reviews the literature on the key determinants of bond market development, examining how economic growth, financial market structure, government policies, and other factors contribute to the growth and maturity of bond markets.

[1] To further illustrate the global debt issue, there are many countries with the level of debt larger than GDP including Greece's debt-to-GDP ratio is 206%, Lebanon's debt-to-GDP ratio is around 150%, Italy's debt-to-GDP ratio stood at approximately 145%, Portugal has a debt-to-GDP ratio of about 135%, Singapore's debt-to-GDP ratio is around 130%, The U.S. has a debt-to-GDP ratio of approximately 125%, Bhutan has a debt-to-GDP ratio of about 123%, Belgium's debt-to-GDP ratio is approximately 115%, Spain has a debt-to-GDP ratio of around 115%, France's debt-to-GDP ratio is approximately 113%, Cyprus has a debt-to-GDP ratio of about 104%, Barbados has a debt-to-GDP ratio of approximately 101% (Eurostat, 2023; OECD,2023; World bank,2023; IMF,2023)

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

2.1.1 Economic Growth

Economic growth is a fundamental driver of bond market development in both developed and developing economies. Studies by Eichengreen and Luengnaruemitchai (2004), Burger and Warnock (2006), and Claessens, Klingebiel, and Schmukler (2007) highlight the positive relationship between economic growth and bond market expansion. Rapid economic growth increases the demand for long-term financing, leading to the development of bond markets. As economies grow, they require more capital to finance infrastructure projects, corporate expansions, and government spending, which in turn stimulates the issuance of bonds. In addition, larger economies tend to attract more investors due to their greater market liquidity. Liquidity is crucial for bond market development as it allows for the easy buying and selling of bonds without significantly affecting their prices. Bong and Premaratne (2018) and Rani and Kumar (2019) argue that larger economies offer better bond market liquidity, making them more attractive to both domestic and international investors. Recent studies by Chen, Geiger, and Fu (2021) and Lin and Zhang (2021) further support this notion, indicating that large economies with higher liquidity attract more foreign investment, thereby boosting bond market growth. As a result, larger economies typically exhibit more advanced bond market development (Eichengreen & Luengnaruemitchai, 2004; Khalid & Rajaguru, 2018; Kowalewski & Pisany, 2019; Smaoui, Grandes, & Akindele, 2017).

2.1.2 Economic Development and Openness

The stage of economic development and the degree of international economic openness are significant factors in enhancing bond markets. GDP per capita is often used as a proxy for the stage of economic development, reflecting the overall economic well-being and the ability of an economy to support a robust bond market (Bhattacharyay, 2013; Eichengreen & Luengnaruemitchai, 2004). Economies with higher GDP per capita tend to have more sophisticated financial systems, which facilitate the development of bond markets. Economic openness, measured by the current account balance as a percentage of GDP, also plays a crucial role in bond market development. Openness to international trade and capital flows fosters competition and innovation within financial markets, leading to more efficient and dynamic bond markets (Kowalewski & Pisany, 2019; Rajan & Zingales, 2004). Recent studies by Nguyen and Pham (2022) and Yildirim (2021) confirm that economic openness continues to be a vital factor in bond market development, as it encourages foreign investment and enhances market liquidity.

2.1.3 Financial Market Structure

The structure of the financial market significantly influences bond market development. Larger stock market capitalizations indicate that an economy is more likely to be market-based, which can promote the development of bond markets (Kowalewski & Pisany, 2019). Market-based financial systems, characterized by well-developed stock and bond markets, provide diverse financing options for firms and governments, reducing reliance on bank lending. Stock market capitalization to GDP is a commonly used proxy for the financial structure of an economy. Economies with higher stock market capitalization to GDP ratios are generally more advanced in their financial market development, which supports the growth of bond markets. The interplay between stock and bond markets is crucial, as a well-functioning stock market can complement and support the development of a robust bond market.

2.1.4 Government Policies and Fiscal Discipline

Government policies have a direct impact on the development of both stock and debt markets. For example, higher government consumption is positively correlated with an increased need for financing in both banking and corporate sectors (Ndikumana, 2000). Consequently, higher

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

government consumption is expected to accelerate bond market expansion. Effective government policies and fiscal discipline are essential for fostering a conducive environment for bond market development (Abraham, Schmukler, & Tessada, 2021; Hussain & Ben Omrane, 2021). Governments play a pivotal role in bond market development through regulatory frameworks, fiscal policies, and public debt management strategies. Policies that promote transparency, investor protection, and market integrity are crucial for attracting both domestic and international investors to the bond market. Furthermore, fiscal discipline, characterized by prudent public debt management and sustainable fiscal policies, enhances investor confidence and supports bond market growth.

2.1.5 Bank Credit and Private Debt

Based on the substitution effect between bank credit and private debt, it is important to control for bank-related variables when analyzing bond market development. The credit supplied by banks is represented by the ratio of credit provided by domestic banks to GDP, while return on assets measures bank profitability. Studies by Becker and Ivashina (2014) highlight the importance of considering bank-related variables when examining bond market development. Additionally, the relationship between bank power and corporate bond market expansion is well-documented. Schaeck et al. (2009) and Kowalewski and Pisany (2019) provide evidence of a positive relationship between bank concentration and corporate bond market growth. To measure bank concentration, the total bank deposit to GDP ratio is used as a proxy for bank power in the economy. High levels of bank concentration can facilitate bond market development by providing a stable source of funding and enhancing financial stability.

2.2 Aging population and Financial market

The aging population is a significant demographic trend affecting financial markets globally. This demographic shift has profound implications for economic growth, savings, investment patterns, and overall financial market performance. For instance, Poterba (2001) found that aging populations are associated with declining savings rates, which can reduce the availability of funds for investment and potentially increase interest rates. Also, aging populations induce a shift in asset allocation within financial market as Older individuals tend to prefer low-risk, income-generating investments such as bonds over equities (Goyal, 2004). As a consequence of less demand for equities investment, aging population can weaken stock prices. Arnott and Casscells (2003) found that demographic changes, particularly the increasing proportion of elderly individuals, negatively impact stock market returns as the demand for equities declines.

For the fixed income market, there is no conclusive result. On one hand as aging populations favor safer investments, the demand for government and corporate bonds increases. Brooks (2006) showed that aging populations significantly influence bond markets, with increased demand leading to lower yields. Davis and Hu (2008) highlighted the challenges faced by pension funds in aging populations, including the need to adjust asset allocations and the potential impact on financial markets. Chin and Wei (2013) provide the same picture in that that aging populations increase demand for bonds and affect current account balances.

On the other hand, an aging population can strain public finances due to higher pension and healthcare costs. Therefore, the government need to increase government borrowing to cover these costs can lead to higher yields and reduced bond market development due to higher perceived risks (Batini, Callen & McKibbin, 2006; Choudhry, 2015). In addition, McKinsey Global Institute in 2016 issues a report which highlights that aging populations can lead to a decline in productivity and economic growth, which can negatively impact bond markets by reducing the availability of capital for investment and increasing the cost of borrowing. In

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

addition, some study that the increasing aging population negatively affect both stock and bond market (Krueger & Ludwig, 2007; Takáts, 2012).

2.2 Political stability and bond market development

Political stability is a crucial determinant of bond market development. It influences investor confidence by reducing uncertainties related to policy changes, social unrest, and governance issues. Stable political environments are associated with lower risk premiums and higher investment in domestic bond markets (Beaulieu, Cosset, & Essaddam, 2005). Also, North (1990) shows that political stability is a key factor in creating an environment conducive to investment and economic growth. Further, Political stability attracts foreign investors by ensuring a predictable and secure investment climate (Gelos & Wei, 2005). Hence, it provides additional capital and enhances market liquidity (Burger & Warnock, 2006; Bae, Yun, & Bailey, 2006). The more recent researchers—Obalade (2024) and Lee and Azis (2024)- suggest that political stability is a significant factor in overcoming corruption, hence attracting more investment.

In sum, the political stability significantly reduces sovereign bond spreads, indicating lower borrowing costs and a more developed bond market (Eichler,2012). The more recent document paints the same picture that political stability reduces economic volatility, enhancing investor confidence and bond market development (Huang & Kang, 2021). As a result, the political stability leads to a lower bond yields by reducing default risk and increasing investor confidence. As a result, in this study, we include the political stability into our bond market development analysis.

However, none of aforementioned above have explore the effect of both aging population and political stability at the same time. Therefore, Therefore, in this study we aim to provide a new evidence based on international analysis to fill the literature gap.

3. DATA AND METHODOLOGY

3.1 The sample

We obtain the size of bond outstanding from Bank for International Settlements (BIS). The market indices for all market are obtained from Eikon Datastream. Further, the macroeconomic variables—GDP, GDP per capita, current account balance to GDP, stock market capitalization to GDP, government consumption to GDP, and total private credit provided by bank to GDP, are gathered from World Bank—World development indicator (WDI). To explore the effect of the political stability, we use the Political Stability and Absence of Violence/Terrorism score provided by World bank. Also, we include the Population ages 65 and above as a percentage of total population—provided by world bank, as a proxy for aging population. In total, our sample include 53 markets from 5 regions between 1996 and 2022. The final data include 1272 unique country-year observation.

Table 1 provide the variable definition for all variables used in this study. According to WDI, we can further classify our sample into High-income country, Upper middle-income country, and Lower middle-income country. Table 2 summarizes the descriptive statistic of all variable under study.

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Table 1. Variable definitions

Variable	Definition	Source
Total Bond	Total bond outstanding	BIS
Government Bond	General bond outstanding	BIS
Corporate Bond	Corporate bond outstanding	BIS
FDI	Foreign direct investment to GDP	WDI
Export	Exports of goods and services to GDP	WDI
GDP	GDP	WDI
GDP_pc	GDP per capita	WDI
Consumption	government consumption to GDP	WDI
Current	current account balance to GDP	WDI
Bank_credit	Credit provided by domestic banks to GDP	WDI
Marketcap	mktcap	WDI
Political Stability	Score of Political Stability and Absence of Violence/Terrorism	WDI
Aging Population	Population ages 65 and above (% of total population)	WDI

3.2 Empirical model

In this section, we detail our approach and the method used to examine the determinants of bond market development within a panel framework. Our model can be expressed as follows:

$$Y_{i,t} = \beta_0 + \beta_1 POL_{i,t} + \beta_2 AGE_{i,t} + \beta_3 Fdi_{i,t} + \beta_4 Export_{i,t} + \beta_5 \ln(GDP)_{i,t} + \beta_6 \ln(GDP_{pc}) + \beta_7 Consumption_{i,t} + \beta_8 Current_{i,t} + \beta_9 Bank\_credit_{i,t} + \beta_{10} Market\_cap_{i,t} + \mu_i + \epsilon_{i,t}$$

Here, i represents the country, and t denotes the time period. $Y_{i,t}$ refers to the outstanding debt securities in which we further classify the debt outstanding into Total debt outstanding, Government debt outstanding, and Corporate debt outstanding. $POL_{i,t}$ is the political stability score obtained from WDI as well as the aging population as percentage of total population is represented by $AGE_{i,t}$. The independent variables include: Foreign direct investment as a proportion of GDP, openness (exports of goods and service as a proportion of GDP), GDP (adjusted for purchasing power parity), GDP per capita, , bank credit to GDP, Market capitalization . Where μi represents unobserved country-specific effects, and $\epsilon_{i,t}$ is the error term.

4. EMPIRICAL RESULT

In this section, we perform the panel fixed-effect regression to analyze the empirical model. We report the result in Table 3 as in section 4.1. Then we further classify our sample into high-income nations and middle-income nations and perform the same analysis as in section 4.2.

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Table 2. Descriptive statistics

Variable	Obs	Mean	S.D.	min	p25	p50	p75	max
Total bond (Trillion)	1272	255.622	569.598	0.015	10.098	55.981	209.248	5,178.933
Government bond (Trillion)	1272	22.527	30.010	0.013	2.850	9.460	29.776	163.793
Corporate bond (Trillion)	1272	70.771	154.559	0.008	2.944	14.715	53.387	1,283.270
FDI	1272	4.726	19.717	(394.472)	1.115	2.341	4.358	280.146
Export	1272	44.393	34.628	6.598	23.665	33.901	55.093	228.994
GDP (trillion)	1272	1.330	2.860	0.008	0.208	0.460	1.210	30.300
GDP per capita (Million)	1272	0.027	0.022	0.001	0.010	0.022	0.037	0.146
Consumption	1272	16.828	4.689	2.976	12.883	17.495	19.937	27.935
Current	1272	0.286	5.530	(15.357)	(3.147)	(0.522)	2.979	29.419
Bank_credit	1272	84.237	44.783	6.343	47.738	76.301	115.122	240.883
market capitalization	1272	67.108	57.326	0.023	25.043	49.778	93.761	322.711
Political stability	1272	0.244	0.934	(2.810)	(0.380)	0.509	0.954	1.759
Aging population	1272	11.851	5.734	0.172	6.224	12.628	16.261	29.925

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

4.1 Baseline regression

Table 3: Baseline regression

	Debt out standing		
	Total Bond	Government Bond	Corporate Bond
Political Stability	0.228***	0.527***	0.147**
	(4.69)	(5.13)	(2.05)
Aging Population	-0.0363*	-0.0327	-0.0641**
	(-1.84)	(-0.72)	(-2.30)
Fdi	0.000716	0.000788	-0.000548
	(1.06)	(0.55)	(-0.55)
Export	0.00291	0.00933**	0.0133***
	(1.55)	(1.98)	(4.97)
Ln (GDP)	0.951**	0.685	0.711
	(2.39)	(0.74)	(1.25)
Ln (GDP PC)	0.0987	0.147	0.557
	(0.24)	(0.16)	(0.94)
Consumption	0.0205*	0.0712***	0.0348**
	(1.75)	(2.79)	(1.96)
Current	0.0144***	0.0234**	0.0176**
	(2.90)	(2.11)	(2.49)
Bank_credit	0.00633***	0.00278*	0.00488***
	(9.32)	(1.94)	(5.04)
Market Capitalization	-0.000597	-0.000349	0.000348
	(-1.02)	(-0.25)	(0.42)
Alpha	-15.63**	-9.481	-14.89
	(-2.14)	(-0.56)	(-1.43)
Adj-R2	96.60%	79.90%	94.60%
Fixed Effect			
Country	Yes	Yes	Yes
Time	Yes	Yes	Yes

The result from Table 3 demonstrates that the political stability is an important factor to enhance the bond market. We find a strongly positive relationship at the aggregate level (The total bond outstanding). Also, we find the same positive relationship for both government bond and corporate bond. This means that if the policy makers are willing to improve the bond market for their nations, increasing political stability is one significant factor to enhance the bond market. Our finding here is in the line with the prior studies (Beaulieu, Cosset, & Essaddam, 2005; Eichler,2012; Huang & Kang, 2021).

For the aging population, our result suggests that the aging population show a negatively and significant at aggregate level and corporate bond but not for government bond sector. This finding supports the argument that aging populations can lead to a decline in productivity and economic growth, which can negatively impact bond markets by reducing the availability of capital for investment and increasing the cost of borrowing (Mckency, 2016; Krueger & Ludwig, 2007; Takáts, 2012). The other control variables are significant as suggested by prior literature. For example, we find the size of economies is positively and

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

significant factor to improve overall bond market. Although we find an insignificant impact of export, we find that the export-oriented economies enhance competition within country financial market and hence, improve both government bond market and corporate bond market (Aman,2023). Also, an increase in government consumption spending results in a rise in sovereign debt issuance, thereby enhancing bond market development. Additionally, as heightened government spending can crowd out bank financing for the corporate sector, corporations are more likely to issue bonds to meet their financing needs and support their investments (Ndikumana, 2000). Furthermore, we find the country's openness positively influences bond market development for all levels. This support the argument that the greater trade openness leads to an increase in domestic credit availability, further promoting the development of bond markets (Pradhan et al., 2021).

4.2 Effect of country's income level

In this section, we classify the sample into two groups—high-income nations and middle-income nations. We then perform the panel regression with fixed effect as in section 4.1. The results are reported in Table 4.

Table 4: The effect of income level on the bond market development

	High income nation			Middle income nation		
	Total Bond	Government Bond	Corporate Bond	Total Bond	Government Bond	Corporate Bond
Political Stability	0.212***	0.668***	0.109*	0.177*	0.201*	0.594**
	(3.99)	(5.72)	(1.78)	(1.91)	(1.98)	(2.30)
Aging Population	-0.0369*	-0.0279	-0.0782***	-0.732**	-0.411	-1.222**
	(-1.87)	(-0.58)	(-2.74)	(-2.61)	(-1.50)	(-2.66)
Fdi	0.000703	0.000762	-0.000602	0.0404	0.00416	-0.0327
	(1.05)	(0.51)	(-0.60)	(0.96)	(0.08)	(-0.69)
Export	0.00396**	0.0143***	0.0120***	-0.00136	-0.00810	0.0473***
	(2.06)	(2.78)	(4.30)	(-0.13)	(-0.66)	(3.47)
Ln (GDP)	1.230***	0.122	1.292**	2.19***	0.4553	1.620*
	(3.02)	(0.12)	(2.19)	(3.68)	(0.71)	(1.92)
Ln (GDP PC)	0.0663	0.947	0.149	1.739***	1.820	1.651**
	(0.16)	(0.93)	(0.24)	(3.32)	(0.28)	(2.12)
Consumption	0.00207	0.0373	0.0328*	0.130***	0.124***	0.0221
	(0.16)	(1.24)	(1.70)	(4.39)	(3.95)	(-0.42)
Current	0.0109**	0.0217*	0.0149**	-0.0249	0.00329	0.00155
	(-2.09)	(-1.76)	(-1.97)	(-1.42)	(0.17)	(0.07)
Bank_credit	0.00637***	0.00284*	0.00482***	0.00808	0.0121**	0.0148*
	(9.40)	(1.88)	(4.88)	(1.56)	(2.14)	(-1.92)
Market Capitalization	-0.0000299	0.00117	0.000381	0.00658**	0.00949**	0.00456
	(-0.05)	(0.79)	(0.44)	(2.08)	(2.24)	(1.10)
Alpha	-23.09***	-3.163	-26.24**	420.1***	120.6	319.7*
	(-3.11)	(-0.17)	(-2.44)	(3.91)	(1.00)	(1.90)
Adj-R2	96.40%	78.70%	94.20%	96.90%	97.50%	98.70%
Fixed Effect						
Country	Yes	Yes	Yes	Yes	Yes	Yes
Year	Yes	Yes	Yes	Yes	Yes	Yes

ISSN: 2304-1013 (Online); 2304-1269 (CDROM); 2414-6722 (Print)

The result from Table 4 supports the finding in section 4.1. The result demonstrates that both political stability and aging population are significant factor to bond market development. To be more specific, we find that political stability has a positive association with bond market development and aging population has a negative association with bond market development as in previous section. The are hold for both high-income nations and middle-income nations. Also, we find that the other control variables are materially unchanged.

5. POLICY IMPLICATION

The results of this study have significant implications for policymakers seeking to enhance bond market development. The findings emphasize the importance of maintaining political stability as a key determinant of bond market growth. Policymakers should focus on enhancing a more stable political environments to lower risk premiums and attract investments. In countries with lower levels of political stability, governments might consider implementing reforms to strengthen institutions, reduce corruption, and ensure policy continuity to foster a more secure investment climate.

Moreover, the negative impact of an aging population on bond market development, particularly in the corporate sector, suggests that governments need to address the challenges posed by demographic changes. Policies aimed at increasing labor force participation, especially among older individuals, and promoting productivity-enhancing investments are crucial. For example, tax incentives for companies that invest in automation and technology could mitigate the adverse effects of a shrinking workforce.

6. CONCLUSION

This study aims to link two current global issues to financial market development, specifically the fixed income market. The two issues are the aging population and political stability. Although both factors significantly impact the financial market, no prior studies have included both effects in a single study. Therefore, this study combines these two global issues as determinants of bond market development. The results show that better political stability conditions help improve the overall bond market. Furthermore, good political stability enhances both the government bond market and the corporate bond market. This finding remains consistent for both high-income and middle-income nations. Additionally, we find that the aging population negatively affects bond market development, particularly the corporate bond market. This supports the argument that aging populations can lead to a decline in productivity. Hence, an aging population negatively impacts bond markets by reducing the availability of capital for investment and increasing the cost of borrowing.

ACKNOWLEDGEMENT

The authors thank the anonymous referees for their helpful comments and suggestions.

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