

Financial globalization forces, financial sector development and country risk premium in leading emerging and developing countries

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Abstract

Purpose – This paper aims to examine whether financial globalization forces and financial sector development impact country risk premiums in leading emerging and developing economies (EDEs).

Design/methodology/approach – The study collected panel data for 35 EDEs from 2000 to 2021. Based on the pre-estimation test conducted on the panel data, the seemingly unrelated regression technique, which can handle cross-sectional dependence, was used to estimate the baseline models. For robustness checks, the two-step system generalized method of moments (2S-GMM), which addresses endogeneity, autocorrelation and the dynamism of econometric variables, was also employed in the study.

Findings – The empirical analysis reveals that financial sector development can significantly reduce country risk premiums and can alter the effect of external debt on country risk premiums. Financial globalization forces have varying influences: foreign direct investment has a negative but insignificant effect on country risk premiums, whereas external debt significantly exacerbates them. Among the control variables, it is shown that inflation strongly contributes to country risk premiums in EDEs. Conversely, economic growth, current account balance, favourable credit ratings, foreign reserves and political stability ameliorate country risk premiums.

Originality/value – First, the study provides empirical evidence to corroborate the financial market liberalization and debt overhang theories. Second, this study reveals that financial sector development can alter the influence of financial globalization forces on the country risk premium in the EDEs. This implies that a well-developed financial sector can reduce reliance on external debt. This empirical issue was not addressed in previous studies.

Keywords Financial globalization, Financial sector development, External debt, FDI, Country risk premium

Paper type Research article

1. Introduction

The disproportionate and unsustainable levels of country risk premiums in emerging and developing economies (EDEs) have been a topical issue in financial economics and are a major sovereign risk concern to national governments and policymakers (Wong *et al.*, 2025), in addition to the prevalent issues of elevated income inequality, unemployment, and poverty, often due to lean capital investments and anaemic economic productivity (Zhang *et al.*, 2023). The country risk premium refers to the additional compensation required to offset the risk of a country defaulting on its financial obligations (Damodaran, 2003; Taguchi and Bolortuya, 2021). According to Gbohoui (2023), the bond yield in advanced countries decreased to about 1% in 2021, while the yields in many EDEs exceeded 8%. A high country risk premium is an unfavourable financial condition. From a macroeconomic viewpoint, a high country risk premium is inimical to capital investment valuation and economic productivity due to the inverse relationship between the cost of capital and investment value (Taguchi and Bolortuya, 2021). Therefore, unravelling the significant factors that can explain country risk premiums in EDEs will generate tangible pedagogic, theoretical, and empirical value.

To date, the empirical literature has primarily focused on the determinants of country risk premiums on an exploratory basis, without clear theoretical guidance. According to some studies, domestic monetary and fiscal policy variables can influence country risk premiums (Edwards, 1986; Mpalika and Malikan, 2019; Palic *et al.*, 2017; Presbitero *et al.*, 2016). Global factors, such as U.S. Treasury rates, global risk aversion levels, and global liquidity,



have also been identified as key determinants of country risk premiums (Banerji *et al.*, 2014; Csonto and Ivaschenko, 2013; Kennedy and Palerm, 2014). However, the empirical literature has been silent on the specific influence of financial globalization forces and financial sector development. This is surprising because several structural and financial reforms geared towards financial globalization and financial sector development have been implemented in many EDEs over time to optimize the cost of capital, attract external capital, and promote macroeconomic stability (Blejer and Sagari, 1988; WEF, 2025).

Theoretically, financial globalization is expected to foster global financial market integration, global mobilization of savings, unrestricted external capital flow (FDI and debt), reduced cost of capital, and economic growth (Agyapong and Bedjabeng, 2019; Gulcernal, 2021; Kose *et al.*, 2009). However, the FDI level in many EDEs is not at optimal levels, with cross-border M&As, greenfield projects, and international project finance flowing more to advanced countries (UNCTAD, 2023). Also, financial globalization can encourage excessive external debt accumulation, which can increase fiscal vulnerabilities (Essl *et al.*, 2019; Lee *et al.*, 2023). Besides, financial sector development is expected to promote market competition, enhance capital allocation efficiency, increase domestic capital availability, and lower the cost of capital (Bekele and Degu, 2023; Fowowe, 2011). Therefore, a well-developed financial sector should catalyse financial innovation when capital flow restrictions or reversals occur (Akinoyemi, 2025; Sahay *et al.*, 2015). In effect, a vibrant financial sector should mitigate the adverse effects of financial globalization while amplifying its positive effects.

Against this backdrop, the objective of this study is to assess the individual and interactive effects of financial globalization and financial sector development on country risk premiums. This study contributes in several ways. First, the study provides empirical evidence for testing existing theories. Second, this study clarifies whether financial sector development alters the influence of financial globalization on the country risk premium in the EDEs, a question that previous studies did not answer. Many existing studies examining the effects of financial globalization and financial sector development focused on other macroeconomic outcome variables, such as economic growth or macroeconomic volatility (Hermes and Lensink, 2003; Hwang *et al.*, 2010; Ikpesu, 2021; Kose *et al.*, 2003; Ma and Song, 2018; Sghaier, 2018; Xue, 2020). Third, the study extends and improves upon Andreasen and Valenzuela (2016) study, which focused on sovereign credit ratings instead of country risk premiums, as the latter have a more direct consequence for the cost of capital that EDEs pay in international financial markets.

The motivation and justification for this study stem from the need to address the perennial issue of high country risk premiums in the EDEs by examining the role of financial globalization forces and financial sector development in these regions. Therefore, this study will benefit national governments, central banks, policymakers, regulators, borrowers, global investors, academics, and financial institutions by providing significant insights into the financial reform agenda and macroeconomic policy necessary for effective sovereign risk management and global economic competitiveness.

The rest of the paper is structured as follows: Section Two presents the literature review, and Section Three outlines the methodology. Section Four presents the empirical findings and discussion. Section Five presents the study's conclusion and the policy implications.

2. Literature review

2.1 Theoretical review

This paper examines three existing theories to guide the study: the debt overhang theory, the fiscal theory of sovereign risk, and the financial market liberalization theory. The debt overhang theory describes a situation in which a high debt profile of a country exacerbates fiscal vulnerability, worsens macroeconomic risk, increases risk perception, reduces capital flows to the real sector, leads to fiscal tax rate hikes, and causes an escalation of country risk

premiums (Hwang *et al.*, 2010; Sen *et al.*, 2007). The relevance of this theory lies in its prediction of a positive relationship between a high external debt profile and country risk premium. The fiscal theory of sovereign risk, as posited by Uribe (2006), suggests that sovereign default risk will be high when a country has a high fiscal deficit financed by external borrowings, particularly when taxes cannot be raised. For instance, the accumulation of high external debt creates a credibility crisis, raises concerns about fiscal sustainability and debt repayment capacity, and causes international investors to demand a high country risk premium whenever new debt is to be issued (Bonam and Lukkezen, 2019; Niemann and Picher, 2020; Okano and Kazuyuki, 2016). The fiscal sustainability concerns are accentuated by the lender's inability to confiscate the assets of the sovereign nations that are in default (Kariyawasam and Jayasinghe, 2022). The relevance of this theory to this study lies in its prediction that fiscal deficits and high external borrowings are positively correlated with country risk premiums. The last theory explored in this study is the financial market liberalization theory, propounded in 1973 by McKinnon and Shaw (Fry, 1989), which posits that eliminating financial market restrictions and impediments catalyses capital flows and promotes financial market development, thereby promoting capital formation and economic growth (Orji *et al.*, 2015; Samargandi *et al.*, 2015; Zhao *et al.*, 2024). Economic growth boosts investors' confidence, leading to a reduction in the level of risk perception. Corroboratively, Stulz (2022) notes that globalization reduces the cost of capital through improvement in corporate governance and increased international competition for investments. Therefore, financial development and improved capital flow should have a negative impact on the country risk premium.

2.2 Empirical review

Limited empirical studies have specifically linked financial globalization forces and financial sector development to country risk premiums. Among these few studies is that by Kallestrup *et al.* (2016) that confirmed that the foreign asset holdings of the largest banks and bank asset risk affect sovereign credit spreads, based on data collected from 17 European countries. Gupta *et al.* (2018), using data from 22 developed countries between 2003 and 2007, found that financial sector development impacts the cost of equity. Similarly, Lee *et al.* (2023) provided empirical evidence that globalization and financial sector deregulation reduce country risk, based on data obtained from 1984 to 2015 for 77 countries. Recently, Gbohoui *et al.* (2023) confirmed, based on data analysed from 2003 to 2021 using a panel fixed-effects regression model, that financial sector development reduces risk premiums in SSA countries. The study by Wong *et al.* (2025) concluded that financial deepening reduces the equity risk premium in Malaysia, although exchange rates, inflation, and oil prices have an exacerbating effect, based on data from 2009 to 2023.

Furthermore, studies investigating the interaction effects of financial globalization forces and financial sector development on country risk premiums are sparse in the empirical literature. Nevertheless, a related study by Andreasen and Valenzuela (2016) used data from 27 developed and developing countries from 1995 to 2009 in a panel data regression model and found that the increasing effect of capital liberalization on sovereign credit rating reduces as financial sector development increases.

However, a significant strand of empirical literature has found that macroeconomic fundamentals (such as interest rates, GDP, fiscal balance, inflation, exchange rate, current account balance, and debt stock) influence country risk premiums, sovereign credit spread, and sovereign bond spreads (Bella *et al.*, 2010; Kennedy and Palerm, 2014; Palic *et al.*, 2017; Presbitero *et al.*, 2016). In recent times, Taguchi and Bolortuya (2021) also concluded that country risk premium significantly and positively responded to inflation and external debt, while it responded negatively and insignificantly to foreign reserves. Kariyawasam and Jayasinghe (2022) found that inflation and the global volatility indicator (VIX) have a positive relationship with sovereign credit spread in Sri Lanka. Chari *et al.* (2024) found that credit ratings have a reducing effect on sovereign credit risk. In contrast, exchange rate volatility, public debt, and GDP per capita have an increasing effect in emerging markets.

Several other studies examined the effect of financial globalization and financial sector development on various other macroeconomic variables (Akinyemi, 2025; Gulcemal, 2021; Hwang *et al.*, 2010; Ikpesu, 2024, 2025; Kose *et al.*, 2003; Sghaier, 2018; Xue, 2020; Zhang *et al.*, 2023).

From the empirical review, it is evident that studies on the separate and interactive effects of financial globalization forces and financial sector development on country risk are sparse. Therefore, this study attempts to bridge the knowledge gap in this research area.

3. Methodology and data

3.1 Data and variables

Annual data covering the period from 2000 to 2021 for 35 emerging and developing economies (EDEs), in Appendix, were employed in the study. The focus of the study is on the EDEs because they are an economic group that suffers from a disproportionately high country risk premium (Gbohoui *et al.*, 2023). Additionally, the availability of data dictated the choice of period and countries in the study. For instance, the data for FSD, one of the main independent variables, was only available up to 2021 at the time of empirical analysis. In terms of the sources of data, annual data were assembled from popular sources, such as the World Bank, IMF, and New York University, because of the high quality and reliability of the data and the extensive usage of these sources by academic researchers (Akinyemi, 2025; Gbohoui, 2023; Hermes and Lensink, 2003; Ikpesu, 2025; Makoto, 2020). To ensure balanced panel data is used, data interpolation was performed for inflation, foreign reserves, and current account balances for the few years within the year range with missing data, using the figure from the preceding year. The years and variables affected are highlighted. For inflation, the interpolated data are for Argentina from 2014 to 2016. For foreign reserves, the interpolated data are for Jordan (2017–2021), Lebanon (2000, 2001), and Peru (2021). Moreover, for the current account balances, the years relate to Lebanon (2000–2001). Therefore, 13 of the 770 observations, representing 1.69%, emerged through the interpolation process, which should not introduce any data bias.

The study's dependent variable is the country risk premium (CRP). The estimation of the CRP for a country is determined using Eq. (1), which is expressed as the product of the sovereign credit default spread and the relative equity market volatility (Damodaran, 2003; Harrington *et al.*, 2022).

$$CRP = CDS * \sigma Equity / \sigma Bond \quad (1)$$

Where *CRP* is the country risk premium, $\sigma Equity$ is the standard deviation of the equity market index, and $\sigma Bond$ is the standard deviation of the bond market index. The relative equity market volatility ($\sigma Equity / \sigma Bond$) is the ratio of the equity market index's standard deviation to the bond market index's standard deviation. Damodaran computes this measure annually and publishes it on the New York University Stern (NYU Stern) Website.

The independent variables of the study are financial globalization forces (represented by external debt (EXD) and foreign direct investment (FDI)), and the financial sector development index (FSD). The control variables are real GDP growth rate (RGDPGR), current account balance (CAB), fiscal balance (FBA), inflation (INF), foreign reserves (FRE), political stability (POS), and sovereign credit rating (SCR). The choice of variables aligns with theoretical dictates and previous empirical works. Table 1 shows the research variables and their notations, measurements, economic rationale, *a priori* expectations, and data sources.

3.2 Model specification and estimation techniques

The deduction from both the debt overhang theory and the fiscal theory of sovereign risk is that external capital flow and fiscal deficit can influence country risk premium. Also, the financial liberalization theory suggests that financial sector development can boost market competition

Table 1. Description of variables and source of data

Variable	Notation	Measurement	Economic rationale	A priori expectation	Data source
Country risk premium	CRP	Credit default spread multiplied by the average relative equity volatility			NYU Stern by Damodaran
Foreign direct investment	FDI	The ratio of net FDI inflows to GDP.	FDI fosters economic growth and reduces the cost of capital (Gulcemal, 2021)	Negative	World Bank GDI
External debt	EXD	The ratio of external debt to GDP.	High external debt is a sign of fiscal vulnerability (Hwang <i>et al.</i> , 2010)	Positive	World Bank GDI
Financial sector development index	FSD	A composite index measuring financial markets and institutions' access, depth, and efficiency. The index ranges from 0 to 1, with zero being the lowest and one being the highest	Financial sector development improves capital access and market efficiency, boosting investor confidence (Zhao <i>et al.</i> , 2024)	Negative	IMF
Real GDP growth rate	RGDPGR	The annual growth rate in the real GDP.	Economic growth improves investor confidence, leading to reduced risk perception (Mpapalika and Malikane, 2019)	Negative	World Bank GDI
Current account balance	CAB	The ratio of the current account balance to GDP.	Current account surplus improves external competitiveness (Presbitero <i>et al.</i> , 2016)	Positive/ Negative	World Bank GDI
Fiscal balance	FBA	Fiscal balance as a percentage of GDP.	A fiscal balance surplus is a sign of fiscal sustainability (Kennedy and Palerm, 2014)	Positive/ Negative	World Bank GDI
Inflation	INF	Rate of change in the consumer price index	An increase in inflation leads to a higher required rate of return (Lee <i>et al.</i> , 2023)	Positive	World Bank GDI
Foreign reserves	FRE	The ratio of total reserves to GDP.	The foreign reserve level provides a buffer for intervention in the external market (Baldacci <i>et al.</i> , 2011)	Negative	World Bank GDI

(continued)

Table 1. Continued

Variable	Notation	Measurement	Economic rationale	A priori expectation	Data source
Political stability	POS	An indicator of the absence of politically motivated violence, including terrorism. The estimate ranges from -2.5 to 2.5	A politically stable country is perceived to have a lower risk (Baldacci <i>et al.</i> , 2011)	Negative	World Bank Governance Indicators
Sovereign Credit Ratings	SCR	These are Moody's ratings that measure a country's capacity to repay its commercial loans. The ratings are based on a 21-level scale, ranging from A1 to Caa3. For empirical analysis, numerical values have been assigned to each rating, with the lowest rating of Caa3 carrying 1, while A1 has the highest rating, carrying 21	A higher credit rating corresponds with lower default risk, thus lower country premium risk (Andreasen and Valenzuela, 2016; Chari <i>et al.</i> , 2024)	Positive/ Negative	NYU Stern by Damodaran

Source(s): Author (2025)

and liquidity, thereby lowering the cost of capital. In line with these expositions, the theoretical model developed for the study is as follows:

$$CRP_{it} = f(FDI_{it}, EXD_{it}, FSD_{it}, RGDPR_{it}, CAB_{it}, FBA_{it}, INF_{it}, FRE_{it}, POS_{it}, SCR_{it}) \quad (2)$$

Expressing Eq. (1) in econometric form, adapted from Taguchi and Bolortuya (2021), with the Seemingly Unrelated Regression (SUR) employed as the estimation technique.

$$CRP_{it} = \beta_0 + \beta_1 FDI_{it} + \beta_2 EXD_{it} + \beta_3 FSD_{it} + \beta_4 RGDPR_{it} + \beta_5 CAB_{it} + \beta_6 FBA_{it} + \beta_7 INF_{it} + \beta_8 FRE_{it} + \beta_9 POS_{it} + \beta_{10} SCR_{it} + \varphi_i + \mu_t + \epsilon_{it} \quad (3)$$

Where, CRP_{it} is country risk premium; FDI_{it} is foreign direct investment; EXD_{it} is a measure of external debt; FSD_{it} is financial sector development index; $RGDPR_{it}$ is real GDP growth rate; CAB_{it} is current account balance; FBA_{it} is fiscal balance; INF_{it} is the inflation rate; FRE_{it} is foreign reserves; POS_{it} is political stability; SCR_{it} is sovereign credit ratings. φ_i and μ_t are the unobserved country-specific and time-specific effects, and ϵ_{it} is the stochastic error term.

As stated above in Eq. (3), the study employed the Seemingly Unrelated Regression (SUR) technique, developed by Zellner (1962) and further worked on by Mark *et al.* (2005), to estimate the model parameters. Zellner (1962) notes that the SUR technique, a second-generation model estimator, uses generalized least squares. The SUR technique is employed in this study primarily because it is efficient in the presence of cross-sectional

dependence, slope heterogeneity (Yang *et al.*, 2020), heteroskedasticity, and autocorrelation (Khan *et al.*, 2014). Nevertheless, the two-step System Generalized Method of Moments (2S-GMM), developed by Arellano and Bover (1995) and Blundell and Bond (1998), renowned for handling the dynamic effects of the variables, endogeneity (Baldacci *et al.*, 2011; Ma and Song, 2018), heteroskedasticity and autocorrelation (Roodman, 2009; Yang and Liu, 2016) is used in the study as an alternative estimation technique. The challenge with the use of 2S-GMM is that it requires the absence of second-order serial correlation (i.e. the AR(2)) and the acceptance of the null hypothesis of overidentifying restrictions and validity of the instrumental variables, as indicated by the Hansen test (Sumba *et al.*, 2024). However, identifying valid instrumental variables may be a big challenge (Hassan *et al.*, 2023).

4. Empirical findings and discussion

4.1 Preliminary analysis

The annual balanced dataset comprises 770 observations. The summary statistics and correlation matrix of the dataset used in the study are presented in Panel A of Table 2. The CRP has a mean value of 5.128%, standard deviation of 3.527%, minimum and maximum values of 0.682%, and 27.00%, respectively. The mean, standard deviation, minimum, and maximum values of FDI are 3.447%, 3.149%, -5.088%, and 31.227%, respectively. The range of FDI is from -5.088% to 31.227%. The mean value of EXD is 53.274% with a standard deviation of 31.904%, minimum and maximum values of 3.985 and 309.229%, respectively. The FSD index has a mean of 0.300, a standard deviation of 0.134, a minimum of 0.07, and a maximum of 0.74. The lower standard deviations for these variables and many others indicate that the dataset clusters around the mean and has more concentration below the mean.

The correlation matrix is presented in Panel B of Table 2. The correlation coefficients indicate that the problem of multicollinearity does not exist, as there are no cases of correlation coefficients higher than 0.80. The highest correlation coefficient is -0.463 between country risk premium and financial sector development. Another observation is that most variables have negative correlation coefficients, signifying that they move in different directions. The multicollinearity test results in Panel C of Table 2 indicate that multicollinearity is not a concern in all the models, since the variance inflation factors of the variables and the mean values are less than the threshold, which is 10 (Sanli and Arslan, 2022).

Furthermore, the pre-estimation tests performed confirm the presence of non-stationarity, slope heterogeneity, cross-sectional dependence, heteroskedasticity, and autocorrelation in the dataset. This pre-estimation procedure was also followed in prior studies (Akinyemi, 2025; Shawl *et al.*, 2024). The nonstationarity test results are in Panel A of Table 3, and the other pre-estimation test results are in Panel B of Table 3. Hence, the SUR estimators are employed to generate the panel regression models. The SUR baseline estimates are presented in Table 4.

4.2 Panel regression models and discussion

Five models are estimated, and the results are presented in Table 4. Model 1 examines the impact of only financial globalization forces (EXD and FDI) on country risk premiums (CRP) in the EDEs. Model 2 shows the effect of FSD alone on CRP. Model 3 shows the individual effects of EXD, FDI, and FSD in the same econometric equation. Model 4 shows the individual and interaction effects of FDI and FSD on CRP. Model 5 shows the individual and interaction effects of EXD and FSD on CRP. These estimations are done under two scenarios: a full sample and an adjusted sample excluding the three BRICS countries (China, India, and South Africa). Furthermore, empirical results based on the balanced dataset, which form the baseline

Table 2. Descriptive statistics and correlation matrix results

Panel A: Descriptive statistics							Panel B: Correlation matrix										
Variable	Definition	Obs	Mean	Std. Dev	Min	Max	CRP	FDI	EXD	FSD	RGDPGR	CAB	FBA	INF	FRE	POS	SCR
CRP	Country risk premium	770	5.128	3.527	0.682	27.000	1.000										
FDI	Foreign direct investment	770	3.447	3.149	−5.088	31.227	0.022	1.000									
EXD	External debt	770	53.274	31.904	3.895	309.229	0.384	0.312	1.000								
FSD	Financial sector development	770	0.300	0.134	0.070	0.740	−0.463	−0.002	−0.209	1.000							
RGDPGR	Real GDP growth rate	770	3.544	4.270	−25.900	15.200	−0.183	0.172	−0.288	0.011	1.000						
CAB	Current account balance	770	−2.591	6.106	−26.230	19.665	−0.175	−0.433	−0.379	0.109	0.065	1.000					
FBA	Fiscal balance	770	−2.956	3.554	−23.945	13.311	−0.024	0.080	−0.060	−0.158	0.306	0.298	1.000				
INF	Inflation	770	6.127	9.065	−3.800	154.800	0.319	0.028	0.295	−0.141	−0.262	−0.039	0.057	1.000			
FRE	Foreign reserves	770	6.168	4.142	0.417	28.567	−0.257	0.011	−0.091	0.446	−0.039	0.134	−0.088	0.023	1.000		
POS	Political stability	770	−0.388	0.715	−2.810	1.117	−0.228	0.171	0.007	−0.019	−0.008	−0.023	0.097	−0.076	−0.084	1.000	
SCR	Sovereign credit ratings	770	10.266	4.436	1.000	21.000	−0.218	−0.086	−0.237	0.047	0.099	0.138	0.021	−0.102	0.307	0.135	1.000

(continued)

Table 2. Continued

Panel C: Multicollinearity test results									
Model 1		Model 2		Model 3		Model 4		Model 5	
Variable	VIF	Variable	VIF	Variable	VIF	Variable	VIF	Variable	VIF
CAB	1.60	FRE	1.45	CAB	1.60	FDI*FSD	8.79	EXD*FSD	9.37
FDI	1.51	FSD	1.35	EXD	1.54	FDI	8.32	EXD	8.68
EXD	1.49	FBA	1.31	FDI	1.52	FSD	2.48	FSD	4.35
RGDPGR	1.39	RGDPGR	1.23	FRE	1.48	CAB	1.53	FRE	1.46
FBA	1.33	SCR	1.19	FSD	1.39	FRE	1.47	CAB	1.35
SCR	1.21	CAB	1.17	RGDPGR	1.39	FBA	1.36	FBA	1.32
FRE	1.19	INF	1.15	FBA	1.36	RGDPGR	1.28	RGDPGR	1.30
INF	1.18	POS	1.06	SCR	1.24	SCR	1.22	SCR	1.25
POS	1.10			INF	1.19	INF	1.15	INF	1.20
				POS	1.11	POS	1.11	POS	1.08
Mean	1.33	Mean	1.24	Mean	1.38	Mean	2.87	Mean	3.14
Source(s): Author's computation from STATA 18 (2025)									

Table 3. Panel unit root results and pre-estimation test results

Panel A: Panel unit root test results								
Variable	Levels LLC (Adjusted t)	IPS (t-bar)	CADF (t-bar)	CIPS (cips)	First difference LLC (Adjusted t)	IPS (t-bar)	CADF (t-bar)	CIPS (cips)
CRP	-3.331***	-2.542***	-1.460	-1.757	-20.007***	-5.846***	-3.518***	-4.492***
FDI	-4.598***	-2.928***	-2.379***	-3.263***	-11.450***	-6.278***	-4.028***	-5.349***
EXD	-3.269***	-1.724	-1.908	-2.306***	-6.812***	-3.625***	-2.699***	-3.653***
FSD	-2.863***	-1.505	-2.188***	-2.466***	-8.274***	-5.061***	-3.448***	-5.029***
RGDPGR	-1.206	-4.086***	-2.195***	-3.158***	-4.002***	-6.621***	-3.918***	-5.339***
CAB	-5.331***	-2.137***	-2.029*	-1.987	-14.149***	-4.391***	-3.288***	-3.859***
FBA	-3.170***	-2.117***	-1.989*	-2.176**	-9.322***	-4.911***	-3.196***	-4.344***
INF	-1.988**	-3.887***	-1.866	-2.587***	-17.486***	-6.061***	-3.906***	-4.726***
FRE	-1.617*	-1.849**	-1.745	-1.778	-11.930***	-5.104***	-3.045***	-4.138***
POS	-5.193***	-2.133***	-2.253***	-2.340***	-14.214***	-4.751***	-3.450***	-4.245***
SCR	-2.631***	n/a	-1.656	-2.165**	-10.582***	n/a	-2.730***	-4.247***

Panel B: Pre-estimation test results					
	Model 1 Statistic	Model 2 Statistic	Model 3 Statistic	Model 4 Statistic	Model 5 Statistic
<i>Panel A</i>					
Slope homogeneity test (adjusted delta)	6.397***	5.899***	5.313***	5.414***	3.516***
Pesaran's CD test	33.653***	33.221***	34.896***	33.289***	34.656***
Modified Wald test (Group-wise heteroskedasticity)	11737.32***	11886.18***	13070.43***	11042.76***	9851.25***
Wooldridge test (first order-correlation)	32.769***	33.091***	32.358***	30.834***	30.034***
<i>Westerlund test</i>					
Variance ratio	3.94***	4.11***	2.094**	5.43***	1.607*

Note(s): ***, **, * denote the statistical significance at 1%, 5% and 10% respectively

Source(s): Author's computation from STATA 18 (2025)

Table 4. Effect of independent and control variables on country risk premiums

	SUR estimates, dependent variable: CRP All sample countries					SUR estimates, dependent variable: CRP Excluding China, India, and South Africa				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
<i>Panel A: Dataset with Interpolation for Missing Data</i>										
FDI	−0.0517 (0.0308)		−0.0195 (0.0384)	0.1584* (0.0920)		−0.6620 (0.0431)		−0.0206 (0.0408)	0.1688* (0.0970)	
EXD	0.0308*** (0.0040)		0.0236*** (0.0038)		0.0387*** (0.0090)	0.0276*** (0.0043)		0.0233*** (0.0040)		0.0359*** (0.0099)
FSD		−10.4250*** (0.8709)	−9.5492*** (0.8625)	−9.3025*** (1.1798)	−7.2197*** (1.5245)		−10.2037*** (1.0137)	−9.6434*** (1.0004)	−8.8176*** (1.3856)	−7.4756*** (1.8411)
FDI*FSD				−0.3693 (0.2552)					−0.4270 (0.2752)	
EXD*FSD					−0.0507* (0.0270)					−0.0439 (0.0306)
RGDPGR	−0.0419 (0.0291)	−0.0866*** (0.0261)	−0.0445 (0.0271)	−0.0915*** (0.0266)	−0.0490* (0.0262)	−0.0439 (0.3181)	−0.0894*** (0.0292)	−0.0537* (0.0299)	−0.0927*** (0.0297)	−0.0546* (0.0291)
CAB	−0.0306 (0.0219)	−0.0532*** (0.0178)	−0.0147 (0.0204)	−0.0415** (0.0203)	−0.0111 (0.0186)	−0.0365 (0.0230)	−0.0534*** (0.0189)	−0.0175 (0.0217)	−0.0433** (0.0216)	−0.0129 (0.0197)
FBA	0.0167 (0.0343)	−0.0214 (0.0325)	−0.0369 (0.0322)	−0.0278 (0.0329)	−0.0407 (0.0317)	0.0029 (0.0378)	−0.0276 (0.0361)	−0.0354 (0.0357)	−0.0348 (0.0365)	−0.0421 (0.0353)
INF	0.0809*** (0.0127)	0.0807*** (0.0119)	0.0661*** (0.0118)	0.0801*** (0.0119)	0.0649*** (0.0118)	0.0844*** (0.0131)	0.0817*** (0.0125)	0.0661*** (0.0125)	0.0814*** (0.0125)	0.0658*** (0.0125)
FRE	−0.2066*** (0.0278)	−0.0542* (0.0278)	−0.0656** (0.0288)	−0.0583** (0.0294)	−0.0703** (0.0286)	−0.2239*** (0.0317)	−0.0751** (0.0337)	−0.0861*** (0.0331)	−0.0791** (0.0338)	−0.0877*** (0.0329)
POS	−1.1223*** (0.1554)	−1.0440*** (0.1452)	−1.0590*** (0.1444)	−1.0921*** (0.1484)	−1.0392*** (0.1425)	−1.1192*** (0.1609)	−1.0582*** (0.1520)	−1.0580*** (0.1513)	−1.1044*** (0.1553)	−1.0491*** (0.1492)
SCR	−0.0138 (0.0262)	−0.0837 (0.0248)	−0.0591** (0.0246)	−0.0842*** (0.0250)	−0.0601** (0.0247)	−0.0042 (0.0292)	−0.0896*** (0.0285)	−0.0648** (0.0282)	−0.0913*** (0.0286)	−0.0649** (0.0281)
Constant	4.2686*** (0.4337)	8.6550*** (0.3928)	6.9788*** (0.4713)	8.1999*** (0.4735)	6.2734*** (0.5940)	4.5472*** (0.0292)	8.7750*** (0.4603)	7.2546*** (0.5225)	8.2663*** (0.5459)	6.5524*** (0.7059)
<i>(continued)</i>										

Table 4. Continued

	SUR estimates, dependent variable: CRP All sample countries					SUR estimates, dependent variable: CRP Excluding China, India, and South Africa				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Number of observations	770	770	770	770	770	704	704	704	704	704
R-squared	0.308	0.373	0.403	0.375	0.406	0.279	0.333	0.363	0.335	0.365
Chi-square	343.23***	457.66***	520.44***	462.52***	525.90***	272.95***	350.67***	401.90***	355.22***	404.73***
<i>Panel B: Dataset without Interpolation for Missing Data (Unbalanced Dataset)</i>										
FDI	−0.0641 (0.0420)		−0.0261 (0.0393)	0.1634* (0.0934)		−0.0777* (0.0441)		−0.0268 (0.0419)	0.1734* (0.0986)	
EXD	0.0335*** (0.0040)		0.0260*** (0.0039)		0.0420*** (0.0091)	0.0304*** (0.0044)		0.0257*** (0.0041)		0.0394*** (0.0100)
FSD		−10.3624*** (0.8849)	−9.3822*** (0.8750)	−9.2124*** (1.1958)	−0.0550*** (0.0273)		−10.1970*** (1.0307)	−9.5310*** (1.0160)	−8.7887*** (1.4065)	−7.1748*** (1.8604)
FDI*FSD				−0.3823 (0.2583)					−0.4374 (0.2789)	
EXD*FSD					−0.5496** (0.0273)					−0.0483 (0.0310)
RGDPGR	−0.0396 (0.0296)	−0.0843*** (0.0269)	−0.0385 (0.0276)	−0.0888*** (0.0273)	−0.0437 (0.0268)	−0.0418 (0.0326)	−0.0870*** (0.0302)	−0.0480 (0.0307)	−0.0900*** (0.0306)	−0.0488 (0.0300)
CAB	−0.0361 (0.0224)	−0.0571*** (0.0182)	−0.0171 (0.0210)	−0.0447** (0.0211)	−0.0119 (0.0190)	−0.0417* (0.0237)	−0.0573*** (0.0194)	−0.0200 (0.0224)	−0.0463** (0.0225)	−0.0135 (0.0201)
FBA	0.0173 (0.0367)	−0.0218 (0.0348)	0.0427 (0.0347)	−0.0300 (0.0355)	−0.0482 (0.0340)	0.0028 (0.0410)	−0.0284 (0.0391)	−0.0408 (0.0389)	−0.0378 (0.0398)	−0.0503 (0.0382)
INF	0.0937*** (0.0151)	0.0823*** (0.0145)	0.0735*** (0.0142)	0.0813*** (0.0144)	0.0710*** (0.0141)	0.0959*** (0.0156)	0.0832*** (0.0152)	0.0733*** (0.0149)	0.0827*** (0.0152)	0.0718*** (0.0148)
FRE	−0.1904*** (0.0288)	−0.0472 (0.0302)	−0.0556* (0.0296)	−0.0520* (0.0304)	−0.0618** (0.0293)	−0.2085*** (0.0328)	−0.0669* (0.0348)	−0.0749** (0.0341)	−0.0715** (0.0349)	−0.0775** (0.0338)
POS	−1.1767*** (0.1588)	−1.1027*** (0.1495)	−1.1150*** (0.1481)	−1.1494*** (0.1524)	−1.0954*** (0.1465)	−1.1715*** (0.1650)	−1.1159*** (0.1567)	−1.1151*** (0.1555)	−1.1610*** (0.1597)	−1.1056*** (0.1537)

(continued)

Table 4. Continued

	SUR estimates, dependent variable: CRP All sample countries					SUR estimates, dependent variable: CRP Excluding China, India, and South Africa				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
SCR	−0.0152 (0.0266)	−0.0880*** (0.0253)	−0.0579** (0.0251)	−0.0886*** (0.0255)	−0.0619** (0.0251)	−0.0069 (0.0297)	−0.0956*** (0.0291)	−0.0680** (0.0288)	−0.0972*** (0.0292)	−0.0683** (0.0287)
Constant	3.9419*** (0.4507)	8.5487*** (0.4034)	6.6430*** (0.4897)	8.0824*** (0.4834)	5.8920*** (0.6074)	4.2314*** (0.4876)	8.6903*** (0.4729)	6.9413*** (0.5425)	8.1706*** (0.5584)	6.1819*** (0.7206)
Number of observations	757	758	757	758	757	691	692	691	692	691
R-squared	0.296	0.353	0.389	0.356	0.392	0.265	0.312	0.348	0.315	0.350
Chi-square	318.82***	413.42***	482.22***	418.25	488.10***	249.48***	313.06***	369.25***	317.55***	372.35***

Note(s): ***, **, * denote the statistical significance at 1%, 5 and 10% respectively. The standard error terms are in parentheses

Source(s): Author's computation from STATA 18 (2025)

models, are presented in Panel A of [Table 4](#), while those based on the original unbalanced dataset are shown in Panel B of [Table 4](#) for sensitivity and robustness analysis purposes.

Analysing the results in Panel A of [Table 4](#), Model 1 shows that the coefficient of foreign direct investment (FDI) is negative but insignificant. The possible reason for this result could be the low level of FDI flows to EDEs. In contrast, external debt (EXD) has a significantly positive coefficient (0.031), indicating that it increases the country risk premium. This result implies that a 1% increase in external debt tends to increase the country risk premium by 0.031% in EDEs, suggesting that global investors view an increase in external debt as a source of fiscal stress, a risk that requires compensation. This finding aligns with empirical evidence from studies by [Palic et al. \(2017\)](#), [Taguchi and Bolortuya \(2021\)](#), and [Chari et al. \(2024\)](#) and corroborates the debt overhang theory. Regarding the control variables, real GDP growth rate (RGDPGR), current account balance (CAB), and sovereign credit ratings (SCR) have a negative but insignificant effect on country risk premiums. A plausible reason for the insignificant relationship could be that the structural, fiscal, monetary, and institutional factors that influence sovereign credit rating are also specified in the models. In contrast, foreign reserves and political stability significantly reduce country risk premiums, as expected. Like this study, [Taguchi and Bolortuya \(2021\)](#) conclude that foreign reserves have a negative relationship with country risk premiums. Additionally, [Baldacci et al. \(2011\)](#) found that political stability significantly reduces country risk premiums. Meanwhile, inflation significantly contributes to an increase in country risk premiums, corroborating the findings by [Mpapalika and Malikane \(2019\)](#) and [Kariyawasam and Jayasinghe \(2022\)](#). The fiscal balance exhibits an insignificant positive correlation with the country risk premium, contrary to the findings by [Bella et al. \(2010\)](#), who found that a significant increase in fiscal balance leads to a corresponding increase in the country risk premium. The finding presents weak evidence in support of the fiscal theory of sovereign risk. The insignificant effect could be because global investors do not see a serious threat from fiscal imbalances in EDEs.

Model 2 in column 3 indicates that financial sector development has a significant and negative link with country risk premium. This means that financial sector development can reduce the country risk premium, possibly through improved market liquidity, enhanced capital access, and efficient capital resource allocation. This finding corroborates that of [Gbohoui \(2023\)](#) and affirms the propositions of the financial market liberalization theory. Inflation, foreign reserves, and political stability retain their signs and significance as in Model 1. In contrast to the results in Model 1, the real GDP growth rate and current account balance significantly reduce country risk premiums, aligning with the findings by [Presbitero et al. \(2016\)](#), who found that real GDP growth rates and current account surpluses lower sovereign credit spreads. Model 3 shows that financial sector development significantly contributes to lowering country risk premiums, even in the presence of external debt and FDI. Notably, external debt further confirms its aggravating effect, albeit with lower coefficients. At the same time, the signs and significance levels for the control variables are similar to those estimated in Model 1. However, sovereign credit ratings have a significant reducing effect on country risk premium, as expected. Model 4 reveals that the coefficient (-0.3693) of the interaction effects of FDI and FSD, although insignificant, is negative, suggesting that financial sector development cannot significantly alter the effect of FDI on country risk premium. However, Model 5 reveals that the coefficient (-0.0507) of the interaction effects of EXD and FSD is significant and negative. This suggests that financial sector development can alter the aggravating effect of external debt on country risk premiums to a mitigating relationship, possibly through capital allocation efficiency and improved market liquidity, which ensure a reduction in the cost of funds. The theoretical implication of this result is that a well-developed financial sector can reduce over-reliance on external debt financing, thereby minimizing fiscal and financial leverage risks. The model estimation results for the sample excluding the three major BRICS countries, China, India, and South Africa, show empirical result convergence, albeit with differences in the coefficients of the variables. A notable observation is that inflation

appears to have slightly higher escalating effects in the adjusted samples, as indicated by the coefficients. The overall model's efficacy diagnostics indicate a goodness of fit, as the Chi-square statistics are statistically significant at the 1% level. The R-squared values equally show that the variables used in the model explain variations in country risk premiums to a certain degree.

4.2.1 Robustness analysis. Two main sets of robustness and sensitivity analyses are carried out in the study. The first analysis also estimated five models, but used the original unbalanced dataset instead. The second analysis used the 2S-GMM as an alternative estimator to analyse the balanced dataset. The results of the first robustness analysis are presented in Panel B of Table 4. The results show empirical alignment with the baseline results presented in Panel A of Table 4 in the full sample and the ex-BRICS sample, albeit with slight variations in the coefficients. The results of the second analysis using the 2S-GMM are presented in Table 5. The results from Model 1 in Table 5 indicate that the lagged value of the country risk premium (L.CRP) is positive and statistically significant at the 1% level. This means that the past values of country risk premiums significantly influence the current country risk premiums. The results on the reducing effects of financial sector development and the increasing effect of inflation on country risk premiums remain robust when an alternative estimation technique is used with both the full sample and the ex-BRICS sample. The model's diagnostic statistics indicate the absence of second-order serial correlation (i.e. the AR(2)) and overidentification of the instrumental variables, as indicated by the Hansen test, confirming the model's overall validity.

5. Conclusion and policy implications

This study aims to examine the separate and interactive effects of financial globalization forces and financial sector development on country risk premiums in emerging and developing economies (EDEs), using panel data from 35 countries for the period 2000–2021. The Seemingly Unrelated Regression (SUR) was employed for estimating the regression coefficients with the two-step System GMM (2S-GMM) estimation technique serving as an alternative estimator. The empirical results are quite interesting and revealing. Financial sector development is shown to have a lessening effect on country risk premiums and can dampen the increasing effect of external debt, validating the financial market liberalization theory. In contrast, external debt exacerbates country risk premiums in EDEs as postulated by the debt overhang theory. Conversely, FDI's ability to reduce country risk premiums is weak. Among the control variables, foreign exchange reserves and political stability are found to contribute to reducing country risk premiums. However, strong empirical evidence shows that inflation aggravates country risk premiums. Fiscal balance has an insignificantly negative effect on country risk premium, providing weak evidence in support of the fiscal risk of sovereign risk. These findings are robust and valid even with alternative specifications that involve sensitivity analysis using the original unbalanced dataset and the use of the 2S-GMM estimator, which controls for endogeneity and parameter dynamism, to re-estimate the balanced dataset-based models.

These empirical findings have four pertinent policy implications for EDEs. First, financial sector development within a country is a veritable mechanism for reducing country risk premiums. Therefore, the EDEs should implement financial policies and reforms to improve capital access, strengthen financial system architecture, and capital allocation efficiency. Second, inflation is a significant macroeconomic variable that the EDEs must pay attention to if they desire a lower country risk premium. Policymakers in EDEs should deploy appropriate monetary and fiscal strategies to rein in inflation. Third, external liquidity is crucial for establishing credibility and confidence in a country's economic stability. As such, EDEs should intensify economic diversification and export-led industrialization to enhance the external liquidity outlook. The fourth and final important implication is that political stability and favourable credit ratings reduce country risk premiums. EDEs should embrace the rule of

Table 5. Effect of independent and control variables on country risk premiums

	2S-GMM estimates, dependent variable: CRP All sample countries					2S-GMM estimates, dependent variable: CRP Excluding China, India, and South Africa				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
L.CRP	0.7095*** (0.0506)	0.5269*** (0.0676)	0.5273*** (0.0707)	0.5479*** (0.0641)	0.5627*** (0.0828)	0.6936*** (0.0523)	0.5272*** (0.0678)	0.5273*** (0.0720)	0.5481*** (0.0674)	0.5602*** (0.0858)
FDI	0.0183 (0.0632)		0.0231 (0.0573)	−0.9456 (0.7460)		0.0050 (0.0613)		0.0183 (0.0604)	−1.0254 (0.8797)	
EXD	0.0048 (0.0048)		0.0066 (0.0055)		−0.0608 (0.0533)	0.0048 (0.0048)		0.0069 (0.0058)		−0.0797 (0.0699)
FSD		−4.4628*** (1.6077)	−4.0791*** (1.4539)	−12.5087* (6.9119)	−13.4591* (7.5668)		−4.8389** (1.9939)	−4.5033** (1.8789)	−13.9840 (8.9007)	−18.0558 (11.6061)
FDI*FSD				2.9148 (2.3196)					3.1621 (2.7213)	
EXD*FSD					0.2214 (0.1744)					0.2911 (0.2436)
RGDPGR	−0.0130 (0.0239)	−0.0053 (0.0213)	−0.0163 (0.0208)	−0.0225 (0.0267)	−0.0041 (0.0232)	−0.0129 (0.0262)	−0.0084 (0.0241)	−0.0207 (0.0231)	−0.0269 (0.0300)	−0.0215 (0.0270)
CAB	−0.0362 (0.0228)	−0.0385 (0.0246)	−0.0296 (0.0221)	−0.0394 (0.0280)	−0.0240 (0.0261)	−0.0412 (0.0239)	−0.0395 (0.0256)	−0.0327 (0.0226)	−0.0334 (0.0320)	−0.0263 (0.0325)
FBA	0.0199 (0.0333)	−0.0071 (0.0299)	0.0027 (0.0283)	−0.0107 (0.0362)	−0.0085 (0.0367)	0.0159 (0.0381)	−0.0045 (0.0331)	0.0085 (0.0344)	−0.0008 (0.0422)	0.0057 (0.0487)
INF	0.0662*** (0.0135)	0.0820*** (0.0120)	0.0737*** (0.0141)	0.0777*** (0.0132)	0.0736*** (0.0167)	0.0693*** (0.0132)	0.0830*** (0.0124)	0.0747*** (0.0143)	0.0754*** (0.0143)	0.0719*** (0.0184)
FRE	−0.0600* (0.0319)	−0.0328 (0.0371)	−0.0285 (0.0344)	−0.0295 (0.0356)	−0.0139 (0.0446)	−0.0838* (0.0421)	−0.0467 (0.0455)	−0.0471 (0.0422)	−0.0411 (0.0425)	−0.0503 (0.0486)
POS	−0.1544 (0.2076)	−0.2806 (0.2917)	−0.3318 (0.2776)	−0.1523 (0.3040)	−0.4413 (0.2960)	−0.1678 (0.2285)	−0.2538 (0.2981)	−0.2897 (0.2871)	−0.1549 (0.3230)	−0.3941 (0.3384)
SCR	−0.0182 (0.0397)	−0.0385 (0.0454)	−0.0307 (0.0425)	−0.0223 (0.0475)	−0.0175 (0.0520)	−0.0213 (0.0439)	−0.0514 (0.0550)	−0.0442 (0.0498)	−0.0429 (0.0562)	−0.0518 (0.0581)
Constant	1.2713* (0.6705)	3.5548*** (1.0628)	3.057*** (0.9996)	6.0762*** (2.4880)	5.8178*** (2.9447)	1.5291* (0.7511)	3.8900*** (1.2640)	3.4459*** (1.1498)	6.8666** (3.1381)	7.7402* (3.9809)

(continued)

Table 5. Continued

	2S-GMM estimates, dependent variable: CRP All sample countries					2S-GMM estimates, dependent variable: CRP Excluding China, India, and South Africa				
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 1	Model 2	Model 3	Model 4	Model 5
Number of instruments	32	30	32	32	32	32	30	32	32	32
AR(2) test (<i>p</i> -value)	0.76 (0.449)	0.57 (0.565)	0.49 (0.621)	0.88 (0.379)	0.52 (0.602)	0.66 (0.509)	0.48 (0.628)	0.41 (0.679)	0.77 (0.439)	0.45 (0.656)
Hansen test (<i>p</i> -value)	28.27 (0.133)	25.21 (0.193)	25.34 (0.189)	24.40 (0.225)	27.08 (0.133)	26.77 (0.178)	24.09 (0.239)	24.25 (0.232)	23.69 (0.256)	25.88 (0.170)
Note(s): ***, **, * denote the statistical significance at 1%, 5 and 10% respectively. The standard error terms are in parentheses										
Source(s): Author's computation from STATA 18 (2025)										

law, promote democratic governance, foster national unity, ensure macroeconomic stability, and create economic opportunities for shared prosperity.

6. Limitations and future direction

The main limitation arises from using secondary data collected from various sources, whose precision and unbiasedness can be challenging to ascertain. Nevertheless, researchers rely on these sources of data. Also, these limitations do not diminish the policy relevance and unique contributions of this study. Future studies may consider investigating whether the relationship between financial globalization forces, financial sector development, and country risk premium is non-linear and whether optimal thresholds exist in this relationship.

Appendix

Table A1. List of countries used in the regression analysis

Argentina	Colombia	India	Mexico	Peru
Belize	Costa Rica	Indonesia	Moldova	Philippines
Bolivia	Dominican Republic	Jamaica	Morocco	Romania
Botswana	Ecuador	Jordan	Nicaragua	South Africa
Brazil	El Salvador	Kazakhstan	Pakistan	Thailand
Bulgaria	Guatemala	Lebanon	Papua New Guinea	Tunisia
China	Honduras	Mauritius	Paraguay	Ukraine

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