

Unveiling Key Drivers of Financial Distress in Developing Economies: A Comprehensive Analysis

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Abstract

In the case of developing countries, this study looks at the factors that contribute to financial distress between 2002 and 2021. For empirical analysis, a total of 35 developing economies have been chosen. The explanatory factors in this study include the budget deficit, balance of payments, fiscal and monetary policy, gross domestic products, political instability, corruption, and inflation; the dependent variable is financial distress. A fixed and random effect model has been used to explore the effects of explanatory factors on financial distress. The study shows that in developing nations, factors such as the balance of payments, monetary policy, political instability, and corruption significantly influence financial distress, but factors such as the budget deficit, fiscal policy, gross domestic product, and inflation have little effects. The results show that executing efficient fiscal and monetary policies, keeping a close eye on the budget, managing the balance of payments through market reforms, and all of these things are critical to the growth and development of a nation.

Keywords: Distress, budget, deficit, monetary, fiscal, corruption, political instability

INTRODUCTION

An entity, whether it be a nation, corporation, or individual, facing difficulties generating enough income to meet its financial obligations is said to be in financial distress. This scenario often arises from high fixed costs, substantial illiquid assets, or income streams that are highly sensitive to economic downturns (Ufo, 2015; Sulehri et al., 2024). During episodes of financial distress, asset values tend to drop sharply, making it challenging for both companies and consumers to meet their liabilities. Simultaneously, financial institutions struggle with cash flow shortages. The presence of financial distress is frequently associated with panic situations or bank runs, where investors swiftly sell off assets or withdraw deposits from banks, fearing that their value may depreciate. Other instances that can be considered financial distress include the bursting of speculative bubbles, stock market collapses, sovereign debt defaults, or currency crises (Ahmad, 2018; Mehmood et al., 2018; Idris, 2023; Sulehri & Ali, 2024).

Financial distress at the macro level is delineated into three distinct phases: profit reduction, mild liquidity challenges, and severe liquidity crises (Attari et al., 2017; Huseyin, 2023; Audi et al., 2025). There has been a growing interest in examining financial components including debt, credit, and collateral as predictors of macroeconomic results (Agnostic and Robinson, 2014; Sulehri et al., 2024). The importance of an integrated model that includes accounting, market, and macroeconomic indicators in predicting the likelihood of financial hardship has been highlighted (Tinoco and Wilson, 2013; Audi et al., 2023; Audi et al., 2022). The capital structure plays a crucial role in boosting the probability of financial difficulty and bankruptcy on a macroeconomic scale (Pandey, 2002). Micro-level financial difficulty, whether at the national or macro level, follows a four-phase sequence that culminates in loan default: incubation, cash scarcity, financial bankruptcy, and final insolvency (Newton, 1975).

Financial distress is defined as the period of declining financial conditions that precedes insolvency or liquidation (Platt and Platt, 2002).

Examining financial distress in developing nations is crucial as it offers an in-depth understanding of global economic stability and trends. It sheds light on the various triggers, impacts, and policy actions necessary for different economic settings, contributing to the formulation of customized strategies to avert and alleviate financial crises. Such insight allows investors to better assess risks and allocate their capital more efficiently, while also assisting international bodies and policymakers in designing focused interventions and crafting robust fiscal and monetary frameworks. By studying financial distress across varying economic environments, we can enhance global economic resilience, sustainability, and health (Laeven and Valencia, 2013; Ali, 2022). A thorough analysis of economic distress during the early 1920s highlights the critical importance of managing broad money supply growth in reaction to economic shocks, marking it as a key component of financial crisis management (Friedman and Schwartz, 1963). Financial distress, especially related to debt on a macroeconomic scale, can lead to substantial losses for both local and international banks, potentially destabilizing financial systems not only in the affected country but also globally. This can hinder economic growth and create turbulence in international financial markets (Shabbir and Rehman, 2016; Ali & Ahmad, 2016).

The interplay between financial distress and budget deficits can vary based on economic conditions, government policies, and the overall fiscal and monetary environment. Effective fiscal management and a sound approach to addressing budget deficits are crucial for preventing or mitigating financial distress at the government level (Georgantopoulos and Tsamis, 2011; Shahbaz et al., 2016; Server, 2019; Munir et al., 2024). While financial distress and balance of payments are separate concepts, they are often interlinked within the complexities of global economic interactions. The exchange rate reflects how much foreign currency can be acquired with one unit of domestic currency, or the amount required in local currency to purchase a unit of foreign currency (Soderstine, 1998; Jammazi & Mokni, 2021; Omri, 2022; van Zanden, 2023; Audi et al., 2025). Evidence suggests that tax policies in developed economies may follow a procyclical pattern. For instance, tax rates were reduced during Argentina's economic expansion from 1991 to 1994, but during the 1995 recession, a restrictive fiscal policy with higher taxes was implemented (Zhang, 2013; Talvi and Vegh, 2005; Ahmad & Rehman, 2019).

Understanding the macroeconomic dynamics between interest rates and financial distress requires analyzing the broader economic landscape, financial policies, and the interconnections between different economic factors. The success of financial policies in mitigating financial distress is contingent upon the unique challenges and conditions faced by each country (Bostan and Firtescu, 2019; Ali & Sajid, 2020). While economic growth can enhance financial stability, unchecked growth combined with excessive risk-taking can trigger financial distress. Conversely, financial distress can stifle economic progress, highlighting the need for a balanced approach that addresses weaknesses in both financial and real sectors (Julius, 2017; Zubair & Hayat, 2020; Adjasi & Yu, 2021; Ali, 2022). The correlation between political instability and financial distress at the macroeconomic level has critical consequences for a nation's economic health. Political instability refers to a scenario characterized by frequent leadership changes, policy unpredictability, and institutional weakness (Bruno, 1998; Ali, 2022; Ali & Mohsin, 2023).

The relationship between financial distress and corruption is complex, involving economic, social, and institutional factors. Although corruption doesn't directly cause financial distress, it can worsen economic difficulties and contribute to conditions that lead to it (Fethi and Imamoglu, 2021). The association between financial distress and inflation fluctuates, depending on the economic environment, sectors involved, and the country. A banking crisis becomes more likely in periods of low growth and high inflation (Jaffri et al., 2016; Ahmad, 2022). Therefore, it is essential to analyze the determinants of financial distress to achieve long-term socioeconomic goals.

LITERATURE REVIEW

This part of the paper is comprised of literature review, most relevant and recent studies have been selected as literature review. The comprehensive analysis of literature enhances our understanding that financial instability remains a focal point among researchers and policymakers. Various studies (Guizani & Abdalkrim, 2023; Nuswantara et al., 2023; Younas et al., 2022; Chilbole et al., 2022; Jia and Li, 2022; Kallianiotis, 2022; Kang et al., 2022; Negoro and Wakan, 2022; Ashraf et al., 2021; Dang and Tran, 2021; Dinh et al., 2021; Lizares, 2021;

Mariano et al., 2021; Monika and Noviari, 2021; Putri, 2021; Wangsih et al., 2021; Yuliastari et al., 2021; Abbas et al., 2020; Sadjarto et al., 2020; Roy & Madheswaran, 2020; Inekwe et al., 2019; Khoja et al., 2019; Malik et al., 2019; Iqbal, 2018; Supriyanto and Darmawan, 2018; Altman et al., 2016) have provided diverse metrics and factors influencing financial instability.

Guizani and Abdalkrim (2023) investigate the influence of gender diversity on corporate boards in reducing the likelihood of financial distress. Their research utilizes panel data from 367 non-financial firms listed on Bursa Malaysia, spanning the period from 2011 to 2019. The data for this study is sourced from DataStream and the companies' annual reports. To analyze the data, the researchers employ panel logistic regression and the dynamic Generalized Method of Moments (GMM). The Altman Z-score is used as a proxy for financial distress, serving as the dependent variable. The independent variables include the percentage of women on the board, the percentage of female independent directors, the percentage of independent directors, and board size. The findings reveal that the presence of female directors on the board significantly mitigates the risk of financial distress. Female directors play a vital role in overseeing board decisions and exerting substantial influence in controlling the financial distress risk of the company, even when accounting for other control variables.

Younas et al. (2022) use panel series data from 152 non-financial companies listed on the Pakistan Stock Exchange to investigate the relationship between corporate governance and financial hardship. The data set spans from 2003 to 2017. The Pakistan Stock Exchange provides the data, which is then analyzed using both fixed effect and random effect models. Financial distress is the dependent variable in this study; the independent factors are the corporate governance index, family ownership, foreign ownership and ownership by block holders, board size, CEO duality, and company size, growth, and leverage. The financial distress of enterprises is positively impacted by the Pakistan Corporate Governance Index, and it is reduced by strong corporate practices. Financial difficulty in Pakistani companies is positively impacted by institutional ownership as well. According to the study, there is a negative correlation between President Duality and board size, which could increase trust and funding.

Jia and Li (2022) look into the relationship between financial crisis and a company's environmental performance. The Australian companies' panel series data was utilized between 2007 and 2015. The information is derived from the S&P/ASX 200 index and Thomson Reuters Asset4, and it is analyzed using the generalized method of moment and two-stage least square (2SLS) regression. Financial distress, size, firm age, leverage, operational cash flow, return on assets, tangibility, organizational slack, market-to-book ratio, and sales use are employed as independent variables, while the corporate environmental performance is used as the dependent variable. The study looks into the relationship between Australian enterprises' financial hardship likelihood and environmental performance. Results show a negative correlation, particularly for firms with high risk. Future research should explore social performance and how environmental performance impacts small to medium enterprises' financial distress.

Negoro and Wakan (2022) look into profitability, liquidity, and capital structure effect on financial crisis. In this study, panel data from 17 Indonesian construction and building enterprises covering the years 2018–2020 are used. The data is analyzed using multi-collinearity testing, normality testing, and descriptive statistics. The data is obtained from the Indonesian Stock Exchange. Financial hardship is the study's dependent variable, whereas profitability, capital structure, return on equity, and liquidity are its independent factors. This study reveals that capital design impacts financial distress, liquidity does not, and productivity negatively impacts it. The audit board's viability variable control does not include factors of financial distress. Development organizations should make appropriate system arrangements during pandemics and emergencies to avoid financial issues.

Dang and Tran (2021) study the footprint of financial distress on tax avoidance. The panel data 369 listed companies of Vietnam are used from the time period of 2008 to 2020. The data is gathered from Thomson Reuter's database. The fixed effect model and random effect model are used to analyze. Tax evidence is used as a dependent variable and z-score, size, leverage, capital level, market book value and deferred income tax rate are used as independent variables. The study reveals a positive correlation between financial distress and tax aversion in study organizations, with smaller companies often avoiding taxes and using obligation influence as a tax safeguard. Companies with higher book tax differences tend to engage in tax evasion.

Lizares (2021) demonstrates the corporate financial stress by taking the data of non-banking firms of Philippines from the period of 1995 to 2008. For the analysis the data is collected from Thomson Reuter's DataStream and World-scope database. The mixed logit model is used for the measurement of the indicators which are market

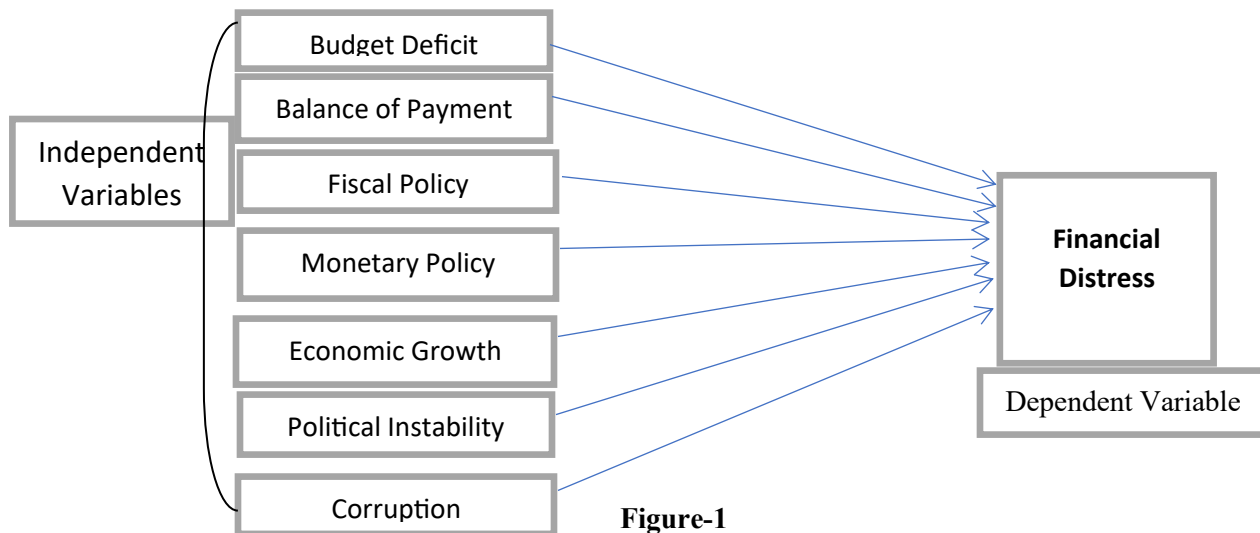
variables and macro-level variables. The paper suggests that financial distress can be predicted and understood through firm and market-based factors in the Philippine market. It also highlights the heterogeneity of firm behavior and suggests that accurate forecasts can help financial institutions and strategy creators anticipate emergencies. However, a clear definition is lacking.

Monika and Noviari (2021) use time series data of 47 mining companies registered on the Indonesia Stock Exchange from 2015 to 2019 to investigate the effects of financial distress, capital intensity, and audit quality on tax aversion. Purposive sampling is used to extract the data from the Indonesia Stock Exchange. The multiple linear regression analysis is used to analyze the data. The tax avoidance is considered as a dependent variable and financial distress, capital intensity and audit quality as independent variables. Financial distress negatively impacts tax aversion, with higher distress levels reducing tax evasion. Capital force and audit quality do not influence tax aversion. Organizations should increase oversight of their activities and board to avoid tax avoidance and maintain material taxation arrangements.

THEORETICAL AND CONCEPTUAL LINKS

In this section, we explore the theoretical foundations that support the empirical model used in this study. The main objective of the theory is to develop a model that effectively captures human and social behavior. By leveraging theoretical perspectives, researchers can investigate causal links between variables, gaining a deeper understanding of the mechanisms driving the outcomes we observe (Negal, 1963). Financial stability is crucial for promoting economic growth, which depends on the effective management of financial crises. Financial and monetary systems are designed to enhance the productivity of tangible activities and optimize resource allocation. A substantial body of research in financial economics has repeatedly shown a connection between financial development and improvements in economic growth and efficiency (Levine, 1997; Rajan & Zingales, 1998). Strategic responses and the overall economic context are key determinants of the extent of financial distress linked to budget deficits (Barroy, 2016).

CONCEPTUAL FRAMEWORK



The balance of payments and financial distress requires an in-depth analysis of a country's external economic position. Properly managed balance of payments contributes to financial stability, whereas imbalances or unsustainable trends may heighten the risk of financial distress (Altman, 1968). Austerity measures and tax increases can directly affect both countries and businesses, potentially intensifying financial distress within the private sector. If investors and creditors question a nation's ability to manage its debt, it could result in downgrades by credit rating agencies (Pandapotan & Nurlis, 2023). Rising interest rates can increase the cost of servicing debt

for both governments and other borrowers, which can lead to financial distress, particularly for those with variable-rate loans or who heavily rely on borrowing (Bostan & Firtescu, 2019).

Various theoretical models can explain the causes of financial distress, helping to select relevant variables for analysis and define the relationships between them (Altman & Hotchkiss, 2006). Debt overhang theory explains that countries with intensively high levels of debt may experience financial distress because the burden of servicing the debt becomes unsustainable. Foreign debt serves as a crucial means to fund current and future investments (Myers, 1977). Nonetheless, a decline in a country's capacity to repay its debts in the future could elevate the anticipated debt ratio, potentially leading to financial strain (Pattillo et al., 2011). Uncertainty arises concerning the terms, terms, and timing of debt repayment and domestic taxation in situations of substantial indebtedness, contributing to reduced domestic and international investments and adversely impacting anticipated economic growth (Cordella et al., 2010).

For examining the coefficients of the selected variables, the econometric model can be written as:

$$FD_{it} = \beta_0 + \beta_1 BD_{it} + \beta_2 BOP_{it} + \beta_3 FP_{it} + \beta_4 MP_{it} + \beta_5 X_{it} + e_{it}$$

Table 1: Description of Variables

Indicator	Definition	Measurement
Financial Distress	Financial distress can be defined as a reaction, akin to mental or tangible discomfort, caused by concerns regarding one's overall financial well-being. This encompasses perceptions related to one's capability to manage financial resources such as income and savings, meet financial obligations, repay debts, and provide for life's necessities and desires.	debt-to- reserve ratio
Budget Deficit	Generally speaking, budget deficit is current and capital income and official grants got, less complete consumption and loaning minus repayments. Information is displayed for focal government.	total government expenditure and government's current revenue
Balance of Payment	Net current exchange appears on the balance of payments whenever an economy transfers goods, services, income, or financial items without expecting anything in return. All transfers categorized as current, excluding those designated as capital, are accounted for. The data are denominated in current U.S. dollars.	Net current transfers (% of GDP)
Fiscal Policy	The segment of governmental strategy focused on boosting income through taxation and determining the levels and objectives of public expenditures.	total tax revenues received as a percentage of GDP
Monetary Policy	The management of the monetary supply within an economy and the mechanisms through which new money is injected.	Real interest rate payments (% of revenue)

Based on the existing literature, scholars view panel data analysis as the most effective approach for handling data in econometrics. The panel data we have selected are balanced datasets, and based on their characteristics, we have opted for the fixed-effects method. In this method, the intercept is specific to each group, allowing the model to account for different intercepts across groups. This approach involves introducing dummy variables, where each group is represented by a specific dummy in the equation. Therefore, the equation can be expressed as follows:

$$Y_{it} = \alpha_i + \beta_1 X_{1it} + \beta_2 X_{2it} + \dots + \beta_k X_{kit} + \mu_{it}$$

This can be written in a matrix notation as:

$$Y = D\alpha + X\beta' + \mu$$

$$Y = \begin{bmatrix} Y_1 \\ Y_2 \\ \vdots \\ Y_N \end{bmatrix}, D = \begin{pmatrix} i_T & 0 & \dots & 0 \\ 0 & i_T & & 0 \\ 0 & 0 & & i_T \end{pmatrix} NT \times k$$

$$X = \begin{pmatrix} x_{11} & \dots & x_{1k} \\ \vdots & \ddots & \vdots \\ x_{N1} & \dots & x_{NK} \end{pmatrix} NT \times k$$

$$\alpha = \begin{bmatrix} \alpha_1 \\ \alpha_2 \\ \vdots \\ \alpha_N \end{bmatrix} NT \times k, \beta' = \begin{bmatrix} \beta_1 \\ \beta_2 \\ \vdots \\ \beta_N \end{bmatrix} NT \times k$$

In this context, dummy variables employ distinct estimation techniques tailored to each individual section or group. To assess the appropriateness of the fixed effects method, researchers often utilize the Hausman test.

RESULTS AND DISCUSSION

The descriptive metrics reveal the temporal characteristics of the dataset, encompassing measures such as standard deviation, minimum, maximum, median, and mean values for each variable. These statistical results are detailed in table 2. Notably, the average level of financial distress is recorded at 3.493981 percent. The study demonstrates that the datasets of financial distress are generally at or around this level. The majority of observations fall within the middle of the range, according to the median value of 2.309138. The highest possible number 35.06994, illustrates that there are certain instances where financial distress is greater. The observed financial distress has a negative limit, according to the minimum value of -0.087456. The variation financial distress between the data points is shown by the standard deviation of 6.732235. Overall, financial distress descriptive statistics shed light on the nature and distribution of financial distress discrepancies in the dataset. The average value of budget deficit is 7.306026 and the median value of 6.291424 indicates that the distribution is biased toward a lower budget deficit and the majority of observations are below the mean. The highest value of 35.06994 show that the dataset contains extreme values or outliers. The minimum value of -7.377406 show that in some circumstances the results might be negative. The standard deviation of 5.850316 reflects a relatively high variability of budget deficit among the data points. The average value of balance of payment is -3.001396, and the median value of balance of payment is -2.532982, which is the average of all observations The highest value of 20.78660 shows that the dataset contains extreme values or outliers. The minimum value -43.77123 show that in some circumstances the results might be negative. The standard deviation of 8.804105 reflects a relatively high variability of balance of payment among the data points. The average value of fiscal policy is 15.29244 and the median value of 14.82023 indicates that the distribution is biased toward a lower fiscal policy and the majority of observations are below the mean. The highest value of 34.62869 shows that the dataset contains extreme values or outliers. The minimum value of 1.458174 shows that in some circumstances the results might be zero or nil. The standard deviation of 5.559509 reflects a relatively high variability of fiscal policy among the data points. The average value of monetary policy is 13.74456 and the median value of 9.906660 indicates that the distribution is biased toward a lower monetary policy and the majority of observations are below the mean. The highest value 18.36085 shows that the dataset contains extreme values or outliers. The minimum value 0.370613 shows that in some circumstances the results might be zero or nil. The standard deviation of 13.10780 reflects a relatively high variability of monetary policy among the data points.

The average value of gross domestic product is 3.894945 and the median value of 4.390181 indicates that the distribution is biased toward a greater Gross domestic product and the majority of observations are above the mean. The highest value of 18.36085 shows that the dataset contains extreme values or outliers. The minimum value of -21.39990 shows that in some circumstances the results might be negative. The standard deviation of 4.462444 reflects a relatively high variability of gross domestic product among the data points.

Table 2: Descriptive Statistics

	FD	BD	BOP	FP	MP	GDP	PI	COR	INF
Mean	3.493981	7.306026	-3.001396	15.29244	13.74456	3.894945	-0.262020	-0.338923	7.247270
Median	2.309138	6.291424	-2.532982	14.82023	9.906660	4.390181	-0.323777	-0.427303	5.195513
Maximum	116.4127	35.06994	20.78660	34.62869	81.07290	18.36085	8.499978	1.618237	150.0007
Minimum	-0.087456	-7.377406	-43.77123	1.458174	0.370613	-21.39990	-7.799994	-1.597115	-21.16523
Std. Dev.	6.732235	5.850316	8.804105	5.559509	13.10780	4.462444	1.206173	0.561355	10.30894
Sum Sq. Dev.	31680.77	23924.11	54181.07	21604.79	120098.2	13919.47	1016.943	220.2686	74285.76
Observations	700	700	700	700	700	700	700	700	700

The average value of political instability is -0.262020 and the median value of -0.322777 indicates that the distribution is biased toward a lower political instability and the majority of observations are below the mean. The highest value 8.499978 shows that the dataset contains extreme values or outliers. The minimum value -7.799994 shows that in some circumstances the results might be negative. The standard deviation of 1.206173 reflects a relatively high variability of political instability among the data points. The average value of corruption is -0.338923 and the median value of -0.427303 indicates that the distribution is biased toward a lower corruption and the majority of observations are below the mean. The highest value 1.618237 shows that the dataset contains extreme values or outliers. The minimum value -1.597115 shows that in some circumstances the results might be negative. The standard deviation of 0.561355 reflects a relatively high variability of corruption among the data points. The average value of inflation is 7.247270 and the median value of 5.195513 indicates that the distribution is biased toward a lower inflation and the majority of observations are below the mean. The highest value 150.0007 shows that the dataset contains extreme values or outliers. The minimum value -21.16523 show that in some circumstances the results might be negative. The standard deviation of 10.30894 reflects a relatively high variability of inflation among the data points.

The correlation matrix shown in table 3, explains the relationship between the different variables in the dataset. Each matrix column shows the correlation coefficient between any two, with value ranging from -1 to 1. Each variable, correlation with itself is 1.000, which indicates an ideal correlation as would be anticipated. There are some surprising patterns when we look at the correlation between different path wise comparisons of variables. The association between financial distress and budget deficit is negatively correlated with each other, statistically the relationship is significant. The relation of balance of payment and monetary policy is positive and significant correlation with financial distress and fiscal policy is negative but significant correlation. The corruption has high correlation with financial distress and gross domestic product and political instability is low and but all three variables are significant correlation. The correlation among financial distress and inflation is positive but insignificant. The budget deficit with balance of payment and fiscal policy is positive but balance of payment is insignificant correlation, while monetary policy and gross domestic product is negative correlation with budget deficit. inflation and political instability is positive and significant relation and corruption is negative and low correlation. The correlation among balance of payment and fiscal policy is shows the negative and significant relationship. The monetary policy and gross domestic product have negatively correlated with balance of payment and political instability has positive correlation with balance of payment. The correlation among fiscal policy and monetary policy is negative but significant correlation but the gross domestic product is negative and insignificant correlation with fiscal policy. The relation of fiscal policy with political instability and corruption is positively correlated and significant while the inflation is negative and insignificant correlation. The results show that the correlation among monetary policy and gross domestic product is negative and insignificant. The relation of monetary policy with inflation shows high correlation and political instability and corruption shows the low correlation. The correlation of gross domestic product with political instability and inflation is negative but significant while the correlation among gross domestic product and corruption is positive but insignificant. is positive and significant. The relation between political instability and inflation is negative and significant. The correlation among corruption and inflation shows the negative association, statistically the relationship is

significant. Overall, the correlation matrix highlights the budget deficit, balance of payment, fiscal policy, monetary policy, gross domestic product, political instability, corruption and inflation offers light on probable links between the variables. Since correlation does not imply causation, further research is needed to show causal relationships between these components.

Table 3: Correlation Matrix

Variables	FD	BD	BOP	FP	MP	GDP	PI	COR	INF
FD	1.000000								
BD	-0.02510**	1.000000							
BOP	0.025073**	0.002471*	1.000000						
FP	-0.134063	0.410356	-0.265311	1.000000					
MP	0.268714	-0.243492	-0.101742	-0.178316	1.000000				
GDP	-0.035652*	-0.01753**	-0.01795**	-0.062707*	-0.061437*	1.000000			
PI	-0.171232	0.203387	0.128630	0.148937	-0.275216	-0.190965	1.000000		
COR	-0.149342	-0.0412***	-0.113147	0.425267	-0.213272	0.061391*	0.328521	1.000000	
INF	0.045982*	0.118219	-0.075959*	-0.02462**	0.008202**	-0.07412*	-0.0968**	-0.0937**	1.000000

***, **, *, represents significant 10 percent, 5 percent and 1 percent respectively.

The estimated outcomes of panel unit root tests are presented in table 4. The estimated outcomes show that there is the same order integration among the variables of the model, which is the most suitable situation to apply panel least square and fixed or random effect models.

Table 4: Panel Unit Root Test

Variables	At first difference without time trend			
	LLC	IPS	ADF-Fisher	PP-Fisher
FD	-8.21577***	-9.39205***	226.490***	414.919***
BD	-11.6742***	-11.8874***	271.191***	579.895***
BOP	-13.1113***	-12.329***	280.529***	493.630***
FP	2.4E+14***	-9.70858***	221.942***	457.572***
MP	-12.0432***	-10.8018***	271.425***	459.501***
GDP	-4.04705***	-16.9851***	385.070***	2037.09***
PI	-10.0078***	-12.0314***	275.670***	634.591***
COR	-8.58262***	-11.8156***	271.821***	824.255***
INF	-10.3331***	-15.4918***	359.258***	1791.03***

Variables	At first difference with time trend			
	LLC	IPS	ADF-Fisher	PP-Fisher
FD	-5.73259***	-7.87821***	187.189***	378.765***
BD	-9.55914***	-8.12023***	188.789***	433.776***
BOP	-11.442***	-9.02327***	207.012***	395.452***
FP	2.9E+14***	-6.29305***	154.876***	336.180***
MP	-9.9712***	-8.58015***	190.830***	388.340***
GDP	0.23593***	-12.8074***	278.228***	628.764***
PI	-7.73411***	-9.50599***	213.681***	481.763***
COR	-4.96306***	-8.27448***	196.040***	448.012***
INF	-6.53297***	-11.3357***	259.623***	561.576***

Note: ***, ** and * denote 1%, 5% and 10% level of significance.

To assess the influence of independent variables on the dependent variable, this research utilized panel least squares regression. The outcomes of this regression are detailed in table 5, revealing that in developing economies, there exists a statistically significant positive relationship ($p = 0.0249$) between budget deficit and financial distress. The findings suggest that a 1 percent rise in budget deficit correlates with a 0.113773 percent increase in financial distress. The findings demonstrate that balance of payment has positive but insignificant ($p = 0.3349$) impact on financial distress in developed economies. The 1 percent change in balance of payment results in a 0.028488 percent increase in financial distress. The findings indicate that fiscal policy has significant ($p = 0.0266$) but negative relation with financial distress. According to the estimations, a 1 percent change in fiscal policy decrease the 0.128530 percent of the financial distress. The findings indicate that the positive and highly significant ($p = 0.0000$) relationship between monetary policy and financial distress. According to the coefficient, an increase in monetary policy by 1 percent increase causes the increase in financial distress by 0.123906. The findings shows that gross domestic products have negative and insignificant ($p = 0.2153$) influence on financial distress in developing countries. The results indicates that 1 percent change in GDP cause the 0.070802 percent decrease in financial distress. The findings show that political instability have significant ($p = 0.0041$) but negative impact on financial distress. The findings elaborate that 1 percent increase in political instability cause the 0.676297 percent decrease in financial distress. The findings show that corruption has insignificant ($p = 0.9974$) and negative relation with financial distress, with the 1 percent increase in corruption the financial distress will decrease by the 0.001752. The findings show that inflation has insignificant ($p = 0.6406$) but positive relation with financial distress. The estimated results elaborate that the 1 percent increase in inflation cause the 0.011303 percent increase in financial distress. The results of the variables show the relation between dependent and independent variables and also explain the significance level between the variables.

Table 5: Panel Least Square

Dependent Variable: FD				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
BD	0.113773	0.050627	2.247276	0.0249
BOP	0.028488	0.029524	0.964909	0.3349
FP	-0.128530	0.057839	-2.222191	0.0266
MP	0.123906	0.020155	6.147675	0.0000
GDP	-0.070802	0.057085	-1.240293	0.2153
PI	-0.676297	0.234958	-2.878376	0.0041
COR	-0.001752	0.543600	-0.003223	0.9974
INF	0.011303	0.024202	0.467038	0.6406
C	3.026811	1.010227	2.996168	0.0028
R-squared	0.100747	Mean dependent var		3.493981
Adjusted R-squared	0.090336	S.D. dependent var		6.732235
S.E. of regression	6.420958	Akaike info criterion		6.569786
Sum squared resid	28489.04	Schwarz criterion		6.628299
Log likelihood	-2290.425	Hannan-Quinn criter.		6.592405
F-statistic	9.676922	Durbin-Watson stat		0.237512
Prob(F-statistic)	0.000000			

Lagrange multiplier test is used to estimate the effects specifications, by using this test we estimate that we need to use both cross section and time period same nature or different. If the probability value of the both are significant, we will use the same specification but if one value is significant and other is not, we will use the significant value nature is fixed or random and other is non. According to the results in table 6, the values of cross

section (0.0000) which is significant and time period (0.2069) is insignificant, so the same effects specification will not be applied. In cross section we will use the random and in period section will use the none.

Table 6: Lagrange Multiplier Tests for Random Effects

	Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided (all others) alternatives		
	Cross-section	Time	Both
	Breusch-Pagan	149.3601 (0.0000)	0.687791 (0.4069)

To identify “the suitable panel data model, fixed effects or random effects, the Hausman test was applied, with the results shown in Table 7. This test investigates the relationship between the independent variables and random effects (unobserved heterogeneity). The test summary reports a p-value of 0.0512 and a Chi-Square statistic of 15.435879 with 8 degrees of freedom (d.f). Given that the p-value is just above the conventional threshold of 0.05, we reject the null hypothesis, indicating an association between the independent variables and unobserved heterogeneity (cross-section random effects). Thus, using a random effects model is unnecessary in this analysis. Instead, a fixed effects model is recommended to properly account for the relationship between the independent variables and unobserved heterogeneity, ensuring more precise estimation” and inference.

The estimated results of the fixed effect model have been given in table 8. The findings indicate in developing economies, the budget deficit and financial distress are inversely and insignificantly related. The findings indicate that 1 percent increase in budget deficit results in a -0.068593 percent drop in financial distress. The findings demonstrate that balance of payment has positive and highly significant impact on financial distress in developing economies. The 1 percent change in balance of payment results in a 0.105858 percent increase in financial distress.

Table 7: Outcomes of Hausman Test

Correlated Random Effects - Hausman Test			
Equation: Untitled			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	15.435879	8	0.05

The findings indicate that fiscal policy has insignificant but positive relation with financial distress. According to the estimations, a 1 percent change in fiscal policy increased the 0.037415 percent of the financial distress. The findings indicate the positive and highly significant relationship between monetary policy and financial distress. According to the coefficient, an increase in monetary policy by 1 percent causes the increase in financial distress by 0.25607. The findings show that gross domestic products have a major negative influence on financial distress in developing countries with insignificant relationship. The results indicate that 1 percent change in GDP cause the -0.032140 percent decrease in financial distress. The findings show that political instability have significant but negative impact on financial distress. The findings elaborate that 1 percent increase in political instability cause the 0.788142 percent increase in financial distress. The findings show that corruption has significant and highly positive relation with financial distress, with the 1 percent increase in corruption the financial distress will increase the 2.202757. The findings show that inflation has insignificant but positive relation with financial distress. The estimated results elaborate that the 1 percent increase in inflation causes the 0.027736 percent increase in financial distress. When we compare the coefficient of the fixed effect model with panel least square model, we find that the results of the variables are not same in both models. The signs and directions for the variables are not consistent in both models. Both models show that monetary policy have statistically significant and positive relation with financial distress. While the other variables budget deficit, balance of payment, fiscal policy, political instability, corruption and inflation are not statically the signs and significance levels are same in both models, if in one model value is positively related so in the other model value inversely related with financial distress.

Table 8: Fixed Effect Model

Variable	Dependent Variable: FD			
	Coefficient	Std. Error	t-Statistic	Prob.
BD	-0.068593	0.075204	-0.912088	0.3621
BOP	0.105858	0.038436	2.754167	0.0060
FP	0.037415	0.111337	0.336056	0.7369
MP	0.256007	0.038992	6.565585	0.0000
GDP	-0.032140	0.056247	-0.571408	0.5679
PI	-0.618132	0.305790	-2.021428	0.0436
COR	2.202757	1.208580	1.822599	0.0688
INF	0.027736	0.027002	1.027186	0.3047
C	0.730745	1.926241	0.379363	0.7045

CONCLUSIONS

The findings from this study offer critical insights into the relationship between various national factors and financial distress in both developed and developing economies. In developing countries, the study finds that budget deficits have a negative but insignificant effect on financial distress. This can be attributed to limited access to international capital markets or a reliance on external funding. Structural inadequacies, such as weak institutions or unstable commodity markets, may overshadow the effects of budgetary imbalances on overall economic stability. The balance of payments in these countries shows a positive and significant impact on financial distress. Factors like reinforcing foreign exchange reserves, stabilizing currencies, and boosting investor confidence contribute to increased financial distress. However, reliance on volatile commodity exports or fluctuations in capital inflows can exacerbate vulnerabilities and heighten the risk of financial instability. Fiscal policy in developing nations has a positive but insignificant effect on financial distress, with external shocks and structural weaknesses potentially diminishing its effectiveness in addressing underlying financial issues. Monetary policy, however, has a positive and significant impact on financial distress in developing countries. By influencing interest rates, inflation, and exchange rates, monetary policy is vital for stabilizing economies and restoring investor confidence, thereby mitigating financial distress. Nevertheless, challenges such as limited monetary policy tools, currency depreciation, and capital flight can limit its effectiveness in alleviating financial distress.

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