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The Impact of Government Size on Financial Development: A Global Perspective

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Abstract: This study investigates the linear effects of government size on financial development using a balanced panel of 71 countries from 1995 to 2021. Government size was measured using the commonly used general government final consumption expenditure as percentage of GDP (%), while financial development is proxied by private credit and deposit money bank assets (each as % of GDP). The estimation in this study relies on a dynamic system generalized methods of moments (GMM). The main result indicates that government size does not have a statistically significant impact on financial development at the global level. This study concludes that one-size-fits-all approach may not be effective. The results provide no conclusive support for either the political view or the development view.

Keywords: Government Size, Financial Development, Panel Data

JEL Classification: H50, G20, C23

INTRODUCTION

While many studies have confirmed that financial development is a key driver of economic growth, the specific role of government in the financial sector remains a contentious and unresolved issue. This is because economists are largely divided into two competing school of thought: the political view and the development view. The political view argues that an increased government role whether through its expenditures or ownership, will negatively impact financial development and economic growth. For example, Barth et al., (2001) and La Porta et al., (2002) claimed that government ownership of banks negatively influences the financial development, stability and economic growth. Shabaz et al., (2018) found that government size and its quality impede financial development.

Conversely, the development view suggests that government actively promotes financial development, especially when private markets are weak. In this view, the government helps jump-start the financial system through its expenditures such as building financial infrastructure, providing credit, and fostering public trust in the banking sector. For example, Andrianova et al., (2008) argued that government-owned banks can catalyze development in countries with low institutional quality, suggesting governments should prioritize building institutions that foster building institution that support private sector banking. Furthermore, Kapaya (2023) found that government size has a positive and significant impact on financial development.

Despite decades of research, the role of government remains theoretically polarized. The inconclusive nature of previous empirical results which offer support for both views (development and political) raises a critical question: *what impact does the public sector*

has on the financial sector development at the global scale? The main contribution of this study is to provide an estimate on the impact of government size on the financial development globally. An important limitation of previous research is their heavy reliance on cross-sectional regression analysis, which fails to account for endogeneity. By employing a System GMM (Generalized Method of Moments) approach for dynamic panel data, this study addresses the research gap. This method allows us to control for unobserved country-specific effects and the persistence of financial development over time, ensuring more robust results. The remainder of this paper is organized as follows: Section 2 discusses the relevant literature, Section 3, describes the data and specifies the empirical models. Section 4 presents the results and Section 5 provides the conclusion and policy implications.

LITERATURE REVIEW

The Development View

Government involvement in the financial sector is justified for a number of reasons. For example, according to Panizza (2012), a nation's level of development determines which financial system to use, one based on the market, the other on the government. When market imperfections exist and private sector incentives are limited, state-owned banks can help the financial system develop in its early phases. Government-owned banks have the power to increase public confidence in the banking industry and encourage banking behaviours (Gerschenkron, 1962; Andrianova et al., 2008). In a study by Yang (2018) argued that government intervention during crises stabilizes the financial system without causing any major inefficiencies. The findings from the author Yang (2018) claims that strong institution and government ownership can be effective for case of United States and supporting the development view.

Furthermore, several studies claimed that government-owned banks play an important role during periods of financial instability and economic collapse. In times of crisis, public banks are able to provide long-term credit and get past informational obstacles (Beck, 2013). When private banks pull out, they can continue to sustain lending while avoiding severe moral hazard problems (Andrianova et al., 2009; Andrianova, 2012; Cole, 2009; Bertay et al., 2015). For instance, state-owned banks continued to lend throughout the 2008 financial crisis, whereas private banks stopped doing so (Coleman and Feler 2015). Studies by Cull and Martinez-Peria (2013) and De Haas et al. (2015) and others have also shown that public banks have lower economic cycle responsiveness than private banks. Hryckiewicz et al., (2025) investigated the role of government intervention in aiding troubled banks specifically by looking at the changes in chief executive officers' positions and executives' compensation. The authors found a positive effect of government intervention on distressed or troubled banks.

Laeven and Valencia (2013) analyse the impact of government recapitalization of financial institutions on firms that rely heavily on external finance across 50 countries. Their study reveals that such recapitalization positively affects the growth performance of these firms by increasing credit availability. They also find that countercyclical fiscal policies are more beneficial than monetary policies for these firms during crises, underscoring a positive role for government. Freixas and Mayer (2011) agree with this perspective, suggesting that the state should be involved in several key areas. This includes corporate governance in private financial institutions (micro-prudential regulation), macro-prudential regulations

including capital adequacy and liquidity requirements, and the establishment of deposit insurance schemes.

The Political View

The political view offers a more sceptical perspective. La Porta et al. (2002) found that government ownership of banks often led to inefficient resource allocation and harmed economic growth. Caprio and Peria (2002) found that government-owned banks might increase the risk of banking crises. Dinc (2005) showed that government-owned banks often made politically motivated loans compared to private banks. Sapienza (2004) noted that state-owned banks typically charged lower interest rates than private banks. Khwaja and Mian (2005) found that government-owned banks in Pakistan lent more to politically connected individuals.

Recent empirical evidence continues to support these concerns. A study by Gupta and Mahakud (2020) investigated bank ownership, size, capitalization and bank performance for the case of India. The authors find that privately owned banks are more profitable than public owned banks. Cornett et al. (2010) found that government ownership in banks negatively affected performance and credit quality, especially after the Asian financial crisis of 1997-2000. Carvalho (2014) and Iannotta et al. (2013) also found that political motivations influenced lending practices in Brazil and Europe, respectively.

Zou et al. (2026) investigated whether national development banks earn more financial returns than commercial banks. The authors found that national development banks consistently earn lower financial return than commercial banks and their profitability declines during election years, suggesting heightened exposure to political interference. Similarly, Trad (2026) investigated how bank ownership affecting bank stability in 15 MENA emerging economies and found that both foreign ownership and public ownership have negative impact on banking stability. Furthermore, Xiao and Zhao (2012) found that public banks negatively impacted firm innovation, especially for smaller firms, while Farhi and Tirole (2012) highlighted that bailouts increased leverage and social costs.

The Conditional Intervention

An emerging body of literature suggests that the impact of government is conditional. Demirguc-Kunt (2014) emphasizes the government's role in building financial infrastructure, including protecting creditor rights and implementing sound regulatory practices. However, the author notes that the effectiveness of these institutions depends on the level of economic development. Luo and Wen (2015) echo this sentiment, arguing that financial institutions evolve as a country industrializes. Ghazali et al. (2022) linked the development and political views to explain firm’s investment efficiency, finding a positive effect of government ownership for companies in early and declining stages, but a negative impact for firms at growth or matured stages. Institutional quality and independence remain critical. Trad (2026) added that institutional quality improves banking stability even under public ownership. Fraccaroli et al. (2025) inspected whether increased independence from political bodies influences financial stability and found a positive relationship, concluding that increasing independence from regulators and supervisors is beneficial.

Cho (2010) highlights that state interventions should focus on preventing and resolving financial crises, suggesting that interventions should aim to improve the quality of information supported by strong political commitment. Beck (2013) outlines three key policy areas: market development (macro-stability), market-enabling (regulatory reforms), and market stabilization (supervision and literacy). Overall, the conditional intervention perspective advocates for a targeted approach where government involvement is justified based on specific goals and contexts, rather than a blanket policy.

EMPIRICAL MODEL, METHODOLOGY AND DATA

The formulation of the model is rooted in the finance-growth relationship as well as the institutional theory of development. The primary objective of this study is to investigate the impact of government size on financial development. Previous studies have debated whether a larger government crowds out private sector credit (Barth et al., 2001; La Porta et al., 2002) or argued that a larger government provides infrastructure and stability to foster financial development (Andrianova et al., 2008; Cooray, 2011; Kapaya, 2023). Following the studies by Cooray (2011) and Kapaya (2023), this research incorporates the government size as the focus variable to inspect the objective of this study.

The real GDP per capita is also included in the model to account for the demand following hypothesis (Patrick, 1966; Demetriades and Hussein, 1996), which suggests that economic growth leads financial development. This implies there is a need to control for the real income effect to avoid the impact of government size to biased by the overall level of economic development. In addition, to address the simultaneous openness hypothesis (Rajan and Zingales, 2003; Baltagi et al., 2009), the model incorporates both trade openness and financial openness. The quality of institution is also included in the model to control for legal and political environment. The model is formulated as a multivariable linear function as follows:

$$LFD_{it} = f(LGS_{it}, LRGDPC_{it}, LTRADE_{it}, LFOPEN_{it}, LINS_{it}) \quad (1)$$

where LFD is the log of financial development, LGS is the log of government size, LRGDPC is the log of real GDP per capita, LTRADE is log of trade openness, LFOPEN is log of financial openness, LINS is log of institutional quality, and the subscripts i and t index countries and time, respectively. This study employs a dynamic panel data model to investigate the effects of government size on financial development, specifically using the System Generalised Method of Moments (SGMM) introduced by Blundell and Bond (1998). This approach addresses endogeneity by using lagged variables as instruments. It combines the equations in levels and first differences, using lagged levels and lagged differences of endogenous variables as instruments in a system of equations. To estimate Equation (2), the following dynamic panel specification is used:

$$LFD_{it} = \beta_0 + \beta_1 LFD_{it-1} + \beta_2 LGS_{it-1} + \beta_3 LRGDPC_{it-1} + \beta_4 LINS_{it-1} + \beta_5 LTRADE_{it-1} + \beta_6 LFOPEN_{it-1} + u_{it} \quad (2)$$

Accordingly, all of the beta coefficients indicate short-term effects; each beta can be divided by 1 −φ to determine the long-term effects. u_{it} is a disturbance term that contains both time and country specific fixed effects:

$$u_{it} = \mu_i + \varepsilon_t + v_{it} \quad (3)$$

where v_{it} assumed to be independent and identically distributed with mean zero and variance σ_v^2.

This study obtained the panel data from several sources for the variables such as financial development, government size, institutional quality as well as globalization. The dataset obtained for 71 countries from the year 1995 to 2021[1]. Refer Table A in the Appendix for list of countries. The data is aggregated to three-year non-overlapping averages to capture trends over time. The dependent variable, financial development is assessed through private credit and deposit money bank assets as percentages of GDP, sourced from the Global Financial Development Database (World Bank). Income is represented by Real GDP per capita, obtained from the World Development Indicators (WDI, World Bank). The government size includes general government final consumption expenditure as a percentage of GDP, sourced from the WDI, World Bank. Institutional Quality is measured by taking average of six Worldwide Governance Indicators (WGI). The financial openness and trade openness are obtained from the KOF Globalization Index (Dreher et al., 2006), refer Table B in Appendix for data sources.

RESULTS AND DISCUSSION

This study examines the impact of government size on financial development. This study employs two different measures of financial development and a government size measure proxied by general government final consumption expenditure (% of GDP) complied by the WDI, World Bank. The descriptive statistics for the financial and economic variables used in this study are shown in Table 1. The private credit by deposit money banks to GDP ratio act as the proxy for financial development, has a mean of 56.07% with a high standard deviation, indicating significant variations in credit availability among nations. The average ratio of deposit money bank assets to GDP is 68.50%, meaning that banks have more assets than loans. The average globalization score for trade globalization is 53.58%, with a wide range of values indicating different levels of integration into international trade.

Table 1: Descriptive Statistics of variables used in the government size-financial development model

Variables	Obs	Mean	Std.	Min	Max
Private credit by deposit money banks to GDP (%)	639	56.07	41.39	2.30	251.91
Deposit money bank asset to GDP (%)	639	68.50	45.19	3.06	260.98
Trade Openness	639	53.58	18.13	16.00	99.00
Financial Openness	639	60.85	17.92	14.67	92.67
Government Final Consumption Expenditure (% of GDP)	639	15.66	4.67	4.75	33.10
Real GDP Per capita	639	14676.10	17242.44	257.58	84364.10
Institution	639	56.47	24.39	8.18	99.65

The mean value of financial openness shows an above average degree of openness to foreign financial flows about 60.85%. The government consumption ‘s average registered about 20.30% of total consumption showing that different levels of government intervention.

[1] The choice of sample size from the year 1995 to the year 2021 is based on the data availability. This study has used a balanced panel to estimate all analysis used in the paper.

The mean value of government spending made up round 15.66% of GDP. High standard deviation of the real GDP per capita shows a significant income disparity across countries. The average value of real GDP per capita registered about $ 14,676.10. Lastly the institution quality ranging from weak to good widely across different countries with an average of 56.47%. The statistics in Table 1 shows the range of government spending levels, income levels, institutional quality as well as the degree of financial sector development.

Table 2: Correlation Matrix of variables used in the government size-financial development model

	lpri	lbank	lge	lrgdpc	lins	ltrade	lfopen
lpri	1.00						
lbank	0.92	1.00					
lge	0.33	0.30	1.00				
lrgdpc	0.72	0.70	0.38	1.00			
lins	0.69	0.66	0.39	0.82	1.00		
ltrade	0.29	0.30	0.22	0.24	0.34	1.00	
lfopen	0.42	0.41	0.14	0.54	0.56	0.17	1.00

Notes: lpri=log of private credit, lbank=log of deposit money bank asset to GDP (%), lge=log of Government expenditure (% of GDP), ltrade= Log of trade openness, lfopen=log of financial openness, lins= log of institutional Quality (average of World Governance Indicators (WGI)).

From the Table 2, it is clear that there is a positive relationship established among the financial sector development variables. The private credit and deposit money bank asset variables are correlated, registering the correlation coefficient of more than 0.9. The results from Table 2 also showed that weak positive correlation established between financial development with government size measure (refer Table 2). Other variables such as institution quality, trade and financial openness found to be positively and either moderate or below moderate level of correlation established with government size and financial development measures.

Results of System GMM Estimation

Tables 3 presents the two-step system GMM estimation results on the impact of government size on financial development. The results show results of two models (Model 1 and Model 2). The dependent variable in Model 1 is the private credit to GDP (%), while Model 2's dependent variable is deposit money bank to GDP (%) assets as the dependent variable. All the estimation results for the linear estimation confirm the validity of the instrument variables used in the GMM estimation. This is as the Sargan test's p-values are at least 0.10 or greater. This suggests that overidentifying restrictions are valid, which means that the instruments as a group are exogenous (uncorrelated with error term).

In addition to that, although the first-order serial correlation (AR1) is present, the results confirmed the absence of second-order serial correlation (AR2) in the estimation. The results suggest that the model specification were correctly implemented for all the models in the estimation. The results indicate that financial development exhibits strong persistence, as evidenced by the positive and significant first lag of financial development across all models. The second lag is negative and significant, suggesting a mean-reverting effect where excessive financial development in prior periods leads to a correction over

time. The estimation for second lag has been included following the previous works done by (Baltagi et al., 2007, 2009). According to Baltagi et al. (2009, p.298), the maximum number of lags of the dependent variable is restricted to two or one, depending on whether the explanatory variables are treated as exogenous or endogenous. In our model, the real GDP per capita act as an endogenous variable and this requires second lags to obtain satisfactory results. The focus of the analysis is the impact of government size on the financial sector development. The government size found to be statistically insignificant refer Model 1 and Model 2 in Table 3. While, the institutional quality found to be positive and statistically significant in our estimation.

Table 3: Two-Step System GMM Estimation Results

Models	**(1)**	**(2)**
Dependent Variable = Financial Development (FD)	FD=Private Credit	FD=Deposit Money Bank Asset
Lag Dependent		
First Lag	1.108***	1.097***
	(0.0189)	(0.0152)
Second Lag	-0.387***	-0.329***
	(0.0162)	(0.0095)
Real GDP Per Capita (log)	0.0483***	0.0206**
	(0.0140)	(0.0102)
Trade Openness (log)	0.221***	0.112***
	(0.0221)	(0.0224)
Financial Openness (log)	0.0250	-0.0602*
	(0.0274)	(0.0314)
Institution Quality (log)	0.0526*	0.0711***
	(0.0302)	(0.0263)
Government Size (log)	-0.00571 (0.0308)	0.00889 (0.0152)
Constant	-0.483***	0.294**
	(0.144)	(0.131)
Number of ids	71	71
Number of Instruments	58	58
Sargan Test (p-value)	53.38643 (0.3454)	60.8126 (0.1406)
First order serial correlation test (p-value)	-3.377*** (0.0007)	-3.3356*** (0.0009)
Second order serial correlation test (p-value)	0.1187 (0.9055)	1.0127 (0.3112)

For the results of the control variables, Table 4 shows that the real GDP per capita has positive and significance impact of financial development in the most of the estimation results. This study concludes that growth enhances financial sector development. Likewise, the trade openness found to be consistently positive and significant which implies that the openness to foreign trade supports financial sector development. Specifically, this can be interpreted as openness to trade enhances the size of financial sector as well as access to credit in the financial sector. However, this study found statistically insignificant effects of financial openness on financial sector development.

CONCLUSION

This study provides empirical evidence on the impact of government size on financial development across 71 countries over the period 1995-2021. The investigation reveals that government size has a statistically insignificant impact on financial development at the

global level. This suggest that a one-size-fits-all policy regarding government intervention is likely ineffective. The results suggests that in a global sample, the positive jump-start effects (benevolent view) in some countries are being cancelled out by the negative political distortion effects (political view). This theoretical tension explains the lack of a uniform linear relationship. Future study should investigate the non-linearities or optimal thresholds where government intervention ceases to be supportive and begins to hinder financial development.

Our study can be compared with the study by Cooray (2011). However, the comparison should be exercised with some caution as the model specified, estimation procedures, data frequencies, sample countries used for estimation are different. Notwithstanding these differences, it is useful to making the comparison as it will be helpful to clarify the level of contribution in the context of related literature. The study by Cooray (2011) attempt to show the impact of quality and size of government on financial sector size and efficiency. The author employed a cross-section data period that covers 1990-2005 average value and with OLS estimate, found that an impact of government size on financial development is statistically insignificant at 1% and 5% significance levels. The finding is consistent with our results.

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APPENDIX

Table A: List of Countries

Albania	Germany	Norway
Algeria	Ghana	Pakistan
Australia	Greece	Panama
Bahamas	Guatemala	Paraguay
Bangladesh	Honduras	Peru
Belize	Hong Kong	Philippines
Bolivia	Hungary	Poland
Botswana	Iceland	Romania
Brazil	India	Rwanda
Bulgaria	Ireland	Senegal
Burundi	Israel	Singapore
Cameroon	Italy	Slovenia
Chile	Jamaica	South Africa
Colombia	Japan	Spain
Congo, Rep.	Jordan	Sweden
Costa Rica	Kenya	Thailand
Croatia	Korea, Rep.	Tunisia
Czech Republic	Madagascar	Turkey
Dominican Republic	Malaysia	Uganda
Ecuador	Mali	UK
Egypt, Arab Rep.	Malta	US
El Salvador	Mauritius	
Fiji	Mexico	
Finland	Morocco	
Gabon	New Zealand	

Table B: Data Sources

Variables	**Unit of Measurement**	**Sources**
Private credit	% of GDP	GFDI, World Bank
Deposit money bank asset	% of GDP	GFDI, World Bank
Government expenditure	% of GDP	WDI, World Bank
Institution (Average of WGI)	Percentile rank (0-100)	WGI, World Bank
Real GDP per capita	USD ($)	WDI, World Bank
Financial Openness	The KOF Globalisation Index	(Dreher et al., 2006 & Gygli et al., 2019)
Trade Openness	The KOF Globalisation Index	(Dreher et al., 2006 & Gygli et al., 2019)
Notes: WDI refers to the World Development Indicators, published by the World Bank, GFDI refers to the Global Financial Development Indicators, published by the World Bank and WGI refers to Worldwide Governance Indicators, published by the World Bank.		