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Financial Depth and Economic Growth: Conditional Role of Party Ideology*

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Abstract

A large body of theoretical and empirical literature has confirmed the positive impact of financial depth on economic growth. However, studies investigating financial depth's conditional effect on economic growth are scarce. This paper revisits whether the impact of financial depth on economic growth depends on party ideologies in the context of 46 middle-income countries during the 1996-2020 period. The system GMM approach developed for dynamic panels is applied here. By incorporating partisan theory into the nexus between finance and growth, this paper not only attempts to underline the potential importance of financial depth for economic growth but also show that government ideologies matter. The findings suggest that when right-wing governments are in power, the effect of financial depth on economic growth is positive but statistically insignificant, whereas when left-wing governments are in power, the effect is negative and significant in the long run. Our finding is compatible with the view that expansionary monetary policies lead to a temporary increase in economic activity when left-wing governments are in power.

Keywords: financial depth, economic growth, party ideology
JEL Classification: D70, G20, O11

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1. Introduction

Financial development (also called financial depth (FD))[1] is one of the main facets of economic growth (EG). Scholars have devoted a great deal of time and effort to understanding the rationale and mechanism behind this phenomenon. This paper reexamines the relationship between FD and EG. However, unlike other studies, it is expected that party ideologies could play an important role in shaping FD's effect on economic growth in the long run.

The partisan approach developed by Hibbs (1975, 1977) is based on the assumption that parties have electoral ambitions to implement policies favoring their core constituencies. Accordingly, the partisan theory's stylized empirical predictions are that "ceteris paribus policy should be more expansionary, output growth (and inflation) should be higher, and employment should be lower under Left parties than Right ones" (Hibbs, 1992).

In an environment in which the central bank has little independence, political authorities can influence the economy in line with their ideologies by manipulating monetary instruments.[2] For instance, right-wing parties could pursue contractionary monetary policy by increasing interest rates to tackle inflation. This policy affects banks' lending and borrowing and, thus, economic growth in the long run. In other words, the effect of FD on EG might be *conditional* on party ideologies.

The empirical strategy includes government ideology and its interaction with financial depth in a growth model. Annual data from 1996 to 2020 for 46 middle-income countries are employed. The results show that rightist governments have higher economic growth than leftist governments in the long run. This finding is consistent with mainstream microeconomics' growth and stabilization strategies. To my knowledge, this is the first study that integrates government ideology into the nexus between finance and growth from the perspective of middle-income countries.

This paper is organized as follows. The next section gives an overview of a theoretical consideration of the effect of government ideology on monetary policy and the empirical literature on the nexus between finance and growth; the subsequent section presents the data and empirical method; the section after that presents regression results, and the final section concludes.

2. A Brief Literature Review and Theoretical Background

A substantial body of empirical work on growth and finance can be traced back to Joseph Schumpeter (1911), who highlighted the role of financial institutions in funding productive investments and encouraging innovation, both of which foster economic growth (Samargandi et al., 2015). Early studies on finance and economic growth promoting Schumpeterian principles include Gurley and Shaw (1955), Goldsmith (1969), and Hicks (1969). They argued that more developed financial systems stimulate economic growth.

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[1] The literature often uses the phrases “financial development” and “financial depth” interchangeably.

[2] Fiscal policy instruments are excluded since the effects of these on banking system may not be more pronounce and directly as in monetary instruments do.

In the 1970s, theoretical underpinnings of the relation between finance and economic growth were provided by McKinnon (1973) and Shaw (1973). Both studies suggest a positive relation between financial development and output growth. McKinnon's model assumes that investment cannot occur unless adequate saving is accumulated in the form of bank deposits, while Shaw (1973) postulates that financial intermediaries promote investment and raise output growth through borrowing and lending (Ang, 2008).

With the emergence of endogenous growth theory in the early 1990s (Romer, 1986; Lucas, 1988), more complex types of models incorporating financial institutions into endogenous growth models were developed. This literature emphasizes the positive role played by the financial sector in supporting economic growth, in particular by allocating resources to the most productive investments, mobilizing savings, reducing risks, and facilitating transactions (Levine, 2005, p. 869). Greenwood and Jovanovic (1990), Bencivenga and Smith (1991), Roubini and Sala-i Martin (1992), King and Levine (1993), and Greenwood and Smith (1997) are some notable examples.

Although some researchers are not convinced about the importance of financial development (Modigliani & Miller, 1958; Fama, 1980; Lucas, 1988) or the positive impact of finance on economic growth (Demirgüç-Kunt et al., 2013; Arcand et al., 2015), there are still numerous studies indicating that the relation between FD and EG is positive. For instance, Valickova et al. (2015) revealed that of the 1334 estimates of the effect of finance on growth in their sample, 638 (128) are positive (negative) and statistically significant.

While the literature on the connection between finance and growth is extensive, relatively few studies have examined whether the effect of FD on EG might be conditional. At the macro level, a few views demonstrate this effect might depend on several factors, such as the level of economic development, composition of credit, financial structure, and legal systems. For example, Demirgüç-Kunt et al. (2013) show that the positive correlation between FD and EG is decreasing in the level of economic development. The papers distinguishing between high-income, middle-income, and low-income countries generally find that the effect of financial development on growth is smaller or even non-existent for high-income countries (Bijlsima & Dubovik, 2014). Beck et al. (2012) find that enterprise credit is positively associated with economic growth, whereas household credit is not. The literature on financial structure has classified financial systems into bank-based and market-based. Theoretical models (e.g., Boyd & Smith, 1998) predict that a bank-based system is more conducive to economic growth when countries are at low levels of development; however, as economic growth rises, the market-based systems become more important. Beck et al. (2000, 2001) find that there is a tendency for national financial systems to become more market-based as they become richer. La Porta et al. (1997, 1998) identified that the effect of FD on EG depends on the legal origin of the countries. Levine (1997) found that the legal rights of creditors and the efficiency of legal systems at enforcing those rights explain over half of the cross-country variation in financial development.

Party ideology could be another conditional (also called moderator) factor. According to the partisan theory developed by Hibbs (1975, 1977), the macroeconomic policies pursued by left-wing and right-wing

governments broadly follow the objective economic interests and subjective preferences of their class-defined core political constituencies (Hibbs, 1977, p. 291). The leftist parties are more concerned with their labor base, expansionary macroeconomic policies, budget deficit and low interest rates to achieve low unemployment, whereas right-wing parties with strong organizational and electoral links to the capital and professional-managerial class use restrictive macroeconomic policies, balanced budgets, and high interest rates to keep inflation low (Oatley, 1999). The partisan approaches assume that the economy can be described by a (short-run) Phillips curve trade-off. The right-wing parties seek higher unemployment and slower economic growth in the short run to obtain lower inflation and higher economic growth in the long run (Potrafke, 2017). Even though all parties seek to promote economic growth, the policies for its achievement are the subject of political controversy (Quinn & Shapiro, 1991).

Party ideologies have a moderator role in the relation between financial depth and economic growth in several ways. Growth and stabilization policies adopted by governments may affect people's saving habits and, consequently banks' lending and borrowing processes, thus impacting economic growth.

Mainstream macroeconomics offers policymakers two contending growth and stabilization strategies: investment-driven and consumer-driven models. The former is more compatible with the right-wing government's economic policy, whereas the latter is for the left-wing. Quinn and Shapiro (1991) showed that left-wing governments had promoted growth through higher consumption which has led to higher business taxes and lower interest rates. Right-wing governments, however, have promoted growth through an investment-led approach, which has resulted in higher interest rates. The differences in macroeconomic policies may provide a more favorable investment and the financial environment under right-wing governments, which finally led to economic growth in the long run.

In an inflationary environment, rising prices reduce investment by increasing the required rates of return on investment. The investment-driven model suggests that tightened monetary policy and rising real interest rates diminish inflationary pressures. An increase in real interest rates will induce higher future investment rates by steering income away from consumption towards saving and reducing inflationary expectations. The cost of capital will ultimately decrease as inflation decreases, and more people save (Quinn & Shapiro, 1991). The behavior of savers impacts the borrowing and lending process of the banks. That is, banks borrow more savings in the short run, giving more credit to economic agents in the long run. With this economic policy, policymakers expect investment and output to increase in the long run.[3]

According to the consumer-driven model, growth in aggregate demand is the key determinant of investment and economic growth. A decrease in real interest rates will increase consumer demand and sales as the cost of credit is reduced. This process leads to upturns in employment and investment, all of which will accelerate economic growth in the short run (Quinn & Shapiro, 1991). However, left-wing parties seek higher inflation rates and thus decrease economic growth in the long run to achieve lower unemployment and faster

[3] Xu (2000) finds strong evidence that financial development, primarily via investment channel, affects growth positively.

economic growth in the short run (Potrafke, 2017). In other words, the expansionary monetary policy led to a temporary increase in economic activity, followed by a lag, by a rise in inflation (Drazen, 2000).

As seen above, the interest rate is one of the primary monetary policy tools for economies. Traditionally, the finance and economic development literature focused on the effect of interest rates on savings mobilization. By changing interest rates, governments may influence FD and, thus, EG. However, there is a contradiction in the literature about whether the government has the power to intervene in the economy via monetary policy, particularly interest rates. It is argued that governments do not directly influence interest rates since they are subject to institutional restrictions, most notably the independence of central banks. Ideology-induced politicians can manipulate interest rates only when central banks are not independent (Belke & Potrafke, 2012). Nevertheless, Belke and Potrafke (2012) indicate that government ideology influences central banks and monetary policy via three main channels[4]: Central bank appointments, direct signaling of the government's desired monetary policies, and bashing and reorganization threats by the government.[5] Besides, central banks in advanced economies enjoy greater central bank independence than those in emerging markets and developing countries (Arnone et al., 2009).

Economic policies adopted by governments have a significant impact on stock market returns as well.[6] Leblang and Mukherjee (2005) predict that rational anticipation of higher inflation under left-wing governments decreases the demand for stocks on the part of traders and lowers the trading volume. This, in turn, could lead to lower economic growth since lower stock prices can lead to reduced consumer spending and consumer confidence, which can cause a decrease in overall economic activity. Furthermore, investors may be more likely to reduce their stock holdings in response to the possibility of higher inflation under a left-wing government. This could lead to reduced economic growth due to lower investment in businesses and fewer jobs being created, potentially resulting in a weaker economy. The expectation of lower inflation under right-wing governments increases demand for stocks and engenders higher trading volume. The scenario is reversed in this case.

To sum up, political ideology shapes government policies about monetary issues, fiscal policy, and regulatory policy, all of which impact financial development and in turn economic growth. Based on the above discussions, this paper's hypothesis is the following.

In the case of left-wing (right-wing) governments, the effect of financial depth on economic growth is negative (positive) in the long run.

[4] Many scholars have investigated how government ideology influences monetary policy instruments such as interest rates (e.g., Alesina et al., 1997; Boix, 2000; Clark, 2009; Sakamoto, 2008).

[5] See for a detailed discussion Belke and Potrafke (2012).

[6] Since the stock market is not a primary driver of economic growth in middle-income countries and the majority of these countries do not have a stock market, this phenomenon is not considered in this paper.

3. Data and Variables

This study is based on a balanced panel data covering 23 upper middle/income countries and 23 lower middle-income countries[7] classified by the World Bank[8] from 1996 to 2020 to examine the dynamics and conditional relations between financial depth and economic growth. High and low-income countries are not considered since most of the studies (Arcand et al., 2015; Meon & Weill, 2010; Aghion et al., 2005; Calderon & Liu, 2003; De Gregorio & Guidotti, 1995) indicate that the effect of financial development on growth seems to be smaller for more developed countries (Bijlsma & Dubovik, 2014) and underdeveloped countries do not have enough data.

The dependent variable is economic growth, measured as the annual percentage growth rate of the gross domestic product (GDP) per capita[9] based on constant local currency. An assessment of the impact of FD on EG depends on whether one assumes endogenous (*shift in economic growth*) or neoclassical growth (*shift in the level of GDP*). Most empirical papers do not make an explicit distinction between the two theories but implicitly adopt a shift in growth or shift in the level of GDP (Bijlsma & Dubovik, 2014). The approach in this study is consistent with endogenous growth theory as an increase in the level of FD will permanently affect growth, as Levine et al. (2000) adopted.

Previous studies used a broad set of control variables typically used in the growth literature. These were initial real per capita GDP (to capture the tendency for growth rates to converge across countries over time); secondary school enrollment ratio (reflecting the extent of investment in human capital); labor force participation rate (as an indicator of the labor force), gross fixed capital formation (representing physical capital), official exchange rate (expressing the domestic price level), energy (a measure of economic infrastructure), openness to trade (to capture the importance of international factors in influencing economic activity); government expenditure (to capture the extent of public goods and services provided by the government), inflation[10] (to account for macroeconomic stability) and political stability (proxying for political instability and policy-motivated violence, including terrorism).

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[7] As of 2022, there are 108 middle-income countries out of all World Bank member countries and other economies with populations of more than 30,000. It is drawn from 46 middle-income countries since there is a lack of data. These are Albania, Algeria, Argentina, Armenia, Bangladesh, Benin, Bolivia, Brazil, Bulgaria, Cameroon, Colombia, Costa Rica, Dominican Republic, Ecuador, Egypt, Arab Rep., El Salvador, Ghana, Guatemala, India, Indonesia, Kazakhstan, Kyrgyz Republic, Malaysia, Mauritius, Mexico, Moldova, Namibia, Nepal, Nicaragua, Nigeria, North Macedonia, Pakistan, Paraguay, Peru, Philippines, Russian Federation, Senegal, South Africa, Tajikistan, Tanzania, Thailand, Tunisia, Turkey, Ukraine, Vanuatu, Zimbabwe. The bold ones represent upper middle-income countries.

[8] Income groups according to 2020 gross national income per capita are: lower middle-income, $1,046 to $4,095, upper middle-income, $4,096 to $12,695, and high income, $12,696 or more.

[9] This study uses per capita GDP since per capita numbers are less sensitive to territorial changes, provide variables in the same unit for large and small countries and control for the scale of the economy (Chang et al. 2013).

[10] As in Arcand et al. (2015), zero values are dealt with by applying the inverse hyperbolic sine transformation ($\hat{x} = ln(x + \sqrt{x^2 + 1})$) described by Burbidge et al. (1988).

As for the financial indicator (FI), four different bank-based FD proxies are applied; domestic credit provided by the banking sector (FI1), deposit money banks' assets (FI2), domestic credit to the private sector (FI3), and liquid liabilities (FI4), also called M3. Although there are other financial indicators that represent financial depth, the most commonly used and widely available ones are applied in this context. Furthermore, these variables are combined into a single indicator using principal component analysis (PCA) to construct an indicator of financial development that is as broad as possible and captures various dimensions of the financial sector. Table 1 presents the results of the PCA. The first component is the only one with an eigenvalue greater than 1, and it explains about 84% of the variation of the dependent variable. The second principal component explains another 11%, and the last principal component accounts for only 0.01% of the variation. Hence, it is clear that the first principal component has the maximum explanatory power. It is used, therefore, as our FD indicator.[11]

Table 1: Principal component analysis for financial depth index

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	3.38	2.93	0.84	0.84
Comp2	0.44	0.33	0.11	0.95
Comp3	0.11	0.07	0.02	0.98
Comp4	0.04	.	0.01	1.00

The party ideology is a binary dummy variable that distinguishes left-wing and right-wing parties. If a party with the highest seat in an election is a social-democratic, communist, or ecology (Christian-democratic, conservative, national, or agrarian) party, it is coded as a left-wing (a right-wing) party. Liberal and centrist parties are coded left-wing or right-wing according to the economic discourse of the party leader. If the economic discourse of the party leader is in line with left-wing (right-wing) parties' economic policy, these parties are coded as left-wing (right-wing). As regards coalition parties, coding is made according to the ideological view of the party with the highest seat among the coalition partners. The party ideology variable takes values of 1 for left-wing parties and 0 for right-wing. The interaction of the party ideology and FD variables is included to identify the potential conditional effect of FD on EG. Table 2 shows a detailed description and sources of variables.[12]

[11] Financial indicators and the first principal component are correlated between 0.83 and 0.97.

[12] According to the author's calculations, it is found that financial depth and economic growth are higher under right-wing governments. For instance, between 1996 and 2020, the average private credit by deposit money banks and economic growth are 4.02 and 0.48 percentage points higher in right-wing governments, respectively. One noteworthy point observed is the large between- and within-country variability in financial indicators according to party ideologies. For example, when right (left) wing parties are in power in Turkey and North Macedonia, the average domestic credit to the private sector (as a percentage of GDP) is 35.45 (0.044) and 54.13 (38.13), respectively.

Table 2: Data and variables

Variables	Unit of Measure	Sources
Real GDP per capita growth	GDP per capita growth (annual %)	WDI
Education	School enrollment, secondary (% gross)	WDI
Labor	Labor force participation rate, total (% of total population ages 15-64)	WDI
Physical capital	Gross fixed capital formation (annual % growth)	WDI
Exchange	Official exchange rate (LCU per US$, period average)	WDI
Energy	Energy use (kg of oil equivalent per capita)	WDI
Trade	Trade (% of GDP)	WDI
Inflation	Inflation, consumer prices (annual %)	WDI
Government expenditure	General government final consumption expenditure (% of GDP)	WDI
Political stability	Index ranging from -2.5 to +2.5	WGI
Party family	Binary (1 = Left)	IPU, MP
FI1	Private credit by deposit money banks to GDP (%)	GFDD
FI2	Deposit money banks' assets to GDP (%)	GFDD
FI3	Domestic credit to the private sector (% of GDP)	GFDD
FI4	Liquid liabilities to GDP (%)	GFDD

Notes: WGI: The Worldwide Governance Indicators; WDI: World Development Indicator; GFDD: Government Financial Development Data; IPU: Inter-Parliamentary Union; MP: Manifesto Project.

To control for business cycles and capture the long-run effect of financial depth on economic growth, five non-overlapping five-year moving averages were calculated for each independent variable. The dependent variable is in year t, while all the independent variables are five-year averages from (t-1) to (t-5). A time dummy variable is employed for each quinquennium, as in Hamadi and Bassil (2015), Hassan et al. (2011), and Rajan and Zingales (1995). Other than the dependent variable, physical capital and political stability, which have negative values in the series, are processed in logarithmic form.

4. Empirical Methods

To assess the relation between FD and EG conditional on the party ideology in a panel, the generalized method of moments (GMM) estimators developed for dynamic panel models by Holtz-Eakin et al. (1988), Arellano and Bond (1991), Arellano and Bower (1995) and Blundell and Bond (1998) are used. Roodman (2006)

stated that when the data feature a large number of countries relative to the time period, the GMM-difference and system estimator work well.

The standard panel models, such as pooled OLS, fixed effects, and random effects models, have significant shortcomings. For instance, pooled OLS imposes a common intercept and slope coefficients for all cross-sections. Therefore, it is a highly restrictive model and leaves out individual heterogeneity (Samargandi et al., 2015). On the other hand, the fixed effects model is a control of unobservable or unmeasurable features that *do not* change over time. However, the primary limitation is unobserved heterogeneity due to unmeasured characteristics that *do* vary over time (Hill et al., 2020). Both the cross-sectional and time effects can be observed through the inclusion of dummy variables; however, in that case, the problem of the loss of a degree of freedom arises (Baltagi, 2008).[13] Even though the random effects model is less problematic than the fixed effects model, it still has a limitation as it considers the model to be time-invariant. This implies that the error must be uncorrelated with past and future values of any covariate included in the model, known as strict exogeneity. Thus, this assumption rules out the possibility of lagged dependent variables (Blackwell, 2014). However, a fundamental issue in the empirical growth literature is to capture the dynamic nature of the data (Samargandi et al., 2015). In other words, explaining the evolution of economic behavior observed over time requires an economic model that is dynamic in nature (Ang, 2008). To conclude, the static panel approaches are inappropriate for estimating economic growth models.

Estimation is based on the following dynamic (first order) model:

$$y_{it} = \beta_1 + \alpha y_{i,t-1} + \beta_i^{'} x_{it} + \mu_i + \varepsilon_{it} \qquad (1)$$

where y_{it} is the dependent variable, x_{it} is a vector of explanatory variables, $y_{i,t-1}$ is the lagged dependent variable, μ_i is an unobserved country-specific effect, ε_{it} is the error term, and the subscripts *i* and *t* represent country and time period, respectively. The involvement of the lagged dependent variable in the model allows for additional information in the system. However, in the fixed and random effects model, the lagged dependent variable is correlated with the error term. A solution to this problem involves taking the first differences of the original model. This transformation removes both the constant term and the individual effect:

$$\Delta y_{it} = \alpha \Delta y_{i,t-1} + \beta_i^{'} \Delta x_{it} + \Delta \varepsilon_{it} \qquad (2)$$

There is still a correlation between the differenced lagged dependent variable and the disturbance process: the former contains $y_{i,t-1}$ and the latter contains $\varepsilon_{i,t-1}$. One may construct instruments for the lagged dependent variable from the second and third lags of *y,* either in the form of differences or lagged

[13] For details about the limitations of fixed effects research see Hill et al. (2020).

levels. Under the assumption that the error term is not serially correlated and the explanatory variables are weakly exogenous, Arellano and Bond (1991) propose the following moment conditions.

$$E\left[y_{i,t-s}\left(\varepsilon_{it}-\varepsilon_{i,t-1}\right)\right]=0 \quad \textit{for } s\geq 2; t=3,\ldots,T, \qquad (3)$$

$$E\left[x_{i,t-s}\left(\varepsilon_{it}-\varepsilon_{i,t-1}\right)\right]=0 \quad \textit{for } s\geq 2; t=3,\ldots,T. \qquad (4)$$

A potential weakness in Arellano and Bond (1991) was revealed in later work by Arellano and Bover (1995) and Blundell and Bond (1998). The dynamic panel data approach of Arellano and Bond (1991) is based on the notion that the instrumental variable approach does not exploit all the information available in the sample. Furthermore, the lagged levels are often rather poor instruments for first differenced variables, especially if the variables are close to a random walk (Baum, 2006: p. 233). Their modification of the estimator includes lagged levels as well as lagged differences. The original estimator is often called a difference GMM, whereas the expanded estimator is commonly called a system GMM (Baum, 2006: p. 234).

For consistent estimation, both the difference GMM and system GMM estimators require two specification tests. The first specification test is a Hansen test of overidentifying restrictions, which tests the overall validity of the instruments. The second test examines the hypothesis that the error terms be serially uncorrelated. It is tested whether the differenced error term is second-order serially correlated. Failure to reject the null hypotheses of both tests gives support to the models.

5. Empirical Results

The results in Table 3 show the two-step estimation for a GMM-system estimator. Each model represents a different financial indicator. Models 1-4 portray results when FI1-FI4 serve as proxies for financial development, respectively. Model 5 represents PCA financial indicator.

Table 3: Estimation results

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Real GDP per capita growth $_{t-1}$	0.228	0.233	0.182	0.246	0.217
	(0.248)	(0.242)	(0.311)	(0.225)	(0.255)
Initial GDP per capita	-0.820	-1.012	-1.133	-0.619	-0.843
	(0.467)	(0.316)	(0.209)	(0.607)	(0.441)
Education	4.016	4.158	4.587	3.466	3.546
	(0.034)**	(0.047)**	(0.012)**	(0.041)**	(0.067)*
Labor	2.132	2.257	2.306	3.617	1.270
	(0.773)	(0.772)	(0.712)	(0.651)	(0.862)
Physical capital	-0.008	-0.009	-0.006	-0.010	-0.008
	(0.163)	(0.129)	(0.060)*	(0.054)	(0.147)

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Exchange	0.286	0.265	0.210	0.224	0.257
	(0.078)*	(0.056)*	(0.120)	(0.113)	(0.086)*
Energy	1.369	1.838	1.786	0.994	1.386
	(0.502)	(0.329)	(0.267)	(0.596)	(0.448)
Trade	2.864	3.304	2.995	3.483	2.927
	(0.262)	(0.235)	(0.149)	(0.262)	(0.196)
Inflation	-0.689	-0.975	-1.180	-0.695	-0.680
	(0.545)	(0.340)	(0.225)	(0.448)	(0.494)
Government expenditure	-6.308	-8.082	-7.714	-7.461	-6.768
	(0.227)	(0.129)	(0.088)*	(0.147)	(0.130)
Political stability	0.682	0.736	0.573	0.306	0.557
	(0.631)	(0.652)	(0.696)	(0.845)	(0.710)
Party family	7.683	7.984	7.330	22.827	0.124
	(0.051)*	(0.065)*	(0.043)**	(0.026)**	(0.874)
Financial indicator	0.958	1.294	0.682	4.848	0.899
	(0.614)	(0.588)	(0.731)	(0.171)	(0.365)
Interaction	-2.301	-2.411	-2.119	-6.276	-1.418
	(0.053)*	(0.065)*	(0.051)*	(0.025)**	(0.023)**
Constant	-28.871	-29.821	-27.278	-47.931	-17.801
	(0.445)	(0.472)	(0.373)	(0.330)	(0.632)
Time dummy	Yes	Yes	Yes	Yes	Yes
N	46	46	46	46	46
IV	30	30	30	30	30
Hansen test	10.17	9.45	9.16	9.60	9.63
	(0.601)	(0.664)	(0.689)	(0.651)	(0.648)
AR (1)	-3.57	-3.17	-3.89	-2.36	-3.17
	(0.000)***	(0.001)***	(0.000)***	(0.018)**	(0.002)***
AR (2)	-0.60	-0.63	-0.69	-0.82	-0.97
	(0.552)	(0.529)	(0.492)	(0.410)	(0.334)

Results show that the coefficient for the interaction term is negative and statistically significant for all models. Specifically, for instance, Model 1 implies that a one percent increase in FD leads to a 0.013 unit decrease in EG in the case of left-wing governments in the long run.[14] However, although the signs of the coefficient are consistent with the theory, the coefficients of right-wing governments are statistically insignificant. Models indicate that the effect of FD on EG *weakens* significantly when left-wing governments are in power.

[14] $\frac{\partial EG}{\partial FD} = [0.958 - 2.301(1)]/100 = -0.013$

As for control variables, education and exchange rate display the expected sign and their influence is generally robust across the different models. Results indicate that the instruments are valid and the errors are not autocorrelated.

As a robustness check, we used four different financial indicators and a principal component analysis. The sign and significance of the interaction term are not changed, but the magnitudes of the coefficient depends on the financial indicator. For instance, the lowest conditional effect of FD on EG is seen in Model 5, where a PCA was.

In summary, our results show that the relation between FD and EG is conditional on party ideologies. Also, consistent with the partisan theory literature, the level of economic growth is negatively related to a left-wing government's economic policy in the long run. Thus, given the negative coefficients for interaction terms in middle-income countries, we can conclude that there is a negative and statistically significant relation between financial development and economic growth in middle-income countries when left-wing governments are in power whereas this is not the case for right-wing governments

6. Conclusion

This study used panel regressions to study linkages between financial development and economic growth in middle-income countries as classified by the World Bank. Unlike other studies, government ideologies are integrated into the nexus between finance and growth. The findings of this paper accept the notion that financial development in middle-income countries is not beneficial for economic growth in the long run when left-wing governments are in power. Using a two-step panel estimation, the results reject the hypothesis that financial development is unrelated to growth when considering party ideologies.

The paper most similar, but not identical, to this study is that of Tawiah et al. (2023). They considered developed countries and separated the private and public sectors. Their analysis showed that left-wing governments reduce total domestic credit allocation and that right-wing governments provide more credit to the private sector.

This study makes several contributions to the literature. First, in the context of the great importance of political ideologies in the economy over the years, a knowledge of how political ideologies affect the nexus between finance and growth provides new evidence on the economic effects of political ideologies, which could help in the decision-making of policymakers and voters. Second, studying the impact of partisan politics on banks' lending and borrowing allows us to examine whether government partisanship has distinct effects on the bank-based financial market. This could provide us with direct insights into the capabilities and willingness that governments exhibit for priming the economy via the financial market. Third, it is believed that results are of potential importance to policymakers in terms of optimizing the financial development to achieve gains for the economy and election through the banking sector.

The analysis here can be extended in three ways. First, the scope of this study consists of middle-income countries with low central bank independence, mainstream macroeconomic approaches, and long-run relations. Future studies can consider if the conditional relation between FD and EG may change when the new scope is set. Second, a more detailed study of the conditional role of political ideologies in the link between the stock market and economic growth may yield additional insights. Finally, the empirical results presented here have been restricted to middle-income countries. It might be interesting to check whether the prediction from our model finds statistical support in a specific country or a different group of countries.

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