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Abstract

This paper examines the relationship between political competition and financial development across a global sample of 127 countries, with a particular focus on developed and democratic OECD countries. Building on the theoretical frameworks of Acemoglu and Robinson (2006) and Besley et al. (2010), we explore whether political competition impacts financial development in a non-monotonic or monotonic manner. Using robust measures of financial development that capture both the depth and efficiency of the financial sector, we find a U-shaped relationship between political competition and financial development in the full sample, consistent with *the political replacement effect* of Acemoglu and Robinson. This result suggests that financial development is promoted when political competition is either very low or very high, but hindered at intermediate levels of competition. In contrast, we observe an S-shaped relationship in OECD countries, indicating that political competition at intermediate levels is particularly conducive to financial development in developed democracies. These findings provide new insights into the nuanced role political competition plays in shaping financial systems, challenging the assumption that more political competition always leads to greater financial development. Our results are robust to a range of estimation techniques and alternative measures of political competition and financial development.

JEL Codes: F36, O17, O43

Keywords: Financial Development, Institutions, Democracy, Political Competition

1. Introduction

The relationship between financial development and economic growth has been a key topic of inquiry in economic research. A robust financial system is crucial for mobilizing savings, facilitating investment, and promoting economic development. The determinants of financial development, however, remain less clear. Four principal theories have been proposed to explain the historical and institutional drivers of financial development: the law and finance theory, the dynamic law and finance theory, the endowment theory, and the politics and finance theory. Among these, the politics and finance theory posits that political factors and institutions play a significant role in shaping financial development, which is, in turn, a critical driver of economic growth (North, 1990; Olson, 1993; Pagano and Volpin, 2001; Rajan and Zingales, 2003; Beck, Demirguc-Kunt, and Levine, 2003).

The politics and finance theory suggests that political elites shape financial institutions according to their interests. If elites perceive that they can benefit from competitive markets, they will encourage laws and institutions that promote financial development. Conversely, if elites feel threatened by free markets, they will push for restrictive policies that inhibit private transactions. Autocratic regimes, in particular, may resist financial development to preserve the elites' power and limit political participation (Rajan and Zingales, 2003). As a result, the greater the control exercised by political elites, the greater the barriers to financial development.

Empirical studies have largely focused on the role of democracy in fostering financial development. Democracies are theorized to provide more political participation and competition, which in turn limit state control over the financial system. By reducing the risk of expropriation and promoting market-based institutions, democracies are expected to facilitate financial development (La Porta et al., 2002; Acemoglu and Johnson, 2005; Haber, 2007). For example, Huang (2010) shows that democratic transitions, particularly in lower-income and ethnically divided countries, are associated with short-term increases in financial development. Similarly, Girma and Shortland (2008) find that moves toward democracy tend to foster financial growth, while shifts toward autocracy tend to stifle it.

However, contrasting evidence complicates this relationship. Some autocratic countries—such as Mexico, Singapore, Saudi Arabia, and China—have managed to stimulate financial and economic growth despite having limited political competition (Haber, Maurer, and Razo, 2003). Moreover, Yang (2011) finds that while democracy is positively related to bank development, it has no significant impact on stock market growth. These mixed findings

suggest that democracy alone may not fully explain financial development outcomes (Mulligan et al., 2004).

One potential explanation for these ambiguous results lies in the degree of political competition within democracies. Democracies vary in their ability to foster political competition, which may explain why some democratic regimes succeed in promoting financial development while others do not (Girma and Shortland, 2008; Mulligan and Tsui, 2003). Furthermore, there is both theoretical and empirical support for a non-monotonic relationship between political competition and growth-promoting reforms. Acemoglu and Robinson (2006) argue that political competition may lead to institutional reforms that promote financial development, but only under specific conditions. In contrast, Besley et al. (2010) propose a more linear relationship, where higher political competition consistently leads to growth-enhancing policies.

Acemoglu and Robinson (2006) offer a detailed theory on how political competition shapes institutional reforms. They suggest that when political competition is low, incumbents do not fear being replaced and may adopt market-friendly reforms to increase their wealth. Conversely, when political competition is high, incumbents are incentivized to implement reforms to secure political survival. However, at intermediate levels of political competition, elites may block reforms that could undermine their power, leading to a non-monotonic relationship between political competition and financial development.

Besley, Persson, and Sturm (2010) provide a different perspective. They argue that higher political competition motivates political parties to implement growth-promoting policies in order to win the support of swing voters. In highly competitive political environments, parties are more likely to appeal to non-partisan voters with pro-growth policies. Empirical evidence from the United States supports a monotonic relationship, where greater political competition consistently leads to pro-growth policies, although the effects are less pronounced at very low and very high levels of competition.

In light of these conflicting theoretical perspectives, our study aims to investigate whether political competition affects financial development in a non-monotonic or monotonic manner. Specifically, we assess whether the "political replacement effect" described by Acemoglu and Robinson (2006) or the "swing voter effect" proposed by Besley et al. (2010) better explains the relationship between political competition and financial development across countries. We contribute to the literature by using data from 127 countries, focusing on financial development rather than financial reforms, and using robust measures that capture both the depth and efficiency of financial systems (Boikos et al., 2022; Abiad et al., 2010).

Our findings show that for the full sample, the relationship between political competition and financial development is U-shaped, consistent with the political replacement effect proposed by Acemoglu and Robinson (2006). At low levels of political competition, elites implement policies that promote financial development due to their secure hold on power. Similarly, at high levels of political competition, elites adopt pro-financial policies to retain power. However, at intermediate levels, political competition appears to hinder financial development as elites block reforms that could weaken their control.

Using the Lind and Mehlum (2010) test, we confirm the existence of a non-monotonic relationship between political competition and financial development. These results are robust across various model specifications and alternative measures of financial development. Additionally, we explore the impact of political competition in developed and democratic countries (OECD countries), where we find an S-shaped relationship. In these countries, intermediate levels of political competition appear to be particularly conducive to financial development, aligning with the predictions of Besley et al. (2010).

Our results suggest that political competition's effect on financial development varies by context and regime type. In autocratic countries, political competition can follow a U-shaped pattern, while in more democratic settings, it may follow an S-shaped trajectory. These findings challenge the simplistic view that more political competition always leads to financial development, highlighting the importance of considering regime type and institutional context.

The organization of this paper is as follows. Section 2 describes the data and methodology used in our empirical analysis. Section 3 presents and discusses the results, along with robustness checks. Finally, Section 4 provides concluding remarks and policy implications.

2. Data and Methodology

2.1. Data

This study uses a unique dataset compiled from various sources, including the Financial Development Index Database, the Global Financial Development Database (GFDD), the POLITY V Database, and the World Bank Development Indicators Database (WDI).

The two most widely used measures of financial development in the literature are private credit to GDP and stock market capitalization to GDP, which reflects the total value of all listed shares as a percentage of GDP. While these indicators capture the depth of the financial sector, they do not fully account for access to financial services or the efficiency of

the financial system. To address this limitation, Svirydzenka (2016) and Sahay et al. (2015) developed the IMF Financial Development Index, which is disaggregated into sub-indices for financial institutions and financial markets. The Financial Institutions index is constructed using principal component analysis of indicators such as private sector credit to GDP, pension fund assets to GDP, and bank branches per 100,000 adults, among others. The Financial Markets index includes indicators like stock market capitalization to GDP and stock market turnover ratio. These indices cover 192 countries on an annual basis from 1980 to 2021, with values ranging from 0 to 1, representing increasing levels of financial development. To facilitate interpretation, all indices are rescaled to a range of 0 to 100.

Our dependent variable, financial development, is defined as “the ease with which any entrepreneur or company with a sound project can obtain finance, and the confidence with which investors anticipate an adequate return” (Rajan and Zingales, 2003: 9).

The primary explanatory variable is Political Competition, measured by the POLCOMP index from the Polity V dataset (Marshall and Gurr, 2020). This composite index combines two components: PARREG, which assesses the regulation of political participation, and PARCOMP, which measures the competitiveness of participation. The POLCOMP index ranges from 1 to 10, with 1 indicating the lowest degree and 10 the highest degree of political competition. For robustness, we also include the Democracy index (Polity2), which, while distinct from political competition, is positively correlated with it, as democracies promote political participation and competition, thereby limiting state control over the financial system (Yang, 2011).

To control for factors potentially influencing financial development, we consider several additional variables. Becerra, Cavallo, and Scartascini (2012) suggest that economies in early stages of industrialization do not require sophisticated financial sectors. Chinn and Ito (2006) emphasize the importance of GDP per capita in capturing differences in performance and productivity across economies. Accordingly, we include the log of GDP per capita from the WDI database.

Rajan and Zingales (2003) argue that trade openness and financial openness are essential for financial development. Supporting evidence from Baltagi et al. (2009), Huang (2006, 2010), and Ozkok (2015) underscore the positive impact of these variables on financial development. Thus, we incorporate Trade Openness and Financial Openness into our analysis, along with their interaction term to explore how the effects of trade and financial openness on financial development vary in conjunction. Trade openness is measured as the sum of total exports and imports as a percentage of GDP, while financial openness is represented by the

Capital Openness Index, constructed using principal component analysis of four binary dummy variables that capture restrictions on cross-border financial transactions reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions.

To account for inflation, we use the GDP deflator from the WDI database, given the established negative relationship between inflation and financial development (Huybens and Smith, 1999; Boyd, Levine, and Smith, 2001). Research indicates that this negative impact is non-linear, with diminishing effects observed after inflation exceeds a threshold of 15 percent.

Additionally, we include human capital in our analysis to mitigate measurement bias, recognizing its potential influence on the relationship between financial openness and financial development (Ozkok, 2015). Human capital is measured as the average years of schooling attained by individuals aged 25-65, sourced from Barro and Lee (2013). This dataset covers 146 countries over a five-year interval from 1950 to 2010, with projections for educational attainment extending to 2040.

Acemoglu and Robinson (2006) argue that high political rents may deter rulers from implementing institutional changes that foster human capital accumulation. Conversely, political elites with lower political rents are incentivized to promote such changes, as higher human capital enhances the potential gains from industrialization relative to the rents from maintaining the existing system. To proxy for political rents, we use the public corruption index from the V-Dem V.13 dataset (Coppedge et al., 2019), which ranges from 0 (low corruption) to 1 (high corruption).

Furthermore, Acemoglu and Robinson (2006) posit that external threats, such as foreign invasions, can motivate political leaders to encourage innovation. Research by Aghion et al. (2018) finds a positive association between strategic rivalry, investment in education, and innovation. To measure external threat, we employ the “composite index of national capability” from the Correlates of War (COW) National Material Capabilities dataset (Singer, 1988), which incorporates six components: iron and steel production, military expenditure, military personnel, energy consumption, total population, and urban population, with values ranging from 0 to 1.

Lastly, we account for factors that simultaneously influence financial development across countries, such as international capital mobility, using year dummies. Country-specific effects that may be correlated with political competition, including cultural and historical

factors, are captured by country-specific dummy variables. The final dataset encompasses a panel of 127 countries observed annually from 1980 to 2020¹.

2.2. Methodology

We estimate a model of financial development which includes a second or third-degree polynomial of political competition to capture a potential non-monotonic relationship between financial development and political competition. The model is specified as follows:

$$FD_{i,t} = \alpha FD_{i,t-1} + \sum_{m=1}^{2,3} \rho_m PC_{i,t}^m + \sum_{j=1}^j \beta_j X_{ji,t} + \mu_i + \mu_t + v_{i,t}, \quad (1)$$

where $FD_{i,t}$ is the level of financial development for the country i at time t , and $FD_{i,t-1}$ is the one-period lag of financial development. PC is political competition, the key independent variable of interest; X is a vector of control variables such as log of GDP per capita, trade openness, financial openness, human capital, rent and external threat. The main coefficient of interest (ρ_m) captures the effect of political competition in country i at time t on the level of financial development. Political competition enters into the model as a polynomial function either *with* $m=1, 2$, to capture a potential U-shaped relationship between political competition and financial development, or with $m=1, 2, 3$, to capture an S-shaped relationship between political competition and financial development. The model incorporates country fixed effects μ_i and year fixed effects μ_t that capture shocks and trends for all countries. $v_{i,t}$ is an error term with $E[v_{i,t} | FD_{i,t}, FD_{i,t-1}, PC_{i,t}^m, X_{ji,t}, \mu_i, \mu_t] = 0$ for all i and t .

Several econometric problems may arise from estimating equation (1) by pooled OLS (hereafter *POLS*). First, the presence of the lagged dependent variable, $FD_{i,t-1}$, can lead to inconsistent estimates because it gives rise to autocorrelation. Second, using the *POLS* estimator we assume that political competition and any other explanatory variable used in the regression are strictly exogenous. Thirdly, the *POLS* doesn't control for time-invariant country characteristics (fixed effects) which may be correlated with the explanatory variables and, finally, it doesn't account for the dynamic evolution of financial development.

Therefore, first, we use a Within Group estimator (hereafter *WG*) which takes into account time-invariant country characteristics (fixed effects). However, because the *WG* produces inconsistent estimates due to the correlation between the lagged dependent variable $FD_{i,t-1}$ and the unobserved country-specific fixed effect contained in the error term (Nickell,

¹ However, due to some data set constraint, not all empirical specifications will be able to cover exactly 127 countries.

1981), we also use the bias-corrected method of moments (hereafter *BCMM*) estimator suggested by Breitung et al. (2022). This estimator offers several advantages. Firstly, it addresses the Nickell bias in dynamic panel data associated with the WG estimator. Secondly, unlike other bias-corrected estimators, it calculates the standard errors of the asymptotic variance-covariance matrix. Additionally, the *BCMM* estimator can correct the bias of higher-order lags of the dependent variable when necessary (Bun & Carree, 2005; Kruiniger, 2014).

Furthermore, to investigate the presence of a U-shaped relationship between the level of financial development and the degree of political competition, we set $m = 2$, and we implement the Lind and Mehlum (2010) formal test for the following hypotheses:

$$H_0 : \rho_1 + 2\rho_2 PC_{\min} \geq 0 \text{ and/or } \rho_1 + 2\rho_2 PC_{\max} \leq 0$$

vs

$$H_1 : \rho_1 + 2\rho_2 PC_{\min} < 0 \text{ and } \rho_1 + 2\rho_2 PC_{\max} > 0, \quad (2)$$

where PC_{\min} and PC_{\max} are the minimum and maximum value of political competition observed in the data, respectively. The idea behind this test is that, by assuming the existence of one only extreme point, the relationship between financial development and degree of political competition is *U*-shaped if the slope of the curve is negative first and then positive at the end of the observed data range $[PC_{\min}, PC_{\max}]$. Rejecting the null hypothesis means that there is enough evidence for the existence of a non-monotonic relationship between the degree of political competition and the level of financial development.

As previously discussed, this paper posits that in countries where political elites are well-entrenched, the level of political competition tends to be low. In contrast, established democracies typically exhibit high levels of political competition, which incentivizes political elites to implement policies conducive to financial development. Conversely, in contexts characterized by non-entrenched autocrats and intermediate democracies—where political competition is moderate—political elites often resist adopting institutional changes. Therefore, we anticipate that both high and low levels of political competition will correlate with higher levels of financial development, while intermediate levels of political competition are likely to be associated with lower levels of financial development.

3. Results

3.1. Empirical Results

Table 1 presents the summary statistics for the main variables used in our analysis. The annual data used covers the period from 1980 to 2020 for 127 countries. The mean and standard deviation of the Financial Development Index indicate significant variation in financial development across countries. The higher mean and standard deviation of the Financial Institution Index suggest that institutions play a significant role. The Financial Markets Index reports the lowest mean and the highest standard deviation among the three indices indicating more variability and generally lower development in financial markets compared to that of the financial institutions. Statistics for Political Competition indicate moderate political competition on average. While the mean of the log GDP per capita and its relatively small standard deviation show moderate variation in income levels, mean and standard deviation of Years of Schooling suggest a substantial heterogeneity in educational attainment across countries. Capital Openness is on average moderate, while Trade Openness registers significant variation across countries. The statistics for Rent and External Threat indicate that these two variables are small in most observations. Overall, the summary statistics suggests a heterogeneous set of countries with significant variability in financial development, economic conditions, and political contexts.

(Insert Table 1 here)

Table 2, which presents the correlations across the variables used in our regression analysis, shows that these variables are strongly correlated with financial development measures. Moreover, the sign of these correlations is consistent with our theoretical hypotheses and/or with the previous findings from the literature. In particular, higher financial development is strongly correlated with the financial institutions and financial markets indices. The high and positive correlation coefficients between financial development, financial institution and financial markets indices and the log of GDP per capita suggests that countries with higher GDP per capita tend to have more developed financial systems. Rent-seeking behaviour is inversely related to financial development. Higher political competition is associated with better-developed financial institutions, financial markets and financial development. There is also a strong positive correlation between years of schooling and all financial development indices. Moreover, the strong negative correlation between Rent and

Years of Schooling (-0.57) and between Rent and Capital Openness (-0.48) indicate that higher levels of education and capital market openness are associated with lower rent-seeking behaviours.

(Insert Table 2 here)

Table 3 presents the regression results from estimating our baseline model for high-income OECD countries, highlighting the consistency with the Besley effect. We employ two primary estimators: the Within Group estimator (WG) and the Dynamic Panel Data Bias-Corrected Method of Moments estimator (BCMM). The first column reports the WG estimated coefficients, while the second column adjusts for heteroskedasticity and autocorrelation using country-clustered standard errors. The third column presents the BCMM estimated coefficients. Our baseline model regresses the financial development index on polynomials of political competition and controls such as log of GDP per capita, inflation, and years of schooling. Across all estimators, the coefficients for political competition (including its squared and cubed terms) are statistically significant, indicating an S-shaped relationship between political competition and financial development—a pattern consistent with the Besley effect, which posits that moderate levels of political competition foster institutional and economic development. The high adjusted R-squared values (0.959 and 0.961) confirm the strong fit of the model, and the coefficients across the three estimators are broadly consistent, especially for key variables such as the lagged financial development index and political competition. This consistency reinforces the robustness of the political competition effect on financial development. Notably, clustering increases the standard errors, reducing the significance of some variables (e.g., years of schooling), highlighting the importance of accounting for within-country correlations. The BCMM estimator also shows a reduction in the magnitude of certain effects, suggesting that the WG estimates may be subject to small-sample bias. Nevertheless, the overall findings confirm a robust S-shaped relationship between financial development and political competition, consistent with the Besley effect, where the optimal level of political competition stimulates economic outcomes like financial development.

(Insert Table 3 here)

Table 4 reports the results of the baseline model estimated for the high-income OECD countries by using alternative measures of financial development such as the financial

institutions and financial markets indices, respectively. We use the Within Group (*WG*) estimator with heteroskedasticity and autocorrelation consistent standard errors clustered by country, and the Biased corrected method of moment estimator (*BCMM*). The *WG* estimated results show a significant S-shaped relationship between political competition and financial institutions index or financial markets index. The *BCMM* results confirms the presence of an S-shaped relationship between political competition and financial institutions index but not for the financial markets index.

(Insert Table 4 here)

The S-shape is robust to alternative model's specifications. Indeed by using the financial development index and incorporating into the set of regressors additional explanatory variables, such as capital openness, trade openness, the interaction between capital and trade openness, rent, and external threat, we still observe an S-shaped relationship between political competition and financial development. The estimated results are presented in Table 5.

(Insert Table 5 here)

As a further robustness check for the presence of an S-shaped relationship, we use an alternative measure of political competition: democracy. Democracy is measured with Polity score of the POLITY V database. Polity is a combined index of AUTOC (measuring the level of autocracy) and DEMOC (measuring the level of democracy), and it ranges from minus 10 (strongly autocratic) to plus 10 (strongly democratic). This measure is distinct from the political competition index, though the two are highly correlated. In highly autocratic countries, political competition is typically low, whereas it is usually high in highly democratic countries. Thus, we use the democracy measure as a proxy for the degree of political competition. When testing the non-monotonic relationship, our new proxy needs to be strictly positive. Accordingly, we recoded the Polity2 score on a scale from 1 to 7 in ascending order. As shown in Table 6, the S-shaped relationship between democracy (our alternative measure of political competition) and financial development holds significantly.

(Insert Table 6 here)

As argued by Acemoglu and Robinson, political leaders determine the level of economic and financial development based on their political calculation of staying in power (*the political replacement effect*). In countries with moderate political competition, the fear of

losing power may either deter political elites from implementing pro-growth financial reforms or push them toward financial repression. Conversely, in countries where political elites are well-entrenched and political competition is low, it is in the interest of these elites to adopt policies that favour financial development, enabling them to harness its economic benefits. Similarly, in countries with high levels of political competition, increased government accountability to the public makes it more challenging for the government to pursue policies that favour a small group of political elites.

Therefore, we estimate our baseline model using a second-degree polynomial of political competition for all countries in the sample. The estimation results, reported in Table 7, strongly suggest a U-shaped relationship between political competition and financial development. The non-monotonicity test results in the last two rows of the table confirm this U-shaped relationship.

(Insert Table 7 here)

Furthermore, when we estimate augmented models on the full sample, results, as reported in Table 8, suggest a significant U-shaped relationship between political competition and financial development. Financial development is the lowest at moderate levels of political competition. In contrast, countries with either low or high levels of political competition tend to exhibit higher levels of financial development. Other factors such as GDP per capita, capital openness, and, to a lesser extent, education levels also play significant roles in driving financial development.

(Insert Table 8 here)

We also estimate some augmented models by using Democracy as an alternative measure of political competition. Estimated results are reported on Table 9 and strongly suggest that the U-shaped relationship between political competition and financial development is robust both to alternative model's specification and to different measures of political competition.

(Insert Table 9 here)

3.1.1. Individual Measures of Financial Development and Five-Year Averaged Data

In this section we present our regression results from using five-year averaged data instead of annual data. By following the financial development literature, we use the ratio of *Private*

Credit by Deposit Money Banks to GDP as our main measure of financial development. This variable has the advantage of covering a large number of countries for the relevant time period. *Private Credit by Deposit Money Banks to GDP*, borrowed from Cihak et al. (2012), is the amount of funds channeled to the private sector by the banking sector. It doesn't include credit issued by the central bank and credit channeled to government, government agencies and state-owned enterprises which are controlled by political elites and more likely subjected to favoritism. A greater availability of this credit is associated to a higher level of financial development. However, for robustness, we conduct our analysis also with all other measures of financial development commonly used in the literature, such as *Deposit Money Banks Asset to GDP*; *Bank Deposits to GDP*; and *the Ratio of Financial System Deposits to GDP*. Moreover, averaging data over non-overlapping five-year periods enables us to abstract from business cycle influences particularly important for economic and financial data, and to examine both short-run and long-run effects. Our final sample covers a panel of 121 countries observed over the period from 1970 to 2020.²

Tables 10 reports the estimation results of the baseline model (with only years of schooling as a control variable) for the OECD sample and by using *Private Credit by Deposit Money Banks to GDP* as our main measure of financial development. Estimated results and test for the shape support the presence of an S-shaped relationship between political competition and financial development.

(Insert Table 10 here)

The S-shaped relationship is further supported by our results reported in Tables 11, 12 and 13. More specifically, Table 11 reports the estimation results of the baseline model with alternative measures of political competition: polity and polity2 scores, commonly used as measures of a country's level of democracy and autocracy. Table 12 displays the estimation results of the baseline model for the OECD sample only and for alternative measures of financial development such as deposits money banks asset to GDP; bank deposits to GDP; and the ratio of financial system deposits to GDP. Additionally, Table 13 reports the estimation results when we add to the baseline model a number of control variables. All the findings from these models confirm the presence of an S-shaped relationship between political competition and financial development, in line with the Besley effect.

² However, due to some data set constraints, not all empirical specifications will be able to cover exactly 121 countries.

(Insert Table 11 here)

(Insert Table 12 here)

(Insert Table 13 here)

Furthermore, we investigate the presence of an Acemoglu and Robinson effect on the full sample using the *WG* and *BCMM* estimators. Table 14 reports the estimation results of the baseline model, whereas Table 15 reports the estimation results of the same model when we use alternative measures of financial development, such as deposits money banks asset to GDP; bank deposits to GDP; and the ratio of financial system deposits to GDP. Finally, Table 16 displays the estimated coefficients of the model with the highest number of control variables. All estimated coefficients of interest have the predicted sign and are statistically significant. Moreover, the Acemoglu and Robinson U-shaped relationship between political competition and financial development holds for all models.

(Insert Table 14 here)

(Insert Table 15 here)

(Insert Table 16 here)

4. Conclusion

Our paper examines the intricate relationship between political competition and financial development by integrating the theoretical frameworks of Acemoglu and Robinson (2006) and Besley, Persson, and Sturm (2010) into a comprehensive reduced-form model. Using a dataset covering over 100 countries from 1980 to 2020, we analyse both annual and five-year averaged data to test these hypotheses, offering novel insights into how varying levels of political competition influence financial systems.

Our findings reveal two distinct patterns, contingent on the political and economic context of countries. In high-income OECD nations, the relationship between political competition and financial development exhibits an S-shaped curve, corroborating the Besley effect. This result underscores the significance of moderate political competition in promoting financial development by balancing the pressures between entrenched elites and politically accountable actors. The S-shaped relationship is robust across various measures of financial development—such as the Financial Development Index, Financial Institutions Index, and

Financial Markets Index—and persists even when accounting for factors like capital openness, trade openness, rent-seeking, and external threats. This consistency highlights the importance of political competition in fostering institutional development within established democracies.

Conversely, for the broader sample, encompassing both democratic and autocratic regimes, our results indicate a U-shaped relationship between political competition and financial development, in line with the *political replacement effect* described by Acemoglu and Robinson. Financial development tends to be suppressed at intermediate levels of political competition, where elites may engage in financial repression to protect their political power. However, at both low and high levels of political competition, financial development is significantly higher. This pattern emphasizes the dual forces of elite entrenchment and public accountability, which play critical roles in shaping financial outcomes, particularly in autocratic or semi-democratic regimes. These findings hold across alternative measures of political competition, such as the Polity and Polity2 scores, and reinforce the importance of regime type in influencing financial sector development.

From a research perspective, this study contributes to the growing literature on the political economy of financial development by offering empirical support for the non-linear effects of political competition. It also bridges two prominent theoretical frameworks—highlighting that different political contexts generate distinct mechanisms affecting financial development. In democratic nations, moderate political competition creates conditions that foster financial innovation and institutional growth, consistent with Besley, Persson, and Sturm’s theory. In contrast, in autocratic or transitioning regimes, the fear of political displacement or elite consolidation, as outlined by Acemoglu and Robinson, plays a central role in shaping financial policies. This dual theoretical integration deepens our understanding of how political factors underpin economic development, extending the scope of research on both political institutions and financial systems.

The implications of this research are significant for both the political science and finance disciplines. For scholars in political science, our findings highlight the importance of non-monotonic political competition dynamics in influencing economic outcomes. This suggests that political reforms aiming to enhance competition must consider the broader institutional context, as moderate reforms may not necessarily lead to improved financial development without addressing the entrenched interests of political elites. For researchers in finance, our study underscores the necessity of incorporating political variables into models of financial development, as institutional and political competition factors can profoundly shape financial markets, especially in countries transitioning between regime types.

However, while this study establishes a robust relationship between political competition and financial development, it leaves unanswered questions about the specific causal mechanisms driving this relationship. Future research should focus on identifying the precise channels—such as legal reforms, regulatory changes, or shifts in governance—that mediate the impact of political competition on financial outcomes. Understanding these pathways would further enrich the intersection of political economy and finance research, providing actionable insights for policymakers seeking to stimulate financial sector growth through institutional reforms.

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Table 1
Summary Statistics

Variable	Obs	Mean	Std. dev.	Min	Max
Financial Development Index	5,006	29.32	22.48	0.00	100.00
Financial Institution Index	5,006	36.73	22.78	0.00	100.00
Financial Markets Index	5,006	20.76	24.32	0.00	100.00
Political Competition	4,877	6.54	3.37	1.00	10.00
log of GDP per capita	4,838	8.38	1.49	5.10	11.68
Inflation	4,798	38.55	516.40	-29.17	26765.86
Years of Schooling	5,006	7.26	3.42	0.32	14.06
Capital Openness	4,820	0.51	0.37	0.00	1.00
Trade Openness	4,539	75.53	45.93	6.32	437.33
Rent	4,981	0.48	0.30	0.00	0.97
External Threat	5,006	0.01	0.02	0.00	0.23

Table 3
Besley Effect for High Income OECD Countries

This Table reports the coefficients estimated for the baseline model under the different estimators: WG, WG2 with clustered robust standard errors, and BCMM. The dependent variable is Financial Development Index. The sample includes observations for 32 countries over the period 1980-2020. Under all estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	WG2	BCMM
Variables	coef/se	coef/se	coef/se
Lag of Financial Development	0.843*** (0.016)	0.843*** (0.018)	0.898*** (0.018)
Political Competition	-5.524** (2.249)	-5.524*** (1.768)	-5.230** (2.443)
Political Competition Squared	0.854** (0.391)	0.854** (0.329)	0.850* (0.454)
Political Competition Cubed	-0.040** (0.020)	-0.040** (0.017)	-0.041* (0.024)
Log of GDP per Capita	-0.564 (0.749)	-0.564 (1.085)	-0.149 (1.077)
Inflation	0.011 (0.024)	0.011 (0.027)	-0.007 (0.025)
Years of Schooling	0.292* (0.177)	0.292 (0.198)	0.166 (0.159)
Number of observations	1,145	1,145	1,106
Number of countries	32	32	31
Adjusted R-square	0.959	0.961	

Table 4**Besley Effect for High Income OECD Countries. Alternative Measure of Financial Development**

This Table reports the coefficients estimated for the baseline model under the different estimators: WG and BCMM. The dependent variables are Financial Institution Index and Financial Markets Index. The sample includes observations for 32 countries over the period 1980-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	WG	BCMM	BCMM
Variables	coef/se	coef/se	coef/se	coef/se
Lag of Financial Institution Index	0.900*** (0.020)		0.934*** (0.020)	
Lag of Financial Market Index		0.778*** (0.025)		0.834*** (0.025)
Political Competition	-7.018** (2.766)	-6.219*** (1.944)	-7.650* (4.176)	-4.447 (2.828)
Political Competition Squared	1.192** (0.497)	0.947** (0.358)	1.355* (0.761)	0.650 (0.524)
Political Competition Cubed	-0.059** (0.026)	-0.044** (0.019)	-0.069* (0.040)	-0.029 (0.028)
Log of GDP per Capita	0.290 (1.093)	-2.768* (1.570)	-0.077 (1.109)	-1.599 (1.763)
Inflation	-0.059 (0.044)	0.125** (0.047)	-0.055 (0.042)	0.084** (0.042)
Years of Schooling	-0.319 (0.195)	1.174*** (0.388)	-0.345** (0.163)	0.940*** (0.304)
Number of observations	1,145	1,145	1,106	1,106
Number of Countries	32	32	31	31
Adjusted R-square	0.941	0.939		

Table 5

Besley Effect for High Income OECD Countries. Additional Control Variables

This Table reports the coefficients estimated for the main model with more control variables under the different estimators: WG and BCMM. The dependent variable is Financial Development Index. The sample includes observations for 32 countries over the period 1980-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	WG	BCMM	BCMM
Variables	coef/se	coef/se	coef/se	coef/se
Lag of Financial Development	0.821*** (0.022)	0.823*** (0.023)	1.019*** (0.005)	0.876*** (0.022)
Political Competition	-6.570*** (1.947)	-7.316*** (1.791)	-4.629* (2.570)	-6.535*** (2.378)
Political Competition Squared	1.040*** (0.372)	1.173*** (0.337)	0.847* (0.482)	1.070** (0.452)
Political Competition Cubed	-0.050** (0.020)	-0.057*** (0.018)	-0.043* (0.026)	-0.052** (0.024)
Log of GDP per Capita	-0.274 (1.085)	0.332 (1.064)	0.510 (0.906)	0.528 (0.987)
Inflation	0.041 (0.035)	0.041 (0.034)	-0.033 (0.031)	0.013 (0.031)
Years of Schooling	0.104 (0.226)	-0.012 (0.247)	-0.204 (0.181)	-0.083 (0.197)
Capital Openness	4.019*** (1.319)	4.404*** (1.317)	1.152 (1.177)	3.219*** (1.068)
Trade Openness	0.008 (0.019)	0.012 (0.018)	0.007 (0.015)	0.006 (0.014)
Capital Openness * Trade Openness	-0.025 (0.016)	-0.029* (0.016)	-0.007 (0.014)	-0.019 (0.013)
Rent		0.721 (2.298)		-0.313 (2.076)
External Threat		-98.225*** (31.194)		-96.834*** (31.093)
Number of Observations	1,122	1,122	1,083	1,083
Number of Countries	32	32	31	31
Adjusted R-square	0.962	0.962		

Table 6

Besley Effect for High Income OECD Countries. Alternative Measure of Political Competition

This Table reports the coefficients estimated for the main model with more control variables and alternative measure of political competition under the different estimators: WG and BCMM. The dependent variable is Financial Development Index. The sample includes observations for 32 countries over the period 1980-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	WG	BCMM	BCMM
Variables	coef/se	coef/se	coef/se	coef/se
Lag of Financial Development	0.847*** (0.018)	0.826*** (0.022)	0.877*** (0.022)	1.017*** (0.005)
Political Competition (Alternative)	11.808*** (3.467)	12.327*** (3.690)	11.277*** (3.518)	9.225** (3.843)
Political Competition Squared (Alternative)	-2.943*** (0.814)	-3.030*** (0.860)	-2.754*** (0.811)	-2.179** (0.861)
Political Competition Cubed (Alternative)	0.216*** (0.056)	0.218*** (0.058)	0.199*** (0.055)	0.160*** (0.056)
Log of GDP per Capita	-0.291 (1.102)	0.157 (0.949)	0.144 (0.853)	0.773 (0.762)
Inflation	0.008 (0.029)	0.035 (0.042)	0.018 (0.040)	-0.030 (0.035)
Years of Schooling	0.294 (0.203)	0.136 (0.221)	0.033 (0.159)	-0.364* (0.196)
Capital Openness		3.554** (1.350)	2.985*** (1.159)	1.803* (0.984)
Trade Openness		0.000 (0.019)	0.003 (0.016)	0.014 (0.014)
Capital Openness * Trade Openness		-0.020 (0.016)	-0.017 (0.014)	-0.012 (0.012)
Rent				0.524 (2.808)
External Threat				-99.039** (40.533)
Number of Observations	1,146	1,123	1,123	1,123
Number of Countries	32.000	32.000	32.000	32.000
Adjusted R-square	0.960	0.962		

Table 7
Acemoglu and Robinson Effect. All Countries

This Table reports the coefficients estimated for the baseline model under the different estimators: WG, WG with clustered robust standard errors, and BCMM. The dependent variable is Financial Development Index. The sample includes observations for 127 countries over the period 1980-2020. Under all estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	WG	BCMM
Variables	coef/se	coef/se	coef/se
Lag of Financial Development	0.891*** (0.006)	0.891*** (0.008)	0.922*** (0.009)
Political Competition	-0.333*** (0.101)	-0.333*** (0.082)	-0.242** (0.104)
Political Competition Squared	0.025*** (0.009)	0.025*** (0.007)	0.019** (0.009)
Log of GDP per Capita	0.718*** (0.195)	0.718*** (0.223)	0.759*** (0.272)
Inflation	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Years of Schooling	0.218*** (0.072)	0.218** (0.094)	0.207** (0.091)
Number of observations	4,597	4,597	3,725
Number of countries	127	127	102
Adjusted R-square	0.921	0.923	
U-test t-value	1.91	2.31	1.63
P> t	0.0283	0.0114	0.0512

Table 8**Acemoglu and Robinson Effect. All Countries. Additional Control Variables**

This Table reports the coefficients estimated for the main model with more control variables under the different estimators: WG and BCMM. The dependent variable is Financial Development Index. The sample includes observations for 122 countries over the period 1980-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***,**, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	WG	BCMM	BCMM
Variables	coef/se	coef/se	coef/se	coef/se
Lag of Financial Development	0.892*** (0.008)	0.892*** (0.008)	0.922*** (0.008)	0.923*** (0.008)
Political Competition	-0.371*** (0.086)	-0.369*** (0.086)	-0.303*** (0.105)	-0.308*** (0.106)
Political Competition Squared	0.028*** (0.008)	0.027*** (0.008)	0.023** (0.009)	0.023** (0.009)
Log of GDP per Capita	1.209*** (0.245)	1.155*** (0.271)	1.320*** (0.260)	1.331*** (0.312)
Inflation	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Years of Schooling	0.144 (0.087)	0.140 (0.088)	0.148* (0.084)	0.148* (0.083)
Capital Openness	1.230*** (0.419)	1.213*** (0.419)	1.301*** (0.476)	1.298*** (0.478)
Trade Openness	0.007* (0.004)	0.007* (0.004)	0.005 (0.004)	0.005 (0.004)
Capital Openness * Trade Openness	-0.014*** (0.004)	-0.014*** (0.004)	-0.014*** (0.005)	-0.015*** (0.005)
Rent		-0.447 (0.654)		-0.071 (0.615)
External Threat		2.345 (7.728)		-2.076 (6.781)
Number of Observations	4,206	4,182	3,359	3,335
Number of Countries	122	122	96	96
Adjusted R-square	0.928	0.928		
U-test t-value(overall)	2.17	1.99	1.69	1.63
P> t	0.0161	0.0244	0.0454	0.0512

Table 9

Acemoglu and Robinson Effect. All Countries. Democracy as alternative Measure of Political Competition

This Table reports the coefficients estimated for the main model with more control variables and alternative measure of political competition under the different estimators: WG and BCMM. The dependent variable is Financial Development Index. The sample includes observations for 127 countries over the period 1980-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	WG	BCMM	BCMM
Variables	coef/se	coef/se	coef/se	coef/se
Lag of Financial Development	0.893*** (0.009)	0.894*** (0.008)	0.928*** (0.007)	0.929*** (0.007)
Political Competition (Democracy)	-0.393*** (0.137)	-0.483*** (0.155)	-0.421*** (0.138)	-0.429*** (0.138)
Political Competition Squared (Democracy)	0.038** (0.017)	0.048** (0.019)	0.046*** (0.017)	0.047*** (0.017)
Log of GDP per Capita	0.800*** (0.218)	1.261*** (0.229)	1.071*** (0.217)	1.032*** (0.243)
Inflation	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)	0.000 (0.000)
Years of Schooling	0.234** (0.093)	0.158* (0.086)	0.114 (0.072)	0.115 (0.073)
Capital Openness		1.242*** (0.415)	1.169*** (0.386)	1.166*** (0.387)
Trade Openness		0.008** (0.004)	0.005 (0.003)	0.005 (0.003)
Capital Openness * Trade Openness		-0.014*** (0.004)	-0.014*** (0.004)	-0.013*** (0.004)
Rent				0.073 (0.527)
External Threat				2.731 (5.737)
Number of Observations	4,698	4,295	4,170	4,146
Number of Countries	127	122	117	117
Adjusted R-square	0.922	0.927		
U-test t-value(overall)	1.28	1.52	2.09	2.15
P> t	0.101	0.0656	0.0183	0.016

Table 10**Besley Effect for High Income OECD Countries. Five-year averaged data**

This Table reports the coefficients estimated for the baseline model under the different estimators: WG with clustered robust standard errors, and BCMM. The dependent variable is Private Credit to GDP. The sample includes observations for 32 countries over the period 1970-2020. Under all estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	BCMM
Variables	coef/se	coef/se
Lag of Private Credit to GDP	0.698*** (0.049)	0.973*** (0.141)
Political Competition	-22.335*** (7.345)	-22.920*** (8.777)
Political Competition Squared	3.679** (1.344)	3.736** (1.573)
Political Competition Cubed	-0.174** (0.073)	-0.176** (0.086)
Years of Schooling	-2.372 (1.976)	-1.630 (1.028)
Number of Observations	260	247
Number of Countries	32	30
Adjusted R-square	0.750	

Table 11

Besley Effect for High Income OECD Countries. Alternative Measure of Political Competition. Five-year averaged data

This Table reports the coefficients estimated for the basic model with alternative measures of political competition under the different estimators: WG and BCMM. The dependent variable is Private Credit to GDP. The sample includes observations for 32 countries over the period 1970-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	WG	BCMM	BCMM
Variables	coef/se	coef/se	coef/se	coef/se
Lag of Private Credit to GDP	0.696*** (0.048)	0.696*** (0.048)	0.972*** (0.145)	0.972*** (0.082)
Polity	55.452*** (16.588)		56.844*** (14.768)	
Polity Squared	-17.286*** (4.403)		-17.378*** (3.956)	
Polity Cubed	1.479*** (0.344)		1.464*** (0.315)	
Polity2		66.943*** (12.486)		68.919*** (10.021)
Polity2 Squared		-18.343*** (3.529)		-18.683*** (2.899)
Polity2 Cubed		1.447*** (0.309)		1.457*** (0.262)
Years of Schooling	-2.635 (1.974)	-2.848 (1.936)	-1.911** (0.957)	-2.132** (1.025)
Number of observations	260	260	247	247
Number of Countries	32	32	30	30
Adjusted R-square	0.750	0.750		

Table 12**Besley Effect for High Income OECD Countries. Alternative Measure of Financial Development. Five-year averaged data**

This Table reports the coefficients estimated for the basic model with alternative measures of Financial Development under the different estimators: WG and BCMM. The dependent variables are bank deposits to GDP, deposits money banks assets to GDP, and Financial systems deposits to GDP. The sample includes observations for 32 countries over the period 1970-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	BCMM	WG	BCMM	WG	BCMM
Variables	coef/se	coef/se	coef/se	coef/se	coef/se	coef/se
Lag of bank deposits to GDP	0.718*** (0.051)	0.888*** (0.176)				
Lag of deposits money banks assets to GDP			0.706*** (0.046)	0.966*** (0.169)		
Lag of financial systems deposits to GDP					0.685*** (0.048)	0.874*** (0.136)
Political Competition	-17.806*** (4.900)	-15.756*** (4.269)	-21.458*** (7.486)	-21.400** (8.557)	-17.662*** (5.599)	-15.248*** (4.838)
Political Competition Squared	3.452*** (0.824)	2.954*** (0.789)	3.324** (1.545)	3.452** (1.657)	3.478*** (0.969)	2.904*** (0.872)
Political Competition Cubed	-0.188*** (0.039)	-0.157*** (0.041)	-0.147 (0.093)	-0.159* (0.095)	-0.192*** (0.047)	-0.156*** (0.044)
Years of Schooling	0.490 (1.184)	0.694 (1.227)	-1.805 (2.108)	-1.919 (1.458)	-0.511 (1.107)	-0.271 (1.027)
Number of Observations	241	220	266	253	257	244
Number of Countries	31	27	32	30	31	29
Adjusted R-square	0.831		0.752		0.796	

Table 13**Besley Effect for High Income OECD countries. Additional Control Variables.
Five-year averaged data**

This Table reports the coefficients estimated for the main model with more control variables under the different estimators: WG and BCMM. The dependent variable is percentage of Private Credit to GDP. The sample includes observations for 32 countries over the period 1970-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***,**, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	BCMM
Variables	coef/se	coef/se
Lag of Private Credit to GDP	0.692*** (0.043)	0.993*** (0.196)
Political Competition	-19.794** (8.019)	-22.330** (9.100)
Political Competition Squared	3.444** (1.634)	3.902** (1.763)
Political Competition Cubed	-0.172* (0.090)	-0.196** (0.097)
Inflation	-0.037 (0.024)	-0.025 (0.023)
Years of Schooling	-2.437 (1.907)	-1.750 (1.743)
Capital Openness	9.920 (14.322)	13.774 (12.239)
Trade Openness	-0.520** (0.245)	-0.517** (0.237)
Capital Openness * Trade Openness	0.240 (0.173)	0.237 (0.161)
Number of observations	253	238
Number of countries	32	30
Adjusted R-square	0.760	

Table 14**Acemoglu and Robinson Effect. All Countries. Five-year averaged data.**

This Table reports the coefficients estimated for the baseline model under the different estimators: WG with clustered robust standard errors, and BCMM. The dependent variable is Percentage of Private Credit to GDP. The sample includes observations for 121 countries over the period 1970-2020. Under all estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	BCMM
Variables	coef/se	coef/se
Lag of Private Credit to GDP	0.718*** (0.032)	1.000*** (0.075)
Political Competition	-5.660*** (1.545)	-2.425*** (0.743)
Political Competition Squared	0.456*** (0.139)	0.199*** (0.068)
Years of Schooling	0.679 (0.805)	0.167 (0.565)
Number of Observations	1,028	985
Number of Countries	121	115
Adjusted R-square	0.650	
U-test t-value	2.699	2.272
P> t	0.004	0.012

Table 15

Acemoglu and Robinson Effect. All Countries. Alternative Measure of Financial Development. Five-year averaged data

This Table reports the coefficients estimated for the basic model with alternative measures of Financial Development under the different estimators: WG and BCMM. The dependent variables are bank deposits to GDP, deposit money banks assets to GDP, and Financial systems deposits to GDP. The sample includes observations for 120 countries over the period 1970-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	BCMM	WG	BCMM	WG	BCMM
Variables	coef/se	coef/se	coef/se	coef/se	coef/se	coef/se
Lag of bank deposits to GDP	0.731*** (0.033)	1.016*** (0.138)				
Lag of deposits money banks assets to GDP			0.725*** (0.031)	1.003*** (0.080)		
Lag of financial systems deposits to GDP					0.726*** (0.031)	1.013*** (0.108)
Political Competition	-2.780*** (0.973)	-1.159** (0.540)	-5.556*** (1.798)	-2.158** (0.851)	-2.967*** (0.982)	-1.290** (0.520)
Political Competition Squared	0.217** (0.090)	0.090* (0.050)	0.454*** (0.161)	0.188** (0.081)	0.228** (0.091)	0.099** (0.049)
Years of Schooling	1.022* (0.527)	0.071 (0.944)	1.021 (0.843)	0.136 (0.685)	0.683 (0.542)	-0.102 (0.754)
Number of Observations	1,012	966	1,039	1,001	1,028	990
Number of Countries	120	113	121	116	120	115
Adjusted R-square	0.740		0.664		0.731	
U-test t-value(overall)	1.79	1.24	2.39	1.88	1.83	1.31
P> t	0.038	0.108	0.009	0.031	0.035	0.095

Table 16**Acemoglu and Robinson Effect. All Countries. Additional Control Variables. Five-year averaged data**

This Table reports the coefficients estimated for the main model with more control variables under the different estimators: WG and BCMM. The dependent variable is percentage of Private Credit to GDP. The sample includes observations for 121 countries over the period 1970-2020. Under both estimators, we use time dummies. Heteroscedasticity and autocorrelation consistent standard errors are clustered by country. Standard errors are in parentheses. ***, **, * stand for statistical significance at 1, 5 and 10 percent level, respectively.

Estimator	WG	WG	BCMM	BCMM
Variables	coef/se	coef/se	coef/se	coef/se
Lag of Private Credit to GDP	0.709*** (0.031)	0.700*** (0.032)	0.994*** (0.145)	0.990** (0.451)
Political Competition	-5.451*** (1.684)	-5.077*** (1.596)	-2.564*** (0.779)	-2.420 (1.880)
Political Competition Squared	0.453*** (0.152)	0.405*** (0.141)	0.220*** (0.073)	0.202 (0.128)
Inflation	0.001 (0.002)	0.000 (0.002)	-0.001 (0.001)	-0.001 (0.002)
Years of Schooling	0.301 (0.781)	0.134 (0.773)	-0.062 (0.625)	-0.143 (0.574)
Capital Openness	8.303*** (3.112)	8.196** (3.152)	8.297** (3.248)	8.297** (3.297)
Trade Openness	-0.042 (0.035)	-0.046 (0.036)	-0.083 (0.051)	-0.087 (0.090)
Capital Openness * Trade Openness	-0.001 (0.034)	0.006 (0.035)	-0.033 (0.041)	-0.029 (0.048)
Rent		-12.849* (6.952)		-4.154 (9.881)
External Threat		269.161*** (100.326)		190.481
Number of observations	984	980	942	938
Number of Countries	121	121	115	115
Adjusted R-square	0.646	0.650		
U-test t-value(overall)	2.56	2.36	2.41	1.24
P> t	0.006	0.010	0.008	0.109

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