Democracy and Financial Development

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Abstract

The main objective of this study is to investigate a U-shaped relationship between democracy and financial development. At the initial levels of democracy, the financial development may potentially decline as the institutions are less strong. However, institutions are strengthened by democratic regimes and consequently the financial development enhances at the higher degree of democracy. For the empirical purposes, a panel dataset consisting of 146 countries spanning from 1990 to 2018 is collected. Employing time and country fixed effects, the findings substantially support Huang (2010) implying a U-shaped relationship between democracy and financial development. The results suggest that the financial development reduces at the initial levels of democracy but once democracy attains a certain threshold the financial development significantly enhances. As the data sample consists of both OECD and non-OECD countries, it becomes pertinent to decompose the data and then reconfirm the empirical analysis. The results still suggest a U-shaped correlation between democracy and financial development for both the OECD and non-OECD countries.

Keywords: Democracy; Financial Development; Panel Data; OECD.

Introduction

The financial system plays an important role in the attainment of economic growth and development. This is because, through its intermediary functions, a financial system helps to make funds available for investment and productivity purposes, which would, in turn, increase employment opportunities and improve the welfare of citizens in the country (Rajan & Zingales, 2003). Democracy encourages checks and balances, and accountability in government, which help to promote civil liberty and incentives to engage in increased economic and financial activities (Siegle et al., 2004). Similarly, a democratic system promotes openness and competitiveness that strengthens the financial system (Haber & Perotti, 2007). It is paramount that every country should strive towards strengthening its financial system.

However, uncertainties are created by democratic practices, which transmit negative signals and distort the development of financial markets (North, 1989). Furthermore, there is a disassociation of democracy from development because the level of development witnessed in Europe owes to the many years of absolute monarchs and feudal lords (Mafeje, 2002). Similarly, Singapore adopts restricted democracies yet provides its citizens with higher levels of governance and development compared to a country like India which practices a higher level of democracy and has lesser governance quality and development.

There are three levels of need behind this study. First, it is observed that existing literature on the subject matter is outdated and needs to be currently investigated to identify whether democratic practices still influence financial development in current times (Khan et al., 2020).

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And whether a country's political regime determines its financial progress or not (Menaldo & Yoo, 2015). Second, several empirical studies in the literature assume that there is a linear affiliation between financial development and democracy (Begovic et al., 2017; Girma & Shortland, 2008; Yang, 2011). Yet, empirical results from Ghardallou and Boudriga (2014) and Tarverdi et al. (2019) suggest that the association between them is non-linear. This casts doubts on the validity of existing empirical literature and to mitigate this challenge, this study finds it imperative to adopt a non-linear estimation technique, to provide reliable insights on the connection of financial development and democracy.

The third is mainly based on the existing conditions of countries with weak financial systems carrying the responsibility of poor economic performance (Becerra et al., 2012). In developing countries, barely 70% of the adult population have access to financial services, many of them even do not operate a bank account (Demirguc-Kunt et al., 2013). The practice of freedom of the press, human rights, and rule of law are very low in such countries. These make it difficult to bridge the income inequality gap between developed and developing countries (Menaldo & Yoo, 2015; Menyah et al., 2014; Nguyen, 2021). Already, many of these countries adopt autocratic rules, while a few of them are practicing democracy with a low level of democratic practices. Failure to adopt democratic practices is responsible for the poor development of the financial system among developing countries (Becerra et al., 2012).

Therefore, it becomes important that conscientious efforts are put in place to develop the system of developing countries. Considering democratic practices influence financial development, it becomes imperative that developing countries should revise their political system and adopt a highly democratic system.

This study investigates the non-linearity between democracy and financial development. For this purpose, an annual panel data set consisting of 146 countries ranging from 1990 to 2018 is collected. Applying the time and country fixed effects, strong evidence for a U-shaped relationship between democracy and financial development is found which is also consistent with Huang (2010). It implies that the financial development considerably increases when societies enjoy higher standards of democracy. The democratic societies build and strengthen institutions which serves as a necessary condition for financial development.

As the dataset covers many countries meaning a considerable deviation among countries relating to the degree of democracy prevailing there. Keeping this in view, the data set is further decomposed among OECD and non-OECD countries. The results stay consistent as a U-shaped association between democracy and financial development is found across both the OECD countries and non-OECD countries.

In section 2 the existing literature is reviewed followed by section 3 which elaborates data collections. Section 4 offers empirical analysis whereas the last section concluded.

Literature Review

Democracy is a political structure for governing the people, which started from Ancient Greek around 507BC (Wilson, 2013). Its global recognition and adoption can be traced to the French and American Revolutions during the eighteenth century, as these occurrences challenged autocratic and suppressive governments. Also, activities such as the women’s voting rights, the US civil rights movement, the defeat of authoritarian rule in Italy and Germany in World War 2, the fall of the Berlin Wall, and the end of one-party rule in Europe further increased the popularity of democracy (Biographyonline, 2019). Today, democracy has spread across the majority of the countries and is considered as a major system of government running in a participative style where government officials are elected through voting by the general public (Landman, 2018; Munck, 2016).

The development of the financial system can be characterized as financial expansion in terms of size, stability, access, and efficiency. It also implies that improvement in the availability of market information, as well as improvement in corporate governance practice and the allocation of capital (IGI-Global, 2021). Proponents of financial sector development argue that developing the financial market is essential towards ensuring financial intermediation in the economy, which would foster technological, innovative, and productive activities (Ghildiyal et al., 2015). The financial system is essential for economic progress, and the under-developed financial system stifles it (Goldsmith, 1969).

Empirical investigations have been carried out by several researchers to ascertain the impact of democracy on financial development. Girma and Shortland (2008) investigate the association of political economy and financial development using the general method of moment (GMM) analysis technique for panel data covering periods of 1975 to 2000. Estimates show that the degree of democracy impacted positively on the measures of financial development further indicating that democratic practices provide a stimulus for the development of the financial sector. Similarly, Boudriga and Ghardallou (2012) examine the effect of democracy on the financial expansion of developed and developing nations, covering periods from 1984 to 2006 using pooled panel regression estimator. The study measures financial development using private credit, banks' assets, and liquidity parameters as a percentage of GDP. Results show that a rise in the adoption of democracy promotes the financial development of the countries examined positively. Moreover, Yang (2011) examines the role of democracy on financial development using the GMM regression technique. The results from the study show that financial development and democracy are positively related. Likewise, the results from Mulligan et al. (2004) show that adopting democratic practices foster the expansion of the financial system.

Furthermore, in an investigation of causality if that runs from democracy to financial development using the data of various countries starting from 1960 to 2013 (Begovic et al., 2017). Results confirm the causality direction and adopting democratic parctices would enhance financial development and economic growth. These results are aligned with Ishtiaq et al. (2016) who study the affiliation of democracy, economic growth, and financial development, using panel data covering periods from 1974-2013. Findings of regression analysis show that democracy impacted positively on financial development, which in turn translated into the economic growth. Thus, adopting democracy does not only promote financial development, but also promotes economic growth.

Many empirical studies in the literature find a progressive association between financial development and democracy. However, there are divergent views in the literature as well. By Engaging the panel and cross-sectional data, Yang (2011) employs the GMM and two-stage least squares (2SLS) methods to access the link between financial development and democracy. Results from the GMM estimates show that financial development is not related to democracy, while the 2SLS demonstrate that there is a positive association. These findings are in line with the findings of Miletkov and Wintoki (2009) who scrutinize the relationship between democratic institutions and financial development between 1970 and 2000 for various countries. The results of granger causality show that there is no causal relationship between financial development and legal institutions.

Similarly, Huang (2010) investigate the affiliation between political organizations and financial development among non-transition countries. Using the GMM analysis technique, the study finds that political institution only exerts a significant impact on financial development during the short-run period and becomes insignificant in the long run. Democracy has an impact on financial systems not just directly but also indirectly, depending on the sort of political regime in place (Nguyen, 2021). Moreover, parliamentary system may affect differently than presidential one. Implying that one type of government system is more likely to support financial growth than other, resulting in increased local responsibility and institutional control. When it comes to the function of political institutions in growth, democracy does not play a

significant role in the short or long run, but political instability is proven to have a significantly negative influence on a growth (Yusuf et al., 2020).
Additionally, research studies highlight the differences in the relation of democracy with financial development that there is a U-shaped connection concerning financial growth and democracy (Asongu, 2014), and there is non-linear association as well (Ghardallou & Boudriga, 2014). Similarly, mixed evidence are confirmed that specify that not all democracies can create financial benefits only popular democracies implement financial reforms in such a way that benefit the entire country reaching to the general population (Menaldo & Yoo, 2015). Further emphasizing the negative effects of democracy there is a higher possibility of financial instability and turbulence that democracies are more likely to wreak havoc on the economy (Lipscy, 2018). On the other hand, authoritarian governments reduce the availability of funds to businesses and indicate the instability of businesses and of the financial sector (Koutentakis & Chrissis, 2021).
To summarize, political structure determines the prosperity of financial institutions and financial expansion is highly dependent on the policies of political regimes (Becerra et al., 2012; Menaldo & Yoo, 2015; Rajan & Zingales, 2003). The foregoing discussion shows that the impact of democracy on financial development is time-variant and regime-variant. Furthermore, suggesting the possibility of a link between financial progress and democracy; thus, warranting the need to carry out an empirical analysis on the subject matter while recognizing the possible relationship that exists between financial development and democracy.

Methodology

The annual panel data is collected for 146 countries from 1990 to 2018 to explore how changes in democracy affects the financial development. We also collected the data for control variables which may potentially affect the relationship between democracy and financial development such as human capital, GDP growth, population, inflation, unemployment and trade. World Development Indicators (WDI, henceforth) is used as a source for data collection of all variables except for democracy as it is collected from Polity IV data source. Table 1 shows summary statistics of all the variables used for the analysis.
Financial development is measured by domestic credit to private sector (% of GDP). Its mean value, 32.37, shows a moderate level of financial development across the panel dataset whereas the standard deviation, 45.43, implies a considerable variation across the world in terms of financial development. Some countries project a substantial financial development, but majority depicts the financial development at the moderate level.
Polity IV is used to collect the data for democracy. It ranges from -10 implying extreme dictatorship to +10 reflecting perfect democracy. According to the mean value of democracy, 3.32, a wide range of countries selected in the sample do not project a higher degree of democracy whereas the standard deviation, 6.5, shows that many countries project a far higher level of democracy as opposed to majority which show otherwise.
GDP growth rate per capita following Ehigiamusoe, Guptan and Narayanan (2021), Secondary school enrolment rate following Sarwar, Khan, Sarwar and Khan (2021), Population growth rate following Khan, Hou, Irfan, Zakari and Le (2021), Inflation rate following Ibrahim, Aluko and Vo (2022), Unemployment rate following Mehry, Ashraf and Marwa (2021) and International trade following Leibovici (2021) are collected to enhance the reliability of empirical analysis.

Table 1: Summary Statistics

	Obs	Mean	St: Dev	Minimum	Maximum
Financial Development	4483	32.37167	45.43561	18.61699	70.493
Democracy	4456	3.324731	6.50099	-10	10
School Enrolment	3577	76.0131	31.08575	15.2207	98.9347
GDP Growth	5061	9.066924	1.225654	6.083686	11.81273
Population Growth	5613	1.467719	1.531673	-10.95515	17.51095
Inflation	4537	28.68631	47.1052	-18.10863	97.13
Unemployment	5103	7.841003	5.912923	.14	37.94
Trade	4857	29.90996	51.99307	12.09992	72.62

Empirical Analysis

In this section the empirical analysis regarding how financial development is affected in the economies at various degrees of democracy. For this purpose, we examine the non-linear relationship between democracy and financial development.

Table 2 shows empirical results derived using Ordinary Least Square technique. Column 1 suggests a U-shaped relationship between democracy and financial development. It implies that any society at an initial level of democracy is found to reduce financial development. However, financial development improves when the economies experience more democracy levels. The findings are consistent with Huang (2010). The rationale is that more democratic societies strengthen institutions which result in higher degree of financial development.

The relationship between democracy and financial development also holds in the following columns (column 2, column 3, column 4) but the estimated coefficients lack statistical significance. As we deal with the panel data, the data sample is composed of several countries and years. So, it becomes indispensable to apply country and fixed effects because the lack of statistical significance may potentially be due to time invariant and country specific variables in the sample chosen for this study.

Table 2: Democracy and Financial Development

	(1)	(2)	(3)	(4)
Democracy	-.238	-.231	-.187	-.148
	(.1349) *	(.144)	(.154)	(.159)
DemocracySq	.034	.036	.027	.036
	(.024)	(.026)	(.027)	(.027)
School Enrolment	.180	.158	.138	.082
	(.034) ***	(.037) ***	(.038) ***	(.039) **
GDP per capita	2.43	2.59	2.23	2.79
	(1.439)	(1.545)	(1.583)	(1.718)
Population Growth	.096	.698	.759	.603
	(.445)	(.528)	(.534)	(.540)
Inflation		-.0003	-.0003	-.0002
		(.00064)	(.0006)	(.0006)
Unemployment			.312	.252
			(.143) **	(.149) *
Trade				.103
				(.022) ***
Observation	2605	2423	2362	2274
Countries	146	142	142	138
Fixed Effects				
R-Squared	0.4	0.42	0.41	0.41

Relating to control variables, column 4 is important for all the control variables are added in this column. The estimated coefficients of human capital measured by secondary school enrolment rate, unemployment and trade and positive correlated with financial development and are statistically significant.
Table 3 replicates econometric specifications of Table 2 but with the application of time and country fixed effects. Throughout the Table 3, the estimated coefficients suggest a U-shaped association between democracy and financial development. More importantly, these are strongly significant statistically. Given the result, there is strong evidence that support Huang (2010) that the financial development increases at a higher degree of democratic levels because under democratic regimes the institutions strengthen.

Table 3: Democracy and Financial Development – Applying Country and Time Fixed Effects

	(1)	(2)	(3)	(4)
Democracy	-.674	-.743	-.638	-.682
	(.133) ***	(.143) ***	(.150) ***	(.157) ***
DemocracySq	.052	.055	.0311	.049
	(.023) **	(.0251) **	(.026)	(.026) *
School Enrolment	-.216	-.213	-.242	-.256
	(.039) ***	(.041) ***	(.042) ***	(.042) ***
GDP per capita	1.62	1.98	1.79	1.42
	(.193) ***	(.216) **	(.251) **	(.464) ***
Population Growth	.055	.505	.524	.330
	(.429)	(.512)	(.512)	(.522)
Inflation		.0009	.001	.001
		(.0006)	(.0006) *	(.0006) *
Unemployment			.501	.405
			(.143) ***	(.151) ***
Trade				.057
				(.023) **
Observation	2605	2423	2362	2274
Countries	146	142	142	138
Fixed Effects	Yes	Yes	Yes	Yes
R-Squared	0.89	0.9	0.9	0.9

Table 4 decomposes the sample among OECD and Non-OECD countries because the OECD countries enjoy far better and more improved standards/degree of democracy as compared to non-OECD countries Quite interestingly, across OECDs and non-OECDs the findings suggest a U-shaped relationship between democracy and financial development.
Overall, according to the estimated coefficients, the results suggest that at the lower level of democracy, financial development reduces due to less strengthened institutions. However, as the democracy advances, the financial development also enhances since democratic regimes develop and strengthen institutions.

Table 4: Democracy and Financial Development – Applying Country and Time Fixed Effects

	(1)	(2)
	NON-OECD COUNTRIES	**OECD COUNTRIES**
Democracy	-.322	-6.47
	(.117) ***	(1.49) ***
DemocracySq	.041	.586
	(.020) **	(.152) ***
School Enrolment	.089	-.320
	(.039) **	(.102) ***
GDP per capita	1.28	1.02
	(.110) ***	(.613) *
Population Growth	-.028	8.54
	(.403)	(2.04) ***
Inflation	.0001	.675
	(.0004)	(.120) ***
Unemployment	.277	1.25
	(.143) *	(.341) ***
Trade	.113	-.327
	(.020) ***	(.056) ***
Observation	1595	679
Countries	103	35
Fixed Effects	Yes	Yes
R-Squared	0.91	0.88

Conclusion

This study empirically tested association between democracy and financial development. The results are derived employing the time and country fixed effects on a sample of 146 countries from 1990 to 2018. The results suggest that the financial development decreases at the initial levels of democracy. Nevertheless, as the degree of democracy increases the financial development also increases. The logical rationale provided for this finding is that the democratic societies build stronger and inclusive institutions which lead to more financial development.

The significance of the study is that it highlights and underscores the importance of democracy in financial development of any society. Given this, it is highly recommended that the societies need to improve the standards of democracy as democratic governments build strong institutions which may potentially lead to more financial development.

One of the limitations of this study is that the empirical analysis is offered from 1990 to 2018. Although collection of data beyond 2018 was desirable but there were missing values which affected its collection. However, despite the limitation, the findings substantially support the previous literature.

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