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# Does democracy foster financial development? An empirical analysis

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ABSTRACT

This paper examines whether democracy promotes financial development. While cross-section results show a positive association between democracy and bank development, this relationship disappears in panel regressions. The data also reveals that democracy is not positively related to stock market development.



## 1. Introduction

The existing literature has stressed the role of political and legal institutions in promoting financial development, which is widely viewed as crucial for economic growth (e.g. King and Levine, 1993; Levine and Zervos, 1998). Institutions that respect the rule of law, protect property rights as well as contract enforcements, and put effective constraints on rulers are shown to be associated with higher levels of financial development (e.g. La Porta et al., 1998; Rajan and Zingales, 2003; Acemoglu and Johnson, 2005; Haber et al., 2007).

At a fundamental level, this powerful set of institutions is often thought to be brought about by democracy, a political system characterized by popular participation, political competition for public office, and institutional constraints on the rulers. Siegle et al. (2004), for instance, argue that democracy brings political checks and balances, responsiveness to citizen priorities, openness, self-correcting mechanisms, and other good institutions. Haber et al. (2007) argue that the openness and competitiveness of a country's political system has a tendency to reflect itself in the openness and competitiveness of its financial system. Democracies, by promoting political participation and competition, limit the power of the state to control and repress the financial system, reduce the chance for both predatory and opportunistic behavior, and thus generate a more competitive and more efficient banking system (Haber, 2007). In the absence of competitive elections, political checks and balances are of crucial importance for property rights protection and contract enforcement (North and Weingast, 1989). Countries with greater constraints on the government provide greater protection against expropriation and consequently have a better banking system and more developed stock markets (Acemoglu and Johnson, 2005). La Porta et al. (2002) also suggest that democratic regimes encourage financial development by discouraging government ownership of banks.

In sum, all these views point to a positive relationship between electoral democracy and financial development. Yet there is little empirical work directly testing the positive impact of democracy on financial sector development. The empirical analysis in this paper contributes to the literature by demonstrating that while there is a positive association between democracy and bank development, this relationship disappears in regressions controlling for country-specific factors. The data also reveals that democracy is not positively related to stock market development.

## 2. Data

The dependent variable is the level of financial development, measured by the private credit by deposit money banks and other financial institutions as a fraction of GDP. The private credit measure is closely related to the most important activity of the financial intermediaries, channeling funds from savers to the most productive investors, and has been used extensively in recent

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**Table 1**
Democracy and financial development: cross-section results.

| | Dependant variable is: | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Private credit | Private credit | Stock market capitalization | Stock market capitalization | Private credit | Private credit | Stock market capitalization | Stock market capitalization |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
| Freedom House democracy | 0.609$^{***}$ | 0.199$^{**}$ | 0.340$^{***}$ | −0.017 | | | | |
| | (0.000) | (0.011) | (0.005) | (0.910) | | | | |
| Polity IV democracy | | | | | 0.558$^{***}$ | 0.235$^{***}$ | 0.178 | 0.074 |
| | | | | | (0.000) | (0.008) | (0.137) | (0.632) |
| Log per capita GDP | | 0.133$^{***}$ | | 0.158$^{***}$ | | 0.137$^{***}$ | | 0.145$^{***}$ |
| | | (0.000) | | (0.000) | | (0.000) | | (0.000) |
| Log trade | | 0.033 | | 0.077 | | 0.028 | | 0.058 |
| | | (0.526) | | (0.343) | | (0.601) | | (0.504) |
| Log (1 + inflation) | | −0.074$^{***}$ | | −0.055 | | −0.081$^{***}$ | | −0.060 |
| | | (0.004) | | (0.144) | | (0.003) | | (0.131) |
| French legal origin | | −0.026 | | −0.090 | | −0.043 | | −0.109 |
| | | (0.673) | | (0.317) | | (0.498) | | (0.216) |
| German legal origin | | 0.335$^{***}$ | | −0.046 | | 0.258$^{**}$ | | −0.159 |
| | | (0.010) | | (0.895) | | (0.046) | | (0.600) |
| Scandinavian legal origin | | −0.192 | | −0.557$^{*}$ | | −0.247 | | −0.522$^{*}$ |
| | | (0.411) | | (0.058) | | (0.295) | | (0.081) |
| Socialist legal origin | | −0.161$^{**}$ | | −0.246$^{**}$ | | −0.171$^{**}$ | | −0.247$^{**}$ |
| | | (0.048) | | (0.032) | | (0.037) | | (0.035) |
| Catholic | | −0.179$^{*}$ | | −0.200 | | −0.206$^{**}$ | | −0.232$^{*}$ |
| | | (0.061) | | (0.113) | | (0.033) | | (0.060) |
| Muslim | | −0.100 | | −0.061 | | −0.095 | | −0.029 |
| | | (0.247) | | (0.678) | | (0.272) | | (0.848) |
| Protestant | | 0.047 | | 0.374 | | 0.052 | | 0.303 |
| | | (0.846) | | (0.271) | | (0.822) | | (0.352) |
| Countries | 156 | 125 | 112 | 92 | 136 | 120 | 108 | 89 |
| R squared | 0.28 | 0.71 | 0.07 | 0.49 | 0.18 | 0.72 | 0.02 | 0.46 |

Notes: Robust standard errors are used in all regressions. A constant term is included in all regressions but not reported. *P*-values are reported in parentheses.
$^{*}$ Denote statistical significance at 10%.
$^{**}$ Denote statistical significance at 5%.
$^{***}$ Denote statistical significance at 1% respectively.

studies. This work also examines the effect of democracy on stock market development using stock market capitalization as a fraction of GDP as an indicator. The data are from Beck et al. (2000) and are updated by the authors to 2007.

The independent variable of interest is democracy. In this analysis, two sources of data on democracy are employed. The first one is the widely used Freedom House political rights index (Freedom House, 2008), which is a subjective indicator that annually ranks each country on a scale from one (highest level of political rights) to seven (lowest level of political rights). The ratings have been published annually since 1972. The second measure of democracy comes from the subjectively coded polity score of the Polity IV dataset (Marshall and Jaggers, 2008). Polity IV measures a political regime by using the polity score, which ranges from −10 (strongly autocratic) to +10 (strongly democratic). Underlying the Polity IV democracy indicator are ratings of the following components: competitiveness of political participation, competitiveness and openness of executive recruitment, and constraints on the chief executive. In regressions below, the two measures of democracy are rescaled to lie between zero and one, with a higher value indicating a greater degree of democracy.

Control variables used in this study include GDP per capita, the GDP deflator derived inflation, and trade openness measured by the sum of imports and exports as a ratio of GDP. The data for these variables are from World Bank World Development Indicators (World Bank, 2009). Data for additional control variables will be mentioned when they come up in the regression.

## 3. Cross-section analysis

The empirical analysis will focus on panel regressions, but cross-section exercises using ordinary least squares (OLS) regression are performed as a starting point. Due to data availability for a number of countries in the earlier decades, the data are only averaged for the last 15 years (i.e., 1992–2007), though using data averaged for the entire sample period gives similar results. In the cross-section regression two sets of time-invariant variables are also included: (a) the origin of a country's legal system (British, German, French, Scandinavian, and Socialist), which is shown to have a large explanatory power for the cross-country differences in financial development (e.g. La Porta et al., 1998), and (b) religious influences captured by the percentage of population affiliated with Catholic, Muslim, or Protestant, of which the Catholics and the Muslims are shown to discourage financial development (Stulz and Williamson, 2003). Data on these two sets of variables are from La Porta et al. (1999).

Columns 1–4 in Table 1 present the cross-section results using the Freedom House measure of democracy. Column 1 shows that there is a positive association between democracy and credit to the private sector, column 2 further shows that this positive relationship is robust to the inclusion of additional control variables. When the stock market capitalization is considered (columns 3–4), we see that the estimated coefficient on democracy is also positive and significant, but turns negative though insignificant with additional control variables. Columns 5–8 using Polity IV measure of democracy give similar results.

## 4. Panel regression analysis

Cross-section regression may lead to misleading results because there are a number of potential problems such as omitted variables and endogeneity. The fixed effects panel regression allows us to go beyond the simple cross-country comparison and to examine the within-country variation, that is, to see whether a country is more likely to have a higher level of financial development as it becomes more democratic. To examine the causal effect of democracy on