

Democracy and Financial development: Does the Institutional Quality Matter

‘First draft’

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Abstract

This paper examines whether the effects of democracy on financial development are influenced by the quality of institutions using a panel dataset of a large sample of developed and developing countries over the period 1984-2006. The results indicate that democracy plays a direct important role in stimulating the financial development. Particularly, effects of democracy on financial development are enhanced by higher levels of economic institutions. Otherwise, development may be hampered if these institutions are below some threshold values. Furthermore, results indicate that parliamentary forms of government as well as a greater political polarization increase the effects of democracy on financial development. On the other hand, we found that to take full benefits from democracy, democratizing countries should promote economic institutions, encourage the independence of the bureaucracy from political power and divide the power between the central government and the political units. Eventually, results show that when democracy is not yet established, democratizing countries ought to opt for a presidential form of government since it represents a direct channel that promotes the development of the financial sector.

Keywords: Democracy, political institutions, economic institutions, banking sector development

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1. INTRODUCTION

The debate on democracy and growth has recently received greater importance as the global expansion of democracy has been offset by high economic performance of some countries, such as China and Russia. At the same time, the global economic crisis of 2008-2009 has put in question the feasibility of the free market model and emphasizes the need for a stronger government role. In the current global climate, claims are sometimes made that neither free markets nor democratic governments will permit economic performance, and that the authoritarian regimes are better suited to achieve such goals.

A large body of the literature stressed out the role of political and economic institutions in shaping economic and financial development (hereafter FD). In fact, countries with more secure property rights and better institutions will invest more in physical and human capital, and will use them more efficiently to reach a superior level of income. On the other hand, troubles associated with institutional quality may lead to more uncertainty that sends bad signals to the market resulting into distortion in the productive economic process (North,1990). On the other hand, there is a great debate dealing with the impact of political institutions, namely a democratic versus an authoritarian regime on growth. Particularly, the development theory highlights the enhancing role of democratic institutions in economic growth; whereas sceptical approaches stress the inefficiencies of representative governments.

Thus, existing literature highlights the effects of economic institutions and political systems on growth. However, regarding their effects on FD, qualities of the institutions and the political liberalization have been studied separately, thus missing the possibility that the two might interact. Therefore, a serious shortcoming of this literature is that it does not explore heterogeneity in the democracy-FD relationship, specifically whether the effects of democracy on the financial sector development are conditioned by the quality of a country's institutions. Eventually, it presents new empirical results showing that the form of democracy (rather than democracy vs. autocracy) has important consequences on the adoption of structural policies that promote long-run growth.

The aim of this research is twofold. First, it reinvestigates the effects of democracy on FD. Second, it examines if this later impact is influenced by the quality of economic and political institutions.

We consider a large sample of developing and developed countries over the period 1984-2006. We use the "combined polity score" - polity2 - provided by the Polity IV database (Marshall et al., 2009) to measure democracy as well as to detect changes from an autocratic regime to a democratic one. We use a random-effects panel regression model to see whether the relationship between democracy and FD is conditioned by the quality of institutions. Our results show that (i) democracy increases FD as a democratic political process dilutes the degree of elite control over economic resources, (ii) impact of democracy on FD is largely influenced by the quality of economic and political institutions.

Our research contributes to the related literature in several ways. First, it is the first paper that considers interaction effects between democracy and institutions in explaining financial outcomes. Besides, it contributes to the existing literature by examining FD in a political

economy framework; actually, this research extends the relatively scarce literature on the political determinants of FD, as only a limited number of studies have investigated the democracy-financial growth nexus (Huang, 2005; Barth et al., 2006, Girma and Shortland, 2008; Yang, 2011). Finally, it is the first paper that considers the role of institutions in stimulating effects of democracy on FD during a period of democratic transition.

The remainder of this paper is structured as follows. Section 2 reviews the literature on democracy, institutions and growth. Section 3 describes the data and variables used. The methodology is discussed in Section 4 and results are presented and discussed in Section 5. Section 6 presents robustness tests and Section 7 concludes.

2. LITERATURE REVIEW

A large body of the literature stressed out the role of economic institutions in shaping the economic growth. North (1990) argued that countries with more secure property rights and better institutions will invest more in physical and human capital, and will use them more efficiently to reach a superior level of income; On the other hand, uncertainty associated with troubles in institutional quality, sends bad signals to the market resulting into distortion in the productive economic process. Further, economic transitions are highly facilitated with better institutions resulting in increasing gains from trade and hence return to investment (Besley, 1995). Institutional quality may also affect the manner through which resources are channeled to finance productive activities. In fact, lack of adequate regulatory framework and supervision may strongly influence the depositors' confidence resulting into difficulty of financial market to mobilize funds to viable projects. Moreover, the success or failure of financial reforms are strongly determined by the strength of institutions, such as financial regulation and the rule of law (Demetriades and Andrianova , 2004). Eventually, economic institutions permit the efficient allocation of resources since they determine the right parties that deserve profits, revenues; persuade innovation and factor accumulation and thus will shape the prosperity of societies (Acemoglu et al., 2005).

On the other hand, the literature on the role of political institutions, namely a democratic vs. an autocratic regime, in stimulating economic growth was subject to a controversy. Particularly, the economic literature distinguishes two theories. Development theories emphasize the prominent role of democracy in stimulating economic performance. Indeed, according to Wittman (1989), democratic institutions may enhance the efficiency of financial markets, thus resulting in a reduction of transaction costs. Second, redistribution, associated to democracy, does not necessary have a harmful effect, since investments may be subsidized with taxation of revenues (Saint-Paul and Verdier, 1993; Bourgoignon and Verdier ,2000). Third, democratic institutions make markets more open, encourage greater foreign entrants and thus help new firms to more efficiently utilize productivity innovations resulting into greater economic performance (Acemoglu, 2003). Furthermore, according to the politics and finance view, elite groups' interests are much more satisfied in centralized and powerful political systems than in decentralized and competitive governments (Olson, 1993; Acemoglu, 2003). Moreover, Olson (1993) emphasized the advantages of democratic institutions in securing property and individual rights and deemphasized the role of autocratic regimes since they are associated with more difficulties to commit credibly to such rights. Indeed, gains linked to investment in projects and transactions are channeled towards the real sector only when government is assumed to last and is repressed from expropriation of individual rights. In fact, the author demonstrated that conditions that are necessary to guarantee property rights

are the same conditions that are required to have a sustainable democracy. Moreover, Clague et al. (1996) argued that since democracy better secure individual and property rights, it will give more incentives for investment. Finally, it is argued that political power is positively linked to political accountability; thus more political rights in democratic systems are expected to reduce the degree of political power and hence boost the development of the financial sector. On the other hand, skeptical theories highlight risks and danger linked to representative governments. Huntington (1968) evoked the negative effects of the populist pressure for increased consumption. Besides, Buchanan and Tullock (1962) stated the agency conflict problem between elected politicians and the public. They also pointed to the possibility of a big state satisfying the demands of the masses. In addition, it was argued that democratic political systems may lead to inefficient policies since they encourage competition among different elite groups (Becker, 1983). Indeed, democratic systems may hold back economic growth because they are characterized by a larger role of interest groups that cause inefficient redistribution of resources. Finally, Alesina and Rodrik (1994) underlined the role of autocratic systems in stimulating growth. According to these authors, autocratic regimes are more efficient than democratic regimes to oppose pressure, from vested interests, to redistribute income and resources.

The literature outlined before highlights the direct effect of democracy on growth. However, some studies emphasize that this relationship may be influenced by the quality of institutions prevailing in the country. Huntington (1971) argued that democracies are very different on the extent on which they are politically institutionalized; particularly these democracies are unstable when political participation takes forward on political institutions. Besides, Zakaria (1997) made a separation between liberal and illiberal democracies. The illiberal democracy, or the minimalistic definition of democracy, includes only the rights to vote, to form political parties, to be elected and competition in the political system. In contrast, liberal democracies are marked in addition to the political rights, by the rule of law, the liberty of speech, of assembly and religion. According to Zakaria, democracy does not necessarily bring about constitutional liberalism, which emphasizes the role of law, checks on the power of each branch of the government, property rights and freedom of speech and religion. In addition, the author argued that the tendency of a democratic government to believe it has sovereignty, leads it to centralize his authority throughout extra-constitutional methods. Moreover, the author reported that governments produced by elections could be inefficient, corrupted, irresponsible, dominated by special interests and unable to respond properly to public needs. These characteristics will produce an undesirable government but not a non democratic one. Furthermore, the author pointed out a number of prerequisites which are necessary for an effective democratization. He mentioned a certain level of wealth; education and civil society development as well as a strong law and order. The author described a hypothetical mechanism of the democracy degeneration: after a rapid democratization, citizens will receive the right to vote that has no intrinsic value but may have a price since it is demanded by organized political groups. Temptations to sell votes will be strong, and if law and order is absent or weak many votes could be bought and used in orders of redistribution in favor of organized political groups. These destructive redistribution activities represent a danger on democracy conducting to serious disorder that may be prevented only if a strong order based on law is established in the society. Zakaria concentrated further on the role of law and order as the most important prerequisite for a successful democratization. He pointed out that democracy under poor law and order leads to the deterioration of the state institutional capacity since it reduces the government regulation effectiveness, including tax regulations.

Besides, it leads to a development of the shadow economy and hampers the growth of government revenues. The decrease of the government expenditures coupled with a decline in government effectiveness will lead to a weaken institutions since expenditure on public goods such as law and order, protection of investors rights will decrease. Weak institutions will lead to lower investments and slower economic growth.

Moreover, democracy with poor law and order make it more difficult to conduct prudent macroeconomic policies such as low inflation and low budget deficit since the government becomes a prisoner of industrial lobbies and interest groups. In addition, Polterovich and Popov (2007) argued that weak democracies, that is democracies with poor rule of law, or to put it differently, a democratic system which protect political rights but not civil rights including investor's rights; will produce weak governments. Weak governments are prone to pressure from industrial lobbies and interest groups. They are also characterized by the spread of corruption and crony relationship in civil services. Under these conditions, the government will be inhibited from equal redistribution of resources because of the spread of resource rent and the fight for its redistribution. In the same vein, Bettcher and Shkolnikov (2009) built a model thorough which institutions play the role of mediator between economic and political outcomes. In fact, governance institutions, i.e. rule of law, property rights and contract law are key elements without which democracy could not function. In fact, focusing on the minimalist definition of democracy, free and fair elections are important to growth, but not sufficient since free elections need legal frameworks through legitimate institutions in order to function properly. Similarly, Pei (1999) contributed to the debate between political institutions and development and concluded that the rule of law, as a mechanism to protect property rights, is a fundamental part in the later debate. He concluded that a political regime that encourage sound rule of law is more likely to achieve more economic growth. Finally, studying democratizing countries, Kaplan (2000) concluded that democratic transitions are highly risky if carried in low income countries with poor institutions and ethnic divisions. Under these conditions, transition to a representative government will result in the rise of violence, crime, official corruption and anarchy. Therefore, the quality of democracy seems to be shaped by institutions that govern the economy: rule of law and property rights will constrain the government action and thus reduce government domination, encourage the private initiative and reduce rent seeking. Although, these institutions are developed to directly regulate and support the economic activities, they also shape the character of the political competition by maintaining a political order based on constitutional and not on arbitrary rules. Finally, good governance creates predictability and accountability in government, limits government action and creates free and independent private action.

On the empirical literature, there is a broad consensus on the positive effects of economic institutions on growth (Acemoglu and Johnson, 2005; Tressel and Detriagiache, 2008, Demetriades and Fielding 2009). On the other hand, regarding the relationship between political institutions and growth; results are not conclusive. Some studies including (Levine and Renelt, 1992; Barro and Lee, 1993) found no significant effect of democracy on growth; while other demonstrated its enhancing effect (Huang, 2005; Barth et al., 2006; Rodriguez and Santiso, 2007; Miletkov and Wintoki, 2008; Girma and Shortland, 2008; Yang, 2011). Most of these studies measured democracy mainly by two variables: the Freedom House political rights index and the Polity 2 index. Besides, other researchers considered the legislative competition index which is an index of the degree of competitiveness of the last legislative election, ranging from 1 (non-competitive) to 7 (most competitive), or checks which measures the number of influential veto players in legislative and executive initiatives (Beck et al., 2003; Girma and Shortland, 2008) as measures of democracy. Finally, some

empirical studies denied the prominent role of democracy. Rajan and Ramcharan (2011) found that elites are able to block the development of the financial sector, to prevent access to finance, even in highly democratized countries. Besides, Cherif and Gazdar (2010) found that institutional environment as captured by a composite policy risk index does not seem to be a powerful force affecting the development of the stock market in the MENA region.

Eventually, a side of its scarcity, empirical literature dealing with the effects of political institutions, other than the political regime, on growth is not conclusive. Knutsen (2011) found that there is no robust effect of the form of government on economic growth and a very robust evidence for a positive effect of proportional representation electoral rules. On the other hand, Pereira and Teles (2009) concluded that political institutions work as a substitute for democracy promoting economic growth mainly in incipient democracies; but these institutions lost their importance in old and consolidated democracies. Besides, Voghouei et al.(2011) showed that political power, measured by executive recruitment, executive constraints, check, press and Gini index, is a statistically significant determinant of economic institutions and hence affects the development of financial systems. Finally, Bordo and Rousseau (2006) reported a strong independent effect of proportional representation, frequent elections, female suffrage, and political stability on the size of the financial sector.

The literature discussed before highlights the effects of economic institutions as well as the effects of a democratic political system on growth. However, regarding their effects on FD, qualities of the institutions and the political liberalization have been studied separately, thus missing the possibility that the two might interact. Thus, a serious shortcoming of this literature is that it does not explore heterogeneity in the democracy-FD relationship, specifically whether the financial sector development from democracy is conditioned by the quality of a country's institutions. To our knowledge, only Polterovich and Popov(2007) investigated this issue but in relation with economic development. They use as institutional variables the rule of law, the investors' risk and the corruption indexes. However, our paper is different since it focuses on financial rather than economic development. Second we consider more variables measuring the institutional environment quality including aside of economic institutions, political institutions variables. Eventually, regarding studies in the new political economy of FD, our study presents a new empirical results showing what forms of democracy (rather than democracy vs. non democracy) helps to promote long-run FD.

3. DATA AND VARIABLES USED

In this study, we investigate whether and how the effects of democracy on FD are influenced by the quality of institutions. The largest sample consists of 110 developed and developing countries selected on the basis of data availability and covering the period 1984-2006. The choice of the period was constrained by the data availability regarding FD and institutional variables. Indeed, data on FD are rarely available before 1980 and data on ICRG institutional variables exist only since the year 1984. We exclude the period after the year 2006 to avoid the altering effects of the global economic crisis.

3.1 THE MEASURE AND DATA FOR THE FINANCIAL DEVELOPMENT

The literature on FD has highlighted several proxies to measure different dimensions of FD. Following Huang (2010), we construct an aggregate index since it provides more information

on the FD than if one uses only a single indicator. Ideally, the index should include indicators from the banking sector, the stock market and the bond market. Though, since the data on stock and bond markets are rarely available, the analysis focuses only on banking sector development. We use the principal components analysis to produce this aggregate index. The measure is based on three indicators: (i) bank's credit to private sector which equals financial intermediary credits to the private sector divided by the GDP. It is an indicator of financial intermediary's activity. Previous studies (Levine et al., 2000; Beck et al., 2003; Bekaert et al., 2005) promoted the use of private credit as a consistent measure of FD. It is also the preferred measure in the recent literature since it excludes credit to public enterprises and other government agencies which may not be allocated by expected return and which are often controlled by elites. (ii) Deposit money bank assets to GDP which equals the ratio of total domestic assets of deposit money banks divided by GDP. It is an indicator of the overall size of banking sector. (iii) Liquid liabilities to GDP which equals currency plus demand and interest-bearing of banks and other financial intermediaries divided by GDP. It is a general indicator of the size of financial intermediaries relative to the size of the economy. It captures the degree of monetization of the financial system. Our aggregate measure is based on the three indicators described above and accounts for 87% of their variation. The weights resulting from principal components analysis are 0.58 for private credit, 0.59 for bank assets to GDP and 0.55 for liquid liabilities. Data on domestic credit to private sector are obtained from the World Bank database, while data on alternative measures are taken from Beck et al. database on financial development and structure (2010).

3.2 THE MEASURE AND DATA FOR THE DEMOCRACY VARIABLE

To measure the effects of democracy (Polit) on FD, we use the PolityIV Database (Marshall et al., 2009), as a selection standard. The Polity indicator "polity2" measures the degree of democracy based on the competitiveness of political participation, the openness and competitiveness of executive recruitment, and constraints on the chief executive. It varies from -10 (strongly autocratic) to 10 (strongly democratic) and defined as the democracy score minus the autocracy score. We consider this later measure since it corresponds to a minimalistic definition of the democracy and thus goes exactly with our objectives.

3.3 THE MEASURE AND DATA FOR THE ECONOMIC INSTITUTIONS VARIABLES

Rules of economic game are largely influenced by economic institutions since these later influence investment and production decisions. Economic institutions are namely institutions covering the structure of property rights and perfection of markets (Acemoglu et al., 2005). In what follows, we measure the quality of economic institutions by the regulatory quality, the rule of law, the control of corruption and the investment profile risk indexes. The regulatory quality (RQ) index measures perceptions of the ability of the government to implement regulations and policies that promote private sector development. The rule of law index (RL) reflects the quality of contract enforcement, the police and the courts, confidence that agents have on the rules of society as well as the likelihood of crime and violence. The control of corruption index (CC) indicates the extent to which public power is used for private gain, including both soft and grand corruption as well as state capture. The various indicators are scaled between -2.5 to 2.5, with higher values indicating better quality of governance and are standardized so that they all have mean zero and a standard deviation of one. Data come from the World Governance Indicators compiled by Kaufmann and al., 2011. Besides, we consider

the investment profile risk index (IR)³. This later contains different factors affecting the risk to investment other than political, economic and financial risks. This index is the sum of three subcomponents (Contract Viability/Expropriation, Profits Repatriation and Payment Delays) each with a maximum score of four points and a minimum score of 0 points. Thus the investment profile index ranges from 0 to 12 with higher values indicating lower risk and hence better institutional quality. This later index is taken from the International Country Risk Guide (ICRG) Database (2009).

THE MEASURE AND DATA FOR THE POLITICAL INSTITUTIONS VARIABLES

Acemoglu et al. (2005) define political institutions as the form of government and globally the extent of constraints on politicians and elites. Political institutions shape economic growth through their influence on governments' economic policies (Persson and Tabellini, 2003; Rodrik, 1996) and economic institutions in the county (North, 1990). We use the quality of bureaucracy, political system, political federalism and political polarization indexes to measure the quality of political institutions. Data come from the World Bank political institutions database (2010).

- *The bureaucracy quality (BQ)* measures the independence of a bureaucracy from political power⁴. The institutional strength of a bureaucracy makes it more independent from political pressure and thus more able to absorb shocks from regime changes, regime instability as well as to efficiently formulate policy and day-to-day administrative functions. A strong bureaucracy also indicates that it has the technical competence to efficiently determine government policies and the allocation of public goods. This would help sustaining economic and FD. The bureaucracy index ranges from 0 to 4 with higher values indicating better institutions. The variable comes from the (ICRG) database.
- *The political system (System)* is a measure of the form of government. It is a binary variable that equals 1 if it is a parliamentary system and 0 if it is a presidential system. Besides to control for the other form of government, we introduce the variable (Semi pres) that takes the value of 1 when it is an assembly elected president form of government and 0 if else. Presidential and parliamentary systems differ in terms of institutional arrangements. These regimes differ essentially regarding the separation of powers and the confidence requirement. Presidential regimes have a stronger separation of powers than parliamentary regimes. This separation of power should be important for economic policy. Indeed, it increases credibility of political commitments and enhances public revelation of political processes (Keefer and Stasavage, 2003; Persson et al., 1997), thus improving political accountability which in turn boosts economic and financial growth. Besides, under a presidential system, both the executive and the legislature are veto players (Tsebelis, 2002). Therefore, compared to parliamentary systems, presidential systems have more checks and balance on the executive, thus reducing power abuse behaviors. Under presidentialism, voters are more able to hold politicians accountable for abusing their power since presidential systems are more endowed with checks and balance. Moreover, when studying democratizing counties, Persson and Tabellini (2006) found that new presidential democracies grow 1.5% more than new parliamentary democracies.

³ The variable was centered due to high collinearity between main effects and interactions effects.

⁴ The variable was centered due to high collinearity between main effects and interactions effects.

However, presidential systems suffer from several drawbacks. First, because of the strict separation of powers, legislature and executive powers are weakly bonded. These systems are more fragmented, institutionally, than parliamentary systems. Besides, Linz (1990) argued that this separation of powers may intensify rigidity in the political system. In addition, under presidentialism, parties in the executive and the legislature may be different, which could induce political deadlock resulting into a more complicated process of passing efficiently economic reforms. The second distinction made between the two forms of government is the presence or the absence of a confidence requirement. In fact, presidential regimes do not require confidence since the elected executive can maintain his power requiring no advocacy among the legislative branch. Executive in parliamentary regimes needs instead the continuous confidence of the legislature. The confidence requirement generates legislative cohesion, that is stable majorities that vote together on policies and support the cabinet resulting into stable coalitions and more discipline within the majority. The confidence requirement helps to produce broad majority spending programs under parliamentarism compared to targeted programs in presidential systems (Persson and Tabellini, 2004). Therefore, presidential regimes outperform parliamentary regimes, under the separation of powers argument, since they are endowed with more checks and balances and thus less rent extraction. However, under the confidence argument, presidential systems should be associated with more targeted spending programs.

On the other hand, it is commonly argued that the form of government influences the survival of the democracy. In fact, Cheibub and Limongi (2002) reported that parliamentary democracies are expected to live more than presidential democracies and thus are more stable. The authors explained this by the fact that individual legislators in the congress in presidential regimes have little incentive to cooperate. This would produce a decision making which is decentralized, thus making presidential regimes suffering from instability and eventual death. Besides, the authors reported that parliamentary democracies are more able to survive under economic crisis. Finally, Przeworski et al., (2000) reported that presidential democracies could rather be the fruit of military dictatorships than civilian dictatorships, and thus are more likely to die for this reason. Hence, as the above literature suggests, the effect of the variable (System) is ambiguous.

- (*State*) as a measure of political federalism. It measures the existence of state/province governments locally elected and takes the value of 1 if yes, 0 if else. Particularly, it takes zero if neither the local executive nor the local legislature are directly elected by the local population that they govern; one if either is directly elected and the other is indirectly elected; or if they are both locally elected. Federalism describes a system of government in which power is constitutionally divided between a central authority and provinces. It permits to control and to limit strong and powerful governments since competing under this system creates incentives to create economic performance rather than to fulfill objectives of self-enrichment. Besides, Weingast (2006) reported that provinces better implement policies that are well-suited to local conditions. Thus we expect a positive effect of the variable (state) on the FD.
- *Polarization (Polariz)* as a measure of stability checks and balances. It ranges from 0 to 2. It is the maximum polarization between the executive party and the four principal parties of the legislature and thus measures the maximum difference of orientation among government parties. It takes zero when the chief executive's party has an

absolute majority in the legislature or when elections are not competitive; otherwise, it is the maximum difference between the chief executive's party's value and the values of the three largest government parties and the largest opposition parties. Literature stands that cohesion in the legislature should promote economic performance being it a parliamentary or a presidential system. Indeed, greater polarization reduces the stability of the decisions made by the government. This will lead economic agents to rather invest on less risky enterprises. These behaviors tend to slow the economic and financial growth. Besides, if government is unstable, FD may be eroded. Thus, we should expect that the greater the government polarization the smaller the FD.

3.3 THE MEASURE AND DATA FOR THE CONTROL VARIABLES

We include a set of control variables that are commonly used in the standard literature on the determinants of the FD:

- *Real GDP growth (Real growth)*. It is commonly argued that rapid growth should be linked to enhanced development of the financial sector. However, the effect of real growth may be reversed according to the 'conditional convergence' theory. Indeed, the theory implies that more developed countries, i.e. countries with higher GDP per capita, tend to have lower rates of credit growth (Levine and Renelt, 1992; Easterly and Levine, 1997). Hence, faster growing countries are more likely to experience lower levels of FD. Thus, the effect is ambiguous. Data on real growth are obtained from the World Bank database.

- *Trade openness (TO)*. It is the sum of exports and imports in percentage of GDP. It is argued that international trade openness policies facilitate the development of the financial sector. Indeed, trade liberalization will necessary carry new enterprises on the local market creating thus more competition and reducing the incumbents' rents. These later will see their cash flow decreased and will be obliged to rely on external finance resources. This will boost the development of the financial sector (Rajan and Zingales, 2003). We would therefore expect a positive coefficient for (TO). Data on this variable are from the World Bank database.

- *Capital openness (KO)*. It is the capital openness index developed by Chinn and Ito (2010). Theory advocates the positive effects of financial liberalization on the FD. First, capital account liberalization should reduce the repression in protected financial markets allowing real interest rates to rise to their competitive equilibrium. Second, financial openness allows investors to be engaged in more diversified activities. Eventually, it should reduce the cost of capital leading thus to increase its availability to investors. Consequently, we expect a positive coefficient on (KO).

- *Government spending (Gov exp)*. It is the total government consumption expenditure divided by GDP. It captures the effect of the fiscal policy. The effect is ambiguous. First, it is argued that government size is positively associated with government institutions (La Porta et al., 1999). Thus, increased government spending should enhance the development of the financial sector since it is linked to better property rights and contract enforcement which will encourage investment and financial growth. Besides, increased government spending on economic and physical infrastructure will reduce production costs and encourage investments (Abdullah, 2000; Al-Yousif, 2000; Ranjan and Sharma, 2008; Cooray, 2009). However, when government finances its expenditure through borrowing (especially from banks), it will be done on the expense of the private sector, leading thus to reduced private investment. That's why; many studies (Laudau, 1986; Barro, 1991; Folster and Henrekson, 2001) suggest that

large government expenditure would have negative impact on economic growth. Data on government expenditure are from the World Bank database.

- *Regime stability (RS)*. It is measured by the variable “durable” and defined as the number of years that have elapsed since a major regime transition. Its application is based on the evidence that investors in instable governments are scared from expropriation and thus prefer to hold physical assets rather than to invest in financial assets. Therefore, to promote FD, investors need a certain level of trust and confidence regarding the stability of the government. So we expected political stability to have a positive effect on FD. Data come from the Polity IV database.

-*Ethnolinguistic fractionalization (Ethno frac)*. It is an index constructed by La Porta et al. (1998) and reflects the probability that two randomly selected individuals from a population belonged to different groups. Alesina et al. (2003) reported the distortion effects of ethnic diversity on the quality of institutions. Indeed, high degree of ethnic fragmentation will prevent societies from efficiently implementing rules that aim to limit power abuse of the ruling elites; hereby exhibiting a negative effect on FD. We expect the coefficient on this variable to be negative.

4. METHODOLOGY

In the empirical analysis, we will focus on panel regressions. Particularly, as pooled regressions assume the homogeneous behavior of the dependent variable for all the individuals in the sample, we will use random and fixed effects estimations. Indeed, the FD variable varies considerably between countries and years⁵, thus fixed and random effects estimations are better suited in this case. The Hausman test advocates the use of the random effect specification. Besides, random-effects regression model better capture the effects of institutional variables that vary very little over time and allows to control for observed and unobserved cross-country heterogeneity. Finally, estimation of whether and how the effects of democracy, on FD, depend on the quality of the political and economic institutions is made through interaction effects. The interactions show a change in FD upon changes in democracy, which emanates from changes in economic or political institutions.

5. EMPIRICAL RESULTS

We first run a baseline model that includes the democracy variable, control variables and institutional variables without including interaction terms. It aims to identify the direct effect of democracy on FD taking into account the other institutional variables as controls. Since institutional indicators are highly correlated with each other; we introduce them individually. Thus, each specification contains the result of the estimation, taking into consideration the effect of one of the various aspects of economic and political institutions. Results are reported in table (2). Then, to estimate if and how the effects of democracy on FD are influenced by the institutions quality, we augment the base model by interaction terms between the democracy variable and each of the economic and political institutions indicators. Results are reported in table (3). Further, in table (4), we investigate the role of institutions on the

⁵ Hsiao test rejects the homogeneity of data structure.

democracy-FD relationship around democratizations. Thus, we consider a subsample of counties that have made a transition to a democratic system during the period 1984-2006.

5.1 Stylized Facts

Descriptive statistics of original data and their interactions are shown in Table 1. Table 1 shows that trade openness and financial openness have a mean of 78.31 and 0.38 respectively. Further, 36 percent of the countries in the sample have a parliamentary form of government, whereas 7 percent have a semi presidential system. Besides, 60 percent of the countries have a federalism political system. Finally, among the selected countries, 21 percent are low-income countries, 54 percent are middle-income, and 25 per cent are high-income countries.

Table 1. Data description based on the variables

Variable	Mean	SD	Min	Max	Obs
FD	-0.0211527	1.664135	-1.884742	7.909508	1140
Polit	4.485088	5.868529	-10	10	1140
RS	26.53246	34.21083	0	197	1140
KO	.3838567	1.572314	-1.843764	2.477618	1140
Gov exp	14.60414	5.672689	2.938175	42.95028	1140
Real growth	4.24473	4.944925	-28.09998	71.18799	1140
TO	78.31706	48.96214	14.93284	437.3865	1140
Ethno frac	.3539542	.2981469	0	.8902	1140
RQ	.0637539	.8925468	-1.766037	2.225582	1140
RL	-.0405042	.9766926	-2.060914	1.983938	1140
CC	-.0022521	1.032746	-1.81179	2.590772	1138
IR	1.341337	1.622791	-4	5.043478	977
BQ	.0940985	.5124346	-1.42029	1.898551	977
System	.3635523	.4812445	0	1	1081
Sem pres	.0710526	.2570255	0	1	1140
State	.6104034	.4879178	0	1	942
Polariz	.573822	.8624143	0	2	955
Polit*RQ	3.375858	6.477602	-10.95435	20.57806	1140
Polit*RL	2.743821	7.352654	-10.41648	19.83938	1140
Polit*CC	2.93176	8.138401	-11.61946	25.90772	1138
Polit*IR	7.832453	14.9179	-38.4058	41.44928	977
Polit*BQ	.8026532	3.627671	-10.1087	17.08696	977
Polit*State	3.807856	4.983311	-7	10	942
Polit*Polariz	5.105759	7.943611	-6	20	955
Polit*System	2.876041	4.352457	-7	10	1081
High income	1140	.2508772	.4337082	0	1
Mid. income	1140	.5350877	.4989862	0	1
Low income	1140	.2140351	.4103313	0	1

5.2 Democracy and FD

To explore the direct effect of democracy on FD controlling for the other institutional variables, we consider the following model:

$$Y_{it} = \alpha + \beta_1 Polit_{it} + \beta_2 P_{it} + \beta_3 X_{it} + e_{it} \quad (1)$$

Where α is the constant, e_{it} is the error term and the subscripts i and t are the country and the period, respectively. Y_{it} is the dependent variable corresponding to the aggregate measure of banking sector development. $Polit_{it}$ is the democracy variable and P_{it} refers to institutions variables. X_{it} is the vector of control variables. Results are reported in Table (2).

Interestingly, results show that the coefficient estimate of the democracy variable is positive and highly significant across all the specifications (at 1% level). The results confirm previous studies that found a positive impact of democracy on FD (Huang, 2005; Barth et al., 2006; Rodriguez and Santiso, 2007; Miletkov and Wintoki, 2008; Girma and Shortland, 2008; Yang, 2011). Thus a political regime endowed with checks and balances, competition on executive recruitment and political participation helps to promote the FD since it contributes to diminish elite's control on the economy. Economic institutions variables confirm their positive role. (CC) is the sole exception. In fact, troubles associated with institutional quality may lead to more uncertainty that sends bad signals to the market resulting into distortion in the economic process. On the different political institutions variables, the coefficient of the (BQ) variable is positive and significant proving the fact that strong bureaucracy with high technical competence help to better promotes the FD. The coefficient on the (State) variable confirms theory prediction but the result is not significant. Thus, the political federalism does not have an impact on the development of the financial sector. The coefficient of the (Polariz) variable is positive and significant at 5%. This result is contrary to our prediction considering the cohesion in the legislature as a mean to promote economic performance. Besides, results indicate that a semi presidential form of government tend to better enhance the development of the financial sector whereas a parliamentary system does not seem to have an effect on the FD.

Finally, coefficients on the different control variables confirm theory predictions. The coefficient on (KO) is positive and significant across all the specifications. Thus, financial liberalization improves FD because it reduces repression in financial markets, decreases the cost of capital and increases diversification opportunities. Besides, the coefficient of the (RS) variable is positive and significant all over the specifications. Hence political regime stability enhances the development of the financial sector since instability hampers a country to implement efficient institutions. The coefficient on (TO) is also positive and significant across all the specifications. Therefore, the resulting competition will reduce the incumbents' rents making them relying on external finance, which will promote the FD. The coefficient on (Real growth) is negative and significant across all the specifications. Our finding confirms the conditional convergence theory according to which, faster growing countries will have lower levels of FD. Further, results show that (Gov exp) supports the development of the financial sector and the result is significant through all the specifications. Hence, larger government size is beneficial as it increases the quality of the institutional environment and reduces the transaction costs in financial markets. Finally, the (Ethno frac) coefficient is negative and statistically significant in all model specifications. It supports the evidence that political competition in ethnically heterogeneous societies could retard the country's FD.

Table2. Democracy, institutions and control variables regression on FD

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(9)	(10)
Polit	0.0160*** (9.95e-07)	0.0143*** (0.00801)	0.0101* (0.0670)	0.0171*** (0.00172)	0.0118*** (0.00175)	0.0173*** (3.93e-06)	0.0156*** (1.07e-05)	0.0170*** (5.30e-05)	0.0116*** (0.00130)
RS	0.0141*** (0)	0.0122*** (0)	0.0117*** (0)	0.0130*** (0)	0.0148*** (0)	0.0167*** (0)	0.0144*** (0)	0.0142*** (0)	0.0130*** (0)
KO	0.0948*** (0)	0.134*** (0)	0.138*** (0)	0.142*** (0)	0.0432*** (0.000706)	0.0659*** (1.56e-07)	0.0984*** (0)	0.112*** (0)	0.112*** (0)
Gov exp	0.0154*** (7.74e-06)	0.0168*** (0.00233)	0.0161*** (0.00349)	0.0189*** (0.000859)	0.0160*** (0.000541)	0.0130*** (0.00522)	0.0140*** (0.000156)	0.00813* (0.0956)	0.0148*** (9.30e-05)
Real growth	-0.0166*** (0)	-0.0147*** (5.52e-08)	-0.0146*** (7.44e-08)	-0.0148*** (6.80e-08)	-0.0214*** (0)	-0.0193*** (0)	-0.0173*** (0)	-0.0180*** (6.09e-09)	-0.0163*** (3.05e-10)
TO	0.00484*** (0)	0.00322*** (0.000277)	0.00309*** (0.000406)	0.00290*** (0.00108)	0.00376*** (3.47e-06)	0.00496*** (7.21e-10)	0.00449*** (5.96e-11)	0.00512*** (3.60e-10)	0.00293*** (6.34e-05)
Ethno frac	-0.967*** (0.00303)	-0.765** (0.0277)	-0.643** (0.0495)	-0.904*** (0.00897)	-1.216*** (0.000888)	-1.090*** (0.00323)	-0.950*** (0.00241)	-0.974** (0.0111)	-0.978*** (0.00312)
RQ		0.204*** (0.000153)							
RL			0.329*** (1.22e-07)						
CC				0.0305 (0.565)					
IR					0.0543*** (0)				
BQ						0.0882*** (7.63e-05)			
System							-0.00729 (0.832)		
Semi pres							0.184** (0.0190)		
State								-0.0352 (0.749)	
Polariz									0.0478** (0.0180)
Constant	-0.817*** (1.15e-06)	-0.660*** (0.000819)	-0.624*** (0.000952)	-0.643*** (0.00113)	-0.523*** (0.00648)	-0.686*** (0.000388)	-0.767*** (3.70e-06)	-0.610*** (0.00225)	-0.640*** (0.000196)
Observations	2,162	1,140	1,140	1,138	1,847	1,847	2,043	1,742	1,873
Countries	112	110	110	110	94	94	106	92	104
R ²	0.4637	0.5581	0.6028	0.5130	0.4477	0.4718	0.4760	0.4814	0.4403

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk, BQ is bureaucratic quality, System is the form of government, State is political federalism and Polariz is political polarization ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in parentheses are p-values.

5.3 Democracy, Institutions and FD: Interaction effects

We rerun the baseline model and include separately interaction terms between the democracy variable and the various institutions variables discussed above. In fact, we suggest that instead of just considering the direct effect of democracy on financial outcomes, it is imperative to determine which type of democracy is the most beneficial to the development of the financial sector through controlling for its specific economic and political institutions. Besides, analyzing separate effects of democracy and institutional outcomes could be confusing since it may hide possible feedback and interaction effects between them. The model is as follows:

$$Y_{it} = \alpha + \beta_1 Polit_{it} + \beta_2 P_{it} + \beta_3 Polit_{it} * P_{it} + \beta_4 X_{it} + e_{it} \quad (2)$$

The empirical results are presented in Table (3)⁶. Interestingly, the (Polit) variable presents a coefficient which remains positive and highly significant across all the specifications. Results reveal that democracy helps to promote FD in countries which have an average quality of economic institutions. Besides, democracy increases FD in countries which have an average quality of bureaucratic system. Results show that presidential democracies increase the FD. Moreover, the positive coefficient associated to the (Polit) variable in the specification (7) underlines the fact that democracy contributes to boost the FD even in the absence of political federalism; that is even when power is centralized around the central government. Finally, results demonstrate that democracy improves FD when cohesion in the legislature is at its maximum.

In the remaining of this section, we are mainly interested in the interpretation of the estimated coefficients of the interaction terms. We remind that coefficients associated with the interaction terms demonstrate whether the effects of democracy on FD depend systematically on the quality of economic and political institutions. Besides, we want to examine what dimensions of the institutional environment that are the most likely to amplify the positive effects of democracy; and whether its effect may be weakened or inversed. Regarding continuous moderators, the interpretation of the overall effect of the democracy depends on the level of the institutional development⁷. That is, given equation (2), the total effect of democracy can be shown as:

$$\text{Total Effect of democracy on FD} = d(Y) = dY_{it}/d(\text{Polit}_{it}) = (\beta_1 + \beta_3 P_{it}) d(\text{Polit}_{it})$$

From table (3), the positive and significant interaction term associated with the (RL) variable highlights the fact that better rule of law contributes to enhance the democracy effects on FD. Particularly, better quality of contract enforcement and a higher confidence on the rules of the society help to amplify effects of democracy only when it exceeds the threshold level of (-0.97). Below this threshold value, democracy will rather hamper the FD. Besides, the significant interaction term on the (CC) variable confirms the fact that more control of corruption including grand and soft corruption as well as the state capture tends to strengthen the effects of democracy on FD. Especially, positive effects of democracy occur only when the level of the (CC) is higher than the threshold level of (-1.71). Thus, in order to promote the FD, democracy requires a higher level of control of corruption. Besides, the coefficient associated with the (IR) interaction term is positive and significant. Hence, democracy better promotes FD when it is coupled with a good investment climate i.e. when investor's contract rights are guaranteed and when risks of expropriation and payment delays are reduced. Particularly, enhancing effects arise only when the level of the (IR) is higher than the threshold level of (-4.15). Finally, we do not found a significant impact of the (RQ) on the democracy-FD relationship.

Of the different political institutions variables, the (System) variable has a positive and significant interaction coefficient. The result suggests that compared to a presidentially system, a parliamentary form of government tends to better promote effects of democracy on FD. In fact, unlike presidential systems, the presence of the confidence requirement in parliamentary regimes fosters stable coalitions and more discipline within the majority. Thus, it helps to produce spending programs that better serve the broad majorities of votes (Persson, Roland, and Tabellini, 2000). On the other hand, the fact that parliamentary democracies are

⁶ Marginal effects, on 95% confidence interval, of democracy on FD depending on institutions are reported on appendix 1.

⁷ The fact that some variables could be negative for a lower value contributes to the complexity in the interpretation.

expected to live more and are more stable than presidential democracies; makes them more likely to promote the FD. The positive and significant coefficient of the interaction term associated with the (Polariz) variable contradicts theory predictions. In fact, theory predicts that the degree of government fragmentation with regard to the number of parties should negatively impact the economic growth since cohesion in the legislature allows higher economic growth. Though, we found that democracy better promotes FD when government is fractionalized. Thus, democracy deals much better with ideological diversity between the governing and other political parties to achieve financial performance. This result is also found by Pereira and Teles (2009) considering economic growth. Finally, the (BQ) and the (State) variables does not seem to further the democracy-FD relationship. Indeed, coefficients of their interaction terms are not statistically significant. Thus, we would conclude that neither the independence of the bureaucracy from political power nor the division of power between a central authority and the political units could enhance the effects of democracy on FD.

On the other hand, results reveal that economic institutions variables increase the FD even when democracy is not established ((Polit) = 0). Moreover, better bureaucratic quality and lower levels of political polarization contribute to the development of the financial sector. Finally, coefficients of the different control variables remain unchanged compared to the baseline model.

Table 3. Democracy and institutions interaction effects on FD

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Polit	0.0177*** (0.00488)	0.0318*** (2.44e-05)	0.0284*** (0.000154)	0.0144*** (0.000173)	0.0183*** (1.15e-06)	0.0132*** (0.000355)	0.0151*** (0.00675)	0.0115*** (0.00141)
RS	0.0122*** (0)	0.0117*** (0)	0.0131*** (0)	0.0144*** (0)	0.0173*** (0)	0.0139*** (0)	0.0141*** (0)	0.0128*** (0)
KO	0.131*** (1.99e-10)	0.128*** (2.50e-10)	0.137*** (0)	0.0420*** (0.000948)	0.0766*** (4.82e-10)	0.0979*** (0)	0.112*** (0)	0.110*** (0)
Gov exp	0.0172*** (0.00190)	0.0180*** (0.00103)	0.0196*** (0.000560)	0.0159*** (0.000539)	0.0126*** (0.00701)	0.0137*** (0.000207)	0.00825* (0.0915)	0.0143*** (0.000153)
Real growth	-0.0145*** (1.16e-07)	-0.0132*** (1.15e-06)	-0.0145*** (1.07e-07)	-0.0210*** (0)	-0.0195*** (0)	-0.0175*** (0)	-0.0181*** (5.78e-09)	-0.0166*** (1.14e-10)
TO	0.00325*** (0.000247)	0.00327*** (0.000168)	0.00282*** (0.00146)	0.00373*** (3.95e-06)	0.00520*** (1.05e-10)	0.00452*** (0)	0.00512*** (3.61e-10)	0.00306*** (2.86e-05)
Ethno frac	-0.727** (0.0362)	-0.479 (0.146)	-0.833** (0.0168)	-1.210*** (0.000961)	-1.056*** (0.00444)	-0.924*** (0.00328)	-0.973** (0.0116)	-0.959*** (0.00378)
Polit*P _i	0.00765 (0.295)	0.0328*** (2.69e-05)	0.0166** (0.0288)	0.00347*** (0.000413)	-0.00101 (0.886)	0.0111** (0.0274)	0.00378 (0.616)	0.0329*** (0.000362)
RQ	0.171*** (0.00679)							
RL		0.180** (0.0112)						
CC			-0.0566 (0.391)					
IR				0.0354*** (2.65e-05)				
BQ					0.0889* (0.0723)			
System						-0.0592 (0.153)		
Semi pres							0.201** (0.0106)	
State							-0.0460 (0.681)	
Polariz								-0.231*** (0.00420)
Constant	-0.721*** (0.000425)	-0.925*** (4.39e-06)	-0.775*** (0.000178)	-0.525*** (0.00629)	-0.730*** (0.000164)	-0.781*** (2.67e-06)	-0.609*** (0.00236)	-0.648*** (0.000164)
Observations	1,140	1,140	1,138	1,847	1,847	2,043	1,742	1,873
Countries	110	110	110	94	94	106	92	104
R ²	0.5603	0.6020	0.5212	0.4520	0.4766	0.4911	0.4826	0.4478
Institutions turning-point	..	-0.97	-1.71	-4.15

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk, BQ is bureaucratic quality, System is the form of government, State is political federalism and Polariz is political polarization ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in parentheses are p-values.

5.3 Democracy, Institutions and FD around Democratization

The above findings highlight the enhanced effects of economic and political institutions on the democracy-FD nexus. In what follows, we will examine whether there are specific institutions that promote effects of democracy on FD during a period of a democratic transition. For such analysis, we consider a subsample of countries that have transit to a

democratic system during the period 1984-2006. To select which countries have moved from autocracy to democracy, we use the PolityIV Database (Marshall et al., 2009), as a selection standard. We primary located significant changes in the Polity indicator over the sample period i.e. the Polity2 index increases from a negative to a positive value. Then, to avoid potential bias due to instability or lack of consolidation, we considered only episodes of transitions for which the pre-democratic era lasted at least five years and the democratic period continued at least for five years. We reestimate the following regression:

$$Y_{it} = \alpha + \beta_1 Polit_{it} + \beta_2 P_{it} + \beta_3 Polit_{it} * P_{it} + \beta_4 X_{it} + e_{it} \quad (3)$$

Where economic and political institutions as well as the vector of control variables are those defined in the baseline model. We note that here, we are interested on the coefficient associated with the interaction between democracy and institutions. Indeed, $(\beta_1 + \beta_3)$ measures whether the marginal effect of democracy depends on the institutional environment during the process of democratization.

Results in table (4), show that the (Polit) variable presents a coefficient which remains positive and highly significant across all the specifications. Results reveal that democracy increases the FD of democratizing countries with an average quality of economic institutions. Besides, it boosts the FD of countries with an average quality of bureaucratic system. Moreover, results indicate that democracy enhances the FD of democratic transition countries under a presidential form of government. The positive coefficient associated to the (Polit) variable in the specification (7) underlines the fact that democracy continues to boost the FD even when political federalism is absent. Finally, results demonstrate that democracy improves the FD when cohesion in the legislature is at its maximum.

Moreover, we found that the positive effect of democracy on FD increases with the level of economic institutions variables (RQ, RL, CC and IR). Particularly, we notice that the quality of regulations do matter during the democratic transition period. Therefore, to better benefit from a transition to a democratic system, democratizing countries should provide a sound institutional environment as well a good investment climate. Particularly, effects of democracy on FD are enhanced when levels of regulatory quality, rule of law, control of corruption and investment climate are respectively higher than (-0.66; -0.78; -0.96 and -3.26). Otherwise, transition to a more representative government will hamper the development of the financial sector. Besides, it appears that during a process of democratic transition and in order to enhance the FD, democracy requires much higher levels of rule of law, control of corruption and lower investment climate risk.

Regarding political institutions variables, the coefficients of the interaction terms associated with (BQ) and (State) become positive and significant. Thus, higher independence of the bureaucracy from the political power as well as higher division of power between the central authority and the provinces, contribute to increase the effects of democracy on FD during a process of democratic transition. Specially, in order to not hinder the DF, the (BQ) level must exceed the threshold level of (-1.92). On the contrary, neither the form of government nor the

political polarization, seem to have an impact on the democracy-FD relationship in democratizing countries.

On the other hand, regarding the main effects of the different institutional variables, results reveal that economic institutions variables confirm their role in increasing the FD even when democracy is not established. (RL) is the sole exception. Moreover, better bureaucratic quality seems to contribute to the development of the financial sector. Our findings highlight the fact that a parliamentary form of government undermines the country's FD when democracy is not established. Therefore, during the democratic transition period, presidential systems are better suited. Our result supports Persson and Tabellini (2006) findings' which stand that, new presidential democracies grow 1.5% more than new parliamentary democracies. In fact, compared to parliamentary system, separation of powers under the presidential system is argued to increase the credibility of politicians, helps plausible commitments and thus improves political accountability. These effects are of a major importance during the democratic transition process since it is full of volatility , instability and where citizens need to be assured and confident about unpredictable future. Moreover, in the dawn of revolutionary era, there emerges divergent ideologies that could hinder the political reconstruction process; thereby by its nature, a parliamentary system would face opposing currents amongst political players. Therefore, a presidential system constituting a "single" party or a coalition can undoubtedly ensures a smooth running of the government. On the other hand, (State) and (Polariz) variables do not appear to impact the FD when democracy equals to 0. Finally, Coefficients of the different control variables are generally the same as in the previous models.

Table4. Democracy and institutions interaction effects on FD (around democratization)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Polit	0.0141** (0.0104)	0.0318*** (4.76e-05)	0.0265*** (0.00194)	0.0145*** (6.82e-05)	0.0132*** (5.73e-05)	0.0161*** (2.57e-06)	0.00859* (0.0764)	0.0129*** (0.000226)
Durable	0.0198*** (6.41e-09)	0.0201*** (2.77e-09)	0.0184*** (7.07e-08)	0.0131*** (1.06e-08)	0.0128*** (2.42e-09)	0.0151*** (0)	0.0158*** (5.74e-10)	0.0145*** (8.04e-11)
KO	0.0948*** (1.34e-06)	0.105*** (2.51e-08)	0.116*** (1.67e-09)	0.0404*** (0.00542)	0.0412*** (0.00235)	0.0823*** (4.28e-10)	0.0991*** (3.49e-10)	0.0908*** (8.54e-11)
Gov exp	0.0127** (0.0160)	0.0147*** (0.00517)	0.0155*** (0.00561)	0.0122*** (0.00684)	0.0117*** (0.00707)	0.00617 (0.135)	0.000656 (0.890)	0.00173 (0.684)
Real growth	- (0.0151***)	- (0.0128***)	- (0.0148***)	- (0.0116***)	- (0.00810***)	- (0.00901***)	- (0.0112***)	- (0.0125***)
TO	0.00229** (0.0213)	0.00122 (0.218)	0.00123 (0.228)	0.00145 (0.103)	0.000870 (0.317)	0.00227*** (0.00640)	0.00137 (0.146)	0.00193** (0.0301)
Ethno frac	-0.341 (0.217)	-0.359 (0.196)	-0.497* (0.0707)	-0.695*** (0.00159)	-0.691*** (0.00385)	-0.555** (0.0229)	-0.430* (0.0729)	-0.560** (0.0256)
Polit*Pi	0.0214** (0.0123)	0.0407*** (1.65e-05)	0.0277*** (0.00527)	0.00445*** (0.000661)	0.00688** (0.0278)	0.000202 (0.967)	0.0167*** (0.00800)	-0.00662 (0.493)
RQ	0.133* (0.0509)							
RL		-0.0114 (0.889)						
CC			-0.116 (0.166)					
IR				0.0264*** (0.00571)				
BQ					0.175*** (0)			
Semi pres						0.196*** (0.00314)		
System						-0.0675* (0.0704)		
State							0.0217 (0.801)	
Polariz								0.0355 (0.647)
Constant	-1.059*** (1.07e-09)	-1.088*** (1.55e-09)	-1.055*** (1.04e-08)	-0.895*** (0)	-0.849*** (2.01e-09)	-0.983*** (0)	-0.884*** (2.24e-09)	-0.866*** (4.11e-09)
Observations	473	473	471	721	721	772	657	683
Countries	44	44	44	38	38	41	37	40
R ²	0.4665	0.4501	0.4074	0.3549	0.3783	0.4045	0.3367	0.3473
Institutions turning point	-0.66	-0.78	-0.96	-3.26	-1.92

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk, BQ is bureaucratic quality, System is the form of government, State is political federalism and Polariz is political polarization ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in parentheses are p-values.

6. ROBUSTNESS CHECKS

Many robustness checks were implemented⁸. Results are in appendix 2 (Tables 5, 6, 7, 8, 9, 10 and 11). First, the positive contribution of democracy on FD conditional on the institutional quality was reexamined with alternative measures of FD. Indeed, we consider the individual measures of FD that are previously included in our aggregate index. Second, we construct a second FD index, using the principal component analysis. This index includes, in addition to the three measures which have been used in the main analysis, two other measures: (1) Bank credit / Bank deposits; (2) Central bank assets / GDP. Moreover, to control for omitted variables bias, we augment our regression by the variable foreign direct investment (FDI). Besides, it is interesting to assess to what extent our methodology produces different results, using five-year average of our data. We average our indicator of FD and our explanatory variables over five years so as to reduce the influence of outliers as well as to abstract from business cycle influences. We therefore have five observations per country⁹. Finally, we rescale continuous institutional variables to binary variables and reestimate the regressions. Thus, institutional variables (RQ, RL, CC, IR and BQ) equal 1 if it is a high institutional quality and 0 if else. The group of countries with high quality of institutions includes countries with average institutional indicator greater than the total average; and countries with poor institutions are those with an average indicator lower than the average.

Results show that whatever indicators of FD used the outcome that the positive effects of democracy increases with the level of institutional quality still held. Indeed, the coefficients of the interaction terms of democracy with the various institutions variables remain highly significant. Moreover, the level of democracy positively affects FD in all the specifications. Regarding main effects of the different institutions variables, there are some specifications where some of them lost their significance, but we remind that this study aims to examine the effects of democracy on FD conditioned by the institutional quality rather than the direct effects of institutions on FD. Furthermore, results reveal that the coefficients of the control variables are qualitatively unchanged. Finally, our main results are unchanged when we add more control variables or when we average the data over five periods. Finally, when we use a binary classification of institutions variables, we have the interaction terms of (BQ) and (RQ) that turn out to be significant.

7. CONCLUDING REMARKS

The purpose of this paper is to examine the relationship between democracy and FD. Particularly, it raises the question of whether effects of democracy on FD are influenced by the quality of the institutions. Using a large sample of developed and developing countries over the period 1984-2006 and controlling for the other economic and political institutions, our findings demonstrate that democracy plays a direct important role in stimulating the FD. Besides, we found that the effects of democracy on FD are intensified with levels of economic institutions that exceed some threshold values. Otherwise, democracy will hamper the development of the financial sector. Furthermore, results indicate that the forms of government as well as the political polarization are of a major importance in enhancing the

⁸ We only report results for the whole sample; results for the democratizing sample are the same and are available upon request.

⁹ The fifth observation is the average of the last three years.

effects of democracy on FD. Particularly, parliamentary democracies seem to outperform presidential democracies in boosting the development of the financial sector. In addition, we found that democracy deals much better with ideological diversity between the governing and the other political parties to achieve financial performance.

Furthermore, our findings indicate that economic and political institutions fundamentally matter for incipient democracies. Particularly, in democratic transition countries, democracy needs the strong presence of (RQ), (RL), (CC), (IR) and (BQ) as well as a greater political federalism in order to better enhance the FD. Besides, we found that a presidential form of government is better suited in these countries when democracy is not yet established. Such result may explain the heterogeneity among countries' FD performances during the post-democratization period as evoked by Huang (2010). Thus, we argue that economic and political institutions present good mechanisms that reduce temporary instability and unpredictability and thus permit to diminish the waiting time to take full advantages of democracy.

Our findings have important implications. From a theoretical standpoint, this is part of a larger problem of institutional transplantation, and our study intends to facilitate its understanding. It offers direct support to the development theories of democratic government that emphasize the beneficial aspects of representative institutions. From a policy perspective, our results suggest that beyond the establishment of a democratic government, countries should pay attention to the quality of the institutional environment. Indeed, while the political economy theory of FD holds that democratic systems may spur FD giving that representative governments encourage systems of political checks, protect citizen's individual rights and property rights and reduces the abuse of power by the interest groups; this study suggests that, to take full advantage of a democratic system, countries need to develop their economic and political institutions.

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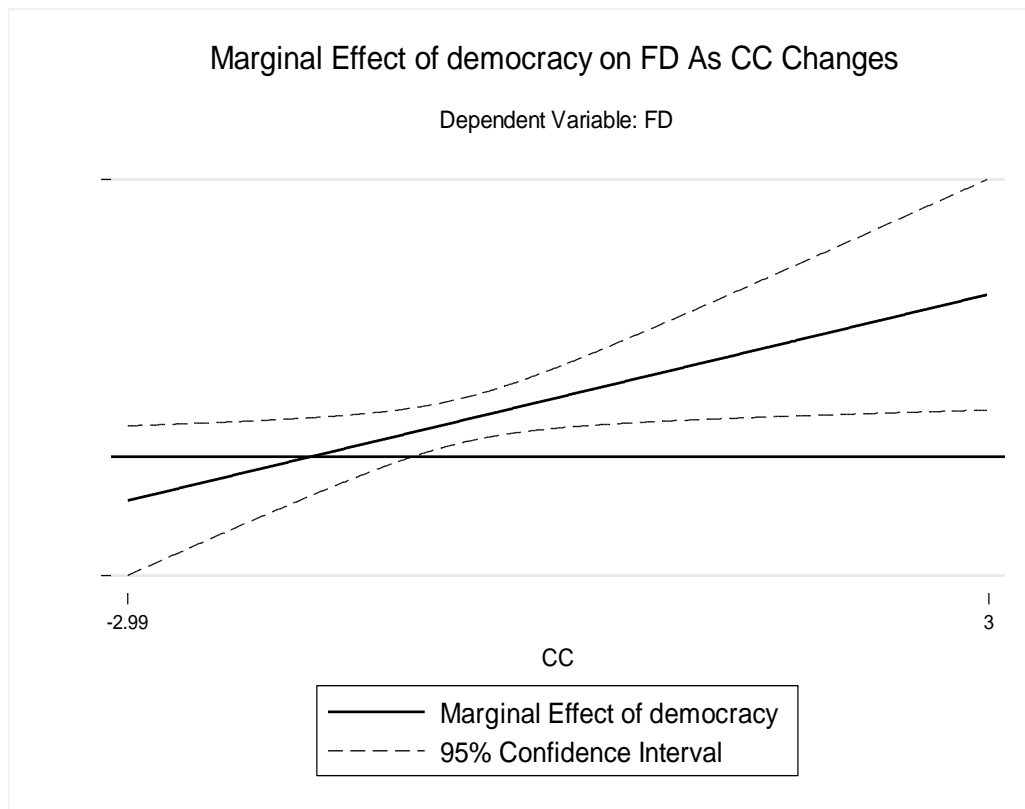
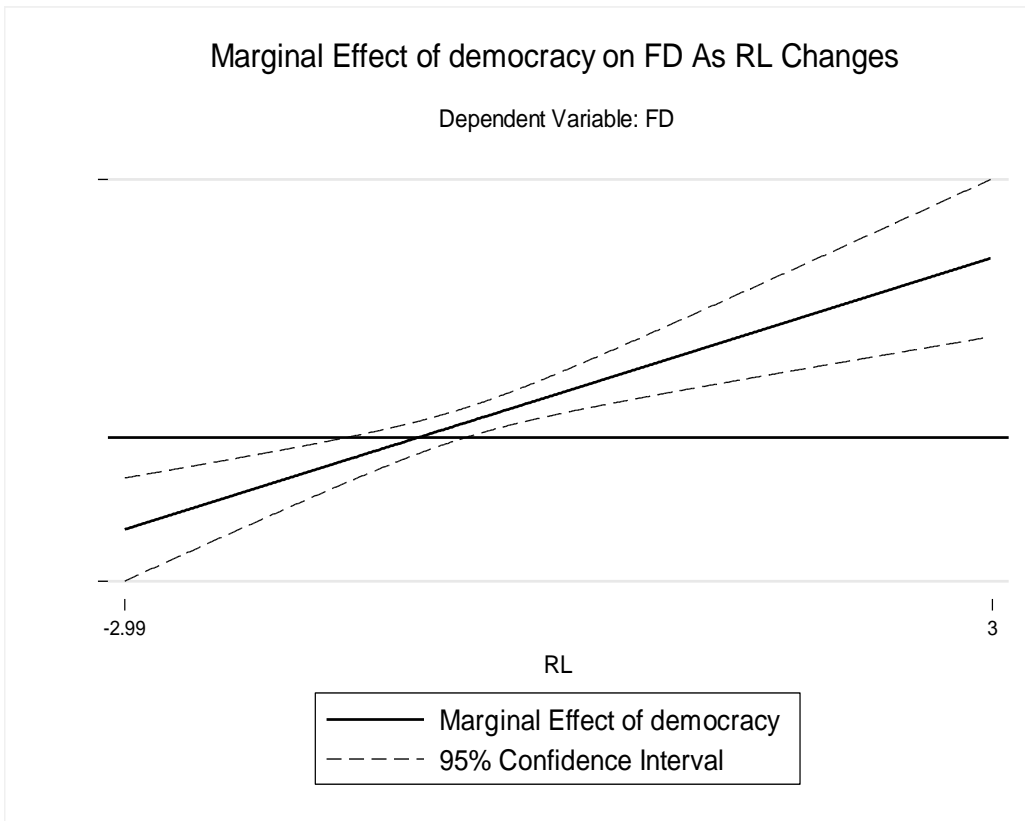
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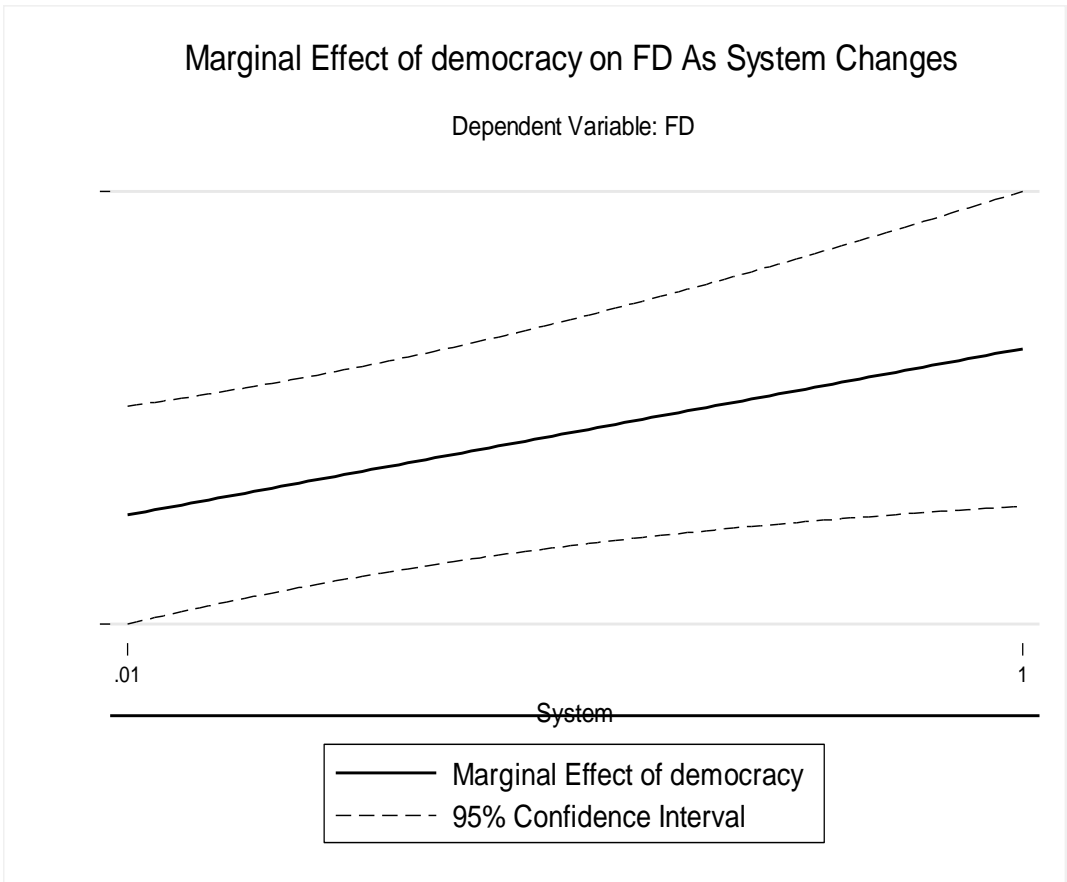
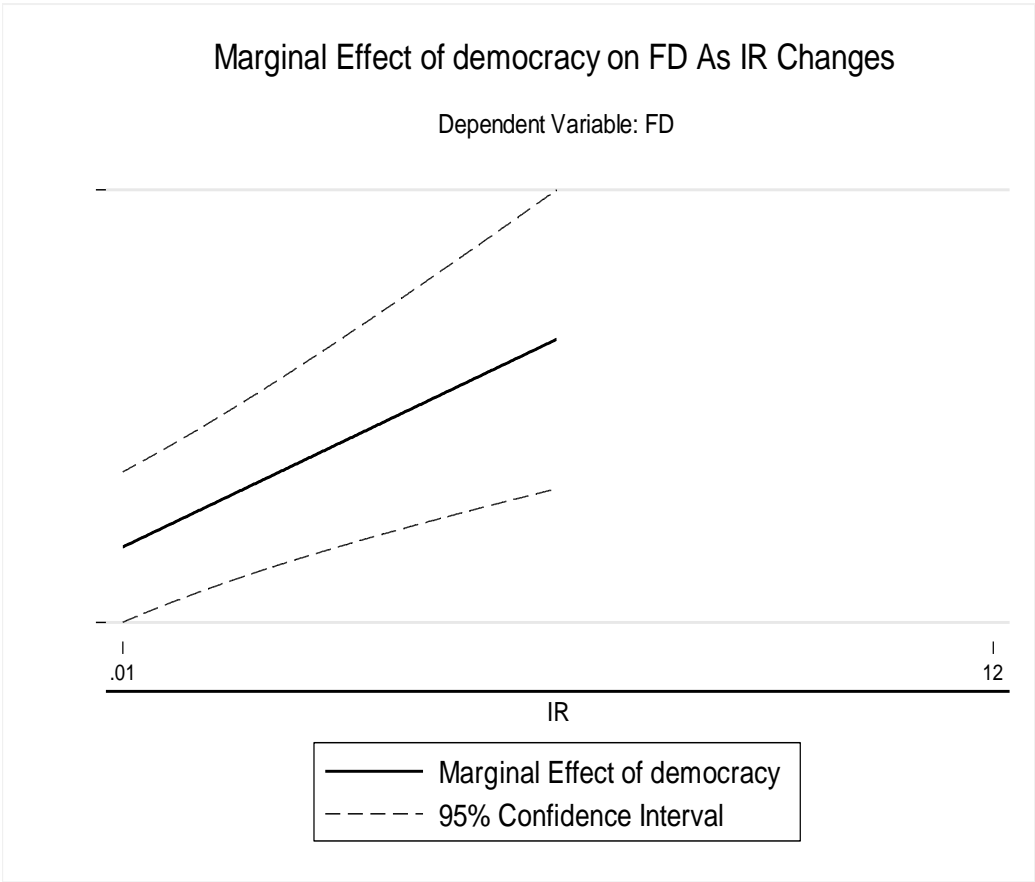
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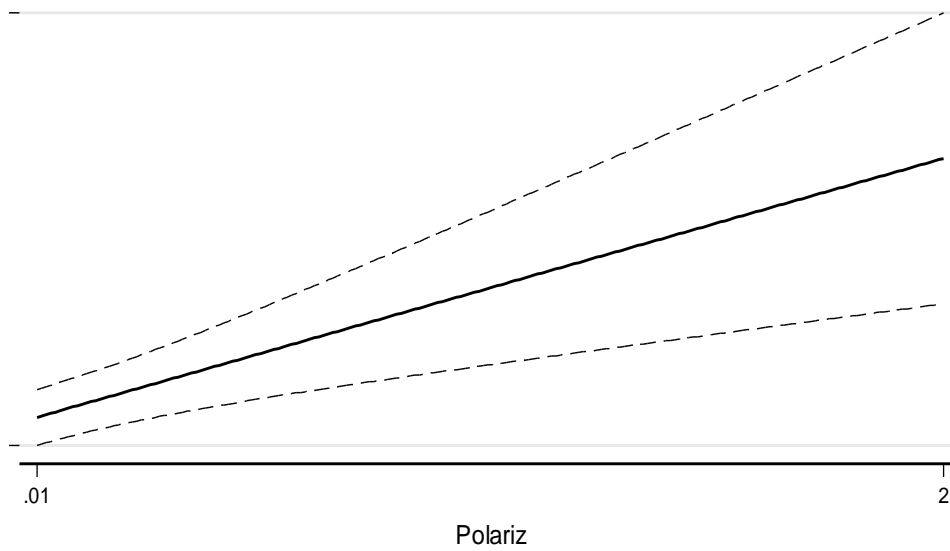
Appendix 1





Marginal Effect of democracy on FD As Polariz Changes

Dependent Variable: FD



— Marginal Effect of democracy
- - - 95% Confidence Interval

Appendix 2

Table 5. Democracy and institutions interaction effects on Private credit to GDP

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Polit	0.457** (0.0113)	0.738*** (0.000438)	0.521** (0.0108)	0.391*** (0.000524)	0.457*** (3.83e-05)	0.379*** (0.000310)	0.412*** (0.00597)	0.402*** (9.64e-05)
RS	0.412*** (0)	0.392*** (0)	0.446*** (0)	0.386*** (0)	0.471*** (0)	0.389*** (0)	0.415*** (0)	0.361*** (0)
KO	3.683*** (7.48e-10)	3.757*** (1.65e-10)	4.113*** (0)	1.287*** (0.000900)	2.479*** (0)	2.920*** (0)	3.147*** (0)	3.280*** (0)
Gov exp	0.490*** (0.00112)	0.496*** (0.000943)	0.554*** (0.000343)	0.291** (0.0162)	0.222* (0.0728)	0.343*** (0.000482)	0.220* (0.0630)	0.400*** (6.57e-05)
Real growth	-0.258*** (0.000231)	-0.233*** (0.000805)	-0.263*** (0.000183)	-0.465*** (9.24e-09)	-0.416*** (4.54e-07)	-0.367*** (1.15e-07)	-0.375*** (2.00e-06)	-0.330*** (1.66e-06)
TO	0.0245 (0.312)	0.0207 (0.390)	0.0116 (0.636)	0.0448** (0.0490)	0.0824*** (0.000316)	0.0794*** (4.64e-05)	0.0867*** (5.88e-05)	0.0338* (0.0996)
Ethno frac	-12.70 (0.148)	-8.769 (0.317)	-19.68** (0.0287)	-28.40*** (0.00194)	-24.29*** (0.00866)	-20.46*** (0.00839)	-20.36** (0.0173)	-21.47*** (0.00619)
RQ	3.980** (0.0174)							
Polit*Pi	0.605*** (0.00206)	1.053*** (9.94e-07)	0.381* (0.0606)	0.166*** (3.42e-08)	-0.000500 (0.998)	0.177 (0.249)	0.0146 (0.941)	0.801*** (0.00204)
RL		4.733** (0.0132)						
CC			-1.825 (0.294)					
IR				0.948*** (0.000226)				
BQ					2.332 (0.129)			
Semi pres						7.829*** (0.000173)		
System						-0.348 (0.781)		
State							-1.374 (0.641)	
Polariz								-6.395*** (0.00470)
Constant	25.43*** (2.12e-06)	23.16*** (2.25e-05)	27.54*** (5.62e-07)	36.02*** (0)	30.54*** (8.09e-10)	25.64*** (2.68e-09)	29.19*** (8.65e-10)	29.65*** (0)
Observations	1,278	1,278	1,276	2,084	2,084	2,314	1,934	2,122
Countries	123	123	123	104	104	117	100	116
R ²	0.5612	0.5867	0.4963	0.4686	0.4978	0.5247	0.5550	0.4870

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk, BQ is bureaucratic quality, System is the form of government, State is political federalism and Polariz is political polarization ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in parentheses are p-values.

Table6. Democracy and institutions interaction effects on Liquid liabilities to GDP

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Polit	0.00449*** (0.000704)	0.00744*** (4.11e-06)	0.00649*** (4.12e-05)	0.00373*** (4.22e-06)	0.00459*** (6.07e-09)	0.00338*** (1.88e-05)	0.00312*** (0.00885)	0.00248*** (0.00130)
RS	0.00223*** (8.13e-10)	0.00224*** (5.28e-10)	0.00238*** (5.71e-11)	0.00286*** (0)	0.00335*** (0)	0.00261*** (0)	0.00265*** (0)	0.00241*** (0)
KO	0.0253*** (4.91e-09)	0.0247*** (8.78e-09)	0.0258*** (1.89e-09)	0.000262 (0.923)	0.00636** (0.0137)	0.0118*** (2.76e-06)	0.0131*** (1.14e-05)	0.0146*** (3.29e-08)
Gov exp	0.00361*** (0.00170)	0.00390*** (0.000642)	0.00422*** (0.000297)	0.00319*** (0.00104)	0.00255*** (0.00945)	0.00222*** (0.00466)	0.00145 (0.163)	0.00188** (0.0189)
Real growth	- 0.00275*** (1.38e-06)	- 0.00255*** (8.67e-06)	- 0.00272*** (1.66e-06)	- 0.00415*** (0)	- 0.00386*** (3.41e-10)	- 0.00365*** (0)	- 0.00319*** (1.12e-06)	- 0.00339*** (7.48e-10)
TO	0.00154*** (0)	0.00153*** (0)	0.00148*** (0)	0.00127*** (0)	0.00153*** (0)	0.00130*** (0)	0.00145*** (0)	0.00107*** (0)
Ethno frac	-0.135 (0.101)	-0.0988 (0.203)	-0.150* (0.0663)	-0.238*** (0.00330)	-0.210** (0.0105)	-0.197*** (0.00557)	-0.195** (0.0261)	-0.206*** (0.00587)
RQ	0.0184 (0.162)							
Polit*Pi	0.000716 (0.639)	0.00542*** (0.00126)	0.00272* (0.0899)	0.000406** (0.0477)	-9.46e-05 (0.949)	0.00193* (0.0739)	0.000375 (0.816)	0.00454** (0.0227)
RL		0.00736 (0.629)						
CC			-0.0201 (0.144)					
IR				0.00743*** (2.66e-05)				
BQ					0.0163 (0.115)			
Semi pres						-0.000954 (0.955)		
System						-0.0237*** (0.00797)		
State							0.0144 (0.551)	
Polariz								-0.0370** (0.0340)
Constant	0.267*** (1.06e-08)	0.225*** (8.64e-07)	0.249*** (8.64e-08)	0.337*** (0)	0.301*** (0)	0.327*** (0)	0.322*** (0)	0.347*** (0)
Observations	1,148	1,148	1,146	1,867	1,867	2,075	1,753	1,902
Countries	111	111	111	94	94	106	92	104
R ²	0.3979	0.4161	0.3764	0.3505	0.3641	0.3479	0.3599	0.3226

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk, BQ is bureaucratic quality, System is the form of government, State is political federalism and Polariz is political polarization ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in parentheses are p-values.

Table 7. Democracy and institutions interaction effects on deposit money bank assets to GDP

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Polit	0.00520*** (0.00437)	0.00907*** (2.75e-05)	0.00742*** (0.000544)	0.00399*** (0.000408)	0.00499*** (5.29e-06)	0.00348*** (0.00108)	0.00423*** (0.00555)	0.00268** (0.0101)
RS	0.00286*** (3.43e-09)	0.00254*** (9.28e-08)	0.00310*** (1.80e-10)	0.00422*** (0)	0.00482*** (0)	0.00389*** (0)	0.00352*** (0)	0.00354*** (0)
KO	0.0353*** (1.54e-09)	0.0335*** (4.10e-09)	0.0374*** (1.11e-10)	0.0197*** (1.17e-07)	0.0271*** (0)	0.0323*** (0)	0.0331*** (0)	0.0343*** (0)
Gov exp	0.00480*** (0.00247)	0.00483*** (0.00191)	0.00543*** (0.000764)	0.00634*** (2.59e-06)	0.00560*** (3.67e-05)	0.00517*** (8.46e-07)	0.00380*** (0.00438)	0.00566*** (1.43e-07)
Real growth	- 0.00414*** (2.21e-07)	- 0.00374*** (2.20e-06)	- 0.00419*** (1.68e-07)	- 0.0061*** (0)	- 0.00582*** (0)	- 0.00492*** (0)	- 0.00521*** (6.56e-10)	- 0.00464*** (4.69e-10)
TO	0.000496** (0.0497)	0.000527** (0.0324)	0.000392 (0.121)	0.000580** (0.0146)	0.000890*** (0.000146)	0.000807*** (3.91e-05)	0.00101*** (5.81e-06)	0.000529** (0.0114)
Ethno frac	-0.214** (0.0216)	-0.128 (0.152)	-0.248*** (0.00829)	-0.299*** (0.00395)	-0.265** (0.0114)	-0.233*** (0.00894)	-0.263** (0.0104)	-0.239*** (0.00912)
RQ	0.0432** (0.0170)							
Polit*Pi	0.00220 (0.294)	0.0101*** (7.17e-06)	0.00357* (0.0975)	0.000526* (0.0649)	0.000286 (0.889)	0.00272* (0.0610)	-0.000576 (0.780)	0.00969*** (0.000312)
RL		0.0622*** (0.00241)						
CC			-0.0140 (0.462)					
IR				0.00870*** (0.000420)				
BQ					0.0210 (0.143)			
Semi pres						0.0696*** (0.00223)		
System						-0.00692 (0.563)		
State							0.0122 (0.689)	
Polariz								-0.0595** (0.0116)
Constant	0.356*** (2.99e-10)	0.297*** (1.01e-07)	0.349*** (1.06e-09)	0.350*** (1.67e-10)	0.306*** (2.39e-08)	0.292*** (6.12e-10)	0.340*** (2.82e-10)	0.318*** (0)
Observations	1,165	1,165	1,163	1,892	1,892	2,100	1,757	1,922
Countries	112	112	112	95	95	107	92	105
R ²	0.5131	0.5776	0.4604	0.4044	0.4191	0.4503	0.4592	0.4048

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk, BQ is bureaucratic quality, System is the form of government, State is political federalism and Polariz is political polarization ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in parentheses are p-values.

Table 8. Democracy and institutions interaction effects (new aggregate index)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Polit	0.0191*** (0.00879)	0.0323*** (0.000186)	0.0326*** (0.000169)	0.0141*** (0.00196)	0.0180*** (5.76e-05)	0.0135*** (0.00216)	0.0186*** (0.00445)	0.0123*** (0.00397)
RS	0.0152*** (0)	0.0144*** (0)	0.0162*** (0)	0.0170*** (0)	0.0193*** (0)	0.0168*** (0)	0.0171*** (0)	0.0149*** (0)
KO	0.172*** (0)	0.169*** (0)	0.181*** (0)	0.0830*** (5.24e-08)	0.110*** (0)	0.146*** (0)	0.171*** (0)	0.158*** (0)
Gov exp	0.0284*** (1.21e-05)	0.0292*** (5.97e-06)	0.0309*** (3.81e-06)	0.0242*** (1.33e-05)	0.0213*** (0.000162)	0.0256*** (9.26e-09)	0.0170*** (0.00377)	0.0266*** (4.11e-09)
Real growth	- 0.0148*** (3.02e-06)	- 0.0136*** (1.71e-05)	- 0.0149*** (2.86e-06)	- 0.0227*** (5.46e-11)	- 0.0202*** (7.92e-09)	- 0.0203*** (0)	- 0.0202*** (4.94e-08)	- 0.0194*** (3.29e-10)
TO	0.00239** (0.0214)	0.00248** (0.0155)	0.00189* (0.0707)	0.00312*** (0.00158)	0.00476*** (1.35e-06)	0.00391*** (2.47e-06)	0.00463*** (2.41e-06)	0.00186** (0.0361)
Ethno frac	-0.701* (0.0633)	-0.469 (0.197)	-0.818** (0.0332)	-1.357*** (0.00106)	-1.218*** (0.00354)	-0.955*** (0.00685)	-0.987** (0.0208)	-0.995*** (0.00767)
RQ	0.262*** (0.000335)							
Polit*Pi	0.00798 (0.346)	0.0330*** (0.000231)	0.0203** (0.0209)	0.00321*** (0.00677)	0.000221 (0.958)	0.0135** (0.0245)	0.00609 (0.497)	0.0411*** (0.000170)
RL		0.269*** (0.00105)						
CC			-0.0250 (0.745)					
IR				0.0490*** (1.48e-06)				
BQ					0.103*** (0.000394)			
Semi pres						0.339*** (0.000272)		
System						-0.0510 (0.300)		
State							-0.180 (0.168)	
Polariz								-0.265*** (0.00574)
Constant	-0.812*** (0.000410)	-0.994*** (1.29e-05)	-0.881*** (0.000166)	-0.517** (0.0195)	-0.719*** (0.00121)	-0.888*** (3.18e-06)	-0.595*** (0.00895)	-0.683*** (0.000526)
Observations	1,092	1,092	1,090	1,781	1,781	1,973	1,679	1,810
Countries	110	110	110	94	94	106	92	104
R ²	0.5857	0.6155	0.5416	0.4776	0.4998	0.5298	0.5232	0.4823

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk, BQ is bureaucratic quality, System is the form of government, State is political federalism and Polariz is political polarization ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in parentheses are p-values.

Table 9. Democracy and institutions interaction effects (FDI control variable)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Polit	0.0164*** (0.00877)	0.0298*** (7.25e-05)	0.0283*** (0.000165)	0.0156*** (5.02e-05)	0.0191*** (4.43e-07)	0.0135*** (0.000270)	0.0186*** (0.00113)	0.0131*** (0.000312)
RS	0.0149*** (0)	0.0143*** (0)	0.0159*** (0)	0.0137*** (0)	0.0168*** (0)	0.0145*** (0)	0.0149*** (0)	0.0134*** (0)
KO	0.127*** (6.42e-10)	0.124*** (7.03e-10)	0.131*** (1.49e-10)	0.0312** (0.0146)	0.0654*** (1.91e-07)	0.0910*** (0)	0.102*** (0)	0.103*** (0)
Gov exp	0.0187*** (0.000817)	0.0196*** (0.000418)	0.0209*** (0.000248)	0.0200*** (1.56e-05)	0.0171*** (0.000306)	0.0152*** (4.36e-05)	0.0112** (0.0235)	0.0163*** (1.79e-05)
Real growth	-0.0146*** (6.86e-08)	-0.0135*** (6.81e-07)	-0.0147*** (6.77e-08)	-0.0213*** (0)	-0.0201*** (0)	-0.0177*** (0)	-0.0183*** (3.92e-09)	-0.0165*** (1.50e-10)
TO	0.00321*** (0.000442)	0.00325*** (0.000283)	0.00270*** (0.00317)	0.00382*** (2.46e-06)	0.00521*** (1.81e-10)	0.00457*** (1.18e-10)	0.00491*** (3.63e-09)	0.00315*** (3.40e-05)
Ethno frac	-0.649* (0.0611)	-0.430 (0.192)	-0.756** (0.0296)	-1.221*** (0.00101)	-1.060*** (0.00435)	-0.883*** (0.00493)	-0.926** (0.0161)	-0.920*** (0.00563)
FDI	-0.00186 (0.395)	-0.00203 (0.351)	-0.000991 (0.652)	0.00354 (0.413)	0.00737* (0.0922)	-0.00128 (0.590)	0.00341 (0.374)	-0.00106 (0.658)
RQ	0.170*** (0.00708)							
Polit*Pi	0.00685 (0.348)	0.0307*** (8.32e-05)	0.0175** (0.0217)	0.00432*** (1.36e-05)	-58.967 (0.281)	0.0150*** (0.00322)	0.00130 (0.865)	0.0363*** (6.31e-05)
RL		0.170** (0.0173)						
CC			-0.0736 (0.267)					
IR				0.0325*** (0.000166)				
BQ					0.0807* (0.0816)			
Semi pres						0.143* (0.0709)		
System						-0.0800* (0.0621)		
State							-0.0634 (0.567)	
Polariz								-0.260*** (0.00110)
Constant	-0.817*** (7.29e-05)	-1.003*** (7.68e-07)	-0.879*** (2.31e-05)	-0.577*** (0.00309)	-0.793*** (4.74e-05)	-0.820*** (9.22e-07)	-0.661*** (0.00100)	-0.703*** (5.02e-05)
Observations	1,123	1,123	1,121	1,808	1,808	1,981	1,687	1,811
Countries	110	110	110	94	94	106	92	104
R ²	0.5599	0.5947	0.5165	0.4536	0.4784	0.5055	0.4899	0.4589

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk, BQ is bureaucratic quality, System is the form of government, State is political federalism and Polariz is political polarization ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in parentheses are p-values.

Table 10. Democracy and institutions interaction effects (averaged data)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Polit	0.0239*** (4.51e-05)	0.0413*** (1.19e-08)	0.0415*** (1.14e-08)	0.00948** (0.0100)	0.0188*** (1.42e-07)	0.0149*** (1.97e-05)	0.0167*** (0.00181)	0.0134*** (0.000155)
RS	0.0180*** (0)	0.0174*** (0)	0.0192*** (0)	0.0133*** (0)	0.0185*** (0)	0.0151*** (0)	0.0156*** (0)	0.0143*** (0)
KO	0.125*** (0)	0.119*** (0)	0.125*** (0)	0.0223* (0.0658)	0.0802*** (0)	0.102*** (0)	0.122*** (0)	0.113*** (0)
Gov exp	0.0145*** (0.00147)	0.0159*** (0.000482)	0.0184*** (8.13e-05)	0.0117*** (0.00452)	0.00631 (0.140)	0.00958*** (0.00771)	0.00181 (0.692)	0.00915** (0.0142)
Real growth	-0.0245*** (1.96e-07)	-0.0222*** (1.25e-06)	-0.0233*** (3.36e-07)	-0.0443*** (0)	-0.0357*** (0)	-0.0394*** (0)	-0.0321*** (4.30e-10)	-0.0384*** (0)
TO	0.00425*** (4.34e-07)	0.00439*** (9.32e-08)	0.00378*** (6.55e-06)	0.00430*** (6.84e-08)	0.00677*** (0)	0.00638*** (0)	0.00658*** (0)	0.00493*** (4.82e-10)
Ethno frac	-0.586* (0.0871)	-0.341 (0.291)	-0.762** (0.0255)	-1.317*** (0.000317)	-1.024*** (0.00510)	-0.861*** (0.00547)	-0.941** (0.0138)	-0.903*** (0.00543)
RQ	0.125** (0.0399)							
Polit*Pi	0.00529 (0.463)	0.0336*** (1.63e-05)	0.0217*** (0.00430)	0.00333*** (0.000557)	-19.762 (0.745)	0.0145*** (0.00292)	0.000802 (0.909)	0.0318*** (2.12e-05)
RL		0.104 (0.140)						
CC			-0.220*** (0.000963)					
IR				0.0706*** (0)				
BQ					-602.961 (0.198)			
Semi pres						0.178*** (0.00481)		
System						-0.0888** (0.0150)		
State							-0.0790 (0.438)	
Polariz								-0.231*** (0.000323)
Constant	-0.963*** (6.25e-07)	-1.216*** (1.30e-10)	-1.078*** (2.58e-08)	-0.338* (0.0723)	-0.740*** (7.79e-05)	-0.833*** (3.00e-07)	-0.602*** (0.00202)	-0.690*** (4.47e-05)
Observations	1,399	1,399	1,399	1,960	1,961	2,176	1,833	1,990
Countries	110	110	110	94	94	106	92	105
R ²	0.5385	0.5731	0.4767	0.4290	0.4331	0.4969	0.4742	0.4550

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk, BQ is bureaucratic quality, System is the form of government, State is political federalism and Polariz is political polarization ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in parentheses are p-values.

Table 11. Democracy and institutions interaction effects (Binary institutions variables)

	(1)	(2)	(3)	(4)	(5)
Polit	0.00591 (0.109)	0.00806** (0.0195)	0.0114*** (0.000950)	0.0100** (0.0185)	0.00931** (0.0177)
RS	0.0128*** (0)	0.0130*** (0)	0.0129*** (0)	0.0139*** (0)	0.0138*** (0)
KO	0.0870*** (0)	0.0864*** (0)	0.0905*** (0)	0.0917*** (0)	0.0918*** (0)
Gov exp	0.0157*** (4.58e-06)	0.0134*** (8.63e-05)	0.0134*** (9.79e-05)	0.0141*** (4.34e-05)	0.0141*** (4.68e-05)
Real growth	-0.0164*** (0)	-0.0163*** (0)	-0.0167*** (0)	-0.0166*** (0)	-0.0167*** (0)
TO	0.00506*** (0)	0.00482*** (0)	0.00488*** (0)	0.00474*** (0)	0.00482*** (0)
Ethno frac	-0.294 (0.379)	-0.280 (0.383)	-0.353 (0.268)	-0.704** (0.0293)	-0.761** (0.0128)
RQ	0.922*** (8.90e-06)				
RL		0.934*** (5.68e-06)			
CC			1.059*** (4.21e-07)		
IR				0.596*** (0.00231)	
BQ					0.570*** (0.00212)
Polit*P _i	0.0320*** (4.87e-06)	0.0413*** (3.94e-07)	0.0197** (0.0177)	0.0125** (0.0363)	0.0179*** (0.00373)
Constant	-1.515*** (0)	-1.459*** (0)	-1.385*** (0)	-1.218*** (3.30e-09)	-1.200*** (5.27e-10)
Observations	2,162	2,162	2,162	2,162	2,162
Countries	112	112	112	112	112
R ²	0.5524	0.5636	0.5660	0.4990	0.5104

Where Polit is the democracy variable, KO is capital openness index, RS is regime stability, Gov exp is government final consumption expenditure divided by GDP, real growth is GDP real growth on annual basis, TO is trade openness, Ethno frac is the index of ethnolinguistic fractionalization, RQ is regulatory quality, RL is rule law, CC is control of corruption, IR is investment climate risk and BQ is bureaucratic quality ***, **and * indicate significance at 1%, 5%, and 10% levels. Values in paren