Hindering Democratic Progress:
The impact of banking crises in developed countries on democratic institutionalization in the developing world.

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Introduction:

We know that wealth and democracy are strongly correlated, but we know much less about how exactly the economy affects democratization. This article explores in depth how economic crises affect the process of democratization, and tests the effects of the banking crisis of 2008 on the levels of accountability and rule of law in new democracies and hybrid regimes. To date the relationship between economic crises and democracy has been mostly analyzed in the context of either democratic breakdown or democratic transition. We are testing a more direct effect of the economic downturn on the ability to hold leaders accountable, and on the potential fall from democratic rule of law to authoritarian practices within democratizing regimes. Additionally, unlike studies that look at the indirect effect of economic crises on the legitimacy of regimes, we look at the potential *straight effect* that authoritarian practices produce for both accountability and rule of law components during these crises.

The relationship between economic downturns and democratization has been analyzed along two dimensions. First scholars looked at the effect of economic crises on democratic breakdown, and, second on democratic transition. However, they do not explore the middle ground version, when there is no regime change, but only a temporary switch towards authoritarian practices as the crises unfold. The debate started with O'Donnell's hypothesis (1973) that the breakdown of democratic and semi-democratic regimes of Argentina and Brazil came as a consequence of the impossibility of inclusionary regimes to carry out the painful measures for the Import Substitution Industrialization (ISI). This hypothesis assumes that exclusionary authoritarian regimes are needed to carry out the difficult measures of the ISI (O'Donnell 1973; Gasiorowski 1995). Scholars have also pointed to economic development as a potential trigger for democratic breakdown (Crowther 1986; Im 1987; Kaufman 1979; Kurth

1979; Gasiorowski 1995) especially in the intermediate stages of development, when middle and lower classes have rights but have low living standards (Chirot 1977; Gasiorowski 1995).

Breakdowns of democratic regimes also happen when incumbent governments cannot solve critical issues; these develop into legitimacy crises that cause disloyal and semi-loyal actors to destroy the democratic regime (Linz 1978; Remmer 1991; Gasiorowski 1995). The loss of legitimacy for the authoritarian regimes can also lead to transition to democracy (Epstein 1984; Richards 1986; Markoff and Baretta 1990). Citizens prove more sophisticated than expected. In places where democratic 'goods' are scarce, especially following an authoritarian rule, elected leaders may enjoy more popular support than in established democracies (Hirshman 1987, 28; Kuczynski 1988, 147; Remmer 1991, 787). Economic hardship may be interpreted as strengthening the viability of democratic institutions in countries with a short history of respect for competitive norms (Remmer 1991, 788). For instance, following the economic crisis of 2001 in Latin America, citizens' dissatisfaction with market policies decreased, while support for democracy as a system of government increased (Carol and Sunthtankar 2004).

The literature on the topic focuses on case studies. However, in one of the few cross-national analyses, Gasiorowki's shows that it is possible for economic crises to have a timing effect (1995). Using event history analysis, Gasiorowki found that inflationary crises inhibited democratization from the 1950s to the early 1970s, and facilitated democratization in the late 1980s. Same analysis shows that recessionary crises facilitated democratic breakdown throughout the period and had no effect on the democratic transition.

In regards to the policy responses to introduce stabilization programs after the economic downturn, it appears that democratic regimes are not less likely to introduce them than are authoritarian regimes. Similarly, democratic regimes are no more likely to break down in

response to political costs induced by crises than authoritarian regimes, and both are equally likely to execute austerity measures (Remmer 1991). A more nuanced analysis shows that the relationship between economic downturns and democracy is less a matter of democratic versus authoritarian regimes and more about the number of veto players. Thus, an intermediary number of veto players are more likely to be associated with beneficial policy responses post crises events. This is determined by the need for decisive policy intervention in order to minimize the crises' adverse effects. A small number of players can lead to volatile policy since other actors cannot veto policy reversal, while too many players can lead to deadlock (MacIntyre 2001; Angkinand and Willet 2008).

This article covers a gap in the relationship between economic downturns and democratization. Instead of exploring regime breakdown or transitions, we look specifically at mechanisms of accountability and rule of law within regimes. We observe that democratizing countries harbor authoritarian practices even after introducing free and fair elections. Procedural democracies do not guarantee normative democratic practices (see Russia). We look at the governance effects between elections in democratizing countries experiencing economic downturns.

The Crisis and the Mechanisms of Transmission

In a globally interconnected market economy, there are frequent cases of "economic crises." In this paper, we focus on *financial crises*, which falls under the umbrella concept of economic crises. The world economy has witnessed 124 systemic financial crises since 1970. The most recent one that started in 2008 has reduced the value of the global stock markets by US $25 trillion (Leaven and Valencia 2008; Naude 2009). There are three broad types of financial

crises that can potentially cripple or at least stagnate the economic performance of a country.

The first type of crisis is a sovereign debt crisis; a country is in sovereign debt crisis if it is classified as being in default by Standard & Poor's, or if it "has access to a non-concessional IMF financing in excess of 100 percent of quota" (Laeven and Valencia, 6; Manasse and Roubini 2005, 4). A currency crisis is defined as "a nominal depreciation of the currency of at least 30% that is also at least a 10% increase in the rate of depreciation compared to the year before" (Laeven and Valencia 2008, 6). And lastly, a systemic banking crisis is identified when "a country's corporate and financial sectors experience a large number of defaults and financial institutions and corporations face great difficulties repaying contracts on time" (Laeven and Valencia 2008, 5). A banking crisis becomes problematic when it has a negative effect on the banking system at large.

In this article we focus on the 2008 systemic banking crisis that originated in the United States and spread first to other developed countries in Western Europe, and then to the developing and underdeveloped world. The crisis spreads through three channels: first, through banking failures and reductions in lending; second, through reductions in export earnings; third, through reductions in financial flows to developing countries (Yifu Lin 2008; Griffin-Jones and Ocampo 2009; Naude 2009, 4). This prompts firm government intervention in order to save the banking sector and spark production. Therefore, we are concerned with the indirect effects of the current crisis on various economic indicators of the developing country's economic structure, such as domestic credit lending by banks, exportation earnings, annual GDP growth rates, unemployment, and inflows of foreign capital, under the assumption that these will have an impact on the institutional functioning of democratizing countries.

Thus, the focus of the article is *to examine the effects of banking crises in developed*

countries on the financial system in developing countries, and to explore the potential impact of this effect on the democratic institutions of accountability and rule of law. We draw a portion of our theoretical underpinnings from Naude (2009) and Griffith-Jones and Ocampo's (2009) arguments regarding the effects of economic crises in developed countries on the economies of developing countries. Griffith-Jones and Ocampo (2009) claim that it is the transmission mechanisms (specifically, we focus on the inflow of capital and the volume of trade with regards to developing countries), which illustrate how economic crises in developed countries impact developing countries' economies (Naude 2009, 5-9). Naude argues that the type of crisis that occurred in the U.S. in 2007, a banking crisis, has certain effects on the banking sector and other sectors of the economies of developing countries.

Naude claims that declines in stock market prices and housing prices in developed countries reduce the amount of capital held in banks in developing countries (Naude 2009, 4). This in turn leads to a potential decline in capital held by the banks in developing countries, (which lead to decreased lending and investment in the internal economy), to lower growth, and increased unemployment (Naude 2009, 4). Since demand is reduced, economic growth decreases even more, which leads to less government revenue (Naude 2009, 5). The fall in government profits limits the fiscal space to develop counter-cyclical policies, as well as limits the expansion of social spending to protect disadvantaged groups in the society (Cali and Kennan 2009).

The trade mechanism of transmission is manifested through the decline in exports, the increase in protectionism, and a high dependency on imported inputs (Ernst 1999; Griffith Jones and Ocampo 2009; Naude 2009; Cali and Kennan 2009). Developing and less developed countries depend on exports for their revenue. The decline in demand from more advanced economies leads to a fall in commodity prices and tourism. A majority of developing countries

rely on export earnings as their main means of economic growth and development (Naude 2009). The crisis leads to a reduction in imports from the developing countries and increases the costs of the exports, reducing competitiveness (Cali and Kennan 2009). At the same time, the sourcing of inputs for manufactured exports can be considerably limited by depreciated currencies and restrictive trade finance conditions (Ernst 1999).

The reduction in financial flows is the third mechanism of transmission of the banking crisis, causing a decline in official development assistance, investment flows, portfolio and foreign direct investment, trade credits and flows of remittances. Additionally, private investments to emerging economies decrease, as a result of risk-adverse investors transferring their funds to 'safer' markets. Reduced portfolio flows have a negative effect on government borrowing. The costs of sovereign bonds and commercial debt increase dramatically (Naude 2009, 6). Consequently, we expect that there will be a decline in inflows of foreign capital into developing countries when systemic banking crises occur.

These mechanisms of transmission explain half of the story. We have established that banking crises in developed countries have a negative impact on the economies of developing countries. However, in this article, we are concerned more with the effects that the economic decline has on developing countries' ability to further democratize. Our project differs from previous research in that we are focusing on two specific aspects critical to the process of democratization: *the ability to hold a country's leaders accountable and the maintenance of the rule of law*.

We argue that these two features of democracy - *accountability and the maintenance of rule of law* - are critical. Theoretically, it is accountability that prevents regime leaders from abusing their powers for fear of being removed from office. Rule of law, or the stability of democratic

laws, is critical for democracy because a predictable application of laws prevents government from reverting back to oppressing citizens. Therefore, if we see a decline in adherence to democratic rule of law, then we are inclined to note this as a weakening in democratic governance. The following section explores more in depth the relationship between democratization and systemic banking crises.

Theoretical Considerations: Prospects for Democratization (the Institutional Effect)

After reviewing the typology of economic crises and mechanisms of transmission, we analyze our hypothesized effects of the banking crises on democratic institutions of accountability and rule of law. We theoretically know the difference between a democracy and an authoritarian regime by the procedural introduction of free and fair elections. However, between elections, the principles of democracies manifest themselves through the ability of people to hold leaders accountable for their actions through the practices of freedom of speech, association, protest, and bringing to justice politicians that have overstepped their mandate and acted outside of the legal boundaries.

Economic crises offer space for politicians to abuse their powers at the expense of citizens, acting in ways that favor themselves and specific interest groups. Faced with a systemic crisis, governments, regardless of the nature of the regulatory apparatus, have the responsibility to intervene to protect the banking system by introducing counter-cyclical measures and social nets post-crisis events. The means to recover from an economic downturn has, in all cases, been substantial government spending to protect banks, spike growth, and cut unemployment, under the circumstances of falling government revenue. In accountable polities the expectation is that these decisions will be made only with the interest to keep the economy

stable and prevent collapse.

However, in less-accountable new democracies and hybrid regimes unorthodox decisions are justified based on the urgency of the situation. The panic created leaves room for politicians to pursue their personal interests, and break the rules and regulations in place. Corruption plays a detrimental indirect effect redirecting bailout money towards non-performing banks and industries. Voted politicians use their power to first save actors that may suit their interest, and this takes place in a manner that lacks transparency and consent of the people. Second, voted politicians spark growth through programs drafted arbitrarily by policy makers. The positive consequence is post-crisis stability. Though in most cases, it is also an unhealthy stability, based on artificial intervention without economic justification. The indirect negative consequences are the damages to the rule of law, accountability, and voice of the people. We explore how these versions of the Keynesian approach can influence the functioning of the democratic institutions of accountability and rule of law in the affected countries. The contribution we make is an analysis of the impact of the crisis on democratic institutions, rather than for the support for democracy, which we find custom in the literature.

The accountability component of democratic institutions is directly affected by economic downturns through temporary silencing of the public. Nontransparent transactions performed under time pressure justify this lack of consultation with representative bodies of the democratic polity, including the congress, parliament, and state politicians. In this process the voice of the people through their respective representatives is not heard. The votes of no confidence in parliaments are postponed until further information on the economic policies and their possible effects is released. A de facto temporary suspension of the democratic institution of accountability takes place under the justified need to act fast to save the economy.

One key element here is the 'no-confidence vote[1].' Assuming that elections are not an immediate option, people can hardly have a direct response to hold their leaders accountable. Thus, if the democratizing country *is equipped with this tool*, then the no-confidence vote becomes the primary channel for accountability. In a consolidated or mature democracy this practice would lead to the replacement of abusive politicians and a change in their policies. However, in moments of crises, this democratic path becomes blocked. There are several means to manipulate the no-confidence vote tool. The no confidence votes are either postponed 'until the crisis passes,' they do not pass due to intimidation of party members (a type of party whip[2]) or they do pass only to form the same exact government. This practice taps into both the accountability and the rule of law components. It hurts accountability through lack of input from elected representatives and their ability to change the abusive politicians. Additionally, it hurts one crucial rule of law component, the separation of powers.

The rule of law is the most specific democratic component that is affected during economic crises. The 'rule of law' means that under no circumstances is the government, or any politician, allowed to make decisions outside of their entrusted powers and the law. However, under the same premise of temporary suspension of citizen involvement, during economic downturns, politicians do exactly that. As outlined above, the first mechanism that is overlooked is the separation of powers. Top politicians proceed with the bailout programs and force stimuli programs that may or may not be justified on sound economic reasoning. This is done without input from the representative branch, tampering with the checks and balances mechanism. On the other hand, due to the strong justification for the rapid intervention, the ability of the legal

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[1] Known as motion of no confidence, censure motion, or no-confidence motion, this is a parliamentary vote, whose positive passing signals to the head of state that the representative parliament no longer trusts the government (partially or in its entirety). The options then for the head of state are either to name a new prime minister to form a government or to dissolve the parliament and hold elections.
[2] A mechanism to ensure party discipline in the legislature.

system to bring to justice abusive politicians is halted. Saving the economy becomes a justified reason to overlook the law, a clear sign of reverting to non-democratic practices during economic downturns.

Besides the immediate effects, during the crises, the effects on the accountability and rule of law mechanisms can prevail for a while, post crisis. For instance, in case of economic stabilization (be it temporary) the beneficiaries of the bailouts and governmental interventions may never be held accountable or brought to justice to re-establish a democratic balance. In light of these assumptions, we theorize first, that financial crises have a negative impact on the institutional accountability in democratizing countries, and second, that financial crises have a negative impact on the rule of law in democratizing countries.

In the following sections, we present the choice of measures, data, and methods to test our hypotheses, present the results for two models, and we conclude with a discussion of the possible ability of the citizens in democratizing countries to actually recognize the political abuse and their attempt to hold the politicians responsible for their actions.

Data and Methodology

In order to examine the indirect effects of banking crises on the process of democratization, we draw our sample of countries from *The Economist Intelligence Unit's Index of Democracy 2006* database (EIU).[3] Although there are four categories for regime-type, we focus on the middle two categories: flawed democracies and hybrid regimes. The logic behind this choice is based on the research agenda, which is to explore the effects of the recent banking crisis on democratization. Therefore, we are less concerned with countries that are full democracies or full authoritarian regimes because they are not in a relative state of transition or

[3] See Appendix A, Dataset Descriptions, Section 1.

instability. We expect a case of financial crisis to be more detrimental to democratic institutions in countries that have higher levels of governing instability. Our dataset includes 81countries, covering the time period from 2002 to 2010, with the unit of analysis being *country-years*.

To test the set hypotheses we use measures from the World Bank's *World Development Indicators (WDI)* and *Worldwide Governance Indicators (WGI)*. We are concerned with examining the effects of banking crises on regimes that are not full democracies or full autocracies. In order to determine how to place countries into the middle two categories we used the WGI definition of governance as the definition for democracy. WGI defines governance as "consisting of the traditions and institutions by which authority in a country is exercised. This includes the process by which governments are selected, monitored and replaced; the capacity of the government to effectively formulate and implement sound policies; and the respect of citizens and the state for the institutions that govern economic and social interactions among them."[4] The measures derived from the WGI are highly correlated with the placement of the countries in our sample set into the relevant categories of interest from the EIU.

For the purposes of this study we focus on *voice and accountability*, and *rule of law*, because they best grasp the elements of democracy that we are most interested in. *Voice and accountability* "capture(s) perceptions of the extent to which a country's citizens are able to participate in selecting their government, as well as freedom of expression, freedom of association, and a free media." We use this measure because we predict that as the crisis becomes more prevalent in a given country, governments are more likely to put restrictions on these freedoms. The second variable we use to measure democratization is *rule of law*, which is defined as "(the) perceptions of the extent to which agents have confidence in and abide by the rules of society, and in particular the quality of contract enforcement, property rights, the police,

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[4] Definition of Governance found at http://info.worldbank.org/governance/wgi/index.asp

and the courts, as well as the likelihood of crime and violence."[5] As the crisis increases in intensity within a given country, we predict that we will see a suppression or suspension of the rule of law. We hypothesize that financial crises will negatively impact these democratic components. We are combining these two measures, and the summation of these two measures will be used to capture the impact of the recent crisis on the regime type in a given country.[6]

Out of all the financial crises described in the above section, we choose to test the effect that banking crises have on various institutional features of democracy. A banking crisis is "a case where the net worth of the banking system is almost or entirely exhausted as nonperforming loans use up most or all capital in the banking system"[7]. In other words, banks witness mass insolvency across the banking system within a given country. However, because the recent crisis took place in developed countries, we use various economic indicators to proxy for the effects of the crisis in the countries of interest, new democracies and hybrid regimes, most of which are part of the developing world. The key measure we use captures the indirect impact of a banking crisis in the developed world *on the banking system* in developing countries. The remaining explanatory variables are used to measure the indirect effects of banking crises *on key economic indicators* in developing countries. We first address how we proxy for the indirect effect on the banking system in developing countries, which is followed with a discussion of the other explanatory variables.

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[5] See Appendix A, Table 2 for source of definition and measurement.
[6] We also run models with our measure of democratization disaggregated (voice and accountability and rule of law) to see if the findings are similar to those of our main model. (See Appendix D Table 1)
[7] This definition of banking crisis was established by Caprio and Klingebiel (1996), which was cited in a articlefound at the following website: http://www.iadb.org/res/ipes/2005/docs/Chapter3Eng.pdf (chapter 3, pg. 29).

Explanatory and Control Variables

The variable used to measure the indirect effect on banks in developing countries is 'domestic credit' provided by the banking sector as a percentage of GDP. The World Bank defines this variable as follows, "domestic credit provided by the banking sector includes all credit to various sectors on a gross basis, with the exception of credit to the central government, which is net. The banking sector includes monetary authorities and deposit money banks, as well as other banking institutions where data are available (including institutions that do not accept transferable deposits but do incur such liabilities as time and savings deposits). Examples of other banking institutions are savings and mortgage loan institutions and building and loan associations"[8]. This measure captures the variability of loans given out by domestic banks to domestic entities. We labeled this measure *Domestic Bank Lending* and hypothesize the following:

H_1: *The relationship between credit lending by banks in developing countries and the institutionalization of democracy should have a positive and statistically significant coefficient.*

Since the direct link between banks in developed and developing countries is minimal, we use other economic indicators in developing countries to estimate the effects of the recent crisis on democratization. The next set of explanatory variables is designed to capture the indirect effects of the recent banking crisis in the developed world on economic performance/development in developing and/or democratizing countries. The first of these explanatory variables is exports. Naude (2009) argues that a recession in the U.S. and other G-7 countries will reduce demand for exports, which developing countries rely heavily on for economic growth.[9] *Exports* is defined as "the value of all goods and other market services

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[8] See Appendix A, Table 2 for source of definition and measurement.
[9] Naude 2009, 5.

provided to the rest of the world. They include the value of merchandise, freight, insurance, transport, travel, royalties, license fees, and other services, such as communication, construction, financial, information, business, personal, and government services".[10] We predict the following findings:

H_2: The relationship between exports and the institutionalization of democracy should have a positive and statistically significant coefficient.

The next critical explanatory variable that we use to measure the indirect effects of the recent banking crisis is 'unemployment' (as a percentage of the total labor force). We define unemployment as "the share of the labor force that is without work but available for and seeking employment".[11] The logic behind including this variable on the right hand side of the model is related to the inclusion of exports. If exports decline in a developing country this should be accompanied by a decline in production, which in turn is correlated with a rise in unemployment. Theoretically, as exports take a hit the jobs needed to produce such exported goods should decline. Therefore, if a banking crisis in developed countries impacts exports in developing countries, it should also effect the occupations related to exported goods. We label this variable *Unemployment* and test the following hypothesis:

H_3: The relationship between unemployment and institutionalization of democracy should have a negative and statistically significant coefficient.

The next explanatory variable is 'annual rate of growth' for a given country's economy. We use GDP growth (annual percentage), which is defined as the "Annual percentage growth rate of GDP at market prices based on constant local currency."[12] Due to the high levels of interdependence amongst countries in the current international economic system, we would

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[10] See Appendix A, Table 2 for source of definition and measurement.
[11] See Appendix A, Table 2 for source of definition and measurement.
[12] See Appendix A, Table 2 for source of definition and measurement.

expect the 2007 banking crisis to have a negative impact on annual GDP growth levels in developing countries. This is related to the reliance of developing countries on export earning as a major source of GDP growth. Therefore, we label this variable *GDP Growth* and hypothesize the following:

H_4: *The relationship between annual GDP growth and the institutionalization of democracy should have a positive and statistically significant coefficient.*

The last explanatory variable is 'inflows of foreign direct investment' (IFDI). We define these as "the net inflows of investment to acquire a lasting management interest (10 percent or more of voting stock) in an enterprise operating in an economy other than that of the investor. It is the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital as shown in the balance of payments."[13] Naude argues that as the countries of the G-7 suffer from the recent crisis, this should have an effect on the inflows of foreign capital into developing countries (2009, 6). Unlike Naude's use of various aspects of foreign capital inflows, such as official development assistance (ODA), we focus only on inflows of foreign direct investment as a percentage of GDP. The reason that we focus only on this type is based on the nature of foreign direct investment (FDI). Unlike portfolio investments, which can be withdrawn at any sign of financial trouble, FDI is a long-term investment that is less susceptible to capital flight. Therefore, a major banking crisis should have a greater effect on foreign investors' willingness to take such a long-term risk if uncertainty is highly present. However, there have been mixed results in the literature regarding the relationship between democratic institutions and IFDI.

Li and Resnick find that democratic institutions, such as the availability and protection of

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[13] See Appendix A, Table 2 for source of definition and measurement.

property rights, are positively related to increased inflows of FDI (2003). Moreover, Nathan Jensen (2003 and 2006) finds that there is a positive relationship between the presence of democratic political institutions and IFDI, as these particular political institutions reduce the level of uncertainty for foreign investors. The counter-argument argues that multinational corporations (MNCs) are more likely to invest in authoritarian regimes. O'Donnell argues that autocratic governments provide a shield for FDI and its investors from the populations of the host countries and policies that favor the laborers over the capitalists (1978 and 1988). Haggard finds that authoritarian governments are more able to suppress distributional pressures from the masses (1990).[14]

The assumption here is that FDI inflow is attracted to non-democratic governments and that investors will not put pressure for enforcements of property rights, because that would increase transaction costs. De Meza and Gould (1992) and Greif (1994), on the Nash equilibrium choice of enforcement of property rights, argue that agents who build 'value' demand reform—the rule of law—because it is the only legal regime that enforces property rights. On the other hand, asset-strippers (in our case the FDI agents attracted to non democratic regimes) do not, since they follow a strategy of "take the money and run" and can illegitimately profit from their control of rights. Thus, the economic strategy of an agent determines his political position (Hoff and Stiglitz, p. 10). One answer has to do with the credibility of property rights protections. If an individual's property rights to a company are not expected to be enforced in the future, then the investor cannot make billions, by normal business investments (Hoff and Stiglitz, p. 13). Second, the perceived justice of a system is important to gaining the cooperation of those involved in the process of producing the rule of law (judges, regulators, jurors, potential offenders, etc.).

[14] The arguments from O'Donnell and Haggard are not taken from original sources. They have been drawn from the article by Li and Resnick, "Reversal of Fortunes: Democratic Institutions and Foreign Direct Investment Flows into Developing Countries" (2003).

Accordingly, state protection of asset strippers may be infeasible, even under an ostensible rule of law. Knowing this, asset strippers will be less supportive of the rule of law (Hoff and Stiglitz, p. 13)

In this article, we take this position and argue that a decline in FDI inflows should not have a significantly positive relationship on the decline in democratic institutionalization. On the contrary, we argue that there is a negative relationship between FDI inflows and levels of democratizations; as the levels of FDI decrease, governments have to rely more on taxing domestic production, which raises accountability. We label this variable *FDI Inflows* and hypothesize the following:

H_5: *The relationship between FDI inflows and the institutionalization of democracy should have a negative and statistically significant coefficient.*

The remainder of the measures used in the models below are similar to the traditional economic variables used in most of the literature on international finance and financial crises. The first is 'the size of country's market'. The market is defined as "a collection of homogenous transactions. A market is created whenever potential sellers of a good or service are brought into contact with potential buyers and a means of exchange is available."[15] In order to operationalize this variable we use *Growth Domestic Product or GDP* (in constant 2000 $US), which we define as "the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates".[16] We label this variable *GDP*

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[15] Definition from Dictionary of Economics, p. 242.
[16] See Appendix A, Table 2 for source of definition and measurement.

Constant and hypothesize that as the size of country *i's* market decreases, the level of democratization is also likely to decrease.

The next control variable is population total, which is based on the de facto definition of population, counting "all residents regardless of legal status or citizenship - except for refugees not permanently settled in the country of asylum, who are generally considered part of the population of their country of origin." [17] We have labeled this variable *Population Size*, and hypothesize that countries with larger populations are less likely to establish stable democratic institutions. Countries that are in the process of democratization are hindered from consolidating democratic institutions when there are more people within the polity, because it is more complicated to get a larger population to agree on a variety of issues and achieve some level of consensus.

The last variable that we control for is the 'life expectancy rate' for a given country. We use life expectancy at birth, total (years), which "indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of her birth were to stay the same throughout her life"[18]. We have labeled this variable *Life Expectancy*, and hypothesize that as life expectancy decreases the level of democratization for country *i* should also decrease.

Lastly, in the dynamic panel data models produced in Table 1 below, we include a lagged measure of the dependent variable on the right hand side of the panel regression. We included this variable to correct for the presence of serial correlation, which is discussed in further detail in the results section below. We now turn to a discussion of the methodology used to test our hypotheses.

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[17] See Appendix A, Table 2 for source of definition and measurement.
[18] See Appendix A, Table 2 for source of definition and measurement.

Methods

In this study we employ dynamic panel models, using various economic indicators, to test the indirect effects of banking crises in developed countries on certain institutional features in new democracies and hybrid regimes. Specifically, we employ Arellano-Bond Dynamic Panel *Generalized Methods of Moments (GMM)* estimators because our variables provide measures for numerous countries (the unit of analysis) over a given period of time. These models allow us to control for problems of autocorrelation in our specification. We run various diagnostics and robustness tests to determine the fitness of our model and to find the least biased estimations. However, we begin with a simple OLS model to illustrate the significant difference in most of the findings from those of the panel model results.

Using GMM regressions we find that Exports and FDI Inflows have a negative statistically significant effect on democratization in our sample set. However, Exports is significant but in the opposite direction than we hypothesized. We run a model that controls for oil exports since oil countries have a specific regime structure and the inflow of money may keep governments at shelter even during economic downturns. We thus include an interaction variable for oil exports and overall exports, both as a percentage of GDP. We find that our negative finding for Exports is better explained when we condition for oil exports on overall exports and include an interaction in the GMM 2 Lags model. We find that when oil exports increase along with exports, then our predicted relationship between exports and democracy is validated by the results, but only for oil exports. In the following section, we present a discussion of the empirical results derived from our findings.

Empirical Analysis and Results:

The first model we discuss is the simple OLS model found in Appendix B. We display a simple OLS model to illustrate the significant variation in these findings compared to those from the dynamic panel models from this section. These differences are due to the inherent problems with simple OLS models and their inability to deal with cross-section time-series data, specifically the problem of autocorrelation. Dynamic panel models are better equipped to deal with the issue of autocorrelation because they generate lagged instruments.

For the OLS model, the findings for the variables measuring domestic credit lending by the banking sector and the level of exports (H_1, and H_2) are statistically significant and in the predicted direction. Unemployment (H_3) is also statistically significant, but the coefficient is opposite of what we predicted. Therefore, from this model we can say that as bank lending and exports decline we also see a decline in democratic institutionalization. Yet, when unemployment increases, we see that democratic institutions become more stabilized. H_4 and H_5 are not statistically significant with both outputs in the opposite direction than we predicted. As for the control variables, they are all statistically significant and only the life expectancy rate has a coefficient that is in the opposite hypothesized direction. Therefore, we can infer from these findings that our first three explanatory variables have a significant effect on the institutionalization of democratization. Specifically, as domestic bank lending and exports decline, holding all other variables constant, the ability to hold a government accountable for its actions and the stability of the rule of law both decline.

However, simple OLS estimators are only considered unbiased if, and only if, none of the ten major assumptions are violated. In the present case, one of the major violations is

multicollinearity.[19] Acknowledging that this can bias our standard errors and in turn bias our

estimators we run a model with and without bank lending and get nearly identical results for all

of the explanatory variables. The most critical violation in the model is serial correlation. This is

represented by the presence of correlation amongst two or more of the residuals of the

explanatory variables (Gujarati 2003, 66). Any dataset that includes both time and entity,

specifically time (years), will be hindered by serial correlation and the proper diagnostics must

be included to correct for this problem in order to produce unbiased estimations. Another critical

reason why our OLS estimators are biased is that the dataset includes numerous countries and

covers numerous time periods (years), known as panel data. Thus, we need to employ panel data

models to generate more reliable coefficients.

Dynamic Panel Data Models:

We employ the Arellano – Bond Dynamic Panel *Generalized Methods of Moments*

(GMM) estimates to reduce the problems associated with the fact that the "time-invariant country

characteristics may be correlated with the error term."[20] GMM is used to correct for the presence

of serial correlations using lagged dependent and explanatory variables (which are not

compatible with fixed effects models). Additionally, the dataset has a short time period (T = 9)

and a larger country dimension (N=83), which can be corrected by using GMM estimators.

When using GMM models, we employ one-step and two-step models. One-step GMM models

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[19] We run a pairwise correlation test to determine the significance of the correlated coefficients for all the variables on the right hand side of our model. We find that bank lending is significantly correlated with all of our main explanatory variables. However, when we drop this variable from the dynamic panel model we get nearly the same results for the other coefficients as when we exclude it from the model. Therefore, we have selected to keep bank lending in our main model.
[20] We have run several models to test the hypotheses, time series with fixed effects, random effects, fixed effects with robust standard errors, but we chose to present results from the Arellano – Bond Dynamic Panel with GMM estimators because they, as it will presented in this section, represent the least biased estimators.

are "efficient when the errors are homoskedastic and not correlated over time. This is often too restrictive."[21] Two-step GMM models "(are) efficient under more general conditions like heteroskedasticity."[22] Here is a discussion of the results from the GMM two-step models, as they provide the more robust standard errors and for the reason mentioned above.[23] We also employ the proper post-estimation techniques to defend the robustness of our findings. The following paragraphs explain our findings from these dynamic panel models.

In the GMM two-step (1-Year) model we include a one-year lagged dependent variable, as well as a one year lag for all other right hand sided variables. The first model in Table 1 displays our results when correcting for heteroskedasticity, using White's robust standard errors, and none of our explanatory variables are statistically significant. The only variable that is statistically significant is the one-year lagged dependent variable, which we expected to find. Despite these non-findings, there are a few things to note about the results. First, exports, GDP growth, and FDI inflows all have results that run counter to the predicted hypotheses. We run the proper diagnostics before we can say anything definitive about these results and the robustness of the estimators. The first test we run is a Sargan Test, followed by an Arellano-Bond Test to determine the robustness of the findings in this model.

After running the Sargan test we fail to reject the null hypothesis.[24] Therefore, the instruments generated are not correlated with the errors from first-differencing and therefore, the overidentifying restrictions are valid. Although this test appears to validate our instruments we need to provide a further test for autocorrelation by first-differencing the error terms. Here we

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[21] Richard Blundell lecture notes on panel data models (2005) found at the following website: http://www.scribd.com/doc/27088166/9/Sargan-test-for-overidentifying-restrictions (pg. 20).
[22] Ibid. pg. 21.
[23] The results from the post-estimation tests for all the GMM models we ran are provided in Appendix C, which illustrate why we did not settle for the results from the one-step models, nor the two-step 1-year lag model.
[24] See Appendix C, Table 3 for results from the Sargan Test.

employ the Arellano-Bond test for zero-autocorrelation. In the first order, we reject the null

hypothesis that there is no serial correlation in the first difference errors[25]. This means that the

"idiosyncratic errors are independently and identically distributed (i.i.d.)", which means the

errors are serially correlated in the first order.[26] However, we fail to reject the null hypothesis for

the second order condition. Failing to reject the null at any other order other than the first implies

that we do not have problems of model misspecification.[27] Therefore, our GMM two-step 1-year

Lag model in Table 1 fails to correct for autocorrelation in the first order, which means our

model still suffers from biased estimators. Next we employ a GMM two-step 2-year Lag model

to see if the problem of autocorrelation is solved.

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[25] See Appendix C, Table 4 for results to the Arellano-Bond Test for autocorrelation.
[26] The description of serial correlation in the first order operations is explained was taken from the Stata 10 Manual on Panel Data and found at the following website: http://www.agecon.ksu.edu/support/Stata11Manual/xt.pdf (pg. 27).
[27] Ibid. pg. 43.

Table 1: Dynamic Panel Models

	GMM Model 1 Lag	GMM Model 2 Lags
Democracy Score		
L. Democracy Score	0.610***	0.308
	(0.129)	(0.226)
L2. Democracy Score		0.0279
		(0.0383)
L. Bank Lending	0.0342	
	(0.0800)	
L2. Bank Lending		-0.00185
		(0.0965)
L. Exports	-0.00928	
	(0.142)	
L2. Exports		-0.188+
		(0.107)
L. Unemployment	-0.0449	
	(0.186)	
L2. Unemployment		-0.0361
		(0.0716)
L. GDP Growth	-0.00285	
	(0.00389)	
L2.GDP Growth		0.00236
		(0.00257)
L. FDI Inflows	0.0192	
	(0.0211)	
L2. FDI Inflows		-0.0393+
		(0.0211)
L. Population Total	-0.445	
	(0.484)	
L2. Population Total		0.489
		(0.521)
L. GDP Constant	0.245	
	(0.385)	
L2. GDP Constant		-0.102
		(0.186)
L. Life Expectancy	-2.601	
	(3.293)	
L2. Life Expectancy		2.132
		(1.617)
Constant	12.446	-13.861+
	(11.411)	(7.3627)
Observations	284	258
Wald x^2	57.85***	16.27+
P-value	(0.0000)	(0.0921)
Instruments	37	36

Standard errors in parentheses + $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

In the GMM 2-Step (2-Year) model, two of the key explanatory variables are statistically significant. We find that when FDI inflows decline, there is an increase in the democratic institutional stability. Based on our hypothesized relationship, the decline in the inflows of foreign investors leads to an increased ability of a country's population to hold the government accountable, as well as to the strengthening rule of law. Regarding Exports, our results are statistically significant, albeit in the opposite direction than predicted. We will explore this last finding, and some variations depending on type of exports, in the following section.

Though both the simple OLS (Appendix B) and the dynamic model (two-year lag from Table 1) generate statistically significant findings, they have coefficients that are in the opposite directions. Therefore, this is critical for justifying the employment of more advanced econometric models to deal with this type of dataset. We run the post-estimation tests for the second model to determine if the results are robust and relatively unbiased.

The results for the Sargan test confirm that the instruments generated are valid instruments for controlling endogeneity, and the Arellano-Bond test results allow us to reject the null hypothesis for both order one and order two.[28] In other words, according to the results, we can claim that we have no autocorrelation in the first-differenced errors and that our model is not misspecified. Lastly, we use robust standard errors to control for heteroskedasticity. Therefore, we have a model that has statistically corrected for the presence of autocorrelation in the error terms and has generated valid instruments to control for endogeniety. This model tells us that as FDI inflows decline, the stability of democratic institutionalization increases. It also shows that when exports decline democratic institutions become more stabilized. The next section will introduce two new variables generated to explain why exports do not have the predicted relationship with democratic institutions that we hypothesized. The first is oil exports as a

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[28] See Appendix C, Tables 3 and 4 for results for Sargan Test and Arellano-Bond Test.

percentage of GDP, and an interaction variable between oil exports and the variable under investigation, Exports.

Additional Robustness Checks: Exports and Oil Exports

In light of the above finding that Exports was statistically significant, but the coefficient was in the opposite direction than we hypothesized, we design a test to explore this outcome. Therefore, in this section, we introduce a variable for oil exports as well as an interaction variable, between exports and oil exports, into the second model in Table 1 above. We use oil exports due to the extensive literature that analyzes the effects of oil on democracy. This literature is vast, so we refer to a few arguments put forth. There are those that argue that oil exports have a negative effect on the process of democratization (Ross, 2001; Tsui, 2011). Ross (2001) claims that oil exports, not just in the Middle East but globally, hinders the process of democratization in countries that rely heavily on such exports. Tsui (2011) has a similar finding but regarding oil discoveries, in which the author finds that the discovery of large amounts of oil have a negative impact on the prospects for democratizing. However, there is a counter-argument claiming that it does not hinder democracy. Smith (2004) finds that oil exports in fact significantly increases regime durability. Therefore, it is clear that while scholars may not agree on the findings they do agree that oil (specifically exports) has some effect on democratization.

The measure for oil exports is derived from the U.S. Energy Information Administration's *International Energy Statistics*.[29] This variable is measured as the "total exports of refined petroleum products (thousands of barrels per day)". The data for this measure only covers the time period from 2002 – 2009. Therefore, we recognize that this data does not account

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[29] This data can be found at the following website:
http://www.eia.gov/cfapps/ipdbproject/iedindex3.cfm?tid=5&pid=54&aid=4&cid=regions&syid=2002&eyid=2009&unit=TBPD.

for oil exports in 2010. However we feel confident that the data for eight of the nine years of the analysis provides reliable results. Lastly, in order to allow this measure to properly account for its effects we generate a measure as a percentage of GDP (we divide oil exports over GDP constant). Therefore both oil exports and exports are measured as a percentage of GDP. Finally we generate an interaction variable of these two measures to capture oil exports conditioned on exports.[30]

After running the model (Appendix D), we find that exports and oil exports are both statistically significant with a negative coefficient. Initially it appears that both exports and oil exports have a negative effect on democracy, or in the case of this paper, a decline in both measures leads to an increase in the stability of democratic institutionalization. However, we need to account for the interaction variable, which is statistically significant with a positive coefficient. We rely on Friedrich's (1982) discussion of multiplicative interaction models to interpret the meaning of our findings. We are concerned with looking at how the relationship between democracy and exports varies when conditioned on oil exports. We find that an increase in exports conditioned on an increase of oil exports leads to an increase in democratic institutional stability.[31] Therefore, when exports increase in congruence with oil exports, democratization for a given country-year also increases. For the purposes of this paper, we would word it the other way around. A decline in exports conditioned on a decline in oil exports leads to a decline in democratization, which falls in line with our original predictions about the relationship between exports and democratization when affected by a banking crisis. We ran an Arellano-Bond test for this model and found no statistical evidence of autocorrelation in either the first or second order conditions. We conclude this article with a discussion of our findings

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[30] The results from this model can be found in Appendix D.
[31] The solution for the differentials for X_1 are available upon requested.

and how this work contributes to the study of the relationship between economic development/crises and democratization.

Discussion

In this article, we have tested the effects of the recent banking crisis on the institutionalization of democracy in democratizing countries and mixed regimes. Considering that the banking crisis occurred in developed, fully democratized countries, we used indirect economic measures to examine the effects of the recent crisis on newly democratized and hybrid regimes. We employed domestic credit lending by banks, exports, unemployment, annual GDP growth rates, and inflows of foreign direct investment as the key measures to proxy for the banking crisis. After testing various models, the results from the Arellano-Bond GMM estimation two-step model (with 2 year lags) provided us with the most reliable estimators.

The level of exports and the inflow of FDI showed to have a significant effect on the institutionalization of democracy. For exports other than oil, the direction of the relationship runs counter to the original hypothesis. We hypothesized that, as exports decline there is also a decline in the democratic institutional stability (a positive coefficient). However, we found the opposite to be the case. Therefore, there is something about reliance on exports, especially in hybrid regimes that has a negative effect on the institutionalization of democracy. Thus, we observe that as the level of exports declines, the level of democratization actually increases. This is a topic to explore in depth in future studies, but we will attempt to explain why we observe these results.

Many developing countries rely on exports as a means of economic development (export-oriented development). This has been a very successful approach to economic development as

has been illustrated by the East Asian countries in the late 1980's and early 1990's, and more recently, China. Also, exports have played a critical role in the economic growth of countries in Latin America, such as Brazil and Mexico. Therefore, we know that export oriented growth has been critical to the process of economic development, which has been shown to be highly correlated with democratization. However, the countries mentioned above are not necessarily considered full democracies, except for Japan (which is debatable since it was ruled by one-party for decades). Nevertheless, in order for a country to make its goods attractive on the international market and produce more competitive exports, there is an element of heavy-handed government intervention that is likely to take place.

This may mean that once exporting becomes a less attractive option for revenue, local investors resort to other means for production and income. This in turn may render the heavy government intervention and undemocratic practices common in export-reliant countries, temporarily irrelevant. Here a differentiated interpretation may be necessary. Oil and mineral rich countries have enough revenue to support undemocratic practices due to less reliance on taxation and the accountability that comes with it. So, the findings support the expectation that with less revenue, governments resort to more authoritarian practices. In future studies, we set to explore what about oil export exporting countries in particular makes them different than all other exporting countries.

Labor-intensive manufacturing countries benefit from the lack of regulation and accountability that makes their markets attractive for cheap production costs, which can explain the correlation between exports and lack of democratization. There is a de facto trade-off between regulation and price incentives, the practice showing that when faced with the choice between the two, investors prefer the latter for its economic gains. Countries reliant on

agriculture exports present undemocratic practices to begin with, are in the lower bracket of income per capita, and more often than not, have not yet reached higher levels of development that lead to education, modernization, and political sophistication. So far, we have explained the move up the exports slope. We now turn to a possible explanation about the relation between the fall of exports and better democratic practices.

With a fall in exports, there is a decline in government revenue. The state has to turn towards domestic industry, agriculture, or manufacturing which leads to higher reliance on domestic consumption for money. Once governments rely more on their own citizens for revenue, especially in more democratized countries, politicians may have to be, or pretend to be, more accountable. This assumption is plausible since the measures for rule of law and accountability are based on the perceptions of people. A temporary switch in the political discourse and practice may lead to a higher score on the two democratic indicators. This mechanism applies also for FDI inflows. Our hypothesis, that with a decrease in foreign direct investment inflows we will witness better democratic practices, is confirmed by the findings. With a decrease in FDI same as in the case with exports governments have to start looking inward for revenue and that leads to more accountability. As we know, FDI also breeds corruption. Corrupt politicians avoid accountability and rule of law mechanisms, so with a decrease in corruption, politicians may be forced to respect the rule of law and the accountability mechanisms that could be required in an active interaction with domestic players.

In conclusion, it does not appear that a banking crisis originating in developed countries negatively impacts democratization. On the contrary, through an indirect effect of limiting exports to developed nations and other developing nations as well as by decreasing the level of FDI flow, we see an improvement in democratic practices. This may be interpreted as good

news if we ignore the context that it is a consequence of a crisis. These findings are very relevant in the context of the foreign policy objective of spreading democracy around the world. However, since we know that import substitution practices failed, policy makers may have to find solutions for promoting democracy not by reducing international trade, but by promoting democratic institutionalization in export-reliant countries. One way this can be done is by giving local producers and investors a higher stake in commerce, and diminishing state's intervention and importance as intermediary in international trade. This is an alternative strategy to some of the policies previously used by these regimes. These findings need to be explored in future studies, and scholars and practitioners should consider the consequences of the neo-liberal agenda for democratization in the 21st century.

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Worldwide Governance Indicators http://info.worldbank.org/governance/wgi/index.asp

World Development Indicators http://data.worldbank.org/data-catalog/world-development-indicators

Appendix A:

Variables and Measurements

Table 2: Dependent and Independent Variables

Variable	Source	Measure (Range)	Mean	Logged
Democracy Score[32] (Sum of Accountability and Voice and Rule of Law measures).[33]	Worldwide Governance Indicators (World Bank)	-3.67 to 2.46	-0.28	No
Domestic Bank Lending[34]	World Development Indicators (World Bank)	-1.13 to 5.75	3.68	Yes
Exports[35]	World Development Indicators (World Bank)	1.82 to 5.45	3.52	Yes
Unemployment[36]	World Development Indicators (World Bank)	-0.36 to 3.63	2.12	Yes
GDP Growth[37]	World Development Indicators (World Bank)	-41.3 to 46.5	4.46	No
FDI Inflows[38]	World Development Indicators (World Bank)	-13.28 to 4.51	1.10	Yes
Population Size[39]	World	13.03 to 20.93	16.11	Yes

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[32] We use the WGI definitions for Accountability and Voice and the Rule of Law:
http://info.worldbank.org/governance/wgi/pdf/va.pdf and http://info.worldbank.org/governance/wgi/pdf/rl.pdf

[33] The measurement scale for each sub-category is based on a 5 point continuous scale (-2.5 to 2.5), with higher scores indicating better levels of governance. Therefore, the sum of two sub-categories we are using to create our dependent variable, labeled *Democracy Score,* ranges from -5 to 5. The range for this variable is -3.67 to 2.46, with a mean of -.38. This validates the use of this measure as a proxy for our dependent variable, because none of our observations fall below – 4.00 and are not greater than 4.00. The measure of our dependent variable is normally distributed, which is necessary for adhering to the assumptions of our linear regression models.

[34] Definition found at: http://data.worldbank.org/indicator/FS.AST.DOMS.GD.ZS

[35] Definition found at: http://data.worldbank.org/indicator/NE.EXP.GNFS.ZS

[36] Definition found at: http://data.worldbank.org/indicator/SL.UEM.TOTL.ZS.

[37] Definition found at: http://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG

[38] Definition found at:
http://search.worldbank.org/data?qterm=foreign%20dorect%20invetsment%20inflows%20&language=EN

	Development Indicators (World Bank)			
GDP Constant[40]	World Development Indicators (World Bank)	19.46 to 27.82	23.45	Yes
Life Expectancy[41]	World Development Indicators (World Bank)	3.73 to 4.40	4.20	Yes

Dataset Descriptions:

Section 1:

EIU Country Categorization and Measurement:

The EIU categorizes 167 country regimes into four types: full democracies, flawed democracies, hybrid regimes, and authoritarian regimes. The EIU uses five categories to determine the type of regime a given country falls under. These five categories are as follows: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture (EIU, 2006, 1). Each one of these categories is measured on a scale from 0-10, with a higher score entailing greater levels of democracy. Each country in the dataset is given an overall score that ranges from 0-10, which takes the average score of all five categories used to determine regime type[42]. Using the summation of the measures *voice and accountability* and *rule of law* (with the measurement scale for each sub-category based on a 5 point continuous scale from -2.5 to 2.5, higher scores indicating better levels of governance), our variable *Democracy Score,* ranges from -5 to 5. However, the range of the values for the countries in our dataset is from -3.67 to 2.46, with a mean of -.38. This validates using this measure as a proxy for our dependent variable, because none of our observations fall below – 4.00 and are not greater than 4.00. The measure of our dependent variable is normally distributed, which is necessary for adhering to the assumptions of our linear regression models.

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[39] Definition found at: http://data.worldbank.org/indicator/NY.GDP.MKTP.CD.
[40] Definition found at: http://data.worldbank.org/indicator/SP.POP.TOTL
[41] Definition found at: http://data.worldbank.org/indicator/SP.DYN.LE00.IN
[42] Database for ranking countries found at the following website: http://www.economist.com/media/pdf/DEMOCRACY_INDEX_2007_v3.pdf/ , and the methodology for coding is found on page 8-11 at the following website: http://www.economist.com/media/pdf/DEMOCRACY_INDEX_2007_v3.pdf/

Section 2:

Validity for Using Our Measures for Democracy

      According to the EIUs measurement process, countries that fall into the categories of flawed democracies or hybrid regimes have scores that range from 4.00 to 7.91 ($country_i \in [4 \leq x < 8])$. This is relatively closely related to the values that are derived from our proxy measurements from the WGI. We operationalize our dependent variable by finding the summation of two components that measure level of governance from the WGI. The WGI has six categories that it uses to measure level of governance: voice and accountability, political stability and absence of government, government effectiveness, regulatory quality, rule of law, and control of corruption.

Appendix B:

Simple OLS Model

Democracy Score	OLS Model β (s.e.)
Bank Lending	0.583***
	(0.0784)
Exports	0.193+
	(0.0998)
Unemployment	0.138+
	(0.0783)
GDP Growth	-0.00164
	(0.0110)
FDI Inflows	0.0559
	(0.0540)
Population Total	-0.751***
	(0.0639)
GDP Constant	0.627***
	(0.0507)
Life Expectancy	-2.537***
	(0.629)
Constant	4.664
	(2.939)
Observations	383
R^2	0.583
F-stat	81.11***
P-value	(0.000)

Standard errors in parentheses
$^{+} p < 0.10$, $^{*} p < 0.05$, $^{**} p < 0.01$, $^{***} p < 0.001$

Dynamic Panel Data Diagnostics

1. The Sargan test deals with determining if our generated instruments are valid. The Sargan test for overidentifying has the following hypothesis:

H_0: *The instruments are valid if they are not correlated with the errors in the first-difference equation (which takes the first-difference of the fixed effects model and drops the fixed country-specific effect).*

Table 3: Sargan Test Results GMM Models with One and Two Year Lags (One and Two-Step Models)

Test	Statistic	Output	P-Value
Sargan Test (1-Step) 1 Year Lag	Chi-square	14.32	0.9780
Sargan Test (2-Step) 1 Year Lag	Chi-Square	26.37	0.4983
Sargan Test (1-Step) 2 Year Lag	Chi-square	35.82	0.0744
Sargan Test (2-Step) 2 Year Lag	Chi-square	23.55	0.5453

2. The Arellano-Bond estimators test for first and second order autocorrelation in the first-differenced errors. Therefore, we test the following hypothesis:

H_0: *There is zero autocorrelation in the first-differenced error in the Arellano-Bond estimators.*

Table 4: Arellano-Bond Test for Autocorrelation in GMM Models with One and Two Year Lags (One and Two-Step Models)

Test	Statistic	Order	Output	P-value
Abond Test (1-Step) 1 Year Lag	Z-statistic	1	-3.28	0.0010
		2	-0.29	0.7747
Abond Test (2-Step) 1 Year Lag	Z-statistic	1	-3.9741	0.0001
		2	-0.4886	0.6251
Abond Test (1-Step) 2 Year Lag	Z-statistic	1	-2.08	0.0375
		2	0.13	0.9002
Abond Test (1-Step) 2 Year Lag	Z-statistic	1	-1.10	0.2710
		2	-0.02	0.9838

Appendix D:
Oil Exports Model

Democracy Score	Interaction Model β (s.e.)
L. Democracy Score	0.372
	(0.284)
L2. Democracy Score	0.0252
	(0.0501)
L2. Exports	-1.457**
	(0.486)
L2.Oil Exports	-4.444**
	(1.698)
L2. Oil*Exports	4.449**
	(1.701)
L2. Unemployment	-0.0697
	(0.0845)
L2. GDP Growth	0.00367
	(0.00257)
L2. FDI Inflows	-0.0267
	(0.0207)
L2. Population Total	0.670
	(0.512)
L2. GDP Constant	-0.126
	(0.242)
L2. Life Expectancy	1.356
	(1.668)
Constant	-14.13+
	(7.331)
Observations	211
Wald x^2	22.38*
P-value	(0.0216)
Instruments	37

Standard errors in parentheses, $^{+}p < 0.10$, $^{*}p < 0.05$, $^{**}p < 0.01$, $^{***}p < 0.001$