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How does external debt impact democratization?

Evidence from developing countries

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Abstract

In this paper we empirically discuss whether or not external debt affects country's governance. Indeed, indebted countries need some political governance reforms in order to send out a positive signal to international financial community and investors; and so improving business climate. However, external debt reduces their flexibility and ability to address associated costs to political governance. Our study focuses on the period 1985-2011 and spans 103 developing countries. To deal with endogeneity issue, we first lag external debt by one year and second propose two-step tobit estimator by instrumenting external debt-to-GDP ratio with real effective exchange rate. Even controlling for various conventional determinants of democratic transitions, we find that external debt constraints indebted countries to move up democracy scale but incite governments to improve investment profile and therefore improving business climate. Furthermore, Heavily Indebted Poor Countries (HIPC) initiative and International Monetary Fund (IMF) programs dampen the negative effect of debt on democratic transitions.

Key words: external debt, governance, democracy, democratic transitions, crisis, investment.

Code JEL: K68 H19 P88 N01

1-Introduction

There is vast literature focused on determinants of democracy (Lipset, 1959, 1993; Tocqueville, 1835; Przeworski and al., 1996; John Stephens 1993; Weber, 1906, 1949; Huntington, 1991; Barro, 1999). The main determinants largely discussed are: wealth, economic development, urbanization, culture (Protestant, Catholic, Islam, etc). Huntington (1991) summarized these preconditions by arguing that the emergence of democracy in a society is helped by a number of factors: higher levels of economic well-being; the absence of extreme inequalities in wealth and income; greater social pluralism, including particularly a strong and autonomous bourgeoisie; a more market-oriented economy; greater influence vis-à-vis the society of existing democracy states; and a culture that is less monistic and more tolerant of diversity and compromise. The latest determinant discussed is the role of capitalism in democracy (Lipset, 1994; John Stephens 1993). For instance, Schumpeter (1950) held that "modern democracy is a product of the capitalist process. Furthermore, Waisman (1992), seeking to explain why some capitalist societies, particularly in Latin America, have not been democratic, has suggested that private ownership of the means of production is not enough to foster democracy.

However, some criticisms rose up against these ideas of preconditions or requisites. Indeed, Lipset (1959) argued that the conflicts among political philosophers about the necessary conditions underlying given political systems often lead to a triumphant demonstration that a given situation clearly violates the thesis of one's opponent (Lipset, 1959). Max Weber (quoted by Lipset) also argued that differences in national patterns often reflect key historical events which set one process in motion in one country, and a second process in another. Furthermore, the strongest criticism came from Dankwart Rustow (1970). Indeed, he criticized studies that focused on "preconditions" for democratization because they often tended to jump from the correlation between democracy and other factors to the conclusion that those other factors were responsible for democracy. In 1984, Huntington published a paper where he argued that Rustow's criticisms were well taken and helped to provide a more balanced view of the complexities of democratization (Huntington, 84). From there, researchers took into account the complexity of democracy process and sought to understand democratic transitions. Karl (1990) contented that "rather than engage in a futile search for new preconditions, it is important to clarify how the mode of regime transition […] sets the context within which strategic interactions can take place because these interactions, in turn, help to determine whether political democracy will emerge and survive".

Since then, many studies focused on democratic transitions in the 1990s, also characterized by economic crisis. The Historian Huntington (1991) argued that democratic transitions of 1980s and 1990s constitute the "third wave" of democratization in the history of the modern world. The first "long" wave of democratization began in the 1820s and continued for almost a century until 1926. The second occurred after the World War II and reached its zenith in 1962 with 36 countries governed democratically. Between 1974 and 1990, at least 30 countries made transitions to democracy, just about doubling the number of democratic governments in the world. However, it is worth noting that in many countries during the 1980s and early 1990s, political democratization occurred at the same time as a profound economic crisis (Lipset, 1993; Huntington 1991). Thus, economic crisis facilitated political democratization in developing countries because poor economic performance reduces the bargaining power of authoritarian incumbents and increases the strength of oppositions (Haggard and Kaufman, 1997).

Haggard and Kaufman argued that *" it is now impossible to formulate a theory of democratic transitions that does not explicitly address the strategic interactions between and within the government and opposition. [….]. Such theories require a clear specification of the preferences and capabilities of the players and delineation of the agenda over which they are negotiating. […]. The opportunity to link the strategic of actors to underlying situational imperatives is foregone. […..] Strategic approaches to transitions pay relatively little attention to economic variables and interests. This lacuna partly resulted from timing. Conclusions about the weak causal significance of economic factors were reached prior to the crisis of the 1980s, well before the economic fallout of the debt crisis could be fully evaluated" (*Haggard and Kaufman, 1997: 265).

In their paper, Haggard and Kaufman focused on how economic conditions influence the timing and terms of democratic transitions. Economic crisis undermine the "authoritarian bargains" forged between rulers and key sociopolitical constituents and expose rulers to defection from within the business sector and protest "from below". The resulting isolation of incumbent authoritarian leaders tends to fragment the ruling elite further and reduce its capacity to negotiate favorable terms of exit.

However, the two authors failed to considerate explicitly debt as the main leader of democratic transitions in developing countries. Indeed, after Mexico's default in 1982, many countries suffered of debt overhang during the end of 1980s and the beginning of 1990s. As argued by Huntington, between 1974 and 1990, democratization accelerated around the world, despite the slowdown of global economic growth. If we make comparative study, we remark that those remained "authoritarian" until 2011 (for instance Qatar, Saudi Arabia, United Emirates Arab, etc) never suffered of external debt burden. There are few authors who have considered the debt as a possible source of governance change. Only Remmer (1990) by studying Latin America countries concluded that the debt crisis experienced by these countries is the main cause of governance change. However, his paper was based on statistical analysis and does not give a great view on developing countries. This paper aims to consider all developing countries and uses an econometric model to explore the impact of external debt on the quality of political governance. Enhancing governance quality during debt burden time is necessary, not only to send out positive signals to investors and backers, but also to mobilize citizens for debt reimbursement. Indeed, democratic governance creates a broad institutional framework that enables market-led economic growth to occur, for example, by creating a legal environment conductive to protection of property rights, enforcement of contracts, and predictability and stability of policies (Brinkerhoff, 1999). Furthermore, democratic governance can increase the efficiency and effectiveness of reform outcomes and results. To that end, the synergy arising from partnership and coproduction arrangements can mobilize underutilized resource from civil society and the private sector. These arrangements may free public resources previously going toward the direct government provision of private goods to reimburse debt. Moreover, according to the theory of political legitimacy, tax compliance is positively related to perceptions about the government's trustworthiness (Tayler 2006; Kirchler and al. 2008, Fauvelle-Aymar 1999). Thus, giving power and freedom to people can mobilize citizens for debt reimbursement by encouraging them to tax compliance. However, this is not something easy. Indeed, democratization is associated to high costs that can prevent indebted countries to undertake good governance arrangements. As widely shared by researchers, poverty, malnutrition, famine, illiteracy and so on fight developing countries. The needs are numerous and developing countries have not the necessary financial resource to finance their development. Huntington (1991) argued that poverty is a principal-probably the principal obstacle to democratic development. The future of

democracy depends on the future of economic development and obstacles to economic development are obstacles to the expansion of democracy. Furthermore, Lipset (1993) concluded in his paper that efforts to institutionalize freedom in low income countries face severe difficulties inherent in the fact that new democratic rights encourage demands and actions that destabilize the economy. Thus, external debt can prevent democratic transitions in development countries given that they face enormous needs and also democracy is associated to high costs.

To the best of our knowledge, no study has been done in this approach. On the one hand, the indebted countries must improve their institutions in order to enhance business climate and so giving a positive signal to investors and international organizations. On the other hand, debt can compel these countries in their governance reforms because of associated costs and so having a negative effect on the quality of governance. This paper aims to examine the impact of the external debt on the quality of governance in developing countries. It aims to answer the following question: Does the external debt lead or prevent countries to undertake governance improvement reforms?

This paper extends the literature by focusing mainly on the role of external debt on democratic transitions. It takes the advantage of using many indicators of democracy and also undertakes an important number of robustness exercises. However, in the literature many authors have pointed that indebted countries are associated to poor governance (Addison and Rahman 2004; Easterly 1999). In order to take into account endogeneity issue, we lag external debt variable and therefore solves the problem of reverse causality. Furthermore, following Panizza and Presbitero (2012), we propose in last part to address the endogeneity issue by instrumenting the external debt-to-GDP ratio with the real effective exchange rate. Indeed, given that external debt is denominated in foreign currency, fluctuations of the real effective exchange rate are likely to affect external debt, but not directly on democracy scale.

The study spans 103 developing and transition countries of Sub-Saharan Africa, Latin America and Asia during the period 1985-2011. It bridges the gap between the theories of democratic transitions. By adopting the two-steps tobit's model (Tobit 1958), the results show that external debt constraints indebted countries to move up democracy scale but incite governments to improve investment profile and therefore improving business climate. Furthermore, Heavily Indebted Poor Countries (HIPC) initiative and International Monetary Fund (IMF) programs dampen the negative effect of debt on democratic transitions. The effect of financial and trade openness is mixed.

The rest of the paper is divided as follows. Part 2 begins by sketching the microeconomic theory of debt effect on governance. Part 3 presents the data. Part 4 updates the paper with some stylized facts. The focus of part 5 is the presentation of the empirical model, which is estimated in part 6. Part 7 concludes and describes some economic policy recommendations.

2- Theoretical considerations: the microeconomic theory

The impact of debt on governance has widely developed in firm theory. Generally, the analysis focuses on the advantages and disadvantages of debt.

According to the theory of debt discipline power, the debt compels the leader in his activities. By considering an enterprise which is managed by a salary employee and not a shareholder, the theory

shows that this situation can create interest conflict between the manager and the shareholders. Indeed, the manager would like to increase the perimeter of his actions and carry out some investments in order to get prestige and increasing his address book but this policy is limited by the level of the enterprise's debt. Moreover, the manager cannot borrow indefinitely for increasing the investments of the enterprise because not only the investments funded by loans decrease the dividends of the shareholders (interest conflict) but also the manager needs a minimum of liquidity to ensure the debt service (Arouri, 2013). The risk is also high for the manager in case of bankruptcy of the enterprise. Consequently, we remark that the objective of rooting of the manager by investment cannot be hold because of the debt. A suspension of payments results most of the time by a change of manager and a loss of specific capital (Gilson, 1989). So, the manager has interest to opt for a prudent policy in order to address the different expiry dates (Friend and Lang, 1988). This reasoning can be transposed at macroeconomic level. Indeed, the Head of State has interest to increase the investments in order to increase his popularity and his chances to be re-elected in the next elections but he is compelled by the debt of the country and the risk of payment's default he has to avoid. So, the president must make choices in his investment projects, make concessions of rights with the population and show oneself indulgent.

Although debt has some advantages on the quality of governance, it can pose some disadvantages which can oppose to the promotion of good governance. Indeed, debt causes a loss of flexibility in any policy. If the level of debt is high, there are fixed charges to pay back. Also, there is an opportunity cost associated with this situation. The enterprise cannot borrow again in order to exploit others opportunities (for instance, adopting new technology, penetrating other markets, etc.). At the macroeconomic level, this loss of flexibility is also obvious. The government cannot extend the rights to the population because there are costs associated to the justice, the functioning of the State, the remuneration of the Members of Parliament and the respect of order and laws. Moreover, debt has agency costs which recover monitoring costs consented by the principal for checking the adequacy between the management of the agent and his own objectives and the costs engaged by the agent in the aim to reassure the principal about the quality of his management. At the macroeconomic level, this is rallied to the loss of autonomy of the State. Indeed, the loans are followed by much conditionality on the management of the loans and the needs of reforms in the country. Sometimes, the country can lose the mastery of his policy including the political governance.

Given that political institutions affect the availability of information in the country and control the violations of investment's contracts, the weight of the government in political reforms is very important for the country. If the debt reaches a certain level while the State cannot borrow more in order to address the demand of the population, the government has three means: repressing and continuing its policy, or going towards more democracy (important political change) or making concession (extension of vote rights, freedom of speech, etc.). In certain models, an autocrat could voluntarily give up his authority by establishing a constitution, giving power to the legislature, increasing voting rights, etc. in order to dissuade the revolution and encourage the private sector. Brinkerhoff (1999) shows that sectoral programs and political reforms can contribute to democratic governance by creating participation opportunities, transparency and responsibility which transmit some signals of wide process of transformation towards more democratic governance.

3- Data

An annual panel dataset consisting of 103 countries from 1985 to 2011 is constructed from a variety of sources. Variables of primary interest in the baseline model include the presence of civil liberties index, external debt-to-exports ratio, GDP per capita, urbanization rate, labor force and the country size, population. In selecting all of these variables, we follow closely the work of previous study focusing mainly on democratic transitions.

(i) The dependant variable: civil liberties index “**Cliberties**”

The variables of political governance are diverse and come from different sources that are generally the object of debate about the choice of the appropriated indicator. This divergence comes from the definition of political governance, which even if it strives towards a base of freedom, stands out from the fundamental elements which must constitute the notion of good governance. Indeed, according to the United Nations Development Program (UNDP), the principles of good governance results in some tangible facts like free, fair and regular election, a representative legislature which proposes, approves and controls laws and an independent judicial court which interprets the laws. Furthermore, the democratic governance exists where the governmental authorities rely on the willingness of the people and are responsible for them. According to Lipset (1993), democracy is defined as a political system which supplies regular constitutional opportunities for changing the governing officials. It is a social mechanism for the resolution of the problem of societal decision-making among conflicting interest groups which permits the largest possible part of the population to influence these decisions through their ability to choose among alternative contenders for political office. These conditions are more fulfilled but there is no indicator which spans the set of fields that emerges from this definition of the UNDP. However, it exists some base elements which are summarized on the following definition of the World Bank “the good governance is epitomized by predictable, open and enlightened policy making; a bureaucracy imbued with a professional ethos; an executive arm of government accountable for its actions; and a strong civil society participating in public affairs; and all behaving under the rule of law”.

In this paper, the main chosen indicator is civil liberties of Freedom House. The “*Freedom in the World”* survey provides an annual evaluation of the progress and decline of freedom in 195 countries and 14 related and disputed territories. The survey, which includes both analytical reports and numerical ratings, measures freedom according to two broad categories: political rights and civil liberties. Civil liberties ratings are based on an evaluation of four subcategories: freedom of expression and belief, associational and organizational rights, rule of law, and personal autonomy and individual rights. Thus, civil liberties refer, for example, to associational and organizational freedom, rights to open and lead free discussion, media independence, and protection of the political terror or the prevalence of law authority.

Each country is assigned to a numerical rating from 1 to 7, with 1 representing the most free and 7 the least free. Many studies have already used these indicators as measure of the quality of political governance: Huntington, 1991, LLSV, 1999; Karatnycky, 2012; Eric Neumayer, 2002; Acemoglu, Johnson, Robinson, and Yared, 2008. Moreover, this indicator “civil liberties” has the advantage to represent an ex ante proxy of the future results of the political negotiation process. As the investors considerate the expected future cash flows and the risks when they are assessing the profitability of their investment, this measure is more appropriated. According to North (1990), a good proxy for

political institutions might consider the judgments of ex ante restriction of the investors on the government behavior rather than the ex-post performance of the government.

In order to test the robustness of our results, we use the following indicators as governance measures: political rights[1] "PolRights", corruption, law and order "LawOrder", investment profile "InvestProfile". See in appendix for more details.

(ii) The independent variables

➔**External debt in percentage of exports** "*debtexports*": We use data on external debt reported by World Development Indicators (WDI) of the World Bank. External debt has been considered in this study, because internal debt could be monetized by the central banks and wouldn't impact significantly the willingness of governments to make some changes of governance. Indeed, the leaders of a country can implement a pure and simple cancellation of the internal debt by printing banknotes in order to pay back the internal debt. Thus, considering the external debt in percentage of export enables to get an idea on the capacity of the country to pay back its debt through the exports often depending on the business environment. Moreover, the alert indicators established by the IMF and the World Bank in the framework of the HIPC initiative are in percentage of the exports[2].

For the other independent variables, we retain main those described as democracy preconditions:

➔**GDP per capita**: Perhaps the most widespread generalization linking political systems to other aspects of society has been that democracy is related to the state of economic development (Lipset, 1959). In other words, the "more well-to-do a nation, the greater the chances that it will sustain democracy". Following Barro 1999, Lipset 1959, Epstein et al. 2004, we introduce GDP per capita to control for economic development channel in democratic transitions. Epstein et al. (2004) argued that modernization predicts that GDP per capita is a consistent predictor of moves towards democracy, while Przeworski et al. (2000) would claim that it only helps current democracies remain democratic, but does not predict other movements up the democracy scale.

➔**Urbanization rate**: we include the urbanization rate drawn from World Development Indicators, which enables us to test the hypothesis that concentrated people can meet easier and therefore influence incumbents (Barro, 1999; Lipset 1959, Harold, 1937). In the literature, the sign of this influence is not clear. Indeed, an increase of urbanization makes it easier for people to meet and exchange but that makes it also easy for the incumbents to keep watching over and controlling any activity. Following Harold (1937) who argued that "organized democracy is the product of urban life", Barro(1999) found urbanized people is more likely to be democratic.

➔**Labor force**: According to Rosendorff(2001)'s theory, a decrease in the relative size of the workforce increases the likelihood of a decision by the ruling elite to negotiate a transition to democracy. Given that developing countries are characterized by a very young age structure, it is important to control for its role in democratic transitions. Indeed, not only young people are able to protest and therefore overthrow the government but also they can delay the transition by supporting the autocratic regimes.

[1] Note that we transform civil liberties and political rights indices in order to facilitate reading. See in appendix for more details.

[2] External debt on exports between 200 and 250% and debt service on exports between 20 and 25%

➔**Population**: In order to control for country size, we introduce the log of the level of population in the model, following Barro (1999); Epstein and al. (2004). The hypothesis is that places that are too large to be manageable are likely to have more pressure means on incumbents. However, large places can be non-democratic because of associated costs to finance elections, to fight corruption, and so on (For instance, the China).

All of these variables are introduced in logarithm terms.

4- Stylized facts: The indebted countries have implemented great reforms, including both political and economic.

The period 1985-2011 is marked by important governance change in developing countries. The following graph represents the mean of external debt/exports of 103 countries (our sample) in 1985, by reference to their experience about civil liberties and investment profile change.

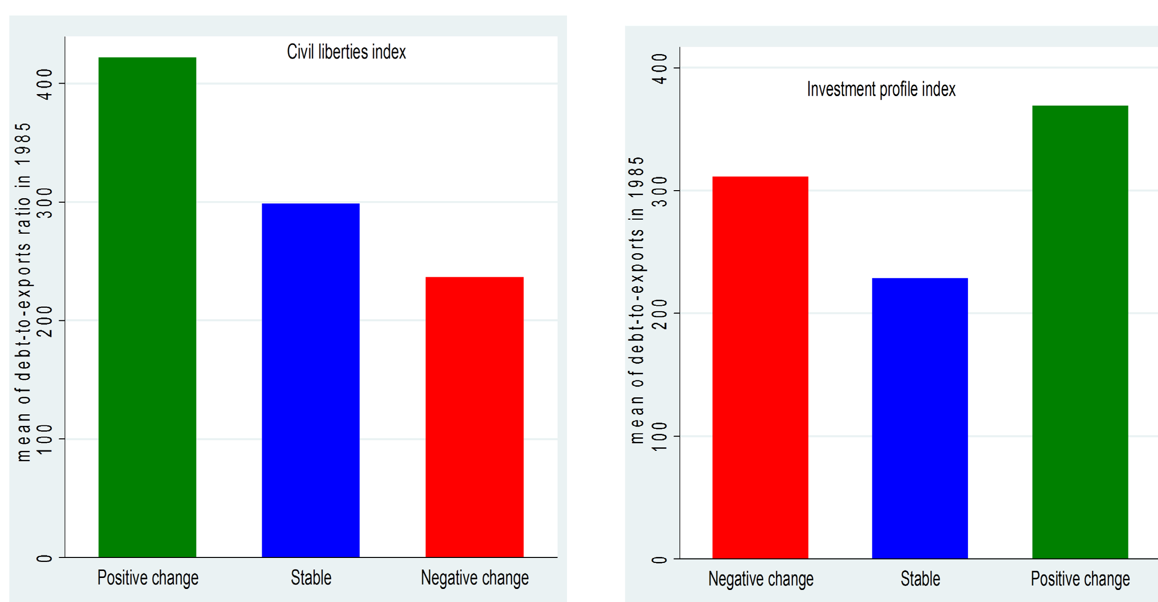

Fig.1: Mean of external debt/exports ratio in 1985 of countries experienced good governance change or not between 1985 and 2011

Since 1980, extensive efforts have been directed at generating economic recovery. These efforts included not only freedom for people but also economic policy reform. Indeed, during the period 1980s-2000s, many countries experienced their first multiparty elections or adoption of new constitution. For instance, Benin in 1991, Malawi in May 1994, Ghana in 1992, Republic of Congo in 1992, Central African Republic in 1992, Burkina Faso in 1991, Burundi in 1993 and Angola in 1992 adopted new constitution that authorized multiparty elections in their countries[3]. With an external debt/exports ratio of 263.90 for Benin, 369.68 for Malawi, 331.85 for Ghana, 242.66 for Republic of

[3] Freedom in the World Report 1998

Congo, 363.85 for Central African Republic, 306.18 for Burkina Faso, and 354.54 for Burundi in 1985, these countries were not solvent, the debt/export ratio was higher than 150%, the threshold used in the enhanced HPIC initiative. Their efforts to give power and freedom to people were necessary in order to mobilize citizens for debt reimbursement by encouraging them to tax compliance. Indeed, one strand of the literature emphasizes that higher legitimacy for political institutions leads to higher tax compliance (Torgler and Schneider 2007). Moreover, Tayler (2006) argues that legitimacy makes "people feel that they ought to defer to decisions and rules, following them voluntarily out of obligation". Legitimacy could be described as belief or trust in the authorities, institutions, and social arrangements to be appropriate, proper, just and work for the common good. According to the political legitimacy theory, tax compliance is positively related to perceptions about the government's trustworthiness (Tayler 2006; Kirchler and al. 2008, Fauvelle-Aymar 1999).

Furthermore, there were fears that debt burden could spread to the global situation and become unbearable to these countries. So, most of them implemented compulsory policies (Structural Adjustment Programs) whose the aim is to send out positive signal to creditors and international financial community. Thus, many countries adopted or extended their investment code in order to promote and protect domestic and foreign direct investment. For example, Zambia's reform agenda started in 1991 with policy shift from command to market based economy. The market based policy reform agenda was supported by enactment of laws that support and protect private enterprise. Moreover, between 1991 and 1995, Zambia adopted the following laws and acts: Income Tax Act in 1991, Investment Act in 1991, Privatization Act in 1993, Export Development Act in 1994, Securities and Exchange Act in 1994, Banking and Financial Services Act in 1994, The Zambia Revenue Act in 1994, and Companies Act in 1995 (Mwitwa, 2006). Such policy reform for investment is essential in alleviating huge debt burden. Indeed, with an external debt/export ratio of 517.19 in 1985, Zambia was not solvent and investment is essential in order to increase employment, reduce poverty, enhance economic growth and send out positive signal to international community. Uganda in 1991, Burundi in 1992, Congo in 1992, Ethiopia in 1992, Ghana in 1992, Colombia in 1991, Malawi in 1991, Ecuador in 1991, Nicaragua in 1991, Peru in 1991 and Paraguay in 1992 have also experienced adoption of investment code during the period of debt overhang[4].

5- The identification strategy

As argued by Epstein et al (2004), one of the problems bedeviling the transitions literature is the difficulty in determining the appropriate statistical technique for analysis. Indeed, many indicators of democracy or governance are by construction censored either on left or right; or in many case double censored. The latter is the regular and particularly in this paper. The dependent variable is by construction constrained and there are clustering of observations at the constraint. In this situation, the use of OLS on the complete sample or on the unclustered part is biased and inconsistent. To overcome the limitedness of the dependent variable, we use an estimation technique called tobit that explicitly takes into account that the dependent variable is constrained. The tobit model, also called a censored regression model, is designed to estimate linear relationships between variables

[4] Source: World Investment Report 1992 and 1993, Annex Table 11 and Table 4 respectively, see in appendix for more information

when there is either left- or right-censoring in the dependent variable. It will give accurate estimates for processes in which data cannot be observed out of some predetermined range. More specifically, we assume:

$$y^*_{it} = X_{it}\beta + \epsilon_{it}$$

Where $\varepsilon_{it} \sim N(0, \sigma^2)$; y^* is a latent variable that is observed for values comprised between the upper and the lower bounds of the interval.

$y_{it} = y^*_{it}$ if $a \leq y^*_{it} \leq b$; $y_{it} = a \; if \; y^*_{it} < a$; $y_{it} = b \; if \; y^*_{it} > b$

Where a and b are the upper and lower bounds of the interval, respectively.

One another problem we should address in this paper is endogeneity issue. Indeed, in the literature many authors have pointed that indebted countries are associated to poor governance (Addison and Rahman 2004; Easterly 1999). So, the estimates can suffer from reverse causality and therefore underestimate the standards errors. To face this issue, we lag by one year the external debt-to-exports ratio. It is conceivable that external debt level at $t-1$ affects governance at t but the reverse is unbelievable. Specifically, we estimate:

$$DEMOC_{i,t} = \gamma_i + DEMOC_{i,t-5} + debtexports_{i,t-1} + X_{i,t}\eta + \varphi_t + \xi_{i,t}$$

Where $DEMOC_{it}$ refers to democratic indicator for country i in time t, $debtexports$ represents the external debt-to-exports ratio, X_{it} a set of other independent variables, ξ_{it} represent error terms. We include γ_i to control for unobserved time-invariant country-level characteristics that are potentially correlated with the propensity to experience democratic transitions and φ_t to control for time-varying shocks that affect all developing countries. Following Barro (1999), we introduce 5-year lag of the dependent variable to take into account inertia about institutional variables.

6- Results

a- Baseline results

Table 1 presents the results of the estimation of tobit's method. From the outset, it is worth noting that external debt affects differently according to our selected governance indicator. Indeed, we observe that the coefficient associated with *Debtexport* is positive and significant in column (5) and negative in columns (1)-(4) and (6).

On the one hand, the positive sign associated to external debt means that indebted countries are more likely to improve investment profile than other ones. This result is consistent with the theory of political legitimacy according to which governments send positive signals in order to increase tax compliance (Tayler 2006; Kirchler and al. 2008; Fauvelle-Aymar 1999) necessary for debt reimbursement. For example, in column (5), if the level of external debt increases of 1%, the incumbents improve business climate related to investment by 15.8%. This situation can be explained by the necessity to carry out good reforms in order to take into account population demand or to give some positive signals to the donors, private domestic and foreign investors of a political willingness of business climate improvements. Furthermore, incumbents react positively to investment profile in order to maintain private sector confidence. Indeed, Haggard and Kaufman (1997) argued that the initial reactions of the private sector to economic decline typically focus on

changes in specific policies or government personnel. But if private sector actors lose confidence in the ability of the government to manage crises effectively, they can quickly recalculate the cost associated with democratization. They are particularly likely to do so when there are opportunities to ally with moderate oppositions. The defection of private sector groups substantially weakens the power of authoritarian incumbents. Not only can business groups play a direct organizational and financial role within the opposition, but the loss of confidence confronts the government with bleak prospects for future investment and growth.

Table 1 : Baseline results

	Dependent variable					
	CLiberties	PolRights	Corruption	LawOrder	InvestProfile	Polity2
5-year lag of dep. Var.	0.129***	0.148***	0.121***	0.181***	0.002	0.175***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.923)	(0.000)
Ldebtexport, t-1	-0.094***	-0.221***	-0.157***	-0.088**	0.158*	-0.424**
	(0.009)	(0.001)	(0.001)	(0.048)	(0.081)	(0.019)
lgdppc	0.718***	0.678***	-0.369**	0.864***	3.741***	1.265*
	(0.000)	(0.007)	(0.034)	(0.000)	(0.000)	(0.052)
lurban	0.742***	1.818***	0.885**	-0.398	-4.106***	3.061***
	(0.000)	(0.000)	(0.023)	(0.297)	(0.000)	(0.008)
llaborforce	-1.130**	0.468	0.657	-0.176	1.165	-8.46***
	(0.010)	(0.563)	(0.255)	(0.756)	(0.326)	(0.002)
lpopulation	0.051	-0.892	-1.930***	2.966***	7.613***	0.5814
	(0.881)	(0.166)	(0.000)	(0.000)	(0.000)	(0.776)
Constant	-8.739	-0.716	31.3073***	-51.803***	-138.83***	6.12***
	(0.157)	(0.951)	(0.000)	(0.000)	(0.000)	(0.000)
Pseudo R^2	0.528	0.404	0.353	0.426	0.239	0.245
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	1681	1610	1216	1216	1216	1521
Censored	91	284	84	81	81	74

The table reports regression coefficients and in parenthesis the associated p-value

***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%

However, be indebted has an unfavorable effect on civil liberties, political rights, law and order, corruption and democracy. Indeed, table 1 highlights that there are negative correlation between these variables and external debt (Column 1-4 and 6). For instance, an increase of 1% of external debt level in percentage of exports decreases the civil liberties indices' of 9.4 per cent in point. This unfavorable nature of the debt on reform can be explained by the associated costs to political governance. Indeed, we can hold up as an example, the remuneration of the representative elected, the organization of election, the functioning of justice, the maintenance and the respect of law, which are all costly. Thus, for an already indebted country, it must take more precaution in order to avoid an increase of the public debt. For instance, the Senegal's parliamentarians have voted the suppression[5] of the Senate by 19th September 2012 because the Senate turned out to be expensive

[5] The Senate had been implemented in 1999, and then abolished in 2001 and restored again in 2007.

for Senegal's taxpayers and so that economized resources (Euros 12 million per year) will be used to support flood victims. Burkina Faso has experienced the same case in 2002 by abolishing the Senate and we can note the following constitutional law[6]:"The experience of bicameral parliaments reveals a heaviness administrative reason of slowness, plus functioning costs very high for the fragile economies of our States. In our country, the option taken to fight against poverty commands that we must take into account the question of costs while not losing sight of the need to extend the base of democratic debate".

One other explanation of the disadvantageous effect of external debt is that foreign currency debt may reduce a country's ability to implement great reform of protection of human rights and so ensuring fair justice. For example, in January 2013, Zimbabwe's finances minister declared that after paying wages, only $217 left in the State's coffers[7] while elections are planned in August 2013. Thus, the Southern African Development Community (SADC) accepted to finance the elections[8] whose the cost is $132 million. This case of financing can improve human rights in Zimbabwe, but because of external debt overhang which is estimated to be US$10 billion[9], the country was not able to finance the elections.

But, curiously we observe external debt level has favorable effect on economic governance indicator scale (see column 5, investment profile) and negative effect on political governance scale (see column 1-4 and 6). We assume the following hypothesis:

- Investment has direct and immediate effect on the mobilization of domestic resources while political reforms' effect depends on citizen's willingness to pay tax. Citizens' expectations are much diversified while the objective of investors is to maximize profits. Thus, if government adopts sound policy on investment, investors react quickly in order to benefit from the situation, but if government takes political measures, it is not sure that citizens are reassured on the use of public resources, important determinant of tax compliance. As hypothesized by Lipset (1959), crisis of legitimacy occur during a transition to a new social structure, if all major groups do not secure access to the political system early in the transitional period, or at least as soon as they develop political demands.
- Political governance reforms are costly than promotion of investment reform. Indeed, the decision to adopt new law depends on the capacity of the country to hold up the associated costs, like the functioning of justice related to the new law, and sometimes the new law takes long time to be effective. Lipset (1993) argued that efforts to institutionalize freedom in low income countries face severe difficulties inherent in the fact that new democratic rights encourage demands and actions that destabilize the economy (because of high costs).

Moving on control variable, we observe that the coefficient associated to GDP per capita is significant and positively correlated to civil liberties, political rights, law and order; investment profile and polity2. This is consistent with theory according to which wealthy society is more likely to sustain democracy (Lipset, 1953; Epstein 2004). However, the results shed light that wealthy countries are

[6] N°001-2002/AN, 22th January 2002
[7] http://www.rfi.fr/emission/20130131-plus-que-217-dollars-dans-caisses-zimbabwe
[8] http://ewn.co.za/2013/05/28/African-neighbours-to-fund-Zimbabwe-elections---Mugabe
[9] http://www.thestandard.co.zw/2013/10/13/us10-bn-external-debt-holding-zim-back/

also corrupted. As argued by Bardhan (1997), corruption is an ancient problem and has always been with us. Following with this assertion, both poor and wealthy countries are struck by corruption.

The coefficient associated to urbanization rate is consistent with theory according to which urban population has ability to organize and is therefore difficult for a dictator to suppress (Harold 1937; Lipset 1953). However, in column (5) urbanization rate is negatively related to investment profile.

Furthermore, we observe that labor force has negative and significant coefficient, so consistent with Rosendorff(2001)'s theory. According to this theory, a decrease in the relative size of the workforce increases the likelihood of a decision by the ruling elite to negotiate a transition to democracy.

At last, the negative coefficient associated to population in column (3) mean that great places are more corrupted. Indeed, as corruption exists both at micro and macro level it may appear harder for the central authority to monitor and control all citizens if they are many (for example the China).

b- Robustness

To check the validity of our findings we undertake a number of robustness exercises.

(i) Testing for additional controls on baseline specification

We add further controls in the baseline specification in order to take into account other variables likely to affect democratic transitions. These additional controls are GDP growth rate "GDPgrowth", investment rate "investment", trade openness "openness", the ratio of female to male primary enrollment "educInequality", and international reserve "Reserve". All the data are drawn from World Development Indicators, the World Bank. We present here the results with civil liberties as main dependent variable. The results hold for other governance indicators.

In column (1), we control for a widely shared view among researchers according to which changes of governance are often provoked by shocks and economic crisis (Acemoglu and Robinson, 2001; Haggard and Kaufman, 1995, Huntington (1991)). However, we observe that the coefficient associated to economic growth is positive and significant, so meaning that economic shock is followed by democracy downward. Moreover, external debt remains unfavorable to civil liberties.

In column (2) we include investment in percentage of GDP. Investment can enable government to meet some citizen's needs and so delaying governance reform. If investment is small, that can lead the country in violence and get the government to undertake emergency governance reform. The results shed light that investment is positively correlated to civil liberties. Moreover, our main hypothesis about external debt remains valid.

Table 2 : Testing for additional controls on baseline specification

	Dependent variable : civil liberties index				
	Gdpgrowth	Investment	Openness	EducInequality	Reserve
5-year lag of dep.va	0.125***	0.110***	0.133***	0.203***	0.131***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Ldebtexport, t-1	-0.0818**	-0.0898**	-0.106***	-0.13***	-0.079**
	(0.029)	(0.016)	(0.007)	(0.008)	(0.033)
lgdppc	0.671***	0.422***	0.63***	0.401*	0.73***
	(0.000)	(0.002)	(0.000)	(0.060)	(0.000)
lurban	0.741***	0.908***	0.690***	0.379*	0.71***
	(0.000)	(0.000)	(0.001)	(0.066)	(0.000)
llaborforce	-1.134***	-2.172***	-1.34***	-1.331**	-1.19***
	(0.008)	(0.000)	(0.003)	(0.015)	(0.005)
lpopulation	-0.023	0.467	-0.275	-0.997*	-0.127
	(0.951)	(0.240)	(0.481)	(0.062)	(0.741)
Additional control	0.015***	0.24***	0.047*	0.199	-0.016
	(0.000)	(0.000)	(0.668)	(0.548)	(0.613)
Constant	8.205	-4.653	1.891	-14.206	10.198
	(0.223)	(0.525)	(0.792)	(0.129)	(0.132)
Pseudo R^2	0.534	0.5315	0.5294	0.614	0.5333
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Obs.	1675	1593	1660	1536	1664
Censored	90	83	91	64	85

The table reports regression coefficients and in parenthesis the associated p-value

***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%

Given that developing countries are exposed to world trade fluctuations, we include in column (3) the variable trade openness “Openness” defined as sum of imports and exports in percentage of GDP in order to control for its possible effect on governance. This idea is consistent with Huger and al. (1993) that highlighted that be exposed to fluctuations in world markets penalize the stabilization and legitimating of regimes. The results (column 3) shed light that even controlling for openness, external debt still affects negatively civil liberties.

In column (4), we control for the ratio of female to male primary enrollment and international reserve, respectively. Following Barro (1999), the ratio of female to male primary enrollment is a relevant indicator of education system. Furthermore, this indicator measure inequality in education system, and can be used as income inequality indicator. The results highlight that debt penalizes freedom in developing countries, but the coefficient associated to ratio of female to male primary enrollment is not significant.

In the last column, we control for international reserve, respectively. Indeed, controlling for international reserve allow us to test the idea according to which holding foreign currencies may create less pressure for democratization because incumbents can use them to meet citizens’

demands. However, the two variables are not significant while external debt still affects negatively civil liberties.

(ii) Testing for alternative main independent variable

Heretofore, we have used the level of external debt as main independent variable, but now we use a dummy variable that takes one if the country experienced external debt default and zero otherwise. The data come from Reinhart and Rogoff (2010)'s database. The results (table 3) show that external debt crisis affects negatively corruption, law and order; and investment profile. Except investment profile, this finding is consistent with table 1 when we used external debt in level.

As for investment profile, the finding is curious. Why has external debt level positive effect on investment profile while external debt default has the opposite effect? In order to answer this question, we present in table A5 (see in appendix) the results of previous findings about investment profile in addition to a new column where we include interactive variable between external debt-to-exports ratio and external debt default. Table 4 highlights that external debt level has positive effect on investment profile while debt default has the opposite effect. The indebted countries sign most of time treaties with creditors and so improving investment profile (profits repatriation, etc). While experiencing external debt default sends out negative signal of the country and therefore diminish its capacity to negotiate with other countries. Indeed, each country does not want to sign a partnership with one other risked country. Thus, the risked country either will have fewer partnerships with other countries or it will try to increase control on capital flows and therefore deteriorating investment profile.

Furthermore, another alternative of main independent variable is debt-to-GDP. The results reported in table A4 (see in appendix) are consistent with those of table 1.

Table 3 : Testing for alternative main independent variable

	Dependent variable					
	CLiberties	PolRights	Corruption	LawOrder	InvestmentPro	Polity2
5-year lag of dep. Var.	0.157***	0.2245***	0.1339***	0.1829***	0.0773**	0.233***
	(0.000)	(0.000)	(0.001)	(0.000)	(0.043)	(0.000)
Debtcrisis, t-1	-0.0361	-0.0451	-0.1710**	-0.271***	-0.704***	0.451
	(0.658)	(0.747)	(0.023)	(0.001)	(0.000)	(0.152)
lgdppc	0.737**	1.256***	0.022	1.5011***	3.808***	-4.21***
	(0.012)	(0.008)	(0.929)	(0.000)	(0.000)	(0.000)
lurban	1.3038*	8.91***	-0.0677	-2.410***	-6.197***	16.15***
	(0.092)	(0.000)	(0.933)	(0.001)	(0.000)	(0.000)
llaborforce	-1.736**	-0.5414	0.304	-0.928	-1.763	-11.1***
	(0.026)	(0.711)	(0.673)	(0.232)	(0.235)	(0.001)
lpopulation	0.7356	1.747	-1.505**	2.875***	2.647**	4.930*
	(0.292)	(0.186)	(0.014)	(0.000)	(0.030)	(0.093)
Constant	-3.785	22.507	25.687**	-43.72***	-37.055*	-64.954
	(0.768)	(0.357)	(0.010)	(0.000)	(0.074)	(0.238)
Pseudo R^2	0.513	0.408	0.327	0.413	0.216	0.289
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	616	585	647	647	647	626
Censored	31	107	61	61	61	42

The table reports regression coefficients and in parenthesis the associated p-value

***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%

(iii) Do HIPC initiative, IMF programs and openness dampen debt constraint on democratic transitions?

➔HIPC initiative

The Breton Woods institutions (World Bank and IMF) have launched in 1996 the HIPC initiative which has as objective to reduce the debt of some poor countries in order to promote economic growth and sound economic policy. This initiative was agreed by governments around the world, and represented an important step forward in placing debt relief within an overall framework of poverty reduction. According to IMF, to date, fixtures debt reduction under the HIPC initiative were approved for 36 countries, including 30 in Africa, providing relief from US $76 billion of debt service over the years. However, the decision to reduce or cancel the debt of a country is preceded by an assessment of the economic governance effectiveness. Indeed, upstream is the concept of good governance on compliance with human rights, the principles of law, the strengthening of democracy, the promotion of transparency and the proper functioning of the public administration. Furthermore, debt relief frees resource to finance activities related to good governance promotion and therefore the benefit is double: upstream the country must undertake sound policy and downstream the assistance gives more space for more activities.

In order to assess the effect of the HIPC initiative on democracy, we interact debt with a dummy variable that takes one if year after the implementation of the HIPC initiative (1996) and zero otherwise. On the whole, the results reported in table 5 show that the HIPC initiative has positive effect on democracy. Indeed, debt relief dampens budget constraints of indebted countries and so allows financing of good governance.

Table 4: Testing for HIPC initiative effect on democratic transitions

	Dependent Variable					
	CLiberties	PolRights	Corruption	LawOrder	InvestProfile	Polity2
5-year lag of dep. Var.	0.125***	0.144***	0.121***	0.171***	0.001	0.171***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.968)	(0.000)
Ldebtexport, t-1	-0.172***	-0.364***	-0.168***	-0.40***	0.063	-0.717***
	(0.001)	(0.000)	(0.005)	(0.000)	(0.553)	(0.003)
Debt*year1996	0.106***	0.187**	0.017	0.473***	0.145	0.403**
	(0.007)	(0.014)	(0.751)	(0.000)	(0.125)	(0.028)
lgdppc	0.760***	0.713***	-0.361**	1.128***	3.819***	-1.113*
	(0.000)	(0.006)	(0.035)	(0.000)	(0.000)	(0.084)
lurban	0.668***	1.720***	0.883**	-0.469	-4.132***	2.710**
	(0.001)	(0.003)	(0.038)	(0.256)	(0.000)	(0.021)
llaborforce	-1.211***	-0.323	0.641	-0.623	1.031	-9.091***
	(0.004)	(0.684)	(0.245)	(0.268)	(0.381)	(0.001)
lpopulation	0.041	1.066	-1.943***	2.613***	7.512***	0.124
	(0.914)	(0.141)	(0.000)	(0.000)	(0.000)	(0.951)
Constant	6.533	-3.60	31.585***	-43.1***	-36.571***	34.347
	(0.342)	(0.772)	(0.000)	(0.000)	(0.000)	(0.345)
Pseudo R^2	0.53	0.405	0.353	0.462	0.240	0.246
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	1681	1610	1216	1216	1216	1521
Censored	91	284	84	81	81	74

The table reports regression coefficients and in parenthesis the associated p-value

***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%

➔IMF programs

In this section, we analysis the role of donors, particularly the International Monetary Fund. Indeed, Huntingtonn (1991) predicted that in the 1990s the International Monetary Fund (IMF) and the World Bank could conceivably become much more forceful than they have heretofore been in making political democratization as well as economic liberalization a precondition for economic assistance (Huntingtonn 1991 :17). In spite of the fact that the IMF does not work exclusively on governance promotion, its interventions can play a great role in indebted countries. When the debt crisis has broken out in Mexico in 1982, the IMF has increased its interventions in debtor countries by coordinating a global response in order to eliminate the problem. It implemented the Structural

Adjustment Facility in 1986, the Enhanced Structural Adjustment Facility in 1987, the Heavily Indebted Poor Countries Initiative in 1996, the Poverty Reduction and Growth Trust (PRGT) in 2009. All of these programs aim to promote growth in poor countries by reforming sectors' governance and cancelling debt of some countries. As argued by Brinkerhoff (2000), sectoral programs and policy reform can contribute to democratic governance by creating opportunities for participation, accountability, and transparency that advance the larger transformation process toward more democratic governance. Thus, we include interactive variable that control for the effect of IMF's interventions.

Table 5: Testing for IMF programs effect on democratic transitions

	Dependent Variable					
	CLiberties	PolRights	Corruption	LawOrder	InvestPro	Polity2
5-year lag of dep. Var.	0.134***	0.152***	0.1203***	0.178***	0.0072	0.176***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.796)	(0.000)
Ldebtexport, t-1	-0.114***	-0.246***	-0.1546**	-0.097**	-0.1387	-0.5066***
	(0.003)	(0.000)	(0.001)	(0.025)	(0.150)	(0.005)
ldebt*imf	0.0285***	0.035**	-0.004	0.0159*	0.016	0.120***
	(0.000)	(0.015)	(0.589)	(0.068)	(0.338)	(0.003)
imf	0.3266*	0.145**	0.412	0.203*	0.0845	0.321*
	(0.098)	(0.042)	(0.156)	(0.062)	(0.863)	(0.073)
Lgdppc	728***	0.714***	-0.377**	0.874***	3.737***	-1.227*
	(0.000)	(0.007)	(0.027)	(0.000)	(0.000)	(0.057)
Lurban	0.682***	1.788***	0.932**	-0.3648	-4.109***	2.794**
	(0.001)	(0.001)	(0.033)	(0.423)	(0.000)	(0.015)
Llaborforce	-1.1705***	-0.427	0.674	-0.135	1.168	-9.064***
	(0.005)	(0.594)	(0.223)	(0.818)	(0.327)	(0.001)
Lpopulation	0.044	0.9322	-1.907***	3.008***	7.592***	0.2307
	(0.907)	(0.196)	(0.000)	(0.000)	(0.000)	(0.911)
Constant	6.893	0.079	30.732***	2.592***	-38.39***	31.716**
	(0.310)	(0.995)	(0.001)	(0.000)	(0.000)	(0.393)
Pseudo R^2	0.529	0.405	0.351	0.426	0.238	0.2469
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	1664	1593	1200	1200	1200	1521
Censored	91	284	84	81	81	74

The table reports regression coefficients and in parenthesis the associated p-value

***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%

The results reported in table 6 highlight that IMF programs dampen the negative effect of external debt on democracy. A part from the impact of sectoral program and policy reform shed light by Brinkerhoff (2000), IMF provided debt forgiveness grants or reduction (Heavily Indebted Poor Countries Initiative and Multilateral Debt Relief Initiative) and therefore free resource to finance costs associated to democratic transition.

➔International financial integration

Given that the ability of country to finance its policy is related to its ability to borrow in international market, we include an interactive variable in order to evaluate the effect of international financial integration and trade openness on democratic transition. We use a measure of international financial integration constructed by Lane and Milesi-Ferretti (2007). The variable is defined as follows:

$$IFIGDP_{it} = \frac{(FA_{it} + FL_{it})}{GDP_{it}}$$

Where $FA(FL)$ denotes the stock of external assets (liabilities).

While financial integration can increase economic efficiency, it also creates greater uncertainty about citizens' future income positions, against which they might plausibly seek insurance through the marketplace or through constitutionally arranged income redistribution. The availability of insurance mechanisms to citizens is key if political pressure for capital controls is to be averted and public support for a liberal international financial order is to be maintained (Dailami, 2000). Furthermore, be financially integrated can incite country to become more democratic if it wants to benefit from low interest rates.

Table A6 (in appendix) show that integrated countries are more free (column 1) while they suffer of poor judicial system (column 4). The reason is that not only integrated countries can easily mobilize resource to finance civil liberties promotion but also they promote freedom in order to benefit from rating agency's evaluations (S & P, Moody's, and so on) and therefore low borrowing rates. The negative coefficient of financial integration on judicial system can be explained by the citizens' fairs about loss of income and so they compel authority to increase capital controls. Thus, the judicial system may appear not impartial.

(v) Dealing with endogeneity?

In this part, we discuss about endogeneity. Up down to now, we have lagged debt in order to reduce endogeneity issue. While this assumption holds, one can argue that be indebted is related to political and economic governance. Indeed, according to Addison and Rahman (2004), the likelihood to become a HIPC is positively associated with poor governance. However, this assertion cannot be used to justify the debt of developed and democratic countries (United States of America, Japan, France, England, etc). Buchanan (1958) has demonstrated that the debt of developed countries is mainly due to the democratic values of these countries. This makes confusion in the debt explanation.

Following Panizza and Presbitero (2012), we propose to address the endogeneity issue by instrumenting the debt-to-GDP ratio with the real effective exchange rate. Expressly, we consider a country that has issued external debt denominated in N currencies. Then, given that debt is expressed in foreign currency, so fluctuations of real effective exchange rate affect the level of debt. Furthermore, an appreciation of the real effective exchange rate reduces the debt ratio denominated in foreign currency.

In order to use real exchange rate as an instrument, two conditions should be met: (a) real exchange rate needs to be relevant (i.e., it needs to be correlated with external debt) and (b) exogenous (i.e., it

should be uncorrelated with our governance indicator). Focusing first on relevance, it appears to be guaranteed by the fact that there is a mechanical relationship between the external debt-to-GDP ratio and the real effective exchange rate. Furthermore, our main variable is defined in foreign currency and therefore likely to be highly correlated to real effective exchange rate. Given that our sample is made up of developing countries, using the real exchange rate is relevant because these countries are more likely to experience currency issue than developed countries.

With respect to exogeneity, as we estimate two-step tobit with endogenous regressor (external debt), we will test the null hypothesis of exogeneity by using Wald test. Prior to this test, we do not believe that real exchange rate has direct effect on our selected dependent variables (i.e civil liberties, political rights, corruption, polity2, investment profile, law and order) . However, we include GDP growth in our regression in order to take into account the expected effect of real exchange rate on economic growth. Indeed, Rodrik (2008) shows that the real exchange rate is an important driver of economic growth and that undervalued exchange rates are associated with higher economic growth. Thus, controlling for the GDP growth will eliminate direct or indirect effect of real exchange rate on democracy. In order words, we are confident about the validity of the exogeneity of our instrument.

We turn now to data and results. The data of real effective exchange rate are drawn from World Development Indicators, the World Bank. Real effective exchange rate is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs. The results are presented in table 9.

At the bottom of the table is a Wald test of the exogeneity of the instrumented variables (external debt). If the test statistic is not significant, there is not sufficient information in the sample to reject the null that there is no endogeneity. Then a regular tobit regression may be appropriate; the point estimates from two-step tobit are consistent except in column (2), though those from tobit are likely to have smaller standard errors. Our instrumented variable is endogenous and therefore confirms the use of two-step estimator. Furthermore, we observe that the real effective exchange rate is strongly significant and negatively associated to external; an appreciation of the national currency reduces the debt in foreign currency.

On the whole, two-step tobit and tobit are similar about the sign associated to external debt. On the one hand, external debt prevents indebted countries to promote good political governance because of associated costs to political reforms. On the other hand, indebted countries are more likely to improve investment profile and therefore confirm the theory of political legitimacy according to which governments send positive signals in order to increase tax compliance by improving business climate related to investment.

Table 6: robustness: dealing with endogeneity

	Second stage: Dependent Variable				
	CLiberties	Corruption	Law	InvestProfile	Polity2
5-year lag of dep. Var.	0.218***	0.184***	0.225***	-0.071	0.404***
	(0.000)	(0.000)	(0.000)	0.217	(0.000)
ldebtgdp	-0.517*	-0.371**	-0.445**	2.801***	-4.959**
	(0.055)	(0.024)	(0.019)	(0.001)	(0.015)
lgdppc	1.062***	-1.701***	0.666**	4.613***	1.310
	(0.000)	(0.000)	(0.016)	(0.000)	(0.344)
lurban	1.513***	2.320**	-2.304**	-16.22***	-0.653
	(0.003)	(0.039)	(0.038)	(0.000)	(0.868)
llaborforce	-0.122	-2.431**	-1.212	-2.020	-13.372**
	(0.894)	(0.010)	(0.190)	(0.436)	(0.021)
lpopulation	0.345	-3.826***	2.880**	16.608***	18.903***
	(0.628)	(0.002)	(0.013)	(0.000)	(0.002)
Gdpgrowth	0.029***	0.011**	0.091*	0.0102	0.110***
	(0.000)	(0.042)	(0.079)	(0.522)	(0.001)
Constant	11.834	78.771***	-36.784**	-31.021***	-66.07**
	(0.304)	(0.000)	(0.038)	(0.000)	(0.010)
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
Obs.	787	608	608	608	742
Censored	69	51	51	51	43
First stage for Debtgdp					
lrer	-0.486***	-0.419***	-0.435***	-0.401***	-0.372***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
5-year lag of dep. Var.	-0.058***	-0.078***	-0.088***	0.026**	-0.024***
	(0.004)	(0.002)	(0.000)	(0.025)	(0.000)
lgdppc	-0.069	-0.682***	-0.504***	-0.697***	-0.337***
	(0.566)	(0.000)	(0.000)	(0.000)	(0.006)
lurban	0.357	2.918***	3.052***	3.376***	1.040***
	(0.246)	(0.000)	(0.000)	(0.000)	(0.002)
llaborforce	1.533***	0.811	0.857	0.937	0.868
	(0.005)	(0.168)	(0.143)	(0.113)	(0.158)
lpopulation	-2.026***	-3.853***	-3.650***	-3.889***	-2.622***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Gdpgrowth	-0.033**	0.024	0.0068	0.0257	-0.001
	(0.036)	(0.508)	(0.850)	(0.488)	(0.959)
Constant	31.329***	57.65***	52.343***	55.525	43.510***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Adj R-squared	0.699	0.7966	0.7987	0.7947	0.7359
Country fixed effects	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes
P-Value for Wald test of exogeneity	0.0745	0.9189	0.0474	0	0

The table reports regression coefficients and in parenthesis the associated p-value; ***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%

7- Conclusion and Recommendations

The analysis of this paper has shown that external debt constraints indebted countries to move up democracy scale but incite governments to improve investment profile and therefore improving business climate. The negative coefficient associated to political governance is mainly due to associated costs to political affairs like the organization of election, the functioning of justice, the maintenance and the respect of law, which are all costly. This finding is against-swing by the experience about investment arrangements whose incumbents are more likely to undertake sound policy during debt burden in order to (i) improve business climate environment and send out positive signal to international financial community, (ii) to collectivize the debt and incite taxpayers for its reimbursement (political legitimacy theory).

Given the overwhelming importance of good governance for economic development, we suggest the following recommendations:

(i) As argued by Jaime De Melo (2010):”the Official Development Assistance, initially granted for projects, has been run towers economic and good governance reforms”. To that end, the international financial community must increase their assistance aiming to promote good governance. Moreover, because the indebted countries are facing high costs related to political governance, the international community should implement “World Wide Fund for Governance” in order to support the indebted countries and protecting political rights and civil liberties around the world.

(ii) Given that HIPC initiative and IMF programs dampen external debt effect on democratic transitions, we call for an increase of debt relief intended for developing countries. This will relax debt constraint on democracy promotion while improving the quality of public finance and therefore fighting against poverty.

(iii) In view of our results about investment profile, developing countries should continue to undertake sound policy reforms and do not relaxing because of “generosity” of international financial community. Indeed, investment is essential in order to increase employment, reduce poverty, enhance economic growth and send out positive signal to investors and international community.

The analysis in this paper would be completed by further investigation about the relation of debt to democracy by focusing on what happens to democracy when a country is not able to finance its own policies. This kind of study can also try to estimate necessary funds to mobilize in order to promote good governance in developing countries.

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APPENDIX

(a)- Descriptive statistics

Table A1: Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
debtexport	2305	308.718	442.1399	4.584606	4223.91
debtcrisis	858	0.3344988	0.4720902	0	1
PolRights	2642	4.145344	1.9787	1	7
CLiberties	2642	4.10106	1.593486	1	7
corruption	1772	2.498001	1.021318	0	6
law	1772	2.873989	1.117381	0	5
investProfile	1772	6.383489	2.160196	0	11.5
polity2	2261	1.494471	6.380528	-10	10
gdppc	2553	3744.251	3508.231	101.5976	22866.96
urban	2754	41.19307	20.11393	5.057	93.5048
laborforce	2178	67.90969	10.52372	41	91.5
population	2754	4.21E+07	1.58E+08	67400	1.34E+09
gdpgrowth	2589	3.857491	6.07401	-51.03086	106.2798
investment	2462	21.93173	9.491048	-2.424358	152.7291
Unemployment	946	8.646787	6.041622	0.1	59.5
reserve	2532	1.26E+10	1.18E+11	-628535.5	3.25E+12
trade openness	2577	75.46927	39.00129	10.83072	280.361
imf programs	2703	0.4520903	0.4977915	0	1
rer	1133	4539.245	129910.4	19.52734	4342820
integration	2617	1.639167	3.078505	0.046	77.1
mortality	2781	59.07875	35.90666	6.8	165.5
EducInequality	1579	90.25955	15.95411	0	131.245
hipc	2781	0.3786408	0.4851356	0	1

(b) Sample

Table A2: Sample

Country's name		
Afghanistan	Grenada	Philippines
Angola	Guatemala	Papua New Guinea
Argentina	Guyana	Paraguay
Burundi	Honduras	Rwanda
Benin	Haiti	Senegal
Burkina Faso	Indonesia	Solomon Islands
Bangladesh	India	Sierra Leone
Belize	Iran	El Salvador
Bolivia	Jamaica	Somalia
Brazil	Jordan	Sao Tomé and Principe
Bhutan	Kazakhstan	Swaziland
Botswana	Kenya	Seychelles
Central African Rep.	Kyrgyz Republic	Syrian Arab Republic
Chile	Cambodia	Chad
China	Lao PDR	Togo
Côte d'Ivoire	Lebanon	Thailand
Cameroon	Liberia	Tajikistan
Congo	Lesotho	Tonga
Colombia	Madagascar	Turkey
Comoros	Maldives	Tanzania
Cape Verde	Mexico	Uganda
Costa Rica	Mali	Uruguay
Djibouti	Mongolia	Uzbekistan
Dominica	Mozambique	St. Vincent and the Grenadine
Dominican Republic	Mauritania	Venezuela
Ecuador	Mauritius	Vietnam
Eritrea	Malawi	Vanuatu
Ethiopia	Malaysia	Samoa
Fiji	Niger	Yemen
Gabon	Nigeria	South Africa
Ghana	Nicaragua	Dem. Rep. Congo
Guinea	Nepal	Zambia
The Gambia	Pakistan	Zimbabwe
Guinea-Bissau	Panama	Peru

(c) Data description

-**Political Rights** "*PolRights*" of Freedom House: the ratings are based on an evaluation of three subcategories: electoral process, political pluralism and participation, and functioning of government. Political rights refer, for example, to the existence and the equity of elections, the existence of the opposition and the possibility to take the power through elections. Like civil liberties, each country is assigned to a numerical rating from 1 to 7, with 1 representing the most free and 7 the least free.

-***Corruption***: This is an assessment of corruption within the political system. Such corruption is a threat to domestic and foreign investment for several reasons: it distorts the economic and financial environment; it reduces the efficiency of government and business by enabling people to assume positions of power through patronage rather than ability; and, last but not least, introduces an inherent instability into the political process. This variable is rated from 0 to 6, with 0 representing very high risk of corruption.

-**Law and Order** "*LawOrder*" form a single component, but its two elements are assessed separately, with each element being scored from zero to three points. To assess the "Law" element, the strength and impartiality of the legal system are considered, while the "Order" element is an assessment of popular observance of the law. Each country is assigned to numerical rating from 0 to 6, with 6 representing very low risk of law and order.

-**Investment Profile** "*InvestProfile*": This is an assessment of factors affecting the risk to investment that are not covered by other political, economic and financial risk components. The risk rating assigned is the sum of three subcomponents: contract viability/expropriation, profits repatriation, and payment delays. The variable is rated from 0 to 12, high values mean very low risk of investment.

Law and Order, Corruption and Investment Profile are drawn from International Country Risk Guide (ICRG) database, 2013.

-**Polity 2**: we use the Polity2 Index, which is a revised combined polity score ranging from -10 to +10 where higher values indicate a higher level of democracy and political freedom. The data are drawn from the Polity4 Project (Integrated Network for Societal Conflict Research (INSCR) 2013).

(d) robustness: testing for lag of debt-to-exports ratio

Table A3: robustness: testing for lag of debt-to-exports ratio

	Dependent variable					
	Cliberties	PolRights	Corruption	LawOrder	InvestProfile	Polity2
5-year lag of dep. Var.	0.131***	0.150***	0.112***	0.180***	0.0106	0.182***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.697)	(0.000)
Ldebtexports, t-2	-0.046**	0.086	-0.140***	-0.018	0.1008*	-0.072*
	(0.041)	(0.21)	(0.003)	(0.696)	(0.098)	(0.073)
lgdppc	0.766***	0.832***	0.394**	0.932***	3.631***	-0.749
	(0.000)	(0.001)	(0.024)	(0.000)	(0.000)	(0.264)
lurban	0.749***	1.916***	1.002**	-0.372	-3.986***	3.023**
	(0.000)	(0.000)	(0.010)	(0.331)	(0.000)	(0.008)
llaborforce	-1.138**	-0.541	0.545	-0.150	0.875	-8.279***
	(0.010)	(0.505)	(0.345)	(0.792)	(0.463)	(0.002)
lpopulation	-0.24	0.286	1.755***	3.354***	7.430***	2.051
	(0.478)	(0.653)	(0.000)	(0.000)	(0.000)	(0.262)
Constant	12.48**	13.459	28.648***	-58.14***	-33.965***	-7.864
	(0.042)	(0.240)	(0.001)	(0.000)	(0.000)	(0.814)
Pseudo-R^2	0.5253	0.402	0.353	0.424	0.2396	0.244
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	1683	1610	1211	1211	1211	1526
Censored	89	285	84	81	51	74

The table reports regression coefficients and in parenthesis the associated p-value

***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%

(e) Testing for alternative main independent variable: Debt-to-GDP

Table A4: Testing for alternative main independent variable: Debt-to-GDP

	Dependent variable					
	Cliberties	PolRights	Corruption	LawOrder	InvestProfile	Polity2
5-year lag of dep. Var.	0.165***	0.158***	0.097***	0.208***	0.014	0.181***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.596)	(0.000)
Ldebtgdp, t-1	-0.046*	-0.055	-0.307***	-0.098**	0.064**	-0.226**
	(0.072)	(0.144)	(0.000)	(0.027)	(0.049)	(0.025)
lgdppc	0.773***	0.755***	-0.629***	0.617***	2.855***	-0.471
	(0.000)	(0.001)	(0.000)	(0.000)	(0.000)	(0.441)
lurban	0.840***	1.841***	1.163***	-0.696*	-3.271***	4.063***
	(0.000)	(0.000)	(0.003)	(0.064)	(0.000)	(0.001)
llaborforce	0.7153	1.602*	-0.106	-0.218)	2.561**	-4.041
	(0.127)	(0.069)	(0.851)	(0.686)	(0.028)	(0.155)
lpopulation	0.166	0.251	-2.269***	2.349***	6.690***	2.232
	(0.592)	(0.666)	(0.000)	(0.000)	(0.000)	(0.236)
Constant	-8.547	-20.699**	41.526***	-37.38***	-25.94***	-34.932
	(0.129)	(0.048)	(0.000)	(0.000)	(0.000)	(0.328)
Pseudo-R^2	0.5339	0.4158	0.3573	0.444	0.243	0.2537
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	1824	1749	1268	1268	1268	1628
Censored	133	363	98	98	98	100

The table reports regression coefficients and in parenthesis the associated p-value

***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%

(f) Investment profile, external debt level and debt default

Table A5: investment profile, external debt level and debt default

	Dependent variable: investment Profile		
5-year lag of dep. Var.	0.002	0.0773**	0.044
	(-0.923)	(-0.043)	(0.299)
Ldebtexport, t-1	0.158*		0.303**
	(0.093)		(0.046)
Crisis, t-1		-0.704***	
		(0.000)	
Debt*Crisis, t-1			-0.135***
			(0.000)
lgdppc	3.741***	3.808***	4.409***
	(0.000)	(0.000)	(0.000)
lurban	-4.106***	-6.197***	-6.968***
	(0.000)	(0.000)	(0.000)
llaborforce	1.165	-1.763*	-1.848**
	(-0.326)	(-0.053)	(0.021)
lpopulation	7.613***	2.647**	4.962***
	(0.000)	(-0.030)	(0.003)
Constant	-38.83***	-37.055*	-77.481***
	(0.000)	(-0.074)	(0.005)
Pseudo R^2	0.239	0.216	0.21
Country fixed effects	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes
Obs.	1216	647	617
Censored	81	51	50

The table reports regression coefficients and in parenthesis the associated p-value

***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%

(g) Testing for openness effect on democratic transitions

Table A6: Testing for financial integration effect on democratic transitions

	Dependent variable					
	CLiberties	PolRights	Corruption	Law	InvestProfile	Polity2
5-year lag of dep. Var.	0.136***	0.147***	0.111***	0.183***	0.005	0.181
	(0.000)	(0.000)	(0.000)	(0.000)	(0.855)	(0.000)
Ldebtexports, t-1	-0.155***	-0.182**	-0.094*	0.043	0.388***	-0.468**
	(0.001)	(0.018)	(0.056)	(0.450)	(0.001)	(0.035)
debt*integration	0.092***	0.0039	0.259***	-0.127***	-0.160**	0.261*
	(0.000)	(0.940)	(0.000)	(0.001)	(0.041)	(0.074)
lintegration	-0.406***	0.087	-1.701***	0.443**	0.403	-1.474*
	(0.000)	(0.742)	(0.000)	(0.046)	(0.385)	(0.09)
lgdppc	0.664***	0.724***	-0.285*	0.986***	3.918***	-1.233*
	(0.000)	(0.006)	(0.085)	(0.000)	(0.000)	(0.063)
lurban	0.659***	1.819***	0.770	-0.341	-4.005***	3.031***
	(0.001)	(0.001)	(0.067)	(0.437)	(0.000)	(0.009)
llaborforce	-1.101**	-0.473	0.646	-0.302	0.726	-8.244***
	(0.010)	(0.555)	(0.257)	(0.616)	(0.540)	(0.002)
lpopulation	0.106	0.957	-2.320***	3.002***	7.458***	0.409
	(0.782)	(0.192)	(0.000)	(0.000)	(0.000)	(0.841)
Constant	5.263	0.215	37.292***	-52.579	-37.176***	24.454
	(0.439)	(0.986)	(0.000)	(0.000)	(0.000)	(0.503)
Pseudo-R^2	0.5315	0.4044	0.3737	0.435	0.2431	0.2458
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Obs.	1679	1608	1214	1214	1214	1519
Censored	91	284	84	81	81	74

The table reports regression coefficients and in parenthesis the associated p-value

***p<0.01, significant at 1% ; **p<0.05, significant at 5%; *p<0.10, significant at 10%