

# Determinants of a Business Environment Reform Agenda in Rwanda

Wolfgang Veit\* and Christian Streege\*\*

*In reforming a country's business environment, a government may adopt three strategies: first, to satisfy demand for reforms voiced by firms, second to stimulate growth by reducing economic regulatory cost, and third to create public awareness of foreign investors by improving the international rankings of a country. These propositions for government behavior are developed and tested for Rwanda. Only regulatory cost shows a clear positive relationship with the reform agenda in Rwanda.*

**JEL Codes:** K2,L5,R5

## 1. Introduction

Red Tape sums up regulation that is “unnecessary or excessively complicated” (SBP 2008, p. 9) and thus “hinders productivity” (CFIB 2010, p. 2). It's reduction is widely considered to be a part of Good Governance.<sup>1</sup> However, governments also use improvements in international rankings of the business environment for their internal and external Public relations activities. This paper aims to answer two questions: first, do current methods for evaluation of business regulatory environments paint a true picture of the regulatory regimes and, second, does a government design its business environment reform agenda with respect to demands from the business community, or are other goals, e.g. international reputation, at work. The findings shall contribute to a better understanding of political decision-making processes within the field of development economics and thus support the application of Good Governance principles in development policies. The case analyzed here is Rwanda.

The concept of Good Governance is embedded in a principal-agent setting, with the local and international business community acting as principal, and the government acting as agent. Three propositions will be developed and tested. For this purpose, two approaches will be taken. First, demand for and supply of business environment reforms will be derived and analyzed. The resulting matching of demand by supply is taken as a measure of good governance.

In part two, it will be shown that academic literature refers to neighboring areas, but does not treat reforms as a result of an econo-political market. The third section will describe the methodology in more detail. In particular, the politico-economic analytical approaches will be discussed, as will be the underlying database and the study period. It will show in what way the method applied here extends previous work in neighboring areas. The fourth section will present results of the analysis. The fifth section will point to further research which may lead to a more appropriate specification of government target functions with respect to business environment reforms.

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### 2. Literature Review

The analysis of a country's business environment as performed by the World Bank's Doing Business Project has gained both increasing public and private attention. Latest results of this annual exercise have been widely published and commented (Economist 2010); governments see the results as a measure of their reform efforts or use it as vehicle to initiate such reforms (MTI 2009, 2010). Firms and investors in particular see it as a measure of the ease of doing business in a country. As a matter of fact, the DB's overall ranking of countries is called the "Ease of Doing Business Indicator".

Ever since its inception, the World Bank's Doing Business project has been receiving critical reviews. The literature mostly focuses on the impact of a particular regulation on specific types of enterprises, mostly SMEs (Ayyagari, Beck & Demirguc-Kunt 2007), on economic performance data at the firm level (Aghion et al. 2006), or at the macro level (Poschke 2010), (Claessens & Laeven 2007) and (Freund & Bolaky 2008). Governance with respect to business regulation is addressed in the literature. However, the focus is on the impact of specific regulations on governance quality, e.g. on corruption (Kenny 2007).

The role of the business environment for growth and investment has been extensively researched. A major contribution was made by the World Bank commissioned study of the International Evaluation Group (IEG 2008, p. 3). Regulation, directly, though not solely, affects investment climate and investment activity and therefore growth. Fundamental papers on the issue are Djankov et al. (2000) and Djankov et al. (2006); for an analysis based on firm data in Bangladesh, India, China and Pakistan see: Dollar et al. (2003, p. 29); for a larger set of industrialized and developing countries, see Ciccone (2007, p. 17); for OECD countries see Alesina et al. (2005, p. 21). The regulation-growth connexion is analysed on a more disaggregated level with respect to the role of property rights (Claessens & Laeven 2007), of finance (Beck & Demirguc-Kunt 2008), investor protection (Haidar 2008), taxation (Fisman & Svensson 2007), and trade (Levchenko 2007), (Hussey & Kenyon 2011), to name the major areas covered in the relevant literature. While most analyzes find a positive correlation between the quality of regulation and growth, the direction of causality is not clear. Also, it is not quite clear whether business regulation as measured by the indicators contained in the Doing Business Database (DB) is strongly correlated with both factual regulation as it affects businesses and economic outcomes (Commander & Svejnar 2008).

On a more disaggregated basis, of the regulatory areas relevant related listed in DB, none proved to be significantly correlated with growth, investment and employment (IEG 2008, p. 36; Eifert 2007, p. 37). As the DB overall rankings are positively correlated with other investment climate measures, this raises the question to which extent the latter provide significant information about actual business activity and the associated macro variables. Some business surveys on the effect of regulation on productivity and investment, however, suggest a causal relationship between regulation and investment (CFIB 2010, pp. 9-10). All in all, no clear causal relationship between the measures of business environment and investment / growth is to be found in the literature.

Neither the role of business surveys nor the reported grievances of the business community for government policy have been subject of research so far. The contributions of the Institutional/Evolutionary Economics literature are either of a more theoretical nature

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or they focus on the specifics of fully developed western style democratic systems: lobbying (Grossman & Helpman 2002) and evolution of political systems are the major focus (Hodgson 2002). On the other hand, Streeck and Thelen (2005) analyze a society's demand for institutional change, but do not refer to the kind of business environment at issue here.

The methodology underlying DB is not undisputed and has led to internal evaluation of the project (IEG 2008). Also, DB is not the only approach to measuring business environment. The World Bank undertakes two more projects (Investment Climate Index and Business Enterprise Surveys (WBES)); outside the World Bank there are assessments provided by the World Economic Forum (Global Competitiveness Report), the UNCTAD (World Investment Report) and private sources like the Economist Intelligence Unit, to name a few. Comparative analyses of measures of business environment are numerous. Most of them focus on the different methods of calculating the cost of regulation to businesses. Also, most of them start from the factual regulation as determined by government decrees. Few, however, include in their analysis the subjective perception of business regulation within a wider framework of general market conditions. An exception is FIAS (2009). A comparison of DB and the WBES is provided by the World Bank (World Bank 2012b). Based on the WBES-results, Batra, Kaufman & Stone (2003) analyze the major regulatory constraints faced by firms worldwide. A comparable study based on the investment climate data is performed by Eifert, Gelb & Ramachandran (2006). Neither study, however, asks about the way the government reacts to the regulatory constraints listed by the firms surveyed.

In 2008 an alternative to DB was initiated for Rwanda by the country's Private Sector Federation (PSF), the major Rwandan association of private firms.<sup>2</sup> The resulting report "Cutting the cost of Red Tape" (short: Red Tape Report, RTR) analyses areas of business environment similar to those of DB, but employs a different methodological approach (SBP 2008).

**Table 1: Assessing the business environment<sup>3</sup>**

<b>Type of analysis</b>	<b>Information provided by</b>	<b>Application</b>
Fact based analysis	Expert informants	DB
Evidence/perception based	Firms, management	Regulatory Review (RTR)
Procedural audit, based on time and motion study	Government agencies and their clients	Ex post evaluation of regulations / DB / RTR
Regulatory Impact Analysis (RIA)	Affected stakeholder groups	Ex ante evaluation of regulations

There is an extensive literature on business regulation and its impact on both the firm and the macro level. However, very little research exists on the role of regulatory bottlenecks as perceived by businesses for the determination of the government's reform agenda. This is where the present study sets in. It builds on previous work (Veit 2011) and proceeds to a quantitative analysis of the government's introduction of business environment reforms.

### 3. Methodology

Based on the results of both the DB and the Small Business Project (SBP) approach, leading to RTR, demand and supply for reforms will be estimated with regard to Rwanda.

The government reform target function is set up in analogy to Grossman and Helpman (2002, p. 239). There, however, a fully developed western style democratic system with majority voting and well established legal framework for lobbying activities is assumed. Rwanda, however, has undergone severe political changes during the past 20 years. A well established political system with experienced representatives of stakeholder groups does not yet exist. Major sources of information about the Rwandan socio-economic and regulatory environment are the Rwanda government and the World Bank. Other sources focus on the macroeconomic effects of reform policies (Gershenson 2010) (UNCTAD 2010a, p. 168-173).<sup>4</sup> A comparison of indicators for development of democratic institutions and quality of governance in Rwanda (World Bank 2012a) shows that while the efficiency of governance and regulatory quality improved over the period 1996 to 2010, democratic develop, represented by estimates of “voice and accountability” remained flat over the said period.

Thus, the game theoretic assumptions made by Grossman and Helpman regarding the interaction of stakeholders cannot be transferred to the Rwandan case. Instead, in this study a more general function is used. It takes the form of  $R_i^S = f(R_i^D, C_i, DBR^{tn}_i/DBR^{t0}_i)$  ;

With:

$R_i^S$  = Supply of reforms in indicator area i

$R_i^D$  = Demand for reforms in indicator area i

$C_i$  = Total cost of regulation in indicator area i

$DBR^{tn}_i/DBR^{t0}_i$  = expected potential improvement in Rwanda’s country ranking with respect to indicator area i in period n relative to period 0

And:  $dR_i^S/dR_i^D > 0$ ,  $dR_i^S/dC_i > 0$ ,  $dR_i^S/d(DBR^{tn}_i/DBR^{t0}_i) > 0$

Proposition 1: Business environment reforms will be undertaken in the order of urgency expressed by the business community through RTR. Thus, demand for reforms will be matched by corresponding supply.

Proposition 2: Business environment reforms will be undertaken by the government in the order of their cost reductions, i.e. costly regulations will be reformed more intensively than less costly regulations.

Proposition 3: Business environment reforms will be undertaken in areas where public awareness is highest, i.e. where an improvement in DB country rankings is strongest or most likely. This proposition is warranted by the Rwandan government’s citing the international rankings of Rwanda frequently in its documents (MTI 2009, p. 24; MTI 2010, p. 20)

For these propositions to be tested, it is important to safeguard the ability to measure correctly supply of regulatory reforms by the government (DB) and demand for reforms by businesses (RTR). Both DB and RTR can be assumed to meet this requirement (Veit

2011). Generally DB is better suited to assess regulations as they are written rather than their enforcement and effect on businesses “on the ground” (La Porta, Lopez de Silanes & Shleifer 2008). As is typical for case studies with limited data availability, the application of statistical methods will be restricted. However, this study shall provide conceptual ground for a more broadbased cross country analysis.

### **4. Analysis and Results**

#### **4.1 Proposition 1: Supply of and Demand for Business Environment Reforms**

##### **4.1.1 Supply of Business Environment Reforms**

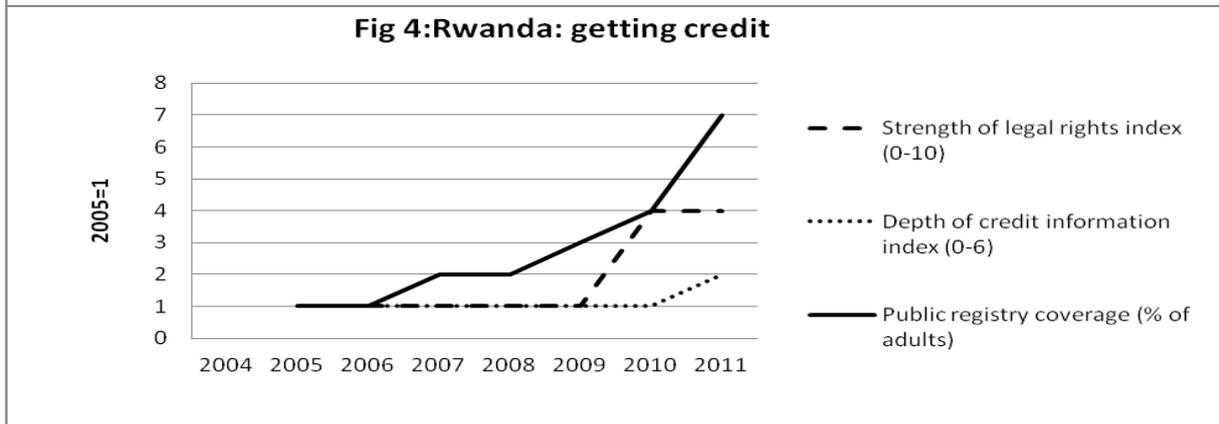
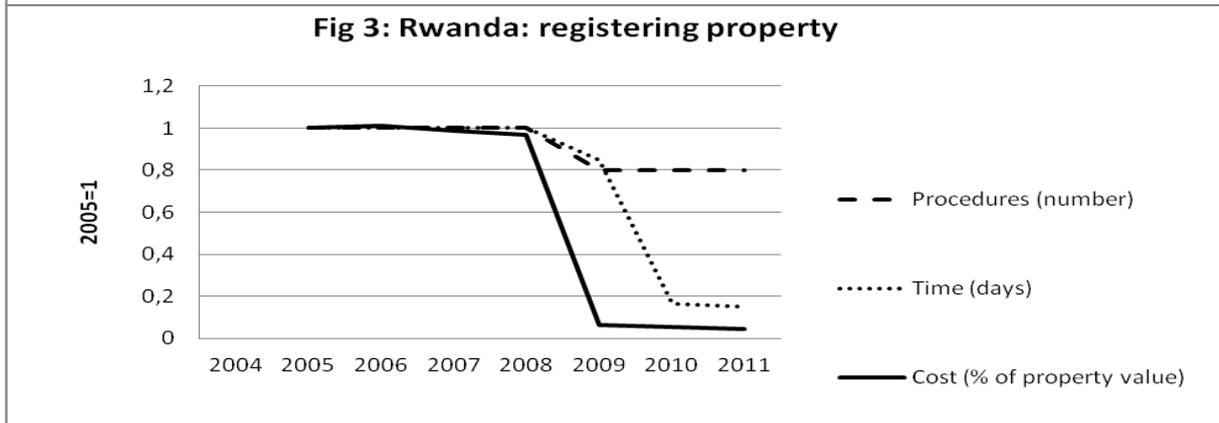
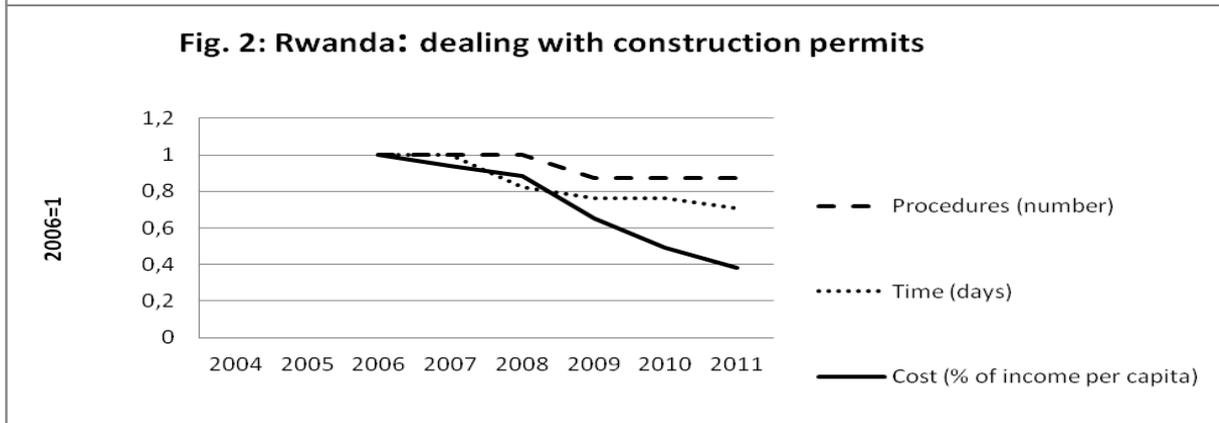
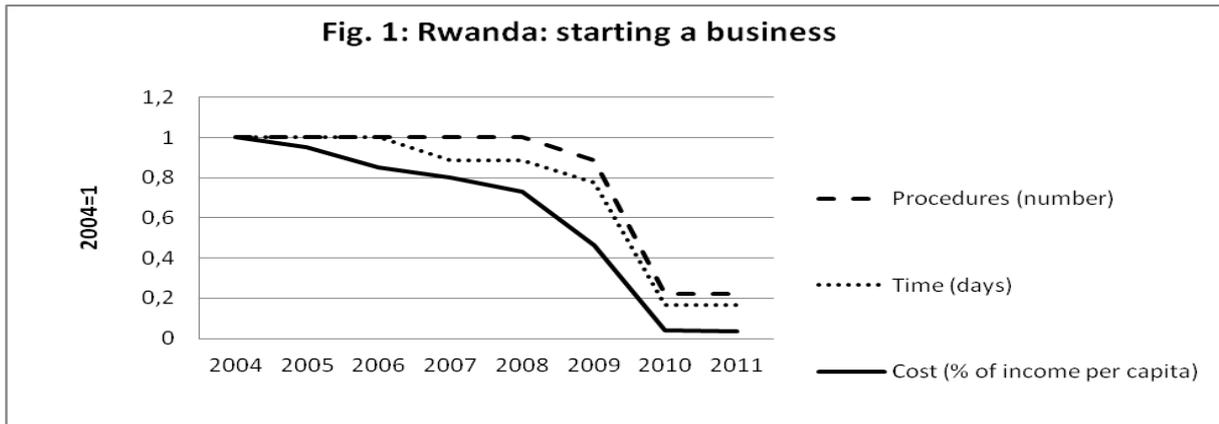
In this section, the sequence of business environment changes as identified by DB will be compared with those reported by the Rwandan government in order to evaluate the accuracy of reform measurement by DB.

Figures 1-8 illustrate the timing of regulatory reforms in Rwanda. The graphs are based on data reported in the DB annual reports.<sup>5</sup> They show the development of DB sub-indicators of business regulation by means of index values. The base of these values is 1 for the year the sub indicator was first observed by DB. Most of the economic reforms in Rwanda recorded by DB occurred in 2008 or in the following years. This is confirmed by tables 2a and 2b which list reform activities as reported indirectly by DB and directly by the Rwandan government.

Table 3, showing Rwanda’s international rankings with respect to the nine DB indicator sets, confirms this sequence. It points to stronger reform activity in the later years.

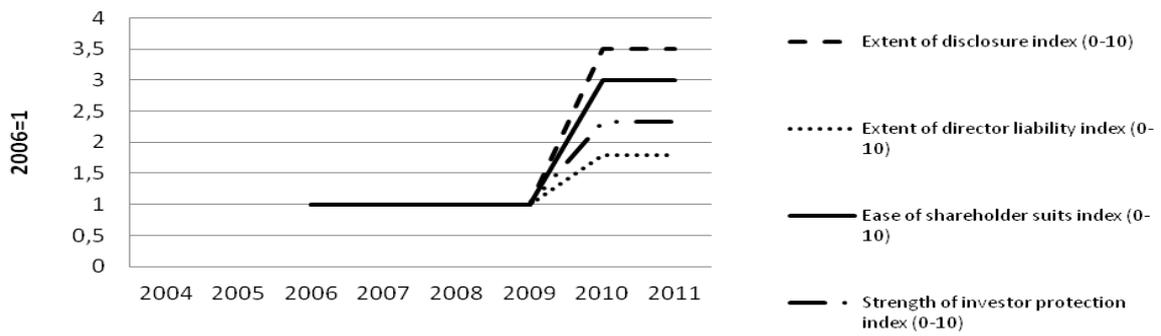
The reliability of government data is questionable in some instances. Tables 2a and 2b list the areas of economic reform between 2008 and 2010, based on the Doing Business annual reports 2009 – 2011, and on reports of the Ministry of Trade and Industry (MTI), for comparison. According to DB reports, the largest number of reforms (7) occurred in the year 2008/2009, most of the reform activities over the period (3) focused on the financial sector, and here on the credit availability to firms. The various comparisons of data published by the Rwandan government and by DB point to a correct description of both timing and sectoral distribution of business environment reforms by DB.

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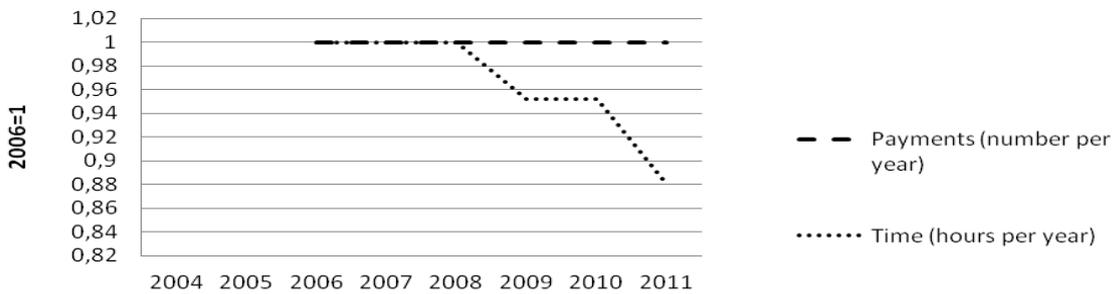


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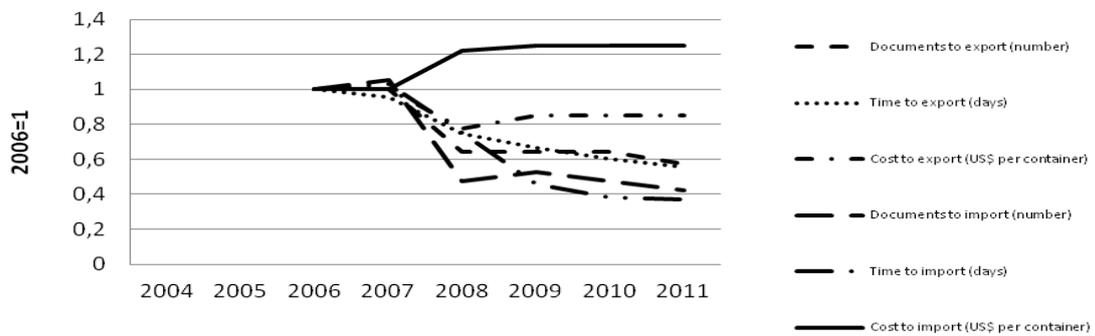
**Fig 5: Rwanda: protecting investors**



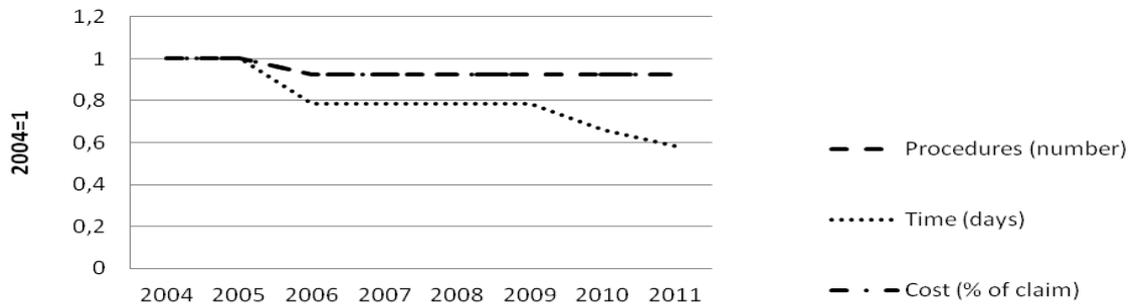
**Fig 6: Rwanda: paying taxes**



**Fig 7: Rwanda: trading across borders**



**Fig 8: Rwanda: enforcing contracts**



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**Table 2a: Reforms in Rwanda 2008-2010 according to DB annual reports**

Years covered	Starting a Business	Dealing with Construction Permits	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing contracts	Closing a business	Annual total
2007/2008		X		X			X	X		4
2008/2009	X		X	X	X	X		X	X	7
2009/2010		X		X			X			3
Sector total	1	2	1	3	1	1	2	2	1	14

Source: based on annual DB reports

**Table 2b: Reforms in Rwanda 2008-2010 according to Government reports**

Years covered	Starting a Business	Dealing with Construction Permits	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing contracts	Closing a business	Annual total
2007/2008										
2008/2009	2	1	1	1	1	1				7
2009/2010	1	2	3	1		3	4		1	14
Sector total	3	3	4	2	1	4	4	0	1	21

Source: (Veit 2011)

**Table 3: Rwanda's rank with regard to DB indicator sets**

Year	Ease of Doing Business Rank	Starting a Business	Dealing with Construction Permits	Registering Property	Getting Credit	Protecting Investors	Paying Taxes	Trading Across Borders	Enforcing Contracts	Closing a Business
		Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank	Rank
DB2004	...	...	...	...	...	...	...	...	...	...
DB2005	...	...	...	...	...	...	...	...	...	...
DB2006	139	...	...	...	...	...	...	...	...	...
DB2007	158	58	133	134	159	162	83	175	69	151
DB2008	150	63	124	137	158	165	50	166	44	178
DB2009	139	60	90	60	145	170	56	168	48	181
DB2010	67	11	89	38	61	27	60	170	40	183
DB2011	58	9	82	41	32	28	43	159	39	183

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### 4.1.2 The Demand For Business Environment Reforms

The evaluation of the Rwandan business environment by RTR was done in 2008 and is described in the SBP report (2008) and reviewed in Veit (2011). It lists barriers to business growth in order of importance<sup>6</sup> as stated by the respondents. These barriers are then structured in such a way that they can be assigned to the regulatory categories applied by DB.

Table 4 summarizes demand for and supply of reforms as defined above. A more detailed description is provided in Veit (2011). Reforms were covering all but one indicator set of the DB database. With respect to the 20 more specific concerns of businesses as described by the RTR report, 7 were covered by reforms, and 13 areas were not covered. Thus the reforms addressed the needs of RTR respondents, i.e. of Rwandan businesses only partially. With respect to availability of capital, they, too, were partly consistent with RTR. They revealed remaining need in registration/closure of businesses and were more or less beside the point (reforming where RTR did not detect demand) in three other areas. This result does not support proposition 1.

**Table 4: Areas and adequacy of Rwandan regulatory reform**

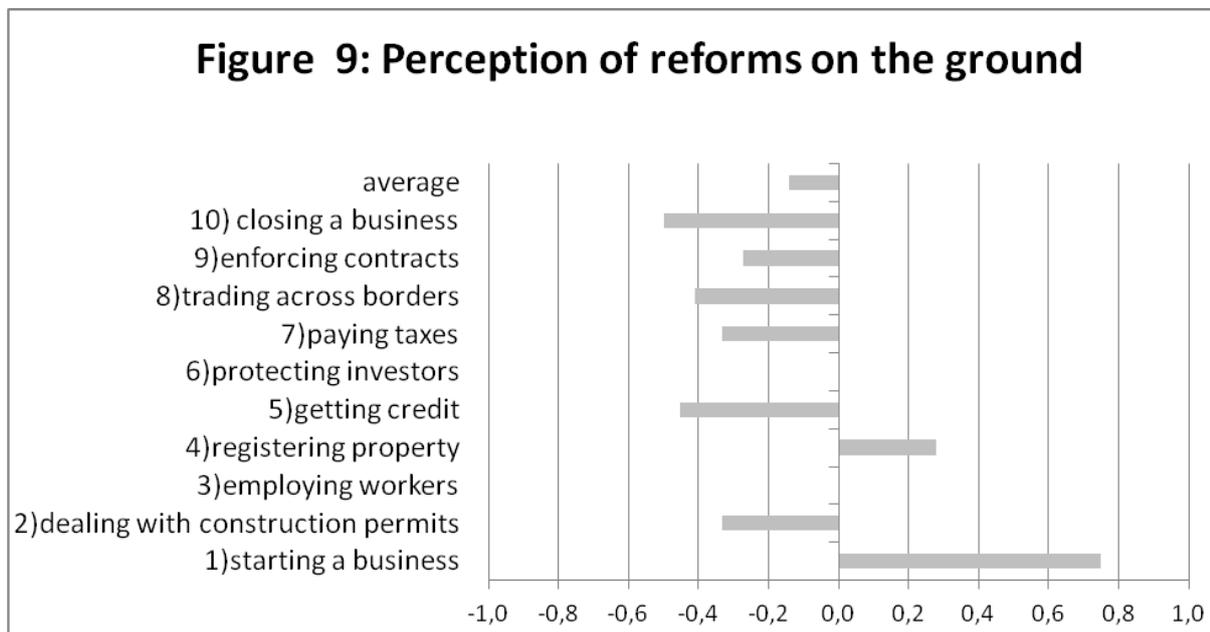
Area of reform	Demand mostly met?	Description
1. Access to capital	Yes	The most important concern, lack of capital, was tackled by three reforms in 2008/10. They provide for regulations that satisfy the most pressing needs of borrowers and lenders. The latter is confirmed by data in Figure 5.
2. Taxation	Partly	The second most important concern, taxation, was covered by four reforms in 2008/10. They make easier the process of declaring tax, but fail to deal with the issue of communication with Rwanda Revenue Authority (RRA).
3. Registration/closure of business	Supply > demand	Neither registration nor closure of businesses were specified by respondents; nonetheless, the first was the subject of reforms.
4. Labor	No	Not specified as a high ranking area of concern, but weaknesses expressed under the heading "regulation". No reforms undertaken, with the exception of (distantly related) online income tax payments.
5. Trade	Partly	Of five weaknesses listed in RTR, two were covered by reforms in the second year. They mostly dealt with speedier processing of documents, whereas complaints about ineffective and insufficiently skilled staff were not covered.
6. Other	Supply > demand	Areas not mentioned by businesses in the RTR like registration of property issuing of construction permits were covered by one reform each in 2008/09 and two reforms each in 2009/10.

### 4.1.3 Results Of The Sample Survey In 2010

A survey conducted in 2010 by one of the authors (Veit) combined elements of the SBP approach (perception based survey) with elements of DB (pre-defined criteria) and thus allows an ex post evaluation of the DB results. The goal of the interviews was to evaluate whether the previous reforms had effectively solved businesses' problems that were either mentioned by the SBP report or that showed a below-average ranking in the DB indicators. Details about this survey mission are described in Veit (2011).

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Graph 9 shows the results for the indicators evaluated. Entrepreneurs were asked whether the situation in these areas had improved over the past two years. A high positive mean indicates that the regulatory burdens in the concerned DB indicator group were actually felt less on the ground in 2010; conversely, a high negative mean would indicate that no relief from regulatory burdens was felt in the indicator group. Reforms with regard to indicators starting a business and registering property were perceived as being most successful, whereas getting credit and closing a business were seen as the least successful areas of regulatory reform. However, the relatively small sample size and the very diverse responses of managers do not convey a clear picture of the regulatory situation at the end of 2010. The average of all responses was slightly negative, e.g. respondents in November 2010 did not perceive the reforms undertaken since 2008 to clearly have improved the business environment as measured and defined by the DB indicator sets.



Proposition 1 is not supported when the results of the 2010 survey are compared with the timeline and strength of reforms as measured by DB and illustrated in graphs 1 to 8. Neither is proposition 1 supported by the ex post evaluation of regulatory burdens felt in 2010. This points to a low reliability of DB indicators to describe the actual business environment in Rwanda. Also, it points to a less than perfect response of the Rwandan government to the demands of the business community, contradicting the publicized image created through Rwanda's place within the DB country rankings.

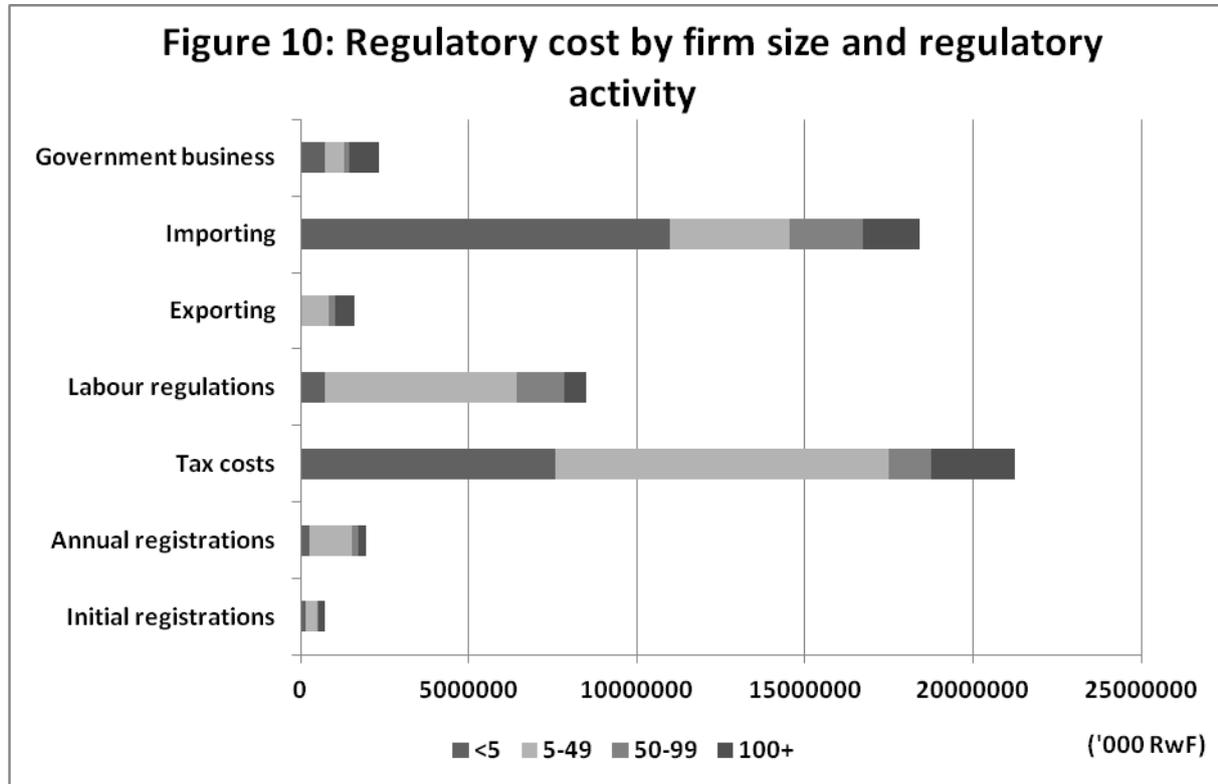
### 4.2 Proposition 2: Regulatory Cost

The RTR offers insights into the cost of regulation to businesses. The method underlying the cost estimates is described in detail in SBP (2008). A hypothesis for how the government prioritizes reforms is to assume that most costly regulations would be tackled either first or most intensively.

Figure 10 provides an overview of regulatory reform for five firm size groups (number of employees). Clearly, taxation and inbound trade constitute the activities that suffer from the most expensive regulations. In fact, both areas are covered by the reforms. It cannot

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be excluded that the use of cost estimates has a stronger effect on the government's reform efforts than non-monetized indicators (i.e. the pure responses to either the fact based or perception based questionnaires). This makes the cost based approach a potentially powerful tool for reform design, supporting proposition 2.



Source: SBP 2008

### 4.3 Proposition 3: Public Awareness

Proposition three tests the role of the internationally visible DB rankings for the government's reform priorities. For a specific DB-indicator, the likelihood of an improved country ranking depends c.p. on the distance to neighboring countries in the ranking, i.e. countries that perform similar in this indicator. The more similar countries there are within the indicator interval, the larger will be the rise in the ranking due to an improved indicator. Proposition 3 therefore suggests that the government will target reforms towards those areas which are represented by DB-indicators with many "close neighbors".

In order to test this hypothesis, for each indicator its possible values were divided into equal 10 intervals. In a next step, the relative frequency of countries within each interval is calculated. If proposition 3 is supported, Rwanda's government would mainly target reforms in indicator areas showing high relative frequencies, implying most easy improvement in rankings for a given reform effort. To test this, indicators were grouped into three classes 1 to 3, representing levels of relative frequency. Class 1 contains Rwanda's business environment indicators with the lowest relative frequency of countries, implying that a given reform effort would yield a relatively small improvement in rankings. Class 3 contains Rwanda's business environment indicators with the highest relative frequency of countries, implying that a given reform effort would yield a relatively large improvement in rankings. Proposition 3 suggests that Rwanda's government will start more reforms in class 3 indicator areas. As the policy lags of business environment

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reforms may differ, lags of one and two years were included in the analysis. Table 5 provides the actual data and the expected count according to the Chi Square test. Contrary to proposition 3 above, the actual reform count is very close to the expected count for both lags, implying no relationship between the likelihood of an improved ranking and the actual reform activity.

**Table 5: Distribution of business environment reforms 2007- 2010, one and two year lags**

Class		1 year lag			2 year lag		
		No Reform	Reform	Total	No Reform	Reform	Total
1	Count	74	54	128	57	43	100
	Expected Count	74,5	53,5	128,0	56,6	43,4	100,0
2	Count	11	7	18	6	7	13
	Expected Count	10,5	7,5	18,0	7,4	5,6	13,0
3	Count	11	8	19	10	6	16
	Expected Count	11,1	7,9	19,0	9,1	6,9	16,0
Total	Count	73	69	165		73	56
	Expected Count	73,0	69,0	165,0		73,0	56,0

**Table 6: Chi-Square Tests for one and two year lags**

		One year lag			Two year lag		
		Value	df	Asymp. Sig. (2-sided)	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square		,071 <sup>a</sup>	2	,965	,811 <sup>a</sup>	2	,667
Likelihood Ratio		,072	2	,965	,807	2	,668
Linear-by-Linear Association		,010	1	,922	,019	1	,891
N of Valid Cases		165			129		

a. 0 cells (,0%) have expected count less than 5. The minimum expected count is 5,64.

In table 6 Chi Square data confirm this result, as the Chi Square value is not significant. A pronounced negative relationship between relative frequency of countries and reform activities can be gained when the the number of classes is increased to 5. However, due to the limited case count for Rwanda, the significance of this result cannot be determined. Due to these results proposition three cannot be supported.

## 5. Summary and Conclusions

Analyzing a developing country's government's motivation for designing an agenda to reform the business environment has not been covered in the literature so far. Applying concepts developed in the area of political economics to the issue of designing a reform agenda therefore represents a new approach. In the case of Rwanda the existing political economy models which are geared to political systems of western countries have to

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be adjusted. Three propositions for government motivation can be constructed; first, to satisfy demand for reforms voiced by the business community; second, to reduce the cost burden of regulation to businesses; and third to gain public awareness by achieving improved international rankings.

Only proposition 2 is supported empirically for the period 2008 until 2011: regulatory cost has been a good proxy for reform priorities. Proposition 1 is not supported, as government initiated reforms covered voiced demand in only one out of six areas. An evaluation two years after the study showed that reforms covered demand in two out of ten areas and thus confirmed the previous analysis of data. Proposition 3 is not supported either, as no significant correlation between high likelihood of improved rankings and reform activities can be found.

For Rwanda's economic policy, these findings to a certain degree support the government's claims that it tries to unburden local firms from costly regulations. As such, this can be taken as a sign of Good Governance. It will be possible to draw a more reliable conclusion when more broad-based cross-country analyzes with comparisons based on region and income level have been conducted.

Further research therefore is suggested in two directions: first, a more specific modeling of Rwanda's political environment may yield an improved government target function. This would deepen the analysis of a strongly reforming country case like Rwanda. Alternatively, a cross country test of proposition three will open the way for a more broad based quantitative analysis and thus avoid the limitations of this small case study. A differentiated analysis by region, level of income, political development, legal system to name just a few may reveal new patterns of government behavior and make the reform process more predictable for the stakeholders.

## Endnotes

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- 1 The World Bank conceives business environment regulation as one of 16 criteria for good governance (World Bank 2005, p. 15).
- 2 This report is one of the results of the project "Promotion of the economy and employment" commissioned by the German Federal Ministry for Economic Cooperation and Development (BMZ) and co-funded by the Royal Netherlands Embassy to Rwanda; the project duration is from 2004 to 2013. GIZ (formerly GTZ) on behalf of BMZ implements this project, which, apart from the so-called Red Tape analysis consists of further instruments (e.g. business and investment climate surveys, Regulatory Impact Assessment) to strengthen the private sector and improve the business environment in Rwanda.
- 3 For a more detailed description of the types of analysis see SBP (2008, p. 15).
- 4 It is interesting to note that although within an international country ranking of FDI inflows Rwanda jumped from rank 105 to rank 65 in only two years, the FDI inward potential index for Rwanda barely changed between 2007 and 2008 (UNCTAD1 2010, p. 22). It would be interesting to see whether economic reforms after 2008 will have an impact on this outcome-oriented indicator.
- 5 The years in Figures 1-8 are years of DB annual reports, not years of reforms.
- 6 It should be noted that the listed barriers are the result of answers to open questions. For detailed results, see SBP (2008, p. 21).

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