

d.i.e



Deutsches Institut für  
Entwicklungsarbeit

German Development  
Institute

Discussion Paper

17/2012

# Revenue Structures and the Question of Who Pays Taxes

Understanding the conditions under which  
elites pay taxes in developing countries

Armin von Schiller



Revenue structures and the question of who  
pays taxes

Understanding the conditions under which elites pay  
taxes in developing countries

Armin von Schiller

Bonn 2012

Die deutsche Nationalbibliothek verzeichnet diese Publikation in der Deutschen Nationalbibliografie; detaillierte bibliografische Daten sind im Internet über <http://dnb.d-nb.de> abrufbar.

The Deutsche Nationalbibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available in the Internet at <http://dnb.d-nb.de>.

ISBN 978-3-88985-622-7

**Armin von Schiller**, German Development Institute / Deutsches Institut für Entwicklungspolitik (DIE),  
Researcher, Department III: Governance, Statehood, Security

E-mail: Armin.Schiller@die-gdi.de

## Acknowledgements

This paper serves as background document for three country studies to be carried out within the project “Mobilising domestic revenue in developing countries”. It has benefitted from very helpful comments by Jörg Faust, Stefan Leiderer, Mark Hallerberg and Mark Kayser. Special thanks go to Christian von Haldenwang for the numerous fruitful discussions on the topic.



## Contents

<b>1</b>	<b>Introduction</b>	<b>3</b>
<b>2</b>	<b>Research gap and theoretical approach</b>	<b>5</b>
2.1.	Limitations in explaining variance in revenue structures among developing countries	5
2.2.	Analytical approach: complementing the democracy and redistribution approach	8
2.2.1	Patterns of interaction among elites	9
2.2.2	Different incentives for elites to pay taxes and the potential of positive drivers of taxation	10
2.2.3	The role of the government in negotiating contributions of elites	12
<b>3</b>	<b>A model for tax contributions of elites</b>	<b>14</b>
3.1.	The logic of the main model	14
3.2.	Factionalism and the contributions of elites	16
3.3.	Information availability and the contributions of elites	18
3.4.	The government's credibility and its capacity to increase the contributions of elites	20
<b>4</b>	<b>Conclusion and implications for development cooperation</b>	<b>24</b>
<b>Bibliography</b>		<b>29</b>
<b>Appendices</b>		<b>35</b>



## Summary

Revenue structures vary strongly among developing countries. Most approaches to tax performance fail to give insights into this puzzle. I argue that much of the answer lies in the political dimension and I highlight the willingness of elites to pay taxes as being the most relevant factor.

In contrast to common political economy arguments stressing the relevance of external pressure in explaining tax contributions of elites, I examine how characteristics of the interaction among elites themselves are important aspects to take into account. This shift in the attention from the bargaining between the elites and non-elites to the bargaining among elites allows me to focus on the effect of three often overlooked factors: level of factionalism among elites; information about other elites' tax contributions; and the credibility of the state as negotiation partner.

The analysis of the formal model I propose shows that factionalism among the elite coalition as well as information availability about other elites' contributions have a negative effect on the level of tax contributions. On the contrary, the credibility of the government can have a positive effect on the elites' tax contributions and partly limits the previously identified negative effect of factionalisation.

Three main policy implications can be derived from this analysis. First, improving the credibility of governments in partner countries seems crucial, and this is a goal in which development cooperation can play a major role. Second, connected to this effort, development cooperation must contribute to the identification and emergence of positive drivers of taxation as an avenue to increase the performance and the fairness of tax systems simultaneously. Third, taking seriously the idea that politics matters for taxation implies that in order to support higher-performing and fairer tax systems, often a strategy based on partly aligning with elites' interests will be the most efficient and promising alternative. However, the potential effect of this strategy on other development goals and future development paths of partner countries calls for a cautious trade-off analysis.

Overall, this paper stresses the idea that development cooperation cannot perceive politics as an obstacle to be overcome, but rather as a necessary part of the solution. Hence, a proper consideration and understanding of what is politically feasible is crucial, and this goal will necessarily require dealing with the question of why and under which circumstances elites accept higher tax performance in general and higher own tax contributions in particular.



## 1 Introduction

Many approaches to taxation are able to explain differences between revenue structures in developed and developing countries.<sup>1</sup> However, these same approaches are far less conclusive in explaining the empirically remarkable variances in revenue structures among developing countries that share similar economic conditions. For example, why did direct taxation in Colombia between 1995 and 2005 represent 39 per cent of the total tax revenue, whereas it represented only 26 per cent in Peru?<sup>2</sup>

The role of political factors in explaining the characteristics of tax systems in developed countries has been extensively researched in comparative political economy.<sup>3</sup> Surprisingly, in the discussion about tax systems in the developing world, it is precisely these factors that have been neglected; the focus, rather, has been on economic and administrative ones. Still, when particularly striking tax performances are discussed, vague references to aspects such as political will are common. Against this background, this paper provides a consistent argumentative framework for including political factors in the explanation of tax performance in developing countries. I argue that tax regimes in developing countries strongly mirror the preferences of a reduced number of actors, the elites, due to the concentration of political and economic power. Consequently, variances in revenue structures among structurally similar countries is best explained by the willingness of elites to pay taxes, and, accordingly, the more elites are willing to contribute to the tax effort, the more relevant the role of tax types that predominantly target them will be in the revenue mix.

I approach tax contributions of elites as a policy outcome that represents a self-enforcing political equilibrium.<sup>4</sup> Hence, the level of the tax contributions is not the result of a tax law negotiated independently from the elites and imposed on them from the outside. Rather, it should be conceived as an amount that elites accept to pay in a given strategic constellation.<sup>5</sup> This is not a new approach to taxation but, in contrast to the common political economy approach, the one proposed here shifts the attention from the bargaining between the elites and non-elites<sup>6</sup> to the bargaining among the elite coalition sustaining the socio-political order. Moreover, I explicitly acknowledge the often overlooked role of the

---

1 For an analysis of the differences among developed and developing countries, see for instance Baunsgaard / Keen (2010) and Gordon / Li (2009). A summary of the debate on competing explanations for existing differences can be found in von Haldenwang / Ivanyna (2010) and Profeta / Scabrosetti (2010).

2 Own calculation based on the OECD-ECLAC-CIAT database “Revenue Statistics in Latin America 1990–2009” (2011). Data are for the central government, and include tax on income, profits and capital gains. Data are available at <http://stats.oecd.org/>.

3 See Cusack (1997); Hallerberg / Basinger (1998); Steinmo / Tolbert (1998); Gould (2001); Swank / Steimno (2002); Persson / Tabellini (2002); Basinger / Hallerberg (2004); Mulligan / Gil / Sala-I-Martin (2004); Iversen / Soskice (2006) and Beramendi / Rueda (2007).

4 The idea that the reality of taxation in a particular country reflects a “political equilibrium” is put forward by many authors (e.g. Bird / Martinez-Vazquez / Torgler 2008).

5 For a detailed discussion of the idea of self-enforcing equilibria (although applied to the study of democratisation processes) see Przeworski (1991) and Weingast (1997). Scharf / Perroni (2007) discuss the relevance and pertinence of such a theoretical approach focussing on tax constitutions.

6 For example, Boix (2003) and Acemoglu / Robinson (2006a) use the concept of the wealthy and the poor, which to a certain degree overlaps with the idea of elites and non-elites.

government as an independent actor and consider the possibility that elites can have incentives to pay taxes aside from those of self-protection and appeasing the general population.

The analysis of the formal model I develop in Chapter 3 indicates that, assuming stable contextual factors, the overall contribution by elites will decrease with its increasing factionalisation. Moreover, available information about other elites' contributions also reduces the amount of one's own contribution. Finally, a credible government can achieve – by directly and individually negotiating with particular elites – an increase in their contributions that outweighs the negative effect of factionalisation.

Thus, the implications of the analysis could be interpreted in rather pessimistic terms. First, factionalisation and information availability appear to lead to lower tax contributions from elites. As these aspects are somehow connected to the idea of pluralism and transparency, this implies that under certain circumstances, the process of socio-political development can condemn developing countries to lower-performing and more unfair tax systems. Second, the government's ability to counteract this trend requires demanding preconditions and a partial alignment of state action with the interests of privileged segments of the society. The impact of doing so on the achievement of other development goals, like good governance, as well and on the future development path of partner countries, is difficult to evaluate.

More optimistically, based on the idea of positive drivers of taxation, circumstances under which elites endogenously accept to pay more taxes for state action benefiting the general population do exist, and international development can play a major role in promoting their emergence.

This paper adds to the growing academic literature on political determinants of taxation in developing countries in two regards.<sup>7</sup> First, it complements this literature by accentuating the agency element and by highlighting the existing room for manoeuvre for actors under similar structural constraints. Second, the focus on bargaining among the elites offers a promising venue to explain differences in tax performance and revenue structures *among* structurally similar developing countries.<sup>8</sup>

The results have relevant policy implications for development cooperation. The international development community is increasingly recognising the centrality of effective taxation to inclusive and sustainable development (UN Millennium Project 2005; United Nations 2003, 2008). In particular, higher-performing tax systems are crucial for governments in developing countries to cope with challenges such as poverty reduction, provision of public services, infrastructure development and climate change. All actors

7 Bird / Martinez-Vazquez / Torgler (2008); Cheibub (1998); Davoodi / Grigorian (2007); Di John / Putzel (2009); Di John (2010); Lieberman (2003); Moore (2004, 2008); Prichard (2009); Gordon / Li (2009); Garcia / von Haldenwang (forthcoming).

8 The accent on intra-elite bargains, instead of on bargains between elites and non-elites, is gaining attention in the academic debate as an approach to explain policy choices in general, especially in autocracies and nanocracies (e.g. Gehlbach / Keefer 2011). Although not all developing countries are autocracies by any means, it seems reasonable to consider that, on average, the disproportionate influence of elitarian groups upon political choices is more relevant in developing countries than in developed ones, regardless of the particular political regime.

involved are aware that improving tax performance is both a technical and a political issue, but still, all too often the political nature of the challenge is neglected or downplayed. With this in mind, the present paper sheds light on key aspects to help understand the conditions under which a higher-performing and fairer tax system serving the interests of the general population is politically feasible.

The structure of this paper is developed as follows: following the introduction, Chapter 2 presents the existing literature on revenue structures in developing countries and highlights the key distinctions between the proposed theoretical approach and previous ones. In Chapter 3, I develop a formal model for the tax contributions of elites and discuss the effect of factionalisation, information availability and credible governments on them. The final chapter concludes by emphasising the importance of carefully understanding existing power constellations in order to identify the most efficient, effective and coherent strategy for development cooperation to improve taxation in these countries.

## 2 Research gap and theoretical approach

This chapter presents the analytical approach on which the formal model of elites' contributions discussed in the following chapter is based. I proceed in two steps. First, I discuss the limitations of the three main approaches that have dominated the debate on taxation in developing countries (the economic, the administrative and the political economy approach). Second, I discuss how three aspects – namely patterns of interaction among elites, positive and negative drivers of taxation, and the credibility of a government – contribute to explain better the variance in revenue collection and tax performance in developing countries.

### 2.1. Limitations in explaining variance in revenue structures among developing countries

When explaining revenue structures in developing countries, three main approaches prevail: an economic approach, an administrative approach and a political economy approach.<sup>9</sup>

The **economic approach** focusses on the economic conditions characterising developing countries as constraints for the performance of certain taxes. For instance, the economic structure in many developing countries is characterised by the relevance of hard-to-tax sectors (e.g. agriculture) and high levels of informality (Burgess / Stern 1993; Tanzi / Zee 2000). As a result, so the argument, due to the characteristics of the tax handles available in these countries, the tax systems tend to be more dependent on indirect taxes and taxes on foreign trade.<sup>10</sup>

---

<sup>9</sup> This division of approaches, as well as the presentation of them, strongly relies on Di John (2006). It is important to underline that, in practice, the differentiation between approaches is difficult, as scholars tend to mix elements of them.

<sup>10</sup> Gupta (2007); Stotsky / WoldeMarian (1997); Ghura (1998); Tanzi / Davoodi (2000); Lledó / Schneider / Moore (2004); Gillis (1989).

This approach offers a good explanation of why tax collection in developed and developing countries differs. However, it is unable to explain why revenue structures differ among countries with similar economies. In this line, a major limitation, as Di John underscores, is that “the economic approach abstracts from the political and institutional processes that determine the ability of the state to create tax policies and enforce them” (2006).

The aspect of enforcement is taken up prominently by the second approach: **the administrative approach**. The main argument here stresses the limitations of the bureaucratic apparatus to extract taxes in an efficient and effective way. Accordingly, the deficiencies of public administration are the core topic (Bird 2004).<sup>11</sup> The essence of this approach is best summarised in the famous statement by Casanegra de Jantscher that “in developing countries, tax administration is tax policy” (quoted in International Monetary Fund 2011).

The indication that having proper means and institutions to implement tax policies is at least as relevant as the design of the policies themselves represents a valuable contribution of this approach. Yet, it ignores that the viability and the effect of administrative reform is conditional to the political context, as well as the debate about the conditions under which political regimes invest in tax capacity (e.g. Besley / Persson 2011, 40–102). Therefore, from a policy perspective, overemphasising the relevance of administrative institutions presents the risk of putting forward “one-size-fits-all solutions” that overlook required preconditions for the successful implementation of administrative reform. In this sense, it is not only the political context plays a role, but also the broader cultural and social context that can strongly facilitate or hamper reform efforts.<sup>12</sup> All in all, although this approach provides an explanation for variances in taxation in similar developing countries, the main determinant proposed – different administrative capacities – is highly endogenous to political variables, and represents, in my opinion, a symptom rather than a cause of low tax performance.

In contrast to the previous approach, the starting point of **the political economy approach** is the idea that “the institutional capacity of states to mobilise resources had to be created” (Di John 2006, 7). The perspective shifts from conceptualising taxation as something that can be decided upon and imposed by the state, to conceiving it as a self-enforcing outcome resulting from political bargaining and power struggles. As a result, the key to understanding taxation is gaining an insight into why and how a particular political settlement<sup>13</sup> was defined in the past and what conditions allow it to be maintained over

<sup>11</sup> This approach has strongly influenced the international cooperation active in the field of taxation. Following a mapping study by the International Tax Compact Initiative, multilateral financial institutions and bilateral aid agencies devoted respectively 40 per cent and 42.5 per cent of their funds in the field of taxation to the area on tax administration and organisational reform (International Tax Compact 2011, 8).

<sup>12</sup> For example, the tax morale approach highlights the relevance of the social and cultural context. The main argument is that the state, regardless of its capacity, will never be able to extract a significant amount of resources via taxation by exclusively resorting to the means of deterrence and control (e.g. Torgler 2005; Torgler / Schneider 2009). Although increasingly recognised, this approach is not yet very present in the literature.

<sup>13</sup> An extensive discussion on the concept is available in OECD (2011) and Khan (2010).

time. Historical legacies, institutional settings and power constellations are the main factors addressed by this approach.

Explanations based on historical legacies underscore the role of path dependencies in defining the characteristics of taxation in developing countries. From this perspective, the characteristics of contemporary tax performance are explained by the constraining effect of socio-political patterns that emerged in the past (Acemoglu / Johnson / Robinson 2001; Adam / Bevan / Chambas 2001; Mkandawire 2010; Thirskey 1997).

The idea that socio-economic systems in place today are influenced by the past is very intuitive (Bates 2008). In addition, the empirical fact that “where a country ends up in terms of both, tax level and tax structure, depends in large part on where it begins” (Bird / Zolt 2005, 24) strongly supports it. That being said, a major weakness of this approach is the great temporal distance between alleged causes and their effects. For example, colonisation patterns surely do have an effect on the political, economic and fiscal realities of developing countries today, but this effect should not be overestimated. The enormous variance between tax systems (and tax performance) in developing countries with similar colonial pasts proves this point.<sup>14</sup> All in all, this rationale underestimates the relevance of agency in taxation<sup>15</sup> and, therefore, has the tendency to be too deterministic. Furthermore, it leads to overlooking the much more appealing as well as policy-relevant question of why certain countries were able to leave the development path that historical legacies dictated.

Explanations based on institutions have been very prominent in the literature on taxation (Bird / Martinez-Vazquez / Torgler 2008; Cheibub 1998; Di John 2006; Kenny / Winer 2006; Mulligan / Gil / Sala-I-Martin 2004). These kinds of analyses are based on the claim that institutions influence the decisions and behaviours of actors by distributing power differently, thereby changing their incentives for them.<sup>16</sup> The application of this approach to developing countries faces a major difficulty: politics in these countries are often far less bureaucratised, and informally coded institutions play the predominant role (Therkildsen 2001, 111).<sup>17</sup> Specifically, in developing countries the incongruence between *de facto* and *de jure* power is more pronounced.<sup>18</sup> Hence, focussing on the effect of

---

14 For instance, Tanzania and Kenya share comparable historical legacies, economic structures and geography (Miguel 2004). However, while Kenya has a mean tax to GDP ratio of 20.8 per cent from the period of 1996 to 2008, Tanzania only reached 12.2 per cent. Even more striking is that the mean direct tax to GDP ratio for Kenya more than doubles the one for Tanzania in that period – 6.6 against 3.1. (Data for tax collection come from the African Economic Outlook (AfDB/OECD 2010); for GDP, data come from World Development Indicators: online: <http://data.worldbank.org/indicator>).

15 For example, Di John / Putzel (2009) argue that the characteristics of the political settlements on which the regimes in Guatemala and Costa Rica are historically based are crucial in understanding how their tax performance developed in extremely different ways, although they started with similar economic conditions in the 1950s and 1960s.

16 Insightful works dealing, at least indirectly, with taxation and institutions are Levi (1988) and North et al. (2007).

17 Therkildsen discusses this in the context of Africa and underlines the work of Bratton / van de Walle (1997). Nonetheless, I consider that similar arguments about the role of informal institutions on governance and taxation can also be applied to other regions.

18 See discussion about the divergence between *de facto* and *de jure* political power in Acemoglu / Robinson (2006b).

institutions that define potentially irrelevant *de jure* powers can be misleading. Furthermore, if the effect of institutions is conditional to the political context, the comparability among institutions, which look similar on the books, cannot be taken for granted. Overall, it seems that in these contexts, there is a need to go one step further than formal institutions and analyse the direct effect that diverse distributions of *de facto* political power and “*tacit institutions*”<sup>19</sup> have on tax systems.

The third and last perspective within the political economy stream provides a tentative solution to the former problem by focussing on pressure politics. This allows not only for an approach to taxation that takes into consideration the role of *de facto* power and different power constellations, but also provides a solid framework for estimating the prospects for a change of tax regimes. The careful discussion of the microfoundations of the arguments<sup>20</sup> is also one of its particular strengths.

The democracy and redistribution literature can be highlighted as the most relevant exponent of this third sub-approach (Acemoglu / Robinson 2006a; Boix 2003). The main argument is that the stronger the pressure of the general population on the economically and politically powerful actors, the higher the tax contributions of the latter will be. This simple claim seems plausible and convincing. But whereas this perspective is able to explain, at least theoretically, variance among countries with differing socio-political conditions, it is not able to explain the variance among countries sharing these conditions. Still, differences among these conditions are empirically remarkable. For instance, Brazil and Argentina share similar economic structures and wealth levels as well as historical and contemporary democracy levels. Nonetheless, in the period between 1990 and 2009, whereas the average tax to gross domestic product (GDP) ratio in Argentina was 23 per cent, in Brazil it was 29 per cent (OECD et al. 2011).<sup>21</sup> I contend that the democracy and redistribution argument fails to explain this variance because of the exclusive focus on vertical pressure from the general population on the elites, who are understood as a unitary actor unequivocally opposed to taxation.

## 2.2. Analytical approach: complementing the democracy and redistribution approach

In the following, I discuss three aspects that add to the development of a more nuanced view concerning the determinants of tax contributions by elites. These three aspects are:

- 
- 19 Following Khan, *tacit* institutions are informal institutions that “describe behavioural regularities of individuals or organizations in the game-theoretic sense of ‘equilibrium behaviour’, given the behaviour of other individuals and organizations” (2010, 10). Khan also discusses extensively the limits of the new institutional approach and elaborates many of the ideas briefly pointed at above.
  - 20 Hereby, I refer to the idea that “macro-explanations of social phenomena must be supported by an account of the mechanisms at the individual level through which the postulated social processes work” (Little 1998, 10). In this line, the absence of this dimension in many approaches makes the proposed causal mechanisms and arguments often vague and unconvincing.
  - 21 If we compare the revenue structures and not the aggregated tax to GDP ratios, the differences among these two countries increase remarkably. A more systematic analysis of the effect of representation on tax collection can be found in Timmons (2010).

- i) the plural nature of elite coalitions and the relevance of the patterns of interaction among them;
- ii) the existence of negative and positive incentives for elites to pay taxes;
- iii) the role of the government in negotiating tax contributions.

Overall, a thorough consideration of these aspects demands shifting attention from bargaining processes between elites and non-elites to bargaining among elites themselves.<sup>22</sup>

### 2.2.1 Patterns of interaction among elites

In the democracy and redistribution literature, it is often assumed that there is one monolithic and unitary group of the “powerful” – a notion that is doubtful. On the one hand, powerful actors in a state must share a common understanding as a coalition in order to ensure stability and continuity, but on the other hand they will commonly have conflicting interests regarding taxation and the role of the state.<sup>23</sup> Consequently, a collective action challenge exists within the coalition of elites that cannot be ignored.

How this collective action problem is solved profoundly influences the definition of the political settlement sustaining the social and political order, and thereby the prevailing idea of the state as well as the limits of state action. Among other things, the political settlement will be characterised by patterns of interaction among the members of the ruling elite coalition.<sup>24</sup> Some scholars have focussed on the patterns of cooperation between the government and upper classes as being a determinant of taxation (Di John / Putzel 2009; Lieberman 2003). Yet, this approach does not take precise account of the interaction among the non-governmental elites.

To capture patterns of interaction among elites analytically, I propose to situate these along a continuum between cohesion and factionalisation.<sup>25</sup> On one end of the continuum, in a strongly cohesive elite coalition, its members agree and share a detailed view of what

---

22 Olson made a similar argument when discussing the emergence of democratic regimes. His point is that a balance of power “*that keeps any one leader or group from assuming total control of a large area or jurisdiction*” (1993, 573) is not a sufficient condition for the emergence of democratic regimes, as small-scale independent autocracies represents another feasible outcome. In this line, in addition to balance of power, the interaction and interdependence among different powerful groups is crucial to explain the emergence of democratic regimes

23 Boix addresses the possibility that elites might have divergent interests to some extent by analysing the differences between an approach based on a class-cleavage structure and one based on sector-cleavage structure (2003, 53–57). However, Boix points out how divergent interests can influence taxation by changing the relevant political coalitions, but not how divergent interests among coalition members can influence taxation without necessarily dissolving the coalition.

24 There are many definitions of the concept of political settlement. A particularly useful definition is provided by Khan: “*A political settlement is a combination of power and institutions that is mutually compatible and also sustainable in terms of economic and political viability*” (2010, 4).

25 My conceptualisation of the interaction among elites strongly relies on the concepts of the adversarial and cooperative state (Lieberman 2003, 54–60). However, while Lieberman emphasises the interaction between the state structures and economic elites, I want to focus on the interaction between different elites.

the state and the government should do. Hence, all elites agree on precise policy contents. In this extreme, the members of the elite coalition act as one actor: a unitary elite coalition.<sup>26</sup> This does not preclude the existence of conflicting interests but implies that mechanisms exist to develop unitary positions that overcome these conflicts. An environment in which this kind of cohesive coalition can emerge is, for instance, a one-party regime. Here, the party serves as a coordination device that imposes a high level of coordination and coherence within the coalition. Thus, even though the coalition might integrate members with different – and even conflicting – interests, the party enables (and forces) the diverse factions to act as one (e.g. Gehlbach / Keefer 2011).

At the other end of the continuum, in a factionalised elite coalition, its members are loosely coordinated. In this case, agreement among the multiple members on policy content is not as precisely defined. In the best-case scenario the coalition agrees on certain limits of state action and some abstract goals such as peace preservation. However, there is no shared vision for proactive state action and policy directions backed by all coalition members are poorly developed. For example, limited multiparty regimes as conceived by Hadenius / Teorell (2007) can be considered to be based on factionalised elite coalitions. In this scenario the most relevant political, economic and social actors share a procedural consensus regarding the basic institutions that guide the political process, yet there is often an open conflict about policy contents. The procedural consensus provides the rules of the games but does not include the policy contents, which are defined in competitive, conflictive and iterative bargains among the coalition members (Faust 2010).

### 2.2.2 Different incentives for elites to pay taxes and the potential of positive drivers of taxation

Apart from the normative – and naïve – argument that elites pay taxes because laws demand it, there appear to be two main reasons for paying taxes. The first reason is fear. Fear can come from a number of sources: monetary sanctions, social contempt, legal prosecution or even the fear of a change in the social and political order and the associated loss of privileges.<sup>27</sup> In particular, the idea that elites accept paying certain levels of tax contributions, because they expect to be even worse off in the alternative scenario of not paying these, is strongly prevalent in academic circles.<sup>28</sup>

This claim is based on the assumption that taxation always serves the goal of redistribution. More precisely, it presumes that any state actions financed by tax contributions above the externally imposed level will never benefit the elites. Assuming this redistributive effect of taxation is doubtful. In practice, little can be said about the effect of a tax without taking into consideration what the collected resources are used for. Suppose, for instance, that particular elites would be able to manipulate state spending and state action to serve their interests. In this context, for those elites, contributing to a well-financed state could indeed be in their best interest.

---

26 This is the situation that the democracy and redistribution literature commonly assumes.

27 The latter is well covered by the democracy and redistribution literature (Acemoglu / Robinson 2006a; Boix 2003).

28 The tax morale approach (e.g. Frey / Torgler 2007) is a remarkable exception.

A well-documented case of bargaining among economic elites and political representatives around tax codes and fiscal policies is found in Chile in the time of its transition to democracy. As Boylan (1996) underlines, it was crucial for the success of the negotiations and, furthermore, the political stability of Chile that “a farsighted business class seeking economic security could recognize that if demands for increased social spending were not met, this failure would threaten the long-term political and economic stability of the entire system.” Thus there was an element of fear in their incentives, but also the idea of self-privileging by securing long-term political and economic stability is crucial.

This final thought connects to the other potential reason for elites to pay taxes: self-privileging. This will come up when elites do not perceive taxes as inevitable costs but rather as profitable investments. Two preconditions are required for taxes to be considered profitable investments. First, the expected benefits from the public spending financed by one's own tax contribution must outweigh the tax payment itself; second, channelling the resources through the public system must be perceived to be more efficient than privately paying for the required services. In this line, in an optimistic tone, Timmons underlines that “states benefit from economies of scale in the provision of goods and services providing them for less than each individual can provide for herself” (Timmons 2005, 519). Furthermore, state structures are able to solve coordination games when large-scale investments are required.<sup>29</sup>

These two reasons for elites to accept paying taxes relate well to the idea of positive and negative drivers of taxation. Paraphrasing Hossain / Moore (2002, 10) and applying their arguments to the debate about taxation, a negative driver of taxation is a perception by the elites that they might be worse off if they do not pay a certain amount of taxes. In contrast, a positive driver is a perception that there are potential gains for paying taxes that benefit more social groups than just those that are paying.<sup>30</sup>

All tax contributions based on fear are connected to the idea of negative drivers of taxation. As an example, imagine elites paying taxes to avoid a revolution. The only driver behind the acceptance of paying is the fear of the potential revolutionary setting. After paying taxes, the elites are not better off than before that, because they do not directly benefit from the state spending that their tax contributions enabled. They are only better off than in the counterfactual case of not having contributed. Consequently, if there was no fear, there would not be any incentive to pay.

As for positive drivers of taxation, the situation is different: after the implementation of the state action financed by paying taxes, the elites having paid are not just better off than they would have been in a hypothetical counterfactual situation of not having done so, but also better off than before paying taxes. The state action that is enabled by their tax contribution does not just defend the elites from a worse scenario, but also creates a more positive one from which they directly benefit.

---

29 The idea that the state can potentially be used to increase benefits or defend the position of certain privileged groups can be traced back to Stigler (1971). In addition, the argument developed above can be connected to the discussion of stationary and roving bandits by Olson (1993).

30 A description of the concept of positive and negative drivers can be found in Hossain / Moore (2002). They focus on positive and negative drivers in a broader discussion on the political economy of pro-poor policies.

All tax contributions based on the idea of self-privileging fulfil the condition that elites consider paying taxes to be a desirable investment. But not all incentives based on self-privileging can be considered positive drivers of taxation. To qualify as a positive driver of taxation, both the elites contributing via taxes and other social groups have to share an expectation of common gain from the financed state action.

Imagine, for instance, that elites accept paying some amount of taxes only if a certain infrastructure that benefits their businesses is built. The elites would expect a gain in accepting paying these taxes, but the thereby enabled state action would benefit only these particular elites and not the general population. These kinds of “elite capture” cases in which the state is instrumentalised to serve only narrowly defined particularistic interests do exist, but, as Hossain / Moore (2002) point out, the contrasts between the interests of privileged and underprivileged segments of society are commonly overstated. Even in the extreme case above, one could argue that the infrastructure as a public good could be used for other purposes. In fact there are many sectors in which the overlapping interests of elites and the general population are fairly plausible. Under these circumstances, the elites’ expectations of particularistic benefits qualify as a positive driver of taxation because the employment of the increased tax revenue is used for state action from which the general population also benefits.

Hossain / Moore (2002, 17–18) argue that in the education sector, the interests of elites and the general population might converge. Some elites can strongly profit from a well-educated population and the population can profit from better employability.<sup>31</sup> The authors discuss this in the context of the political economy of pro-poor policies, but I consider that a similar argument can be made when discussing the political economy of tax performance. Similar arguments can be made concerning investments in infrastructure development.

In conclusion, if we analyse the incentives for elites seriously, at least theoretically there is nothing dictating that elites should not have an interest in higher taxation imposed on them. If we consider the nature of the elites’ incentives and whether or not the thereby financed state action will benefit the general population, we can differentiate between two drivers of taxation. First, positive drivers of taxation are characterised by the expectation of a common gain for both the elites and the general population. Crucial is that the elites increase their tax contributions out of self-interest, but the state action that this enables leads also to benefits for the general population. Second, negative drivers of taxation are incentivised by fear. Tax contributions based on fear can strongly benefit the general population, but elites benefit only indirectly, by avoiding a counterfactual situation. Beside these two drivers, elites can increase their tax contributions out of self-interest with the goal of achieving state action that only serves their particularistic interests and not the interests of the general population at all. This would be a case of elite capture.

### 2.2.3 The role of the government in negotiating contributions of elites

In the democracy and redistribution literature, as well as more generally in the literature on taxation in developing countries, there is a tendency to neglect the role of the

---

<sup>31</sup> Ansell (2010) provides an in-depth analysis of the political economy of public spending in education and the opposed incentives for elites to providing resources employed towards this goal.

government as a proactive independent actor. As far as the democracy and redistribution literature is concerned, the origin of this underestimation might lie in the focus on the vertical negotiation between the powerful and the powerless, which reduces the government to a policy-taker without own initiative.

The fiscal contract paradigm offers a solid argument for highlighting the role that governments can play in shaping the characteristics of taxation. The main idea of the fiscal contract paradigm is that “rulers have incentives to reduce the cost of compliance by making credible commitments to citizens, giving them a say over policy, providing them directly with benefits, and/or investing in ideology, which can substitute for coercion” (Timmons 2005, 535). Thus, taxation is conceived as the result of a negotiation process in which the governments exchange services for revenue.

In contrast to Timmons’ approach, which assumes that all bargains between social groups and the government are identical, I concentrate on the negotiation between the government and the elites for two reasons. First, I consider that the result of this negotiation is crucial for understanding tax performance and revenue structures, as it defines the tax contribution of the actors that control most of the political and economic power. Second, there is one substantial difference between the negotiations of the government with the elites and the negotiations with other social groups.

For the sake of stability and survival, the government – and more broadly the regime – needs at least the support of a substantial segment of the elites (Bueno de Mesquita et al. 2003; Khan 2010).<sup>32</sup> Consequently, the bargaining position of the government against these crucial actors is weak compared to the one against the general population. Most importantly, the threat to act coercively, which is key in understanding why the general population pay taxes, is not credible against elites. As a result, elites should be expected to pay only as much as they consider convenient and not necessarily the amount that they are urged or demanded to.

Yet, the fact that the government is not able to credibly create negative drivers of taxation does not preclude that it can support the emergence of positive drivers of taxation. In fact, as it has direct contact with the elites, potentially valuable information about their interests, and the capacity to proactively propose and implement attractive policies for them, the preconditions to start bargaining with them are positive.

---

32 For instance, while Khan talks of “the ruling coalition of factions”, Bueno de Mesquita, Smith, Siverson, and Morrow rather use the term “winning coalition”. In essence, both terms refer to the same idea of a group of social actors who, by acting in a coordinated fashion, are able to sustain the stability of a certain political and social order. This is important to indicate that not necessarily all elites must be integrated in these coalitions – a point that this paper does not consider, as for the sake of simplicity I use the term “elites” for all actors included in the coalitions. Although the term “winning coalition” resonates far more strongly in the academic debate due to its accent on *de jure* power and the mixed empirical evidence of the associated “selectorate theory” (e.g. Clarke / Stone 2008). As I also consider that the elite coalition must not necessarily be factionalised, I also refuse Khan’s concept and stick to the term “elite coalition”.

### 3 A model for tax contributions of elites

The previous chapter introduced a theoretical approach to taxation in developing countries. The willingness of elite coalition members to pay taxes was highlighted as a crucial aspect in explaining the level of tax contribution as well as the variance in revenue structures among developing countries. Various factors influencing this willingness to pay taxes were also discussed. In this chapter, the focus lies on modelling the level of the contributions themselves. I proceed with the help of a formal model. In Section 3.1, I present the logic of the main model, which strongly relies on the democracy and redistribution argument. In Sections 3.2 to 3.4, the effect of the following three factors on elites' tax contributions are analysed: level of factionalisation among the elites, availability of information on other factions' contributions, and the credibility of government.

#### 3.1. The logic of the main model

Consider a polity in which the only threat that the general population can use to put pressure on the elites to pay taxes is the threat of a revolt.<sup>33</sup> The status quo is more beneficial for the elite coalition than the alternative scenario of a revolt. The mechanism by which the elites can increase the probability of the maintenance of the status quo is by financing the state via taxes. This will allow the state to provide certain services that will appease the general population. The government is perfectly informed about the amount of resources ( $G$ ) required to serve the demands of the general population to a degree that ensures the maintenance of the status quo and accurately informs the elites. Based on this information, the elites decide upon their particular contribution. The total sum of their contributions corresponds to the value  $T$ .

The degree to which  $T$  fulfils  $G$  influences the probability of a revolt, as the higher the contribution, the more that demands can be satisfied by public action and, consequently, the less attractive revolting becomes for the citizens. The probability of a revolt is defined by the convex function

$$f(T, G) = 1 - \sqrt{\frac{T}{G}}$$

Hence, the probability of revolting is decreasing in  $T$  at a decreasing rate.<sup>34</sup> This corresponds to the notion that tax contributions at lower overall levels are comparatively more efficient and effective in reducing the probability of revolt than contributions at higher levels; this is because low contributions will already have convinced broad

33 It is important to underline that the concept of revolt should be understood in a broad sense, including different types of socio-political sanctions and not necessarily a violent uprising aiming at regime change.

34 The shape for the probability function represents an assumption. It is surely a simplification of the reality, and alternative shapes are possible, as will be discussed in the following section. Yet, assuming a convex function seems reasonable, given the collective action problems that the general population faces in organising a revolt.

segments of the society to reject a revolt. Still, the higher the fulfilment of G, the lower the probability of a revolt.<sup>35</sup>

In essence, the elites face a maximisation problem: maximise the payoff given the probability function of revolt and their payoffs in case of preservation of the status quo (STQ) and in case of a revolt (REV).

For the case of a strongly cohesive elite coalition (CEC) – as conceived in the previous chapter, in which all relevant elites are able to act as one – the utility function is defined as

$$EU_{CEC}(T, G, STQ, REV) = \sqrt{\frac{T}{G}} STQ + \left(1 - \sqrt{\frac{T}{G}}\right) REV - T \quad (1)$$

subject to the constraint that  $0 \leq T \leq G^{36}$  and  $T < STQ - REV^{37}$ . Based on this constraint  $T = \frac{(STQ - REV)^2}{4G}$  defines the contribution T that maximises the coalition's utility.<sup>38</sup>

This result has two major implications. On the one hand, the more the elites benefit from the status quo – or the more they lose in case of a revolt – the more they will be willing to pay via taxes. The point is that while the denominator remains constant, higher values for STQ or lower values for REV will produce a higher numerator, which will lead to an increase of the contribution T that maximises the utility.

On the other hand, in the range between  $G \leq \frac{STQ - REV}{2}$  T is increasing in G, whereas for  $G > \frac{STQ - REV}{2}$  the value T maximising the coalition's utility is decreasing in G.<sup>39</sup> Hence, increasing the demand for redistribution (G) does not necessarily lead to more revenue and, in fact, sticking to modest demands can increase the contributions of elites.

To exemplify the logic of the model, consider the following situation<sup>40</sup>: the general population demands 9 in order to not revolt ( $G = 9$ ), and the strongly cohesive elite coalition values the status quo with 15 and the revolt with 2. Under these circumstances

35 To get a sense of the function, paying zero will surely lead to revolt, as no citizen will be willing to accept the status quo; paying half of the demanded value G decreases the probability of a revolt already to 0.29; finally, paying the full amount of G, which means satisfying all demands of the general population, decreases the probability of a revolt to 0.

36 The point is that contributing more than G would be a waste of resources. If we assume that the only driver for paying taxes is lowering the probability of revolt, contributing above the demanded value G is always less profitable than sticking to G.

37 As I assume  $T > 0$ , this second assumption implies that the status quo is more attractive than the scenario in case of a revolution. If this is not the case, the elite coalition would never pay any amount, as it would have no interest in supporting the status quo.

38 See Appendix 1. The utility function for a unitary elite coalition would be identical, as in practice, there is no difference between a unitary elite coalition and a plural – but strongly cohesive – coalition.

39 See Appendix 2.

40 This situation will be used to exemplify the effect of certain factors on the contribution of elites in other sections.

the contribution  $T$  that maximises the elite coalition's utility is 4.7.<sup>41</sup> In practice, paying this amount ensures that the status quo will prevail with a 0.72 probability.

### 3.2. Factionalism and the contributions of elites

The game described above provides some hints about factors driving the tax contribution of elites. Yet, the model is based on the assumption of the existence of a strongly cohesive elite coalition. This implies overlooking the potential effect that factionalism within the coalition can have on the tax contributions. To analyse this aspect, consider the same basic game as above, but in this case a division of the elite coalition into two factions  $F_i$  ( $i = 1; 2$ ). Based on the previous logic, these factions face jointly, as a coalition, the demand  $G$  posed by the government on behalf of the general population. Again, every faction has a particular payoff from maintaining the status quo ( $STQ_i$ ) and from the occurrence of a revolt ( $REV_i$ ), and each faction can decide individually about the level of their contribution  $t_i$ . In contrast to the situation in the game with a strongly cohesive elite coalition, in this case, the probability function for a revolt depends on the joint contribution of the two factions ( $T$ ), which is the sum of the particular contributions  $t_i$ .

$$f(t_1, t_2, G) = 1 - \sqrt{\frac{t_1 + t_2}{G}} \quad (2)$$

Hence the utility function for each faction is

$$EU_{F_i}(t_i, t_{\sim i}, G, STQ_i, REV_i) = \sqrt{\frac{t_i + t_{\sim i}}{G}} STQ_i + \left(1 - \sqrt{\frac{t_i + t_{\sim i}}{G}}\right) REV_i - t_i \quad (3)$$

Before analysing the difference to the case with a strongly cohesive elite coalition, two main aspects deserve special attention. First, in the absence of an institution that is able to enforce agreements between the factions, no arrangement that is agreed upon between them can be considered binding.<sup>42</sup> As a consequence, being unable to negotiate a binding arrangement, the factions have to assume that  $t_{\sim i}$  is equal to 0, as long as they do not have any additional information.

Second, connected to the problem addressed above, the government cannot credibly split the value of  $G$  among the existing factions. The point is that the government cannot target shares of  $G$  and credibly ensure that paying these will be enough for the factions to be shielded in case of revolt. Hence, the factions act as if government were demanding the full value  $G$  from each of them.

<sup>41</sup> To exemplify the effect of changing  $G$ , a change in  $G$  from 9 to 6.5 would lead to an increase in the contribution to 6.5.

<sup>42</sup> The government cannot credibly assume this role, as it cannot coercively act against any member of the elite coalition (see Section 2.2.3).

Imagine as a first step a rather simple scenario. The elite coalitions are characterised by two factions. Both factions share the payoffs for STQ and REV homogeneously.<sup>43</sup> In this situation, the contribution that maximises their individual utilities is defined by<sup>44</sup>

$$t_i = \frac{\left(\frac{STQ_i}{2} - \frac{REV_i}{2}\right)^2}{4G} \quad (4)$$

The effect of factionalism seems to be remarkable. Using the example on page 16 as a starting point, the splitting of the elite coalition into two factions that share identical values for STQ and REV leads to the contributions of each of them to be as low as 1.17.<sup>45</sup> The decrease can be explained by the fact that, in comparison to the situation for a unitary elite coalition, the value for REV and STQ decreased for each faction, producing a lower numerator,<sup>46</sup> whereas the value G remained constant. Consequently, the contribution maximising the utility for each faction decreases in comparison to the contribution that a potential unitary elite coalition would make. Even considering the joint contribution of both factions (2.35), the contribution is far lower than the one a unitary elite coalition would pay under identical circumstances (4.7).<sup>47</sup>

The greater the factionalisation of the elite coalition, the stronger the negative effect on the particular contribution. In this sense, the more factionalised the elite coalition, the lower their joint contribution.<sup>48</sup>

Arguably, dividing the values for REV and STQ homogeneously among the coalition's factions can be considered unrealistic. Instead, it seems more plausible that the particular values for STQ and REV will be unevenly distributed among them. This brings up the question whether a certain distribution of payoffs among the factions exists, which leads to a higher joint contribution than the one that a unitary elite coalition would pay. Formally, the question is if there is a distribution wherein the following inequality holds:

$$\frac{(STQ - REV)^2}{4G} < \frac{(STQ_1 - REV_1)^2}{4G} + \frac{(STQ_2 - REV_2)^2}{4G} \quad (5)$$

43 In this case the values for STQ and REV are simply divided by two.

44  $T = \frac{(STQ - REV)^2}{4G}$  maximises the utility for a unitary elite coalition. As, in this case, REV and STQ are homogeneously divided among the factions, both factions assume  $t_{\sim i} = 0$  and both factions face the full demand of G; the equation maximising the T is identical to the one for a strongly cohesive elite coalition but substituting REV and STQ respectively by  $\frac{REV}{2}$  and  $\frac{STQ}{2}$ .

45 G is maintained at 9. The values attached to the status quo and revolt change respectively from 15 to 7.5 and from 2 to 1. Hence the result of  $t_i = \frac{(STQ_i - REV_i)^2}{4G}$  is 1.17. This implies that the coalition member pays until securing a 0.36 probability for the status quo as outcome.

46  $(\frac{STQ}{2} - \frac{REV}{2})$  is always lower than  $(STQ - REV)$ .

47 One could argue that the assumption that governments cannot target shares of G is too strong. Nevertheless, the existence of a problem in simply dividing the burden among factions is undeniable and even small restrictions in this capacity lead to remarkable drops in the tax contributions as compared to ones of a strongly cohesive elite faction.

48 See Appendix 3.

Considering that  $REV = REV_1 + REV_2$  and  $STQ = STQ_1 + STQ_2$  this inequality can be rewritten as

$$\frac{((STQ_1 + STQ_2) - (REV_1 + REV_2))^2}{4G} < \frac{(STQ_1 - REV_1)^2}{4G} + \frac{(STQ_2 - REV_2)^2}{4G} \quad (6)$$

Assuming  $G > 0$ , the inequality only holds under two conditions: if  $REV_1 > STQ_1$  and  $REV_2 < STQ_2$  or if  $REV_1 < STQ_1$  and  $REV_2 > STQ_2$ . Consequently, in order for the joint contribution of a factionalised elite coalition to be higher than the contribution of a unitary elite coalition, at least one of the factions needs to be better off in case of a revolt. The driver of this situation is that one of the factions benefits so much from the status quo that it accepts to contribute a lot to maintain it. The problem is that such a scenario would be very unstable. The faction that would be better off in case of a revolt would be looking for an alternative elite coalition that could stabilise another political settlement associated with higher particular benefits. Moreover, due to the problem of enforcement of contracts, a solution using side payments is problematic to envision.<sup>49</sup>

Yet, the analysis above shows that the overall contribution of a factionalised elite coalition in which the factions unevenly share the payoffs of  $STQ$  and  $REV$  is higher than the one of an elite coalition that is divided into uniform factions.

To exemplify this insight, based again on the main model described on page 16, imagine that the unitary elite coalition is divided in two factions. For faction one,  $STQ_1$  equals 10 and  $REV_1$  equals -2, whereas for faction two  $STQ_2$  equal 5 and  $REV_2$  equal 2.  $G$  remains at 9 for both factions. The first faction maximises its utility by contributing 4, whereas the second does so by contributing 0.25. Consequently, the joint contribution is 4.25. This is higher than the joint contribution expected from a coalition factionalised into two uniform groups (2.35),<sup>50</sup> but remains lower than the contribution expected from a unitary elite coalition (4.7).

All in all, this subsection suggests that, all else being equal, an increasing degree of factionalisation leads to lower overall tax contributions by the members of the elite coalition. The main problem is that the government cannot guarantee the different factions that other contributions will be in place, nor that paying a certain share of  $G$  will shield them in case of revolt. Consequently, factions would have to behave as if they were bearing the complete demand of  $G$  and face the revolutionary threat alone. This necessarily lowers the incentives to contribute, as buying stability becomes more costly and comparatively less attractive.

### 3.3. Information availability and the contributions of elites

The previous analysis is based on the idea that factions within the elite coalition cannot make binding agreements on how much they will contribute because there is no outside

<sup>49</sup> Side payments are transfers that are made among the players of a game after it is finished. This could still be used to make supporting the status quo attractive for the less privileged member of the elite coalition. However, this requires the existence of a credible institution that is able to enforce this agreement (Morrow 1994, 111–113).

<sup>50</sup> See page 16.

institution that can ensure that the agreements will be enforced. This makes the fact about whether they can communicate irrelevant, because regardless of what they communicate, the problem of enforcement persists. The issue is different when discussing the availability of information about other factions' tax contributions.

In the previous section, factions were assumed to have no information about the actual or potential contributions of other factions. One could argue that this does not appear to be a realistic scenario.

In the following, I discuss two scenarios – one in which one faction has precise information about how much the other faction has or is willing to pay, and another in which the information concerns the range in which the contribution of the other faction will fall. The results suggest that there is no strategic complementarity between the contributions<sup>51</sup> and that, in fact, the information about actual or potential contributions of other factions leads to a decrease in the amount of one's own contributions. The key is that knowing how much other factions will contribute offers the possibility to free-ride.<sup>52</sup>

Imagine that  $F_1$  knows with certainty the amount that  $F_2$  has contributed, for example thanks to a leak from the Ministry of Finance. In this case, the utility function for  $F_1$  would be the same as in the previous section (function number 3).

$$EU_{F_1}(t_i, t_{\sim i}, G, STQ_i, REV_i) = \sqrt{\frac{t_i + t_{\sim i}}{G}} STQ_i + \left(1 - \sqrt{\frac{t_i + t_{\sim i}}{G}}\right) REV_i - t_i \quad (3)$$

Yet, in this case,  $F_i$  does not have to assume  $t_{\sim i}$  equals 0, as it knows its precise value. Consequently, the value  $t_i$  that maximises the utility for  $t_i$  is no longer  $t_i = \frac{(STQ_i - REV_i)^2}{4G}$  but  $t_i = \frac{(STQ_i - REV_i)^2}{4G} - t_{\sim i}$ .

The comparison between the two latter equations makes it evident that the availability of information has a negative effect on the contribution of the faction with this information. In fact, any contribution that is known to be surely paid by other factions is fully subtracted from the contribution that the particular faction would make in case of not having any information.

51 The concept of strategic complementarity is described in McCarty / Meirowitz (2007, 131–133). The contributions would be strategic complements if the contributions of each faction were to increase the contributions of the other factions. As this section shows, this is not the case and one's own contributions decrease in response to an increase of other elites' contributions.

52 This analysis is based on the idea that the factions try to maximise benefits in a one-shot game scenario, although paying tax contributions can be rather seen as a repeated game. The tax administrations will demand contributions every year. Moreover, the high amount of tax reforms in most countries in the world indicates that these taxes are subject to constant discussions and bargaining. However, the national tax-to-GDP ratios tend to be remarkably stable over time (Bird / Martinez-Vazquez / Torgler 2008, 56–58). This suggests that although details of tax legislations and systems might vary over time, the main lines of the performance of the tax system remain considerably stable within each country. As expressed by Bird, Martinez-Vazquez and Torgler: “*What is right, or at least feasible, in Chile or Brazil, for example, is likely to continue to differ from what may be sustainable in Colombia or Honduras*” (2008, 58). This point is closely connected to the idea of political equilibrium and supports conceptualising the definition of the tax contributions by members of the elite coalition as a one-shot game.

The situation does not change if the information is not about a precise value that another faction will pay, but rather about a certain range defining upper and lower boundaries for the contributions. Imagine, for example, that the elite coalition is composed of two factions ( $F_1$  and  $F_2$ ).  $F_1$  knows that  $F_2$ 's contribution will be between two boundaries, a high value  $\bar{y}$  and a low value  $\underline{y}$ . In addition,  $F_1$  knows that the probability of paying any value between  $\bar{y}$  and  $\underline{y}$  is constantly distributed.

The corresponding utility function for  $F_1$  is:

$$EU_{F1}\left(t_1, \bar{y}, \underline{y}, G, STQ_1, REV_1\right) = \sqrt{\frac{t_1 + \frac{\bar{y} + \underline{y}}{2}}{G}} STQ_1 + \left(1 - \sqrt{\frac{t_1 + \frac{\bar{y} + \underline{y}}{2}}{G}}\right) REV_1 - t_1 \quad (7)$$

Solving the first order condition for the value  $t_1$  leads to the result that<sup>53</sup>

$$t_1 = \frac{(STQ_1 - REV_1)^2 - 2G\bar{y} - 2G\underline{y}}{4G} \quad (8)$$

is the value for  $t_1$ , which maximises the payoff for  $F_1$ .

It is evident that the availability of this kind of information leads to lower contributions. As long as the values  $\bar{y}$  and  $\underline{y}$  are higher than 0,  $t$  will be lower than in a context of no information. The lower the values of the range, the lower the decrease in the contribution, as  $-2G\bar{y} - 2G\underline{y}$  will become smaller. Hence, the information availability about the others' contributions always has a negative effect on the amount of one's own contribution.<sup>54</sup>

All in all, the results of this subsection indicate that, all else being equal, in a factionalised elite coalition, the availability of information concerning other factions' contributions univocally leads to a reduction of the contributions of the faction that has that information. Thus, the analysis suggests that if the members of a factionalised coalition have access to this information, their overall contribution should decrease significantly.

### 3.4. The government's credibility and its capacity to increase the contributions of elites

The analyses in the two previous sections indicate that factionalisation of the elite coalition and availability of information about the factions' contributions leads to lower

<sup>53</sup> The first derivative for  $t_1$  is  $EU_{F1}'\left(t_1, \bar{y}, \underline{y}, G, STQ_1, REV_1\right) = \frac{-\sqrt{2}(STQ_1 - REV_1)}{2G\sqrt{\frac{2t_1 + \bar{y} + \underline{y}}{G}}} - 1$ . Equating it to 0 and solving it for  $t$  leads to the result in equation 8.

<sup>54</sup> There is one case in which the information about other member's contributions can lead to an increase in the amount of one's own contribution. It demands that the general population enforce a minimum contribution, below which the probability of revolt would not decrease in  $T$  (i.e. tax contributions below that level would have no diminishing effect on the probability of a revolt). Under these circumstances, it can be the case that knowing that other members would bear some of the demands can make contributing attractive, whereas not having this information would lead to the contribution being zero. This is an interesting but extreme situation that remains outside the scope of this paper.

overall tax contributions of elites. This is even more striking as, in practice, these aspects can be expected to increase during the process of socio-economic and democratic development. For example, factionalism could be connected to democratisation<sup>55</sup> and information availability to transparency. In this sense, one could argue that the achievement of certain development goals that are considered desirable from a normative perspective can lead to lower tax revenues, and consequently to less capable states. In other words, the previous analysis raises the question of whether countries are condemned to lower contributions of elites during a positive socio-economic and democratic development. Fortunately, empirical data tell us that this is not the case. At least for the highly developed countries and those considered to be at the high end of the democratic spectrum, not only are their overall tax revenues high, but also the collection of taxes, which are commonly assumed to have a comparatively strong impact on elites, is remarkable. Yet, for instance, Garcia / von Haldenwang (forthcoming) suggest that tax performance in countries located around the middle of the spectrum between democracy and autocracy is comparatively lower than in countries located at any of the extremes. Without precise data on the revenue composition of these countries, this empirical observation to a certain extent supports the arguments made above. It appears that the level of democracy in particular – or external pressure on elites more generally – has no linear positive effect on tax performance. Moreover, the fact that – aside from the worldwide democratic trend during the last decade – the gap in tax collection in most developing countries, as compared to OECD countries, is connected to a lower collection of arguably more progressive taxes supports the idea that developing countries have problems getting their elites to carry a fair share of the tax burden.<sup>56</sup>

Yet, if democracy and external pressure are not able to increase the contributions of elites, then what can? Analysing the following equation, which defines the contribution that maximises the utility for a unitary elite coalition, helps when thinking about potential alternatives.

$$T = \frac{(STQ - REV)^2}{4G} \quad (9)$$

As already discussed, lowering REV or increasing STQ increases the level of the tax contributions that the coalition accepts to pay. Also lowering G within a certain range of values leads to higher tax contributions of elites. Besides influencing these parameters, there is theoretically the option of changing the revolt probability function to a more

55 Faust makes the argument that democratisation “*opens up the political process and leads to a quick division of the homogenous group of those opposed to autocracy into a set of new political actors and interest groups: poor peasants, urban workers, ethnic minorities and diverse segments of the middle class*” (2010, 521). In my view, these arguments can be expanded to more general processes, leading to the encouragement of political pluralism. As highlighted by Faust: “*collective actors with the incentive to aggregate the diversity of societal demands into comprehensive political programmes*” (2010, 522) are key to counteract the negative effect of factionalisation. Precisely the lack of these actors is one of the main characteristics of societies in developing countries and explains why democracies in developing countries can more commonly be labelled as factionalised.

56 In empirical terms, it is well documented that the improvements of developing countries in tax performance have been mainly driven by a higher rate of collection of regressive taxes. A case where democracy has particularly failed to increase the contributions of elites is Latin American (Di John 2008), but for Africa data suggest similar tendencies (AfDB/OECD 2010, 93).

aggressive shape.<sup>57</sup> Interestingly, only the last option goes in line with the argument that increasing external pressure on elites will lead to higher contributions,<sup>58</sup> whereas all others are based precisely on the opposite logic.

Regardless of which approach is taken, in practice, the general population faces vast collective action problems to implement any of them. In addition, as for the last option, it requires a substantial change of the socio-political context,<sup>59</sup> and the positive effect of this kind of process on the tax contributions of privileged segments of society is disputed.<sup>60</sup>

The capacity of the government to influence the parameters defining the elites' contributions differs remarkably from the capacity of the general population in one respect. Normally, if we think about increasing tax performance by working with governmental organisations, we think in terms of strengthening monitoring capacities. As discussed in previous sections, this strategy, which is based on sidestepping political settlements, has limitations, especially when dealing with elites. There are no reasons to expect that governments will have fewer problems than the general population in influencing the parameters REV and G as well as the revolt probability function. However, in contrast to the general population, based on the fiscal contract paradigm (e.g. Timmons 2005), the government has the often overlooked capacity to influence parameter STQ by proposing deals to particular elites that encompass an exchange of higher tax contributions for the implementation of certain measures.

To illustrate the main logic of the argument, in the following figure, I graph the utility functions for a unitary elite coalition. The calculations are based on assuming a value of 10 for G and a value of 2 for REV. As the figure shows, the greater the values of STQ, the greater the values of T, which maximise the utility. Hence, even if the external pressure stays the same, the overall contributions of the members of the elite coalition should increase with the increasing attractiveness of STQ.

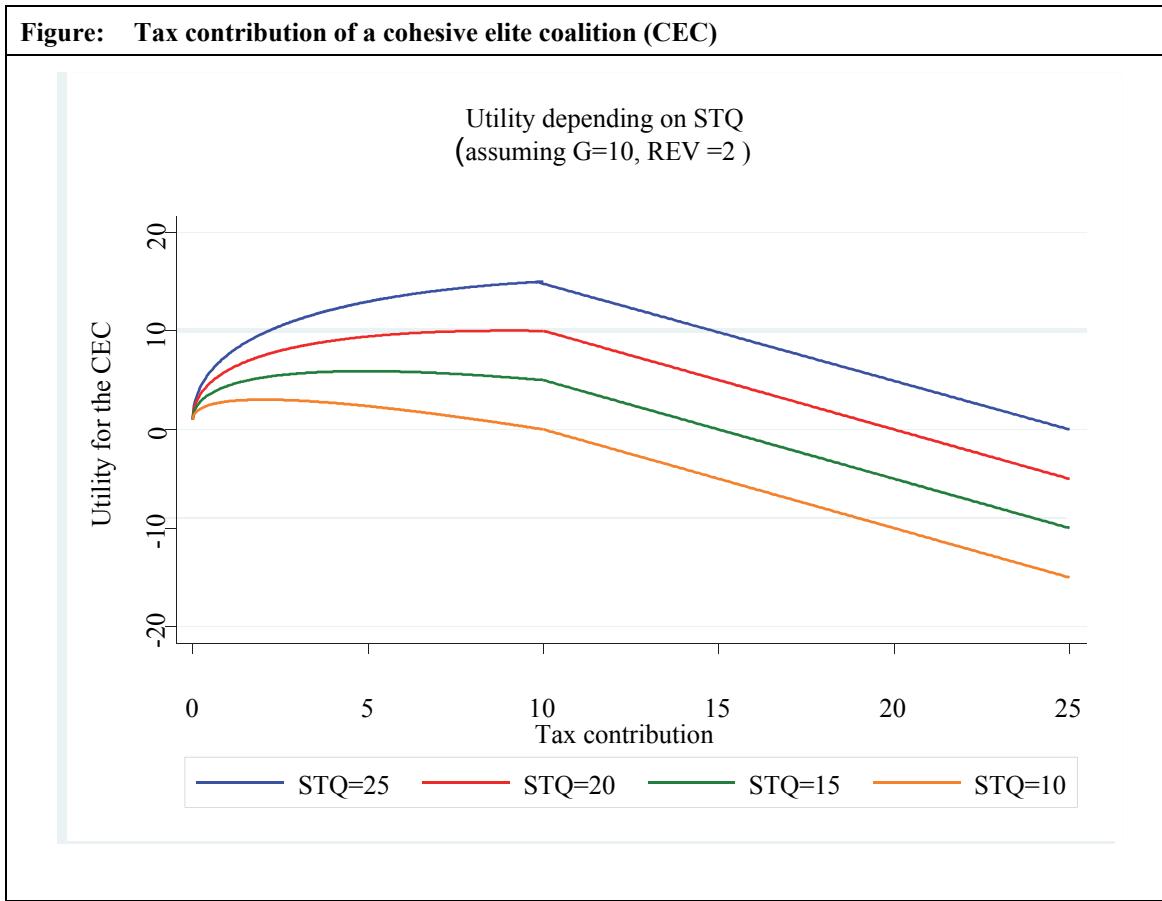
---

57 For example, if the general population were able to change the probability function from  $(1 - \sqrt{\frac{T}{G}})$  to the linear function  $(1 - \frac{T}{G})$ , the strongly cohesive elite coalition would be willing to pay the full amount G as long as  $STQ - REV > G$  (see Appendix 4). Even less-ambitious changes such as defining a minimal contribution  $\underline{g}$  – below which the probability of revolt would not decrease in T – can achieve remarkable increases in contributions (see Appendix 5).

58 In fact, rather than increasing pressure on the elites, which is connected to the parameter G, the idea here is increasing the threat while maintaining pressure, which is somehow different.

59 For a discussion on the collective action problems faced by the general population in creating a credible revolution threat, see Acemoglu / Robinson (2006a, 120–128). Closely related to this discussion, Hossain / Moore assert that negative drivers appear to be suffering an “*apparent impotence*” (2002, 12) in the contemporary world.

60 For a discussion on this, see Timmons (2010), who underlines the link between more representation and higher collection rates of regressive taxes. Also Beramendi / Rueda (2007) note how, at least in developed democracies, increases in tax revenue in countries with social democratic governments are based predominantly on indirect, supposedly rather regressive taxes.



But is the idea of the government offering a good deal to elites a realistic approach? Some scholars are sceptical about this. Not primarily about the capacity of the government to make such an offer, but rather about the prospects of this kind of offer being accepted by the other side in negotiations. For example, Ascher argues that interest groups will always operate in a defensive mode against taxation because “*there are so many steps between revenue collection and expenditures that no group can count on a sure and significant increase in benefits*” (1989, 419). This call for caution is understandable, but I would warn against deriving the conclusion that it is implausible for actors to accept paying more taxes in the expectation of getting more benefits. In my opinion, Ascher’s argument points at the fact that uncertainty can strongly bias preferences of the elites towards rejecting scenarios that could benefit them comparatively more. The consequence is not just that these groups miss the benefits of these options but also that society, more generally, is locked into equilibriums that are suboptimal for all actors (Fernandez / Rodrik 1991).

The key is that elites evaluate different scenarios based on expected benefits and not on the objective existence of benefits. Even if they realise the potential benefits from a deal with the government, the more uncertain the realisation of these benefits are, the less attractive financing the required measures will be. Consequently, the main problem is one of credible commitment.

In addition to this point, based on the discussions in the previous sections, I would argue that the patterns of interaction within the elite coalition are crucial for the capacity of the

government to influence tax contributions.<sup>61</sup> Against a strongly cohesive elite coalition, the governmental proposals must respect the limits of state action agreed upon by all coalition members. Hence, very specific proposals that benefit only one faction would not have any effect, as they would be commonly vetoed by other coalition members. In contrast, in highly factionalised elite coalitions, the arrangement among the coalition is less substantial and detailed. Therefore, given a credible government, it has more policy space to define particular arrangements with individual factions without the approval of other coalition members. As a result, the possibilities to successfully offer targeted benefits to particular coalition members increase in factionalised contexts. This does not mean that a unitary coalition will never react to attractive proposals by the government, yet it implies that the influence of credible governments should be stronger in a context of factionalism.

All in all, the arguments made above suggest that governments can far more easily create the conditions for achieving greater tax contributions of elites than can the general population. Strategies based on increasing pressure on elites are complex to implement and require a lot of time before results can be seen. In contrast, compared to the general population, the government – by aligning state action with the elites’ interests – can increase contributions by making the status quo more attractive more rapidly. Governmental credibility and reliability is key in this effort. Moreover, I argue that the effect of governmental credibility should be much stronger for factionalised elite coalitions than for cohesive ones, as the political space to make profitable deals is broader in the latter.

#### **4 Conclusion and implications for development cooperation**

As Timmons underlines, “social scientists have expended considerable energy trying to answer who gets what, when and how. Far fewer papers have addressed the flipside of the question – who pays what, when, and how” (2010, 191). Against this background, as a first step in the broader aim of understanding the determinants of diverse revenue structures in developing countries, this paper has focussed on gaining theoretical insights into when and why elites pay tax contributions and the circumstances under which these can increase.

In particular, I call for a shift in the theoretical approach to taxation. Analysis should not focus exclusively on the interaction between elites and the general population but should also consider carefully the interaction among elites themselves. Starting from the analysis of the commonly overlooked collective action challenge among elites, I have analysed how three concrete factors affect the amount of taxes that elites are willing to pay: level of factionalism among elites; information about other elites’ tax contributions; and the capacity of the government to make credible offers to fulfil particularistic interests. The analysis shows that increasing factionalism and information availability about other elites’ contributions have a negative effect on the level of tax contributions. On the contrary, the credibility of the government has a positive effect on the elites’ tax contributions and can,

---

61 This argument strongly relies on the argument made by Gehlbach / Keefer (2011) about the mechanisms by which autocratic leaders are able to make credible commitments to investors.

under certain circumstances, partly limit the previously identified negative effect of factionalisation.

The challenge posed by factionalism is clear. In absence of an institution that is able to enforce agreements, the demands from the general population cannot be divided among the factions. As a result, each faction has to act as if it were required to pay the entire demanded amount for maintaining the status quo. Accordingly, paying for ensuring the status quo becomes less attractive and tax contributions decrease. Similarly, the availability of information about the contributions of other coalition members lowers the tax contributions, as it offers the possibility to free-ride. Lastly, a credible government can increase the incentives for contributing by making the status quo more attractive, and hence worth paying for. In this context, it is important to note that the more cohesive the pattern of interaction among elites, the less influence that the credibility of a government will have.

The conclusions of this theoretical analysis help to go “beyond the broad generalisation that politics matter” (Unsworth 2009, 886) for taxation in developing countries and should be considered carefully by development cooperation. First, the paper sends a warning. Although overall tax performance is important, development cooperation should not overlook that the question of who pays taxes is at least as relevant as the question of how much is collected in tax revenues. Hence, the performance of different tax types and the contributions made by particular groups should receive as much attention as aggregated collection data.

Second, the paper points out that politics are important for evaluating the prospects of measures to improve tax collection. This is certainly not a new message, but unfortunately stressing and repeating the relevance of the political economy of taxation seems necessary. Everyone must recall that, to a certain extent, the reality of taxation mirrors the strategic constellations in place. Hence, if development cooperation aspires to support fairer and higher-performing tax systems, it must not only take into account what is technically and economically desirable, but also what is politically feasible. To achieve this, development cooperation cannot perceive politics as an obstacle to be overcome, but rather as a necessary part of the solution (Unsworth 2009, 887). Hence, a proper consideration and understanding of how attitudes, interests and perceptions of elites shape what is politically feasible are crucial. Two main drivers are able to enlarge the space of what is politically feasible: positive and negative drivers of taxation. The required conditions for the emergence of these drivers are different, as are their practical implications. The advantage of strategies based on negative drivers of taxation is that governments receive extra revenue that they can allocate freely. However, in general, supporting positive drivers of taxation seems more appealing for development cooperation, due to the fact they do not require changes in the strategic constellations and can potentially bring results in the short term. The key is that whereas negative drivers raise the contributions of elites by changing the socio-political context, positive drivers do so by activating a tax potential that, in practice, already exists. Therefore, the problem of positive drivers is not so much one of socio-political transformation, but rather one of policy design and policy framing. Development cooperation is for obvious reasons more comfortable in dealing with the latter aspects, and, in addition, these are also the aspects it can more easily have an impact on.

Overall, the paper leads to the following main messages for development cooperation:

**1. Sweetening the carrot is often more feasible and goal-orientated than supporting a stronger stick.**

Trying to influence power constellations in order to increase pressure on elites to pay more taxes is often less goal-orientated than striving to realise the potential that the existing ones offer. Wagering on the strategy to empower the general population is an uncertain strategy, which, if at all effective, requires a long time to evolve. By contrast, partly aligning with the interests of the powerful sectors of the society and finding the “best fit” (Booth 2012) can lead more easily and effectively to higher contributions, from which broad segments of the society can benefit. This requires that development agencies invest in context-specific knowledge and in political-economy analytical skills, but they should also engage in an open and frank discussion within the broader development cooperation community about the goals that development cooperation should be aiming at.<sup>62</sup>

**2. Concentrate on reducing uncertainty and supporting the identification of sectors in which common gains are possible.**

Positive drivers of taxation require that tax contributions be seen as a profitable investment. Limiting uncertainty is a crucial factor for making investments attractive. Hence, the existence of a credible and reliable state is crucial for increasing the tax contributions of elites.

Fortunately, development cooperation can make a great contribution in this respect by supporting confidence-building measures as well as by developing persuasive and credible narratives linking taxation to the interest of elites (Moore / Putzel 1999).<sup>63</sup> Moreover, development cooperation can also make a valuable contribution in helping governments in developing countries to identify sectors in which the interests of elites and the general population overlap. Last, but certainly not least, from a less technical and more political perspective, development cooperation can serve as a mediator and an informal reinforcer of arrangements by supporting and monitoring their implementation.

**3. Acknowledge that measures to enhance tax performance can be in conflict with other measures pursuing different development goals.**

Development cooperation must be aware of the interaction between measures designed to enhance tax performance and measures aiming at other development goals. This is especially relevant when designing measures connected to the idea of positive drivers of taxation. One could argue that improving tax performance on the basis of positive drivers can add to the reinforcement and stabilisation of unfair political settlements. If this is the case, there are reasons to expect that strategies based on these kinds of drivers will have negative impacts on other more normative goals of development cooperation, such as, for example, democratisation. In addition, besides immediate side effects, the consequences of strategies based on positive drivers of

<sup>62</sup> Otherwise the main goals and values of development cooperation would be violated. The conflict in objectives that can arise by basing a strategy to increase tax revenue on aligning with the interests of powerful actors is addressed below.

<sup>63</sup> Moore / Putzel (1999) refer to this in the context of the political economy of pro-poor policies; yet, the same arguments can be employed in the context of political economy of high tax performance.

taxation on long-term development of partner countries must be considered (Khan 2010). Development cooperation must work on tools to evaluate these risks in order to identify satisfying trade-offs and design consistent measures.<sup>64</sup>

In conclusion, this paper represents a call for international actors supporting developing countries in tax matters to take politics into account in order to identify the more effective, efficient and coherent strategy in supporting the emergence of higher-performing and fairer tax systems in developing countries. It proposes that the interaction among elites is the key dimension shaping tax performance and revenue structures as well as the feasibility of measures designed to change these aspects.

Future research is needed to prove empirically the plausibility of the arguments presented in this paper as well as to test on a large N cross country statistical analysis the empirical expectations suggested.

---

64 An analysis of the conflicting objectives of development cooperation – although focussing on the field of democratisation – can be found in Grimm / Leininger (2012), Faust / Leiderer / Schmitt (2012) and Freyburg (2012).



## Bibliography

- Acemoglu, D. / S. Johnson / J. A. Robinson* (2001): The colonial origins of comparative development : an empirical investigation, in: *American Economic Review* 91 (5), 1369–1401
- Acemoglu, D. / J. A. Robinson* (2006a): Economic origins of dictatorship and democracy, New York, NY: Cambridge University Press
- (2006b): De facto political power and institutional persistence, in: *American Economic Review* 96 (2), 325–330
- Adam, C. S. / D. L. Bevan / G. Chambas* (2001): Exchange rate regimes and revenue performance in sub-Saharan Africa, in: *Journal of Development Economics* 64 (1), 173–213
- AfDB/OECD (African Development Bank / Development Centre of the Organisation for Economic Cooperation and Development)* (eds.) (2010): African economic outlook 2010, Paris
- Alt, J. E.* (1983): The evolution of tax structures, in: *Public Choice* 41 (1), 181–222
- Ansell, B. W.* (2010): From the ballot to the blackboard : the redistributive political economy of education, New York, NY: Cambridge University Press
- Ascher, W.* (1989): Risk, politics and tax reform : lessons from some Latin America experiences, in: M. Gillis (ed.), Tax reform in developing countries, Durham, NC: Duke University Press, 417–472
- Basinger, S. J. / M. Hallerberg* (2004): Remodeling the competition for capital : how domestic politics erases the race to the bottom, in: *American Political Science Review* 98 (02), 261–276
- Bates, R. H.* (2008): When things fell apart : state failure in late century Africa. New York, NY: Cambridge University Press
- Baunsgaard, T. / M. Keen* (2010): Tax revenue and (or?) trade liberalization, in: *Journal of Public Economics* 94 (9–10), 563–577
- Beramendi, P. / D. Rueda* (2007): Social democracy constrained : indirect taxation in industrialized democracies, in: *British Journal of Political Science* 37 (04), 619–641
- Besley, T. / T. Persson* (2011): Pillars of prosperity : the political economics of development clusters, Princeton: Princeton University Press
- Bird, R. M.* (2004): Administrative dimensions of tax reform, in: *Asia Pacific Tax Bulletin* 10 (3), 134–150
- Bird, R. M. / J. Martinez-Vazquez / B. Torgler* (2008): Tax effort in developing countries and high income countries : the impact of corruption, voice and accountability, in: *Economic Analysis and Policy* 38 (1), 55–71
- Bird, R. M. / E. M. Zolt* (2005): Rethinking redistribution : tax policy in an era of rising inequality : redistribution via taxation : the limited role of the personal income tax in developing countries, in: *UCLA L. Rev.*, 52 (6), 1627–1867
- Boix, C.* (2003): Democracy and redistribution, New York, NY: Cambridge University Press

- Booth, D.* (2012): Development as a collective action problem : addressing the real challenges of African governance, London: Africa Power and Politics Programme by the Overseas Development Institute
- Boylan, D. M.* (1996): Taxation and transition : the politics of the 1990 Chilean tax reform, in: *Latin American Research Review* 31 (1), 7–31
- Bratton, M. / N. van de Walle* (1997): Democratic experiments in Africa. Regime transitions in comparative perspective, New York, NY: Cambridge University Press
- Bueno de Mesquita, B. et al.* (2003): The logic of political survival, Cambridge, MA: MIT Press
- Burgess, R. / N. H. Stern* (1993): Taxation and development, in: *Journal of Economic Literature* 31(2), 762–830
- Cheibub, J. A.* (1998): Political regimes and the extractive capacity of governments : taxation in democracies and dictatorships, in: *World Politics* 50 (3), 349–376
- Clarke, K. A. / R. W. Stone* (2008): Democracy and the logic of political survival, in: *American Political Science Review* 102 (3), 387–392
- Cusack, T. R.* (1997): Partisan politics and public finance : changes in public spending in the industrialized democracies, 1955–1989, in: *Public Choice* 91 (3), 375–395
- Davoodi, H. R. / D. A. Grigorian* (2007): Tax potential vs. tax effort : a cross-country analysis of Armenia's stubbornly low tax collection, Washington, DC: International Monetary Fund
- Di John, J.* (2006): The political economy of taxation and tax reform in developing countries, Helsinki: United Nations University: World Institute For Development Economic Research (UNU-WIDER)
- (2008): Why is the tax system so ineffective and regressive in Latin America? In: *Development Viewpoint* (vol. 5), London: Centre for Development Policy and Research, School of Oriental and African Studies (SOAS)
- (2010): Taxation, resource mobilisation and state performance, London: Department for International Development, London School of Economics
- Di John, J. / J. Putzel* (2009): Political settlements, Issues Paper, Birmingham, AL: University of Birmingham
- Faust, J.* (2010): Policy experiments, democratic ownership and development assistance, in: *Development Policy Review* 28 (5), 515–534
- Faust, J. / S. Leiderer / J. Schmitt* (2012): Financing poverty alleviation vs. promoting democracy? Multi-donor budget support in Zambia, in: *Democratization* 19 (3), 438–464
- Fernandez, R. / D. Rodrik* (1991): Resistance to reform : status quo bias in the presence of individual-specific uncertainty, in: *American Economic Review* 81 (5), 1146–1155
- Frey, B. S. / B. Torgler* (2007): Tax morale and conditional cooperation, in: *Journal of Comparative Economics* 35 (1), 136–159
- Freyburg, T.* (2012): The two sides of functional cooperation with authoritarian regimes : a multi-level perspective on the conflict of objectives between political stability and democratic change, in: *Democratization* 19 (3), 575–601

- Garcia, M. / C. von Haldenwang (2011): Political regimes and taxation, available online at Social Science Research Network (SSRN): <http://ssrn.com/abstract=1957617> or <http://dx.doi.org/10.2139/ssrn.1957617>
- Gehlbach, S. / P. Keefer (2011): Investment without democracy: ruling-party institutionalization and credible commitment in autocracies, in: *Journal of Comparative Economics* 39 (2), 123–139
- Ghura, D. (1998): Tax revenue in sub-Saharan Africa : effects of economic policies and corruption, Washington, DC: International Monetary Fund, African Department
- Gordon, R. / W. Li (2009): Tax structures in developing countries : many puzzles and a possible explanation, in: *Journal of Public Economics* 93 (7–8), 855–866
- Gould, A. (2001): Party size and policy outcomes : an empirical analysis of taxation in democracies, in: *Studies in Comparative International Development (SCID)* 36 (2), 3–26
- Grimm, S. / J. Leininger (2012): Not all good things go together : conflicting objectives in democracy promotion, in: *Democratization* 19 (3), 391–414
- Gupta, A. S. (2007): Determinants of tax revenue efforts in developing countries, Washington, DC: International Monetary Fund
- Hadenius, A. / J. Teorell (2007): Pathways from authoritarianism, in: *Journal of Democracy* 18 (1), 143–157
- Hallerberg, M. / S. Basinger (1998): Internationalization and changes in tax policy in OECD countries, in: *Comparative Political Studies* 31 (3), 321–352
- Hossain, N. / M. Moore (2002): Arguing for the poor : elites and poverty in developing countries, Sussex, UK: Institute of Development Studies (IDS) at the University of Sussex
- International Monetary Fund (2011): Revenue mobilization in developing countries, Washington, DC: International Monetary Fund
- International Tax Compact (2011): International support to taxation, Bonn: International Tax Compact
- Iversen, T. / D. Soskice (2006): Electoral institutions and the politics of coalitions : why some democracies redistribute more than others, in: *American Political Science Review* 100 (02), 165–181
- Kenny, L. W. / S. L. Winer (2006): Tax systems in the world : an empirical investigation into the importance of tax bases, administration costs, scale and political regime, *International Tax and Public Finance* 13 (2), 181–215
- Khan, M. (2010): Political settlements and the governance of growth-enhancing institutions, London: School of Oriental and African Studies (SOAS)
- Levi, M. (1988): Of rule and revenue, Berkeley, CA: University of California Press
- Lieberman, E. S. (2003): Race and regionalism in the politics of taxation in Brazil and South Africa, Cambridge: Cambridge University Press
- Little, D. (1998): Microfoundations, method, and causation : on the philosophy of the social sciences, New Brunswick, NJ: Transaction Publishers

- Lledó, V. D. / A. Schneider / M. Moore* (2004): Governance, taxes, and tax reform in Latin America, Sussex, UK: Institute of Development Studies (IDS) at the University of Sussex
- McCarty, N. M. / A. Meiowitz* (2007): Political game theory : an introduction, Cambridge: Cambridge University Press
- Miguel, E.* (2004): Tribe or nation? Nation building and public goods in Kenya versus Tanzania, *World Politics* 56 (03), 328–362
- Mkandawire, T.* (2010): On tax efforts and colonial heritage in Africa, in: *Journal of Development Studies* 46 (10), 1647–1669
- Moore, M.* (2004): Revenues, state formation, and the quality of governance in developing countries, in: *International Political Science Review* 25 (3), 297–319
- (2008): Between coercion and contract : competing narratives around taxation and governance, in: D. Bräutigam / O. H. Fjeldstad / M. Moore (eds.), *Taxation and state building in developing countries: capacity and consent*, Cambridge: Cambridge University Press
- Moore, M. / J. Putzel* (1999): Thinking strategically about poverty and politics, Institute of Development Studies Working Paper, 101, Sussex, UK: Institute of Development Studies
- Morrow, J. D.* (1994): Game theory for political scientists, Princeton: Princeton University Press
- Mulligan, C. B. / R. Gil / X. Sala-I-Martin* (2004): Do democracies have different public policies than nondemocracies? In: *Journal of Economic Perspectives* 18 (1), 51–74
- North, D. C. et al.* (2007): Limited access orders in the developing world : a new approach to the problems of development, Washington, DC: The World Bank
- OECD (Organisation for Economic Co-operation and Development)* (2011): From power struggles to sustainable peace : understanding political settlements, Paris: OECD (Conflict and Fragility Publication Series)
- OECD / ECLAC / CIAT (Organisation for Economic Co-operation and Development / Economic Commission for Latin America and the Caribbean / Inter-American Center of Tax Administrations)* (2011): Revenue statistics in Latin America, OECD / ECLAC / CIAT
- Olson, M.* (1993): Dictatorship, democracy, and development, in: *American Political Science Review* 87 (3), 567–576
- Persson, T. / G. Tabellini* (2002): Political economics : explaining economic policy, Cambridge, MA: MIT Press
- Prichard, W.* (2009): The politics of taxation and implications for accountability in Ghana 1981–2008, Sussex, UK: Institute of Development Studies (IDS) at the University of Sussex
- Profeta, P. / S. Scabrosetti* (2010): The political economy of taxation : lessons from developing countries, Cheltenham, UK: Edward Elgar Publishing
- Przeworski, A.* (1991): Democracy and the market : political and economic reforms in Eastern Europe and Latin America, Cambridge: Cambridge University Press
- Scharf, K. A. / C. Perroni* (2007): Taxation and property rights, UK: University of Warwick
- Steinmo, S. / C. J. Tolbert* (1998): Do institutions really matter? In: *Comparative Political Studies* 31 (2), 165–187

- Stigler, G. J.* (1971): The theory of economic regulation, in: *The Bell Journal of Economics and Management Science* 2 (1), 3–21
- Stotsky, J. G. / A. Woldemariam* (1997): Tax effort in sub-Saharan Africa, Washington, DC: International Monetary Fund
- Swank, D. / S. Steinmo* (2002): The new political economy of taxation in advanced capitalist democracies, in: *American Journal of Political Science* 46 (3), 642–655
- Tanzi, V. / H. R. Davoodi* (2000): Corruption, growth, and public finances, Washington, DC: International Monetary Fund
- Tanzi, V. / H. Zee* (2000): Tax policy for emerging markets : developing countries, Washington, DC: International Monetary Fund
- Therkildsen, O.* (2001): Understanding taxation in poor African countries : a critical review of selected perspectives, in: *Forum for Development Studies* 28 (1), 99–123
- Thirsky, W. R.* (1997): Tax reform in developing countries, Washington, DC: The World Bank
- Timmons, J. F.* (2005): The fiscal contract: states, taxes and public services, in: *World Politics* 57 (4), 530–567
- (2010): Taxation and representation in recent history, in: *The Journal of Politics* 72 (01), 191–208
- Torgler, B.* (2005): Tax morale in Latin America, in: *Public Choice* 122 (1), 133–157
- Torgler, B. / F. Schneider* (2009): The impact of tax morale and institutional quality on the shadow economy, in: *Journal of Economic Psychology* 30 (2), 228–245
- UN Millennium Project* (2005): Investing in development : a practical plan to achieve the millennium development goals, unpublished manuscript, New York: United Nations
- United Nations* (2003): Monterrey consensus of the international conference on financing for development, unpublished manuscript, New York: United Nations
- (2008): Revenue's role in the quest for inclusive development – what works and what can work better? Unpublished manuscript, New York: United Nations
- Unsworth, S.* (2009): What's politics got to do with it? Why donors find it so hard to come to terms with politics, and why this matters, in: *Journal of International Development* 21 (6), 883–894
- Von Haldenwang, C. / M. Ivanyna* (2010): Assessing the tax performance of developing countries, Bonn: Deutsches Institut für Entwicklungspolitik (Discussion Paper 20)
- Weingast, B. R.* (1997): The political foundations of democracy and the rule of law, in: *American Political Science Review* 91 (2), 245–263



## Appendices



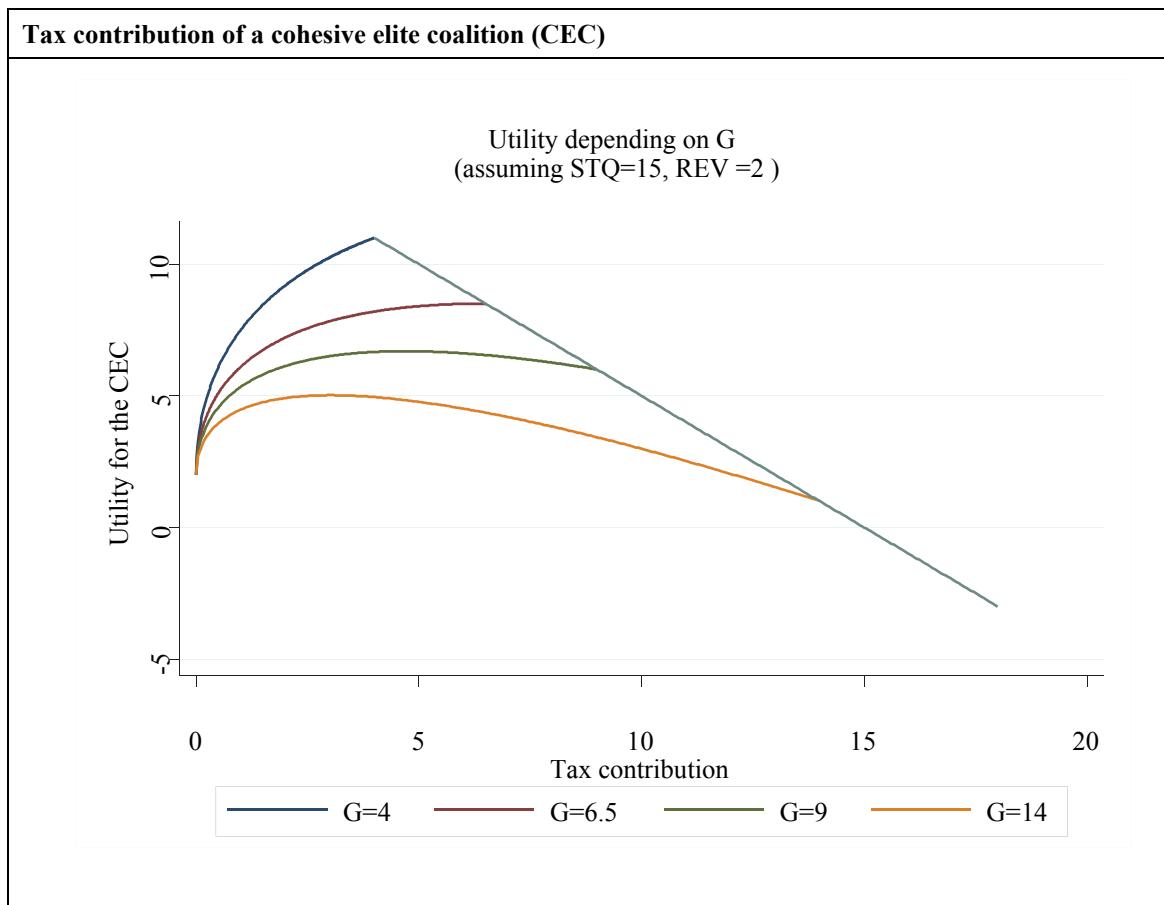
## Appendix 1

The result of differentiating function 1 with respect to  $T$  is  $EU_{CEC}'(T, G, STQ, REV) = \frac{STQ - REV}{2\sqrt{G}\sqrt{T}} - 1$ . The second derivative with respect to  $T$  is  $EU_{CEC}''(T, G, STQ, REV) = \frac{STQ - REV}{4\sqrt{G}} T^{-\frac{3}{2}}$ , which is negative as long as  $STQ > REV$ , which I assume. Consequently, setting the first derivative to zero and solving for  $T$  (i.e. calculating the first order condition) gives us the value for  $T$ , which maximises the utility for a unitary elite coalition, namely:  $T = \frac{(STQ - REV)^2}{4G}$

## Appendix 2

The constraint  $0 \leq T \leq G$  implies that the contribution  $T = \frac{(STQ - REV)^2}{4G}$  will only maximise the coalition's utility as long as  $G \geq \frac{(STQ - REV)^2}{4G}$ . If the demanded value is below this threshold, the coalition will just contribute  $G$ , although potentially it would accept paying more. As a result, if  $G < \frac{STQ - REV}{2}$  the contribution  $T$  is increasing in  $G$ , whereas if  $G > \frac{STQ - REV}{2}$   $T$  is decreasing in  $G$ .

This is graphically illustrated in the following plot.



The result indicates that having complete information about the strategic constellation, the government (and at a more abstract level, the general population) would be better off by reducing the demand to  $\frac{STQ-REV}{2}$ . The logic is evident: the lower the demands, the less expensive it is for the elite coalition to ensure the outcome STQ, and hence also, the more accepting it is to pay for it.

### Appendix 3

The contribution  $T$  that a strongly cohesive elite coalition is willing to pay is defined by  $T = \frac{(STQ-REV)^2}{4G}$ . The overall contribution  $T (= \sum_i t_i)$  of a coalition factionalised in  $n$  homogeneous factions is  $n * \frac{(\frac{STQ-REV}{n})^2}{4G}$ . The inequality  $\frac{(STQ-REV)^2}{4G} > n * \frac{(\frac{STQ-REV}{n})^2}{4G}$  hold as long as  $1 > \frac{\sqrt{n}}{n}$ , which is correct for all  $n > 1$ . Consequently, a strongly cohesive coalition will always contribute endogenously more than a factionalised one. Moreover, the greater that  $n$  is, the lower the overall contribution of the coalition, as the inequality  $n * \frac{(\frac{STQ-REV}{n})^2}{4G} > (n+1) * \frac{(\frac{STQ-REV}{n+1})^2}{4G}$  hold as long as  $\frac{\sqrt{n}}{n} > \frac{\sqrt{n+1}}{n+1}$ , which is again always correct for all  $n > 1$ .

### Appendix 4

A change of the revolt probability function to  $(1 - \frac{T}{G})$  causes the utility function to change to  $EU_{CEC}(T, G, STQ, REV) = \frac{T}{G} STQ + (1 - \frac{T}{G}) REV - T$ . The first derivative for  $T$  is  $EU_{CEC}'(T, G, STQ, REV) = \frac{STQ-REV}{G} - 1$ , which means that the first order condition is no longer dependent on  $T$ . Consequently, taking into consideration the condition that  $0 \leq T \leq G$ , as long as the first derivative is positive,  $G$  will equal  $T$ . On the contrary, as long as  $\frac{STQ-REV}{G} - 1 < 0$  (the first derivative is negative), the contribution  $T$  will be zero. Solving the inequality for  $G$ , we get the result that as long as  $G < STQ - REV$ , the coalition will contribute the whole amount of  $G$ .

### Appendix 5

Introducing a minimum value  $\underline{g}$ , below which the revolt probability function would not decrease in  $T$ , would mean a change of the shape from  $(1 - \sqrt{\frac{T}{G}})$  to  $(1 - \sqrt{\frac{T-\underline{g}}{G-\underline{g}}})$ . To exemplify the effects, consider the situation described on page 16. The result for the contribution maximising the utility for the strongly cohesive elite coalition, assuming a revolt probability function  $(1 - \sqrt{\frac{T}{G}})$ , is 4.7. If the population were able to change the revolt probability function to  $(1 - \sqrt{\frac{T-1}{G-1}})$ , the elite coalition's contribution would increase to 5.5.

The point is that the contribution that maximises the utility of the coalition moves from  $\frac{(STQ-REV)^2}{4G}$  to  $\frac{-4\underline{g}^2 + 4\underline{g}G + (STQ-REV)^2}{4(G-\underline{g})}$ .  $G$  and  $\underline{g}$  are per definition positive. In addition,  $G$  is also by definition bigger than  $\underline{g}$ . Consequently,  $-4\underline{g}^2 + 4\underline{g}G$  is always positive and causes the numerator of  $\frac{-4\underline{g}^2 + 4\underline{g}G + (STQ-REV)^2}{4(G-\underline{g})}$  to always be bigger than the numerator of  $\frac{(STQ-REV)^2}{4G}$ . In addition, as  $\underline{g}$  is positive, the denominator of  $\frac{-4\underline{g}^2 + 4\underline{g}G + (STQ-REV)^2}{4(G-\underline{g})}$  is always smaller than the one of  $\frac{(STQ-REV)^2}{4G}$ . Consequently,  $\frac{-4\underline{g}^2 + 4\underline{g}G + (STQ-REV)^2}{4(G-\underline{g})}$  will always be bigger than  $\frac{(STQ-REV)^2}{4G}$ .

It is interesting to note that the increasing effect is not always present. If the value of  $\underline{g}$  is too aggressive, meaning the minimal demand is very high, under certain circumstances this can lead to the elite coalition not paying any contributions at all. As long as  $\underline{g}$  is smaller than STQ-REV, the contribution will rise in  $\underline{g}$ . But if  $\underline{g}$  is bigger than STQ-REV, then the elites will not pay at all.



## Publications of the German Development Institute

### Nomos Verlagsgesellschaft

*Messner, Dirk / Imme Scholz* (eds.): Zukunftsfragen der Entwicklungspolitik, 410 p., Nomos, Baden-Baden 2004, ISBN 3-8329-1005-0

*Neubert, Susanne / Waltina Scheumann / Annette van Edig, / Walter Huppert* (eds.): Integriertes Wasserressourcen-Management (IWRM): Ein Konzept in die Praxis überführen, 314 p., Nomos, Baden-Baden 2004, ISBN 3-8329-1111-1

*Brandt, Hartmut / Uwe Otzen*: Armutorientierte landwirtschaftliche und ländliche Entwicklung, 342 p., Nomos, Baden-Baden 2004, ISBN 3-8329-0555-3

*Liebig, Klaus*: Internationale Regulierung geistiger Eigentumsrechte und Wissenserwerb in Entwicklungsländern: Eine ökonomische Analyse, 233 p., Nomos, Baden-Baden 2007, ISBN 978-3-8329-2379-2 (Entwicklungstheorie und Entwicklungspolitik 1)

*Schlumberger, Oliver*: Autoritarismus in der arabischen Welt: Ursachen, Trends und internationale Demokratieförderung, 225 p., Nomos, Baden-Baden 2008, ISBN 978-3-8329-3114-8 (Entwicklungstheorie und Entwicklungspolitik 2)

*Qualmann, Regine*: South Africa's Reintegration into World and Regional Markets: Trade Liberalization and Emerging Patterns of Specialization in the Post-Apartheid Era, 206 p., Nomos, Baden-Baden 2008, ISBN 978-3-8329-2995-4 (Entwicklungstheorie und Entwicklungspolitik 3)

*Loewe, Markus*: Soziale Sicherung, informeller Sektor und das Potenzial von Kleinstversicherungen, 221 p., Nomos, Baden-Baden 2009, ISBN 978-3-8329-4017-1 (Entwicklungstheorie und Entwicklungspolitik 4)

*Loewe, Markus*: Soziale Sicherung in den arabischen Ländern: Determinanten, Defizite und Strategien für den informellen Sektor, 286 p., Nomos, Baden-Baden 2010, ISBN 978-3-8329-5586-1 (Entwicklungstheorie und Entwicklungspolitik 7)

*Faust, Jörg / Susanne Neubert* (Hrsg.): Wirksamere Entwicklungspolitik: Befunde, Reformen, Instrumente, 432 p., Nomos, Baden-Baden 2010, ISBN 978-3-8329-5587-8 (Entwicklungstheorie und Entwicklungspolitik 8)

[Books may be ordered only through publishing house or bookshops.]

### Book Series with Routledge

*Brandt, Hartmut / Uwe Otzen*: Poverty Orientated Agricultural and Rural Development, 342 p., Routledge, London 2007, ISBN 978-0-415-36853-7 (Studies in Development and Society 12)

*Krause, Matthias*: The Political Economy of Water and Sanitation, 282 p., Routledge, London 2009, ISBN 978-0-415-99489-7 (Studies in Development and Society 20)

[Books may be ordered only through publishing house or bookshops.]

### Springer-Verlag

*Scheumann, Waltina / Susanne Neubert / Martin Kipping* (eds.): Water Politics and Development Cooperation: Local Power Plays and Global Governance, 416 p., Berlin 2008, ISBN 978-3-540-76706-0

## Studies

- 71 *Leiderer, Stefan et al.*: Efficiency of Local Service Provision in Zambia's Health, Education and Road Sectors: Implication for decentralisation and the effectiveness of budget support, 304 p., Bonn 2012, ISBN 978-3-889856-508-4
- 70 Ashoff, Guido et al.: Wirkungsanalyse des Deutsch-Peruanischen Gegenwertfonds, Bonn 2012, 198 p., ISBN 978-3-88985-507-7
- 69 *Lundsgaarde, Erik et al.*: Private Foundations and Development Cooperation: Insights from Tanzania, 118 p., Bonn 2012, ISBN 978-3-88985-506-0
- 68 *Leiderer, Stefan / Jörg Faust*: Evaluation of Budget Support in Zambia: Implementation, direct effects and political economy, 212 p., Bonn 2012, ISBN 978-3-88985-505-3
- 67 *Vollmer, Frank*: Increasing the Visibility and Effectiveness of Development Co-operation: How to reconcile two competing objectives?, 86 p., Bonn 2012, ISBN 978-3-88985-504-6
- 66 *Vidican, Georgeta*: Building Domestic Capabilities in Renewable Energy: A case study of Egypt, 163 p., Bonn 2012, ISBN 978-3-88985-503-9
- 65 *Van de Sand, Isabel*: Assessing Vulnerability to Climate Variability and Change: Participatory assessment approach and Kenyan case study, 149 p., Bonn 2012, ISBN 978-3-88985-502-2
- 64 *Ashoff, Guido et al.*: Evaluación del „Fondo de planificación estratégica e implementación de reformas autofinanciadas en Chile”, 92 p., Bonn 2012, ISBN 978-3-88985-501-5
- 63 *Ashoff, Guido et al.*: Evaluierung des deutsch-chilenischen “Fonds zur strategischen Planung und Umsetzung eigenfinanzierter Reformen”, 94 p., Bonn 2012, ISBN 978-3-88985-500-8

[Price: 10,00 Euro; books may be ordered directly from the DIE or through bookshops.]

## Discussion Paper

- 16/2012 *Lema, Rasmus / Axel Berger / Hubert Schmitz*: China's Impact on the Global Wind Power Industry, Bonn 2012, 25 p., ISBN 978-3-88985-559-6
- 15/2012 *Volz, Ulrich*: The Need and Scope for Strengthening Co-operation Between Regional Financing Arrangements and the IMF, Bonn 2012, 14 p., ISBN 978-3-88985-558-9
- 14/2012 *Klingebiel, Stephan*: Results-Based Aid (RBA): New aid approaches, limitations and the application to promote good governance, 36 p., Bonn 2012, ISBN 978-3-88985-557-2
- 13/2012 *Koch, Svea*: From Poverty Reduction to Mutual Interests? : The Debate
- 12/2012 *Altenburg, Tilmann / Tobias Engelmeier* : Rent Management and Policy Learning in Green Technology Development, 22 p., Bonn 2012, ISBN 978-3-88985-555-8
- 11/2012 *Gehrke, Esther*: Short-term Effects of the Global Economic and Financial Crisis on Households in three Developing Countries, 50 p., Bonn 2012, ISBN 978-3-88985-554-1
- 10/2012 *Breuer, Anita*: The Role of Social Media in Mobilizing Political Protest: Evidence from the Tunisian revolution, 31 p., Bonn 2012, ISBN 978-3-88985-553-4

[Price: 6,00 Euro; books may be ordered directly from the DIE or through bookshops.]

A complete list of publications available from DIE can be found at:

<http://www.die-gdi.de>