



# How does institutional change coincide with changes in the quality of life? An exemplary case study

Andreas Exenberger, Simon Hartmann

Working Papers in Economics and Statistics

2013-09

**University of Innsbruck**  
**Working Papers in Economics and Statistics**

The series is jointly edited and published by

- Department of Economics
- Department of Public Finance
- Department of Statistics

Contact Address:  
University of Innsbruck  
Department of Public Finance  
Universitaetsstrasse 15  
A-6020 Innsbruck  
Austria  
Tel: + 43 512 507 7171  
Fax: + 43 512 507 2970  
E-mail: [eeecon@uibk.ac.at](mailto:eeecon@uibk.ac.at)

The most recent version of all working papers can be downloaded at  
<http://eeecon.uibk.ac.at/wopec/>

For a list of recent papers see the backpages of this paper.

# How Does Institutional Change Coincide with Changes in the Quality of Life? An Exemplary Case Study

Andreas Exenberger<sup>\*</sup>, Simon Hartmann<sup>\*\*</sup>

<sup>\*</sup> *Assistant Professor in Economic and Social History at the Department of Economic Theory, Policy and History, University of Innsbruck; Universitätsstraße 15, A-6020 Innsbruck, Austria; e-mail: [andreas.exenberger@uibk.ac.at](mailto:andreas.exenberger@uibk.ac.at)*

<sup>\*\*</sup> *Lecturer in Economics (Economic and Social History) at the University of Innsbruck; Austrian Research Foundation for International Development, Vienna (until 2013); [simon.hartmann@uibk.ac.at](mailto:simon.hartmann@uibk.ac.at)*

## Abstract

This paper provides a framework to assess correlations between the change of institutional functions (political centralization, plurality, rule of law, security of property, economic liberty, measured by 12 indicators) and improvements in human development (income, education, health) and violence limitations (conflict-related death tolls) to separate effective from ineffective institutional change. We apply this framework to a low-end institutional environment and provide a century case study of today's Democratic Republic of the Congo (DRC). Major results are threefold: first, we provide a thick description of institutional development in the Congo in a colonial and post-colonial and hence long-run setting; secondly, we identify periods of institutional change with distinctly different degrees of effectiveness; and thirdly, we are able to provide qualitative information on the questions of perspective (we follow a non-elitist approach), institutional connections, and timing of effects. Finally we propose extension of the framework, especially with respect to in-depth studies of critical transition periods, and its application to comparative case studies.

**Keywords:** Institutions, Human Development, Congo (Democratic Republic), History, Effectiveness

**JEL-Codes:** O43, O55, O15, N37, N47, B52

## I. Introduction

There is a thriving debate about institutional change on various levels.<sup>1</sup> In this paper, we address the empirical question of how variations in the quality of life coincide with changes of institutions. Our focus is on improvements of capabilities (Sen, 1999)<sup>2</sup> and the limitation of violence (North et al., 2009, in the rest of the paper referred as NWW) while changing institutions. Therefore we provide a framework as a basis for the analysis of the effectiveness of institutional change. We show the applicability of the framework in a century long case study of the Congo region (today's DRC) and assess changes in political and economic institutions as well as the quality of life and violence. By that we focus on correlations and are able to provide valuable insights for further research, why institutions change and how this change may be related to development.<sup>3</sup> While there are plenty of quantitative studies applying cross country regressions to figure out long run influences of various institutions,<sup>4</sup> these studies usually do not relate the issues beyond the level of statistical significance and hardly have context specific data readily available which puts limits to survey a broad range of institutional functions simultaneously (let alone in the long run). This lack of data especially applies to developing countries. Hence, our correlation study supplements quantitative empirical cross country studies by utilizing context specific empirical material and it also complements the NWW framework by looking at the process of ongoing change (from the populations' perspective) instead of threshold conditions (from an elitist perspective).

From a methodological viewpoint, we follow a recent call for methodological plurality and interdisciplinary synthesis by Shirley, Robinson, and Voigt (all 2013) and economic historians like Austin (2008) or Hopkins (2009). While case studies are adequate to deepen our insights in how institutional change has influenced development trajectories of countries,

---

<sup>1</sup> For example about how institutions evolve (Hodgson, 2002; North, 2005; Engerman and Sokoloff, 2008) or how every-day incremental change triggers institutional changes (Greif and Laitin, 2004; Pierson, 2004; Streek and Thelen, 2005; Mahoney and Thelen, 2010).

<sup>2</sup> Enhancing the analysis to capabilities and relating them to institutional change was for example suggested in Chang (2005) or Dutt (2011).

<sup>3</sup> Investigating how a broad range of political and economic functions translate into broad range of outcomes would be very difficult as we would have to deal with a lot of complementary and mutually interrelated effects between all these indicators. In order to learn more about causalities we later propose to single out interesting correlations, which we identify with our framework, and engage in in-depth studies which will also be the focus of our future work.

<sup>4</sup> See for example Acemoglu et al. (2005) on economic growth, Acemoglu et al. (2001) on divergence, Gennaioli and Rainer (2007) on the provision of public goods, Olsson (2009) on the emergence of democracy, or Nunn (2011) on trust.

these studies often use approaches not well equipped for comparisons. To overcome this problem, we develop a framework for analysing the effectiveness of institutional change to “identify regularities” (Shirley, 2008: 634).<sup>5</sup> By that, we improve the typology of political and economic institutional functions by Acemoglu and Robinson (2012) by providing a set of indicators. This delivers a more nuanced description of institutional development than their simple dichotomy of in- and exclusivity and their focus on public goods provision and economic progress. We take a long run perspective to include the often overlooked colonial roots of development trajectories (Hopkins, 2009).

To get started, we chose a low-end environment with respect to institutional performance, in which the issue of effectiveness is existential: today’s Democratic Republic of the Congo (DRC). While well aware of distinct initial conditions in the 1910s, we expect to identify periods of different qualities of changes of institutional functions with different effects on the quality of life and the level of violence in the country.<sup>6</sup> The complexity of this case, a seemingly easy story of a “vicious circle” (Acemoglu and Robinson, 2012), demonstrates how important it is to develop a framework holding the balance between theoretical reduction and empirical complexity with the aim to allow a comparability of cases. The Congo is also especially useful because it widely lacks reliable quantitative data and external, non-institutional factors are certainly relevant there as well.

Our major results are threefold: first, we provide a thick description of institutional development in the Congo in a colonial and post-colonial and hence long-run setting; secondly, we identify periods of institutional change with distinctly different degrees of effectiveness; and thirdly, we are able to provide qualitative information on the questions of perspective, institutional connections, and timing of effects. With this setting we provide a case study from which we learn about how institutional change and the quality of life coincide. Beyond that we also test (although slightly modified) the set of inclusive institutions developed by Acemoglu and Robinson (2012) in terms of correlations with human development and the limitation of violence, use a broader set of functions and categories as usually conducted in this kind of surveys (holding the balance between too narrow and too broad categories of institutions) and compile data which is not accessible as time series or panel data (by conducting in-depth analysis over a period of 100 years).

---

<sup>5</sup> Here we follow works like Ostrom (1990), Shirley (2002) or Spiller and Tommasi (2000) and offer a framework for analysis of case studies which could be applied to analysis in comparative development (see recently Aoki et al., 2012).

<sup>6</sup> This is also consistent with the framework and the diverse results of the case studies presented in North et al. (2013).

In section 2 we develop the reduced theoretical framework and discuss the indicators to measure change in institutional functions. In section 3, we give a qualitative description of the institutional trajectories in the Congo and thus show the operationalization of the framework. In section 4, we elaborate on developments of the quality of life and limitations of violence in the Congo and discuss their correlations with institutional change. Finally, we conclude in section 5.

## **II. The Framework**

By looking at correlations we direct attention much more on unintended consequences of human behavior than on deliberate design. Consequently, we follow a functional approach and are not interested in formal institutions and their potential impact, but much more in the practical consequences of “commonly known” formal and informal institutions (Voigt, 2013; Persson and Tabellini, 2004; Ostrom, 2008; Williamson, 2009). In this context, criticism of generalized “first-best solutions” (Rodrik, 2008) or institutional “monocropping” (Evans, 2004) and respect for “institutional diversity” (Ostrom, 2005) is still very relevant. Similarly Engerman and Sokoloff (2008: 662) point at investigating the “rate and direction of institutional change” being a more interesting task for institutional economists rather than finding “universally effective institutions.” We follow these suggestions and focus on three particularly relevant combinations of changes in what we call “outcomes” (quality of life enhancements and violence containment) and changes in “institutions” (see table 1). In the analysis, we elaborate on correlations of the two (qualitative) categories and also consider externalities. Thereby, we measure “outcomes” as qualitative assessment of quantitative data (to reflect the uncertainties in this data). We measure quality of life by human development indicators (UNDP, 1990; Sen, 1999; Prados de la Escosura, 2011), i.e. levels of income, education and health, and the degree of violence by death tolls in violent conflicts.

--- Table 1 about here ---

Although theoretically there are more combinations of “institutions” and “outcomes” possible, the three categories in table 1 are most relevant. The difference between effective and ineffective institutional change is particularly central. We approach these categories by viewing change from the population’s perspective, not the elite’s, which is the decisive

element distinguishing our approach from NWW and important for categorization. Hence, by *effective* we understand a positive correlation between improvements of institutions and improvements of outcomes, which are the only incidences when we talk about “effectiveness” from the population’s perspective. When we observe institutions to change, but not outcomes or outcomes even deteriorate (zero or negative correlation), institutional change is regarded as *ineffective*, even though the reason may be related to externalities such as changes in world market prices, global economic crises or international wars, and even though this change may be regarded as effective from an elite’s perspective. Finally, if there is no observable change in institutions, but in outcomes, we call the result *non-institutional* change (which can be positive or negative).

Of course, institutions will hardly ever immediately change outcomes and institutional change is not necessarily able to produce (effective) outcomes, at least not in close time. For example, while the death toll of a conflict may react relatively fast to changes in institutions, human development indicators will likely do so with a (much) larger delay. By focusing on correlations, we also leave room for diverse answers to the questions of timing and time lags. While we are able to qualify some claims for medium-term connections (like Berkowitz et al. 2003), this does not discard claims for much longer lags (Ajayi, 1969; Williamson, 2000; NWW) or the relevance of thresholds (North et al. 2013).<sup>7</sup>

There is already a huge range of literature addressing possible channels of how institutions and outcomes might be related. They are particularly valuable for further research when testing causalities behind the correlations which we present in this paper. Third party enforcement (Wallis, 2012) and established collective decision making (Ostrom, 1990) are two important processes which can be channeled by a favorable institutional environment, for example when they facilitate coordination, administration and social cohesion (Chang, 2005). Good institutions promote productivity growth and produce a more stable economic performance through time by enabling a higher degree of specialization and division of labor (North, 1994), lowering transaction and production costs (Williamson, 1985; Wallis and North, 1986; Alston et al., 1996), providing incentives for technological innovation (Freeman, 1995; Chang, 2005; Nelson, 2005), promoting adaptive efficiency or reducing uncertainty (North, 2005; Engerman and Sokoloff, 2008).

To qualitatively measure change of institutions, we will argue along indicators for political and economic institutions, which we group to five institutional functions closely interrelated

---

<sup>7</sup> In NWW’s terminology, the Congo may have passed certain “maturation conditions” for fragile and basic limited access orders, but certainly not “doorstep conditions” for open access orders (Kaiser and Wolters, 2012).

to the categories proposed by Acemoglu and Robinson (2012: 74-5, 80-1): political centralization and plurality, as well as the rule of law, security of property, and economic liberty. In order to assess these institutional functions we refine them with 12 qualitative indicators and according evaluation questions (see table 2).<sup>8</sup>

--- Table 2 about here ---

By this, we address the highly relevant critique by Voigt (2013) who suggests unbundling sets into single institutions because broad categories are too unspecific for measurement.<sup>9</sup> Consequently we follow a pragmatic approach (Robinson, 2013; Shirley, 2013) of qualitative measurement with the major aim to demonstrate that the proposed operationalization of institutional systems is possible and viable. To keep the analysis applicable for difficult situations (fragile states, conflict environments, etc.), which often lack adequate data, we follow an approach between a small and a large set of indicators. The indicators proposed are closely linked to but at the same time depart considerably from usual suspects (like free markets, rule of law, secure property rights, democracy, etc.), particularly to avoid a universalist bias towards what could be called “Western” institutions.

### **Political centralization**

Political centralization revolves around the question of optimum government power, which is highly context specific. However, a society has to be organized strong enough to protect its citizens and especially to enforce rules, but at the same time not strong enough to suppress its citizens and usurp the rules (Weingast, 1995: 24; Djankov, et al., 2003: 4). We chose three dimensions for measurement: control over territory, resources, and people. The degree of territorial control (indicator 1), connected to the monopoly-of-violence-concept, refers to the correlation between the control of territory and the enforcement and protection of institutions in this area. This indicator is also influenced by geography and population patterns, warfare (Herbst, 2000), and political competition (Besley and Persson, 2009). The degree of resource control (indicator 2) directly refers to the material base of the government to finance its functions. Too little resources result in a higher risk of failing to fulfil essential task (like

---

<sup>8</sup> While these questions implicitly indicate a qualitative continuum from “bad” to “good” solutions, it is important to see that the respective optimal solution is not necessarily at the margin and generally context-specific. However, while it may be worth considering for application in advanced institutional environments, we can leave the issue of “optimal” solutions aside for the Congo, because we will usually find context-specific local optima at best.

<sup>9</sup> Voigt (2012) provides a detailed set of indicators to measure the rule of law appropriately.



security provision), while too large can lead to oversized bureaucracy and suppression. The three basic ways how to carry out control over resources are extraction, taxation and foreign inflows, i.e. flows from the direct utilization of resources (including labour), flows in money or kind from the population, and flows from foreign countries (prestige goods, colonial expenses, strategic rents, or aid). The bottom-up accountability of authorities (indicator 3) finally refers to the degree of governmental hierarchy, i.e. how constrained regional or local authorities are by higher levels of government, influencing for example control of corruption (Shleifer and Vishny, 1993) or long run effects on public goods provision (Gennaioli and Rainer, 2007). If these constraints are strong, centralization is as well and the enforcement of institutions is easily possible, otherwise “decentralized despotism” (Mamdani, 1996: 43) is likely.

### **Plurality**

Plurality is a necessary precondition that the best institutional choice can at least be articulated and discussed, and also that people enjoy some personal freedoms (ideally including social desirable limits and fair procedures of conflict settlement). Same as for political centralization this indicator has a context-specific optimum. We again chose three dimensions for measurement: freedom to participate, to organize, and to control. The degree of political participation (indicator 4) is a central dimension of plurality and closely related to the freedom of speech: the chance not only to raise one’s voice, but more generally to take part in the political decisions which affect one’s life (Barber, 1984; Drèze and Sen, 2002: 359). In this context, the practical quality of the political process, connected to the freedom of press, is much more important than the formal procedure of elections (Collier, 2009).<sup>10</sup> This is mirrored in the private sphere by the access to organization (indicator 5), i.e. the freedom to form organizations, closely related to the freedom of assembly (Bueno de Mesquita et al., 2003). It is pointing to the question, whether it is allowed and possible or not (and how complicated it is) to freely organize and articulate interests (NWW). Finally, the top-down accountability of authorities (indicator 6) refers to the effectiveness of checks and balances, i.e. how constrained authorities are by the people they govern or administer (Evans, 1995; Gleditsch and Ward, 1997; Rodrik, 2004). If these constraints are strong, it is much easier and more efficient to sanction rule-breaking.

---

<sup>10</sup> However, it is well demonstrated that participatory democratic systems provide more public goods than autocracies because large electorates are too expensive to buy individual constituencies and thus the elites have to switch to public goods provision (Cox, 1987; Lake and Baum, 2001; Bueno de Mesquita et al., 2003).

## **Rule of law**

The rule of law is sometimes regarded as the most central institution (Barro, 2000; Rigobon and Rodrik, 2005), for some to the degree of a “mythical quality” because of its vagueness (Voigt, 2012). While this institution has a lot of dimensions,<sup>11</sup> we focus on two essential ones: access and security. As basis of impersonal and hence extended relations (Wallis, 2012), the access to legal procedures (indicator 7) has to be provided to as many people as possible and as equally as possible, while also to avoid overloading these procedures. Further, not only access but also the arbitrariness of decision (indicator 8) is highly relevant and essential for the likelihood of non-erroneous decisions and predictable expectations about sanctions (Posner and Rasmusen, 1999). In this context, it is especially worth to note that decisions have to be effectual for elites (NWW), which particularly includes independence of those making and enforcing decisions and the absence of impunity provisions. While the continuum is nonlinear, and a too rules-based procedure may also be too slow and inflexible to adapt to societal changes, it is nevertheless clear that a lack of clarity undermines the rule of law.

## **Security of property**

Security of property rights are more directly related to the economic sphere than the rule of law, but can be separated in the same two dimensions: access and security. The access to property of labour, land, capital, or other kinds of wealth (indicator 8) is crucial for the quality of life of people (Sen, 1981). While it is not necessarily relevant if this property is private or common or something else (Ostrom, 1990), it is very relevant if people are enabled to utilize this property, at the most extreme point for example one’s own labour. This points directly to the relevance of property at risk (indicator 9), including but not restricted to the risk of expropriation (Acemoglu and Robinson, 2006). If access to property is secured, but this property is under continuous risk of loss, overuse by others or destruction, this will at least considerably harm investments in property and hence its productivity.

## **Economic liberty**

Finally, markets – not necessarily in a capitalist sense, but as institutions to organize the economy – are certainly relevant as well. Here we separate the economic process pragmatically into its stages of production and exchange and focus on the liberty to act in all

---

<sup>11</sup> Voigt (2012) provides a range of indicators in great detail to measure the rule of law appropriately. We follow a smaller set of indicators in the sense of a pragmatic minimum approach to keep the balance between thick description of cases and applicability in comparative settings.

of these stages.<sup>12</sup> The essential question addressed by the freedom of production (indicator 11), with slavery and free enterprise at the extreme ends of the spectrum, and the freedom of exchange (indicator 12), which includes personal as well as international exchange, is if the people are free to produce and exchange what and how they want. What is not addressed here, are natural constraints to these freedoms in the form of absence of certain resources or occupations, but constraints set by authorities in the form of deterrence or prevention of certain activities which would in principle be possible or even preferred by the people.

Finally, in the analysis (section 4) we have to consider that not all indicators attributed to one institutional function might change at the same time or at the same speed and that there will be interdependencies. This is a possible explanation for ineffective institutional change, because especially if two institutions are complementarities (Hall and Soskice, 2001, Aoki, 2001), partial change may not be able to be effective. A similar problem is change at different speeds, which often results in a negative reaction of economic performance in the short run (Roland, 2004).

### **III. Assessing Changes of Institutions in the Congo**

The Congo region (see Exenberger and Hartmann, 2007 and 2013 for more details on pre-colonial, colonial and post-colonial history and further references) was a diverse, but partly flourishing place in pre-colonial times. In the early 19th century, when external penetration of the hinterland remained occasional and weak, it was a multilateral world of several overlapping entities (Kongo, Luba, Lunda, Kuba, Tio, etc.) with which Europeans (from the West) and Arabs (from the East) had to come to terms. This changed only during the Scramble for Africa, when King Leopold II of Belgium initiated a “discovery” mission in the 1870s, secured control over the region in the name of the so called “Congo Free-State” (CFS) at the Berlin Conference in 1884-85. The later years of Leopoldian rule were one of the darkest chapters of colonial history, particularly because of wide-spread forced labour and the connected killings of millions of indigenous people. The following international scandal accelerated the transfer from the King of the Belgians to the Belgian state in 1908. From that on the Congo, now also effectively including Katanga in the South-East, became formerly

---

<sup>12</sup> The freedom of consumption may be relevant as well in certain circumstances (especially in comparison to command or plan economies), but can be (and is here) integrated into the freedom of exchange.

colonized and remained so also during World War I and II. It was rashly decolonized in 1960, following two decades of growing pressure on the Belgian government. Decolonization resulted in the so called “Congo Crisis,” a mixture of a civil, a secessionist, and a proxy war. It took five years until Mobutu Sese Seko established a new regime as a loyal Western ally in the Cold War, and remained in power until the 1990s as an authoritarian leader. The regime was already in economic collapse when it politically imploded in 1997. Successor became the Kabila family regime who faced a period of state failure, warlordism and international conflict, but was also legitimized by two contested elections in 2006 and 2011. Recently, the situation is improving only gradually.

Hence, the Congo is an almost exemplary case for a country in which institutions do not work for the benefit of the people on a regular basis. Hence it is also widely referenced by Acemoglu and Robinson (2012) as a primary example for what they call a “vicious circle,” and also subject to a case study in North et al. (2013) as a “basic” (or even “fragile”) “limited access order.” But it is also a complex case lacking reliable data for cross country regressions and over much of its history subject to a remarkable dichotomy of elite (sometimes external) versus mass. Hence, to limit the degree of unreliability of available information and of geographic confusion, we start our investigation during Belgian rule of the Congo about a century ago, when borders have already been more settled and information better documented.

Table 3 shows the big trends in all 12 indicators for this time period. Three phases can be distinguished, which basically overlap with political regimes and are characterized by simultaneous trends in the same directions: during the colonial period, the institutional system generally became more stable, more centralized and more inclusive, but on a very low level; in the Mobutu era we see diverse trends, with improving chances and freedoms at the beginning, but a deterioration due to increasing authoritarianism and arbitrariness already from the early 1970s on; finally, in the 1990s, we observe a widespread breakdown in all indicators with recent stabilization on a low level.

--- Table 3 about here ---

Development of the institutional system is much more nuanced, indeed. There are general patterns and trends to be observed indeed, even if the impact of certain institutional changes may differ from region to region. But clearly, the Congo is far too vast an area to be homogeneous, and what may be true for the capital region around Kinshasa, may not be true

for the East, or the North, or the central rainforests, or Katanga, or at least not in the same intensity. To grasp at least part of this diversity, we descriptively provide more information, focusing on the details only insufficiently reflected in table 3 and organized along our five institutional functions.

### **Political centralization**

Geography in what is today the DRC is everything but favourable for political centralization. Consequently, the unevenly populated area of more than 2 million square kilometres was centralized by force only. As long as the colonial machine or the president was able to control people and space, often in the form of very indirect rule and hence far from complete, centralization was gradually improved. In times when this was not achieved, local administration was constrained only occasional if at all. Overall, the degree of effective control over territory, resources and people fluctuated but remained low across time and regions, at its lowest during the “Congo Crisis” in the early 1960s and the “African World War” in the 1990s, where it was practically absent, at its highest during the 1930s and at about 1970, where it was relatively settled.

At the beginning, the colonial state simply could not afford to control the whole territory, lacked adequate capacities and hence concentrated on the capital region and on resource rich areas (Stengers and Vansina, 1985). Remote areas, where neither concessionary nor state production took place, were scarcely accessed, and therefore “vast areas [of the Congo] have never effectively been taken over” (Herbst, 2000: 78). Traditional political units were transformed into *chefferies* and *secteurs* (Brausch, 1961), which was only modified formally after independence, while actual control deteriorated. Territorial integrity was challenged with at least eight perennial crises between 1960 and 1997 (Ndikumana and Emizet, 2005: Table 3.1), including the secession of Kasai (1960-61) and Katanga (1960-63, 1977-78). In the 1990s, refugees from Rwanda accelerated state collapse in the East (Lemarchand, 2003), the military deteriorated, and various armed groups (domestic and international) effectively took over control in large parts of the country (Peemans, 1997; Richens, 2009). Colonial armed forces (usually indigenous soldiers commanded by Europeans) were comparably impressive in numbers and expanded temporarily to over 40,000 in the mid-1940s. After independence, national army and police forces even grew in numbers (Young and Turner, 1985: 267), but deteriorated in quality. Besides small well trained and regularly paid units (which Mobutu employed for personal safety and access to resource rich areas), troops became Africanized in 1961, personalized in 1971, politicized in 1977, increasingly de-professionalized and

tribalized (Ebenga and N'Landu, 2005: 66) and finally practically privatized (Meditz and Merrill, 1993). Only the 2003 constitution envisaged to bring the army under "civilian control" again and to get a "fair balance of ethnic groups," but unsuccessful so far. In this context, also infrastructure provision (transport, energy supply, etc.) was crucial. Over time, it was mainly organized following two different logics: During colonization it was improved (Gardner, 2013), but dedicated only to serve the purpose of control and resource exploitation; in the post-colonial period it was left to decay to prevent the efficient organization of resistance (Reno, 1985).

In terms of resource control, taxes were far more important during colonial times than in the post-colonial period, because tax collection became increasingly ineffective from the 1970s on (Young and Turner, 1985: 348-9), not the least because of an expansion of the informal economy (MacGaffey, 1991; Schatzberg, 1997). In the colonial period, at first a poll tax, which was highest in resource-rich Katanga (also to achieve labour mobilization), and later particularly corporate taxes and customs tariffs contributed most importantly to state financing (Gardner, 2013; Leclercq, 1965: 112), while in the late 1980s, taxes on international trade (especially on imports) were most important, but also the money press was used excessively (Meditz and Merrill, 1993).

Revenue by extraction was relevant throughout time. The colonial state earned income from land grants, concession or land sales to investors (Buelens and Marysse, 2009), and indirectly from copper production (particularly of the largest company, the *Union Minière du Haut Katanga*, UMHK), while only a minor share of revenues came from state owned businesses (like the Kilo-Moto gold mine). Further, foreign companies had to contribute to the construction of infrastructure in exchange for the concessions (Northrup, 1988: 81; Edgerton, 2002: 169-70). Also after 1960 government revenues heavily depended on minerals, directly from copper exports after the nationalization of the UMHK (renamed GÉCAMINES in 1966), which usually contributed 20 to 40 percent to the total budget, and increasingly from the expropriation of foreign businesses in the 1970s. Further, a growing amount of revenues were usurped by Mobutu (Reno, 1998: 154), when from the 1990s on at the same time other resources (especially diamonds, coltan or tropical woods) were increasingly extracted by non-governmental forces (UN, 2001: 19-26) and hence the state practically dispossessed. Consequently external inflows became again a highly relevant form of government rent, when official development assistance peaked at 787 (!) per cent in relation to the official central government expense in 2003. While these flows were also relevant in the colonial period (although mainly for financing control) and in the Mobutu years (when Western donors and

multilateral organizations provided the president with strategic loans; Dayal, 1976: 66), they have dramatically decreased in the 1990s (Ndikumana and Boyce, 1998: 211-5).

With respect to accountability, the Congo was a command state, as long as someone could manage to command. In colonial Congo, administrators, army officers and indigenous chiefs became exclusively accountable to the colonial administration, and had to secure control, taxation and labour mobilization, with which they must not fail (Higginson, 1989; Northrup, 2007). But besides that, local administration was not strongly controlled, and even less so by local councils. Only in 1957 the central government established a “system of popular consultation” by appointed representatives of social, economic and cultural groups and associations for provincial councils (Brausch, 1961: 43-9). In the 1980s the federal system was reduced to local units with only a small range of administrative tasks led by chief officers, personally picked by Mobutu, alienated from their homeland and with short periods of service (all to better control them). They enjoyed a high degree of de-facto autonomy, but levelling up to the presidents’ expectations was a difficult task. Vague “decisions” by Mobutu gave them considerable discretion about implementation, but always in danger to incur presidential displeasure. This pattern did not change after state collapse in the 1990s, but its applicability became less and less relevant, when there were ever less people in the reach of a “president.”

### **Plurality**

The degree of plurality was always low in the Congo, although at varying degrees. The largest relative improvements happened in the late colonial period and at independence, when Belgium had to react on indigenous demands for more rights and recognition from the Europeans, brought forward by the so called *évolués*, who came from the small level of indigenous secondary educated employees, teachers, nurses or civil servants (Anstey, 1970: 200-1; Forbath, 1977: 386). Much of these developments continued into independence, but they remained more theoretical than practical and were ruined by authoritarianism and later by war. Even democratic elections took place in 1960, but their result became meaningless within weeks, when the Katanga province declared independence, and Prime Minister Lumumba was dismissed and later assassinated.

During the colonial period, access of the indigenous population to the political process was widely denied (Young, 1965: 29; Higginson, 1989: 214-5) and their opinion “systematically ignored” (Ameye, 1959: 296). In organizations like the settlements board or district and provincial advisory committees they only held minorities (Brausch, 1961: 48-9). Also general

access to organization did hardly exist for long. Notable exceptions were the permission of trade unions of white workers in the early 1920s, the foundation of the *Association des Anciens Élèves des Pères de Scheut* (ADAPES) for indigenous Congolese in 1925, and the permission to form “professional associations of indigenous workers” (Higginson, 1989: 11; ILO, 2010) in 1926, but full freedom of association in trade unions was not allowed until 1946. Another exception was made for mono-ethnic “cultural clubs” in the 1940s, while political parties were prohibited until the late 1950s, when the indigenous *Alliance des Bakongo* (ABAKO) and the *Mouvement National Congolais* (MNC) successfully participated in elections, but also had to remain mono-ethnic (Schatzberg, 1997: 72). Freedom of press was totally restricted for the indigenous population until the *évolués* managed to achieve an exception (*La Voix du Congolais* in 1945) and freedom of speech was categorically denied even longer (Slade, 1960: 55). African opinion remained largely unarticulated in the political process until 1957, when a decree enabled Congolese to participate in urban administrations, “mixed” quarters were established (Lemarchand, 1964: 72) and the number of Congolese in provincial councils increased to a third. At the time of decolonization, there were 45 rivalling indigenous parties, usually mono-ethnic. Consequently the first free elections were placed in a politically unsettled environment, and 18 parties (only two of them run in more than one district) shared 137 seats, with the largest only holding 36. Government and parliament broke down within months and after the following civil war, Mobutu introduced a single party and single union system in 1967 (formally abandoned in 1991), and hence drastically restricted plurality. Throughout independence, civil liberties were nominally guaranteed by the constitution, but never seriously implemented, and the guarantee was widely irrelevant in the war situation from the 1990s on. Only by 2006, another national election took place, the result of which was questioned nationally and internationally, with slight improvements but discussions about too government-friendly reforms until the second election in 2011. Both results documented a politically divided country with more than 200 parties and a large variety of results regionally. Further, the transitional government in 2006 still “restrict(ed) freedoms of assembly and movement ... and security forces restricted Non-governmental organizations” and often “dispersed authorized protests and marches” (US Department of State, 2006). Unions are widely irrelevant today (ILO, 2010).

Economic organization was not formally restricted during colonialism but de facto the big mineral companies, manufacturing industries, and plantations were organized and controlled by foreign capital or the colonial administration and thus enjoyed quasi monopolies. In rural areas subsistence based on kin was the most important form of organization, while small



businesses in urban areas were also owned by Congolese (Colin, 1955). After colonialism, access to organization remained largely a problem of de-facto barriers, less so of excessive formal restrictions (Mukenge, 1974). While de-facto monopolies remained in the hands of the state, private organization remained largely informal until today (Jackson, 2002; Rubbers, 2004).

Top-down accountability did hardly exist over all these years. The Belgian Congo was paternalistic and neither Congolese nor Europeans had political rights, but various forms of racial segregation and discrimination existed. Even more, administrators often practically enjoyed *carte blanche* to act how they like. The same applies to Mobutu's clientilistic Congo, where regime survival was mainly assured by remunerating a network of cronies. While independence brought accountability provisions in theory, Mobutu soon abandoned participation and installed corporatist control, patrimonialism and ethno-regional favouritism (Callaghy, 1984: 169-94). He also offered (even in public speeches) those he could not pay "tacit *carte blanche*"<sup>13</sup> (Bustin, 1999: 87), i.e. to take whatever they need from the people (Lemarchand, 2003: 32-8). It will hardly surprise that the Congolese became demoralized, disillusioned and cynic towards promises of the state (Young, 1984).

### **Rule of law**

The Belgian Congo was a dual state in juridical sense: European courts (*conseils de chefferie*, *conseil de secteur*, etc.) for the Belgians, customary law for the legally inferior indigenous population. Already in 1922, "native tribunals" were installed in the Orientale province to strengthen traditional authorities for enforcement of customary law, but in fact they served for implementation of the administration's policy (Lemarchand, 1964: 69). Usually the indigenous population was submitted to police courts (Gann and Duignan, 1979: 170) or to the rules of concessionary companies (Wauters, 1930 58, Vangroenweghe, 2005), with which the colonial administration did hardly interfere. Despite some improvements after 1933, judicial and executive powers were not appropriately separated (Lemarchand, 1964: 69-70). Only the *évolués* achieved regular access to European courts as part of the newly introduced *carte mérite civique* in the 1940s (Anstey, 1970: 205).

---

<sup>13</sup> This was summarized as "débrouillez-vous" ("look after yourself") and "y'bana mayele" ("steal cleverly") or alternatively referred as the fictitious constitution "article 15" or "system D" (Gould, 1977: 359; Jourdan, 2004: 170-1).

In the post-colonial setting, access to courts was theoretically introduced for everybody, but in practise a large part of the population lacked access to skilled law experts<sup>14</sup> and also generally the judiciary apparatus broke down, probably “the worst catastrophe in a series of disasters” (Young, 1965: 420). This lack of (qualified) personnel as well as the lack of factual independence of the judges were a problem throughout time and are until today. In the Congo, justice is “for sale to those who can afford it” (ILC and IBASH, 2009: 22) and there are regions where it “has been virtually impossible to hire judges” (ILC/IBASH, 2009: 24). Customary courts run by traditional rulers have worked parallel during the whole colonial period. Today they are still an incomplete substitute for the lack of formal courts and their decisions are hardly unbiased. Their jurisdiction covers a broad range of legal prosecution and conflict resolution and even criminal offences, which they formally are not supposed to decide (ILC and IBASH, 2009: 24).

Another continuous problem is endemic impunity. *Carte blanche* provisions were widespread in colonial and post-colonial times. In 1974, Mobutu reserved the right to prosecute officials holding presidential mandates (Schatzberg, 1988: 104). This is only a continuation of earlier trends, when, besides some critical notifications, convictions against Europeans were hardly ever executed already in colonial times. Today, only 30 per cent of the judgements are enforced (in Kivu only 5 per cent), often because the suitors are unable to pay the cost of enforcement, which they have to bear (ILC/IBASH, 2009: 23), and generally, the law does not work effectively or does not exist at all, particularly in parts of the East (Lemarchand, 2003: 32-8).

### **Security of property**

The Belgian colonial state inherited a large *domaine privé* from a large-scale annexation of land in the early days of colonization (which included resources on or under this land). Titles were denied to the indigenous population (Mukenge, 1974: 123) and therefore they were only left with practical possession of the small lands they worked at the time it got effectively under colonial control, until the *évolués* gained access to land property rights in the 1940s (Anstey, 1970: 205). In urban areas Congolese could gain “temporary right of occupation to restricted areas” (Leisz, 1998: 132). But still, securitizing loans was almost impossible (Isralson, 1956: 6-7), until the *évolués* in 1955 also got access to “special credit funds” (Mukenge, 1974: 207-8). Again, with independence access was immediately approved to all,

---

<sup>14</sup> The first doctors of law became only available in 1962, and the first law school opened in 1964 in the capital (Young, 1965: 420-1).

but under Mobutu in fact “access to land remained largely managed on the basis of ethnic citizenship” (Doom and Vlassenroot, 2001: 67). For example, Mobutu granted citizenship to refugees from Rwanda (immigrated from 1959 to 1963) in 1972 and to Banyamulenge in 1981 and 1991 (which were still denied land ownership), with women completely excluded anyway. Further provisions in 1966 (*Bakajik Law*), 1971 and 1973 (General Property Law) and in 1977 and 1980 nationalized large parts of the land and finally made clear that “all land and natural resources are the property of the state,” which has the right to expropriate land occupied by concessions or under community based local property systems. Besides that, a parallel system of customary land rights existed, but only weakly protected (Vlassenroot and Huggins, 2005: 116).

Expropriation of indigenous populations was not only the early colonial basis of property in the Congo, but remained a risk throughout, especially in regions of resource abundance. Only for concessionary companies, property rights were predictable during colonialism (Vellut, 1983) and the colonial government directly invested heavily in these private businesses (Wolfe, 1966: 365). When the post-colonial state broke with these companies, the severest consequence was a deterioration of property rights (Mamdani, 2001: 242-43). Further, the property laws of the 1960s and 1970s redistributed land to serve the purpose of regime stabilization and clientelism, including large-scale “Zairianization,” the expropriation of foreign-owned small and medium businesses in all sectors in the 1970s (Emizet, 1997: 103-4). Although Mobutu publicly claimed to act in the interest of the large majority of the people (Leisz, 1998: 132), there was a continued discrepancy between state and customary law in practise (Musafiri, 2008: 10), and suppression and collisions of the traditional (community-based) tenure system and state ownership have practically prohibited land markets (Leisz, 1998: 134). For example, in the Kivu Provinces conflicts over access to land and land property intensified during the early 1990s, when Mobutu’s citizenship laws further aggravated tensions (Mamdani, 2001: 243-261, van Acker 2005). Since 2002, a new legal code for mining and forest has been in place (Musafiri, 2008: 11-13) but this did not solve problems of administering mining and forest rights in the aftermath of the peace agreement (Lutundula-Report, 2005: 267-70).

### **Economic liberty**

Congolese were allowed to produce some commodities like wild rubber freely after 1910, and up to the 1920s local food producers made some profits (Jewsiewicki, 1972: 220). At that time, Congolese were rather free to choose their economic activity and especially workers had

a “strong bargaining position to find more lucrative employment in the emerging cities and mining centres” (Roes, 2010). But soon, monopsony prices were imposed on goods produced by the indigenous population, including rubber and copper, and Congolese were denied to cultivate export crops on their own account. Hence, while trading was partly free in theory, there was hardly anything to trade. Economically profitable cultivations were almost exclusively in the hands of Europeans (except for tobacco and cotton<sup>15</sup>), but nonetheless in the 1950s, the share of indigenous commercial activities in the colony increased steeply from 6.5 to 25.7 percent (The Belgian Congo, 1960: 79), while the value of domestic activities outpaced the value of exports (Lacroix, 1965:158).

The colonial state claimed communal unpaid labour from the Congolese up to 60 days per year for men (Seibert, 2010: 378). Overall, the coercive character of the labour system remained, either indirect via taxation in money (Houben and Seibert, 2013: 251) or by forcing cash crop cultivation (Houben and Seibert, 2013: 245). The state also mobilized workers for and enforced contracts with concessionary companies (Roes, 2012). In the early days, colonial orders told local administrators to “take whatever measures were required to ensure a flow of workers to mines and plantations” and subsequently fostering a more “active role” of the administration in labour recruitment for private business (Seibert, 2010: 381). The Belgians also installed a *paysannat* system for regions considered as state-owned land to raise output by adopting agricultural techniques, applied during the 1940s and dedicated to appease unrests, downsize migration and in the longer term build a rural middle-class (Likaka, 1994: 603). The administration urged peasants to join, but failed with only 10 per cent as members in 1950 and “disappointing” “short-run results in terms of output and productivity growth” (Booth, 2013: 149). In the post-colonial state, forced labour soon re-emerged as *salongo*, compulsory public works on Saturday mornings (White, 2005: 71). Besides that, occupation was not formally restricted, but there were a lot of informal constraints related to personal relations, ethnicity and gender. Thus, private business accounted only for a small share of GDP, also because the post-colonial state kept the monopoly on valuables (especially copper and diamonds), and decreasingly so, when people started to pour more and more into the informal sector in the 1970s and 1980s. Inflation played a role, too: it escalated from about 50 percent in the 1980s to hyper-inflation levels in 1994 (Ulloa et al., 2009: 52), which made formal employment largely unattractive because of rather sticky wages.

---

<sup>15</sup> Cotton was hardly profitable due to the high production costs (Ndongala, 1966: 395, 417). Among the profitable products almost monopolized by Europeans are palm oil, rubber, coffee, tea, and cocoa.

Overall it is fair to say that the post-colonial economy was to a large degree based on looting (Wedeman, 1997), although of different kinds: In the Mobutu era, looting was organized in state monopolies, afterwards by armed groups. In all these years, the exports of monopolized resources accounted for the largest part of state revenues. Smuggling played an increasing role, especially from the 1990s on. It still does, but also generally starting a business in the DRC is extraordinary difficult and costly, even compared to low African standards. The Investment Climate Assessment lists electricity problems, access to finance (except for foreign firms) and competence of the informal sector as the three “most severe constraint(s)” (Ulloa et al., 2009: 33 and 47).

#### **IV. Directions of Institutional Change and Coincidences with Quality of Life Trends**

##### **Human Development and Limitation of Violence**

We assess coincidences of institutional change and outcome indicators as follows: First we look at the directions of change in our indicators, which feed into either positive or negative changes in institutional functions. We assess whether there is only partial change (in only one of the indicators of an institutional function) or change in a broader set of indicators (within a short period of time). The latter we expect to have a stronger impact on the outcome parameters. To pass threshold levels would be relevant as well, but in the case of the Congo no such events took place, especially because the positive transitions in around 1960 were not sustainable. Second we look at trends in the output indicators during a short- and medium-term period after punctual institutional changes or after a period with high frequency of institutional changes in three respects: first, do indicators improve, deteriorate, or stagnate; second, is there an observable reversal of trends; and third, are trends slowing down, accelerating, or remaining the same? As the quantitative output figures (particularly the GDP per capita figures) have severe limits and accuracy problems (use of outdated base years in African countries or including the informal sector, see Jerven 2013), we look at both: trends in our output indicators and the respective context. Additionally we consider externalities, because throughout time non-institutional factors have played an important or even dominant role. While table 3 shows an overview of institutional development in the Congo, a corresponding overview on human development is given in figure 1 and on the degree of violence in table 4.

--- Figure 1 about here ---

We measure human development by a “hybrid” HDI (human development index), developed by Prados de la Escosura (2011) and inspired by calculations by the United Nations Development Program (UNDP), and by the occurrence of and death toll in violent conflicts as provided in table 4. Because of considerable methodological differences and with respect to data sources (necessary to keep the sample consistent), the actual values of this “historical” hybrid HDI are hardly compatible with recent HDI values for the DRC (in the last three decades the “official” values range between 0.289 and 0.224). But also this overall index is geometrically composed of three partial indices, all calculated as relative position between assessed minimum and maximum values (for details, see Prados de la Escosura, 2011): an index of the logs of GDP per capita (ranging between 117 and 1.117 PPP\$), a combination of combined school enrollment (ranging between 7 and 54 per cent, with primary enrolment peaking at 1980) and adult literacy rates (ranging between 3.5 and 66 per cent), and life expectancy at birth (ranging between 25.9 and 48.0 years).

However, there are large uncertainties about data (which are often estimated and partially extrapolated). Hence we only interpret the numbers qualitatively as positive, negative and stagnating in trend and figure 1 should thus be mainly seen as an illustration of these trends. When looking closer, we see two major trend breaks: the first in around 1971, when the overall trend turns from increase (average growth of 2.3 per cent per year since 1945) to stagnation (average growth of only 0.3 per cent per year until 1985); the second in around 1985, when the overall trend turns to decrease (of -3.5 per cent until 1999, even accelerating in the war years). Developments in the last decade, especially with respect to GDP numbers and school enrolment, should be mainly seen as (moderate) mean reversion in a post-war situation (still with serious data problems).

This also fits with the information given in table 4. While we only find casualties in the hundreds during the colonial period (most notably in the 1930s and early 1940s), large death tolls are to be attributed to the Congo “crisis” in the early 1960s and the African “World War” in the 1990s and early 2000s. The most serious caveat to be considered when interpreting this information is that it is hardly possible to assess the overall degree of violence in the colonial society in comparison to post-colonial situations. While we can give qualitative information on forced labor, for example, we regard it as even counter-productive (especially in quantitative terms) to seriously assess and compare the enormous, but regionally concentrated

casualties during the African World War, the authoritarian climate during most of the Mobutu years, and the general racial discrimination in the colonial period. However, while human development trends show that the overall level in the quality of life for the population was better over much of the post-colonial period than at any time during colonialism in the Congo, improvements considerably slowed down in the post-colonial period and the picture completely reversed in the 1990s, both developments further aggravated by escalating death tolls in conflicts and hence increasingly endangered human security.

--- Table 4 about here ---

### **Institutional Change and the Quality of Life**

Institutional change in the period of 1920 to 1922 brought relative autonomous local governments which consisted of chiefs controlled by provincial councils, while in urban areas financial autonomy and own administrative departments were denied. Small indigenous businesses (mostly single-member-companies) slowly spread in urban areas and foreign and state-owned businesses dominated the mineral sector and cash crops sector and thus replaced rubber and ivory production during the early 1920s. In the same period the administration regionally installed native tribunals which served it to implement their directives. We observe in this period a partial improvement of political centralization, plurality and rule of law by changes in a small subset of indicators. Unfortunately, we cannot tell exactly how indicators about the standard of living developed over these years, although they seem to have improved at least if compared to the extraordinary low levels before 1910. In the mid-1920s plurality experienced only small improvements (unionization), while economic liberty was restricted by constraining the freedom of production and the security of property deteriorated partially. However, quality of life seems to have improved further, hence the overall result with respect to the effectiveness of change is ambiguous in this period.

The picture becomes clearer from the 1930s on. 1933 brought slight progress by improving separation of judicial and executive powers, which fed in an enhancement in decision making and thus the rule of law. But improvement is related to only one indicator, while outcome variables show an ambiguous pattern (and especially the degree of everyday violence is obscured by the absence of a large-scale event), making it ineffective institutional change at first sight. But this period shows the importance of considering context and externalities. The early and mid-1930s were heavily influenced by the Great Depression, affecting also the Congo by falling revenues from copper exports and high inflation due to a steep decline in

imports. Taken together, these considerable externalities make it very probable that changes in outcomes in this period are mostly *non-institutional*.

Also World War II had comparable impacts, especially with respect to inflation. But the period between 1940 and 1946 also brought a lot of changes of institutions: ambiguous with respect to restrictions of occupation, but generally positive with increasing recognition of the rights of *évolués* with respect to plurality and rule of law especially, but also security of property. The outcome indicators for this period are usually on the rise, but especially between 1941 and 1944, there were also large strikes in Katanga, Kivu and Matadi with death tolls in the hundreds. These protests sprout mainly from workers, which had a hard time due to high inflation, rise in taxes, racist regulations, and forced cultivation (Davidson, 1985: 690-1; Nelson, 1994: 176; Seibert and van Houben, 2013). But overall, the *évolués* achieved more and more political and civil rights at this time, especially during the mid-1950s, plurality and rule of law improved, and even economic liberties advanced (both from rather low levels, indeed). In 1960, independence brought an immediate enhancement of a broad range of institutions, some on paper only, some relevant very practically, especially access to organization and property and economic liberty, while plurality was improved mainly in theory, at least after the outbreak of the war, and rule of law was limited because of the general turmoil and the absence of necessary expertise. Outcomes showed improvements in enrollment and life expectancy but a slow decline in GDP per capita, which remained volatile afterwards, while large scale casualties were only to come.

But overall, the Congo experienced the most *effective institutional change* in the surveyed period, starting in the 1940s and accelerated during the very last years of colonization (1956 to 1959) and the year of independence. Further, even despite of the Congo “crisis,” also resulting in a deterioration of political centralization and costing hundreds of thousands of lives along various conflict-lines, the positive trend in outputs in the 1960s echoed changes in institutions going on for more than a decade before independence. However, also the degree of violence during the wars is clearly connected to changes in institutions. The details of improvements in plurality, for example, are directly related to the fact that multi-ethnic parties were strictly prohibited even in the late days of colonization and political struggle was organized along ethnic cleavages, which could be easily exploited in armed conflict.

In 1965 Mobutu put himself on the top, especially by controlling the military, which was divided by power struggles between officers. A year later he re-centralized police, introduced corporatist control mechanisms and restored provincial boundaries of the colonial period, assured resource flows to the government from the state owned copper giant GECAMINES,



introduced a single party system and restricted competitive elections and trade unionism, reduced top down accountability to cronyism and ethno-favoritism, limited security of property and eroded economic liberty via state monopolies. While political centralization improved again, all other institutions worsened substantially. But outcome indicators were still on the rise (the least for GDP per capita) in the absence of further major violent events.

However, the tide was about to turn on from the early 1970s, which shows the relevance (and complexity) of time lags in transmission between changes in institutions and changes in outcomes. The 1970s brought a continuation of the changes started in 1965, but now also political centralization weakened (especially with respect to resource control). Generally, the credibility of the authorities further deteriorated and people accommodated with varying degrees of disillusion in the new, paternalistic regime, increasingly lacking any meaningful degree of accountability, and generally showing negative trends in all institutional dimensions.

What we observe in all these years, and practically until the 1990s, is a remarkable form of *ineffective institutional change*: a deterioration of institutional quality coincides with a slow-down of quality-of-life-improvements and later its stagnation. Certainly, also externalities played a role here, especially the deterioration of revenues because of the breakdown of copper prices in the 1970s, but unlikely a dominant one, because the government could partially replace these revenues with strategic rents. This trend lasted for more than two decades, with only few exceptions: in 1984, for example, Mobutu introduced legislative assemblies on the local level and partially regained political centralization. But at the same time, informalization of the economy was already strongly expanding. This is also partly covered in GDP numbers and poses serious data problems, i.e. actually GDP may have been underestimated because of this evasion. Hence, also these changes in institutions in the 1980s, at least those to be regarded as improvements, were clearly *ineffective*, because they have to be considered as maturation in terms of outcomes.

In the 1990s trends could not be reversed, even though Mobutu abolished the single party state and restrictions to organization in 1991. Enrollment rates could be stabilized (for some years) on a low level, but GDP per capita and even life expectancy was now in decline. External effects added to the picture: the turmoil after the Rwandan genocide in 1994 seriously undermined especially political centralization. But this “effect” is not totally “external,” because colonial and ethnic links between the Eastern Congo and Rwanda were never totally broken and also politically effective throughout much of the Mobutu era.

After the war years (broadly 1996 to 2003), with casualties of magnitudes which can only be estimated (especially with respect to excess mortality) and total state collapse at least in parts of the country, institutions as well as outcomes could only improve again after having reached extraordinary low levels. Already from 2000, all outcome dimensions show upward trends, although especially GDP numbers are to be handled with great care. These improvements are accompanied by favorable changes in institutions, particularly two relatively successful elections and improvements with respect to economic liberty are promising, while there are especially deficits in state control and rule of law. But it is still fragile: resource mobilization mostly depends on foreign assistance and control over considerable parts of the country is practically ceased, the constitution of 2003 is implemented in form, but to a large degree not in function, two elections took place, but results were contested both times, and violence is still endemic, especially in the East, although at a much lower level than during the war. Unfortunately for our analysis, we cannot judge so far, if change in the 2000s is effective or ineffective, because transition is still ongoing.

## **V. Conclusion**

The Congo is a valid and promising example how to study the effectiveness of changes in institutions with respect to changes in the quality of life, because although the level of both is rather low in this region, the variety of trends is still impressive and low-end environments are the more urgent and more widespread cases we face in the real world, recently and historically.

We are able to provide two more major results besides a systematic long-run description of the Congo's history in the light of institutional development. The first is the application of our effectiveness framework. Certainly, this first step has also showed possible and necessary directions of refinement, especially with respect to the category of ineffective change, which is not discriminative enough with respect to perspective. The issue of effectiveness looks different from the viewpoint of an elite (or dominant coalition) than from the viewpoint of a population, and especially the 1970s in the Congo is a promising case to study this difference. However, we were able to identify all kinds of theoretically relevant changes in our case, notably (largely) non-institutional change in the 1930s, (widely) effective institutional change in the 1940s and 1950s, and different forms of ineffective institutional change afterwards. Especially the latter also opens the way for considering a disturbing message: at least in the

case of the Congo and pronouncedly so in the 1970s and 1990s, a negative institutional path seemed to be more feasible and beneficial for those in charge than for the population, society and economy as a whole. Further and overall, the framework also allowed combining two different periodizations of the Congo's history in a way fruitful for further institutional analysis and certainly applicable to other cases as well: while institutional patterns changed essentially with the breaks in the historical path in 1960 and 1997 (although both times with a forerun), quality of life indicators reacted at different times and different speeds with the most considerable breaks happening in around 1971 and 1985, both opening the view for actual connections between institutions and the quality of life and effective time lags.

Here we find the second additional result: While we have directed emphasize towards a more population-oriented approach at least with respect to outcomes, we are also able to provide qualitative information on institutional connections and on timing. We found quite dispersed variants of the former, while the latter is directly related to the connection between different periodizations. Overall effects on outcomes usually took about a decade (or slightly more) in the case of the Congo, which does not discard long-term influences from pre-colonial and colonial times (on which we focused in Exenberger and Hartmann, 2013), but enriches these insights with more complex, qualitative information. Further, income and especially violence seem to react more directly and hence faster to institutional changes than do health and education, which is certainly consistent with expectations about these connections.

Further research is still necessary, indeed. We propose a refinement and an extension of the framework and its application to other cases in Africa and other continents, which the methodology, designed for that purpose, certainly allows. Overall, the example of the Congo shows that more in-depth studies are necessary and will be fruitful, not the least when also external effects are to be systematically integrated into the framework and especially to gain further information about timing and causation. This holds for the Congo as well as than for comparative case studies. In the case of the Congo, we are able to identify three particularly relevant periods for such studies: the first and most promising is the transition phase towards independence (1945 to 1965, with a special focus on the late 1950s and power constellations during the Congo crisis); the second is the mid-1970s, when "Zairanization" coincided with negative developments at the world copper market, both contributing in the medium-run to the stagnation and later deterioration of the quality of life; the third finally is the late Mobutu period (roughly 1990 to 1996), when serious problems of internal control coincided with the consequences of the Rwandan genocide. These studies should focus on causality, on the timing of effects, the complementarity of institutions, the influence of external effects and on

the question of regional diffusion, which are all certainly relevant to understand institutional development, but have been beyond the scope of this paper.

### **Acknowledgements**

We thank Mary Shirley, Stanley Engerman, and John Wallis for valuable comments and very helpful suggestions for improving our paper. We are grateful to all participants of the colonial extraction workshops “Colonial Extraction in the Netherlands Indies and Belgian Congo” in Utrecht 2010 and Antwerp 2011, all participants in our panel at the 24th Annual European Association for Evolutionary Political Economy Conference (EAEPE) in Krakow 2012 and of the annual conference of the Development Studies Association (DSA) 2012 in London, and Valentin Seidler, Clemens Pfeffer, Sara de Jong, Friedericke Santer and Anja Breitwieser for fruitful discussions and constructive critique. All remaining errors and omissions are our own.

### **VI. References**

- Acemoglu, D. (2005), ‘Constitutions, Politics, and Economics: A Review Essay on Persson and Tabellini’s *The Economic Effects of Constitutions*’, *Journal of Economic Literature*, 43(4): 1025-48.
- Acemoglu, D. and J. Robinson (2012), *Why Nations Fail. The Origins of Power, Prosperity and Poverty*, New York: Crown.
- Acemoglu, D., S. Johnson and J. Robinson (2001), ‘The Colonial Origins of Comparative Development: An Empirical Investigation’, *American Economic Review*, 91: 1369-1401.
- Acemoglu, D. and J. Robinson (2006), *The Economic Origins of Dictatorship and Democracy*, Cambridge: Cambridge University Press.
- Alston, L., Th. Eggertsson and D. North (eds.1996), *Empirical Studies in Institutional Change*, Cambridge: Cambridge University Press.
- Anstey, R. (1970), ‘Belgian rule in the Congo and the Aspirations of the Évolué Class’, in L. Gann and P. Duignan (eds.), *Colonialism in Africa 1870-1960, Vol. 2*, Cambridge: Cambridge University Press.
- Aoki, M. (2001): *Toward a Comparative Institutional Analysis*, Cambridge: MIT Press.
- Aoki, M., T. Kuran and G. Roland (2012), *Institutions and Comparative Economic Development*, London: Palgrave Macmillan.
- Austin, G. (2008), ‘The ‘Reversal of Fortune’ Thesis and the Compression of History: Perspectives from African and Comparative Economic History’, *Journal of International Development*, 20: 996-1027.
- Ajayi, J. F. (1969), ‘Colonialism: An episode in African history’, in L. Gann and P. Duignan (eds.), *Colonialism in Africa, 1870-1960, Vol. 1*, Cambridge: Cambridge University Press, 137–46.
- Barber, B. (1984), *Strong Democracy: Participatory Politics for a New Age*, LA: University of California Press.

- Barro, R. (2000), 'Rule of Law, Democracy, and Economic Performance', in M. Miles (ed.), *2000 Index of Economic Freedom*, Washington.
- Bayly, C. (2008), *Indigenous And Colonial Origins Of Comparative Economic Development: The Case Of Colonial India And Africa*, Policy Research Working Paper 4474.
- Belgian Congo (1960), *Belgian Congo Volume II*, Brussels: Information and Public Relations Office for the Belgian Congo and Ruanda-Urundi.
- Berkowitz, D., K. Pistor, and J.-F. Richard (2003), 'The Transplant Effect', *The American Journal of Comparative Law*, 51(1): 163-204.
- Besley, T. and T. Persson (2009), 'The Origins of State Capacity: Property Rights, Taxation, and Politics', *American Economic Review*, 99: 1281-1344.
- Bézy, F., J.-P. Peemans, and J.-M. Wautelet (1981), *Accumulation et sous-développement au Zaïre, 1960-1980*, Louvain-la-Neuve: Presses Universitaires de Louvain.
- Booth, A. (2013), 'Varieties of exploitation in colonial settings: Dutch and Belgian policies in Indonesia and the Congo', E. Frankema and F. Buelens (eds.), *Colonial Exploitation and Economic Development. The Belgian Congo and the Netherlands Indies Compared*, London: Routledge.
- Brausch, G. (1961), *Belgian Administration in the Congo*, London: Oxford University Press.
- Bueno de Mesquita, B., A. Smith, R. Siverson, and J. Morrow (2003), *The Logic of Political Survival*, Cambridge: MIT Press.
- Bueno de Mesquita, B. and A. Smith (2009), 'Political Survival and Endogenous Institutional Change', *Comparative Political Studies*, 42(2): 167-97.
- Buelens F. and S. Marysse (2009), 'Returns on investments during the colonial era: the case of the Belgian Congo', *The Economic History Review*, 62(1): 135-166
- Bustin, E. (1975), *Lunda under Belgian Rule: The Politics of Ethnicity*, Cambridge: Harvard University Press.
- Bustin, E. (1999), 'The collapse of "Congo/Zaire" and its Regional Impact', in D. Bach (ed.), *Regionalisation in Africa. Integration and Disintegration*, Oxford: James Currey.
- Callaghy, Th. (1984), *The State-Society Struggle: Zaïre in Comparative Perspective*, New York: Columbia University Press.
- Chang, H.-J. (2005), 'Understanding the Relationship between Institutions and Economic Development – Some Key Theoretical Issues', in H.-J. Chang (ed.), *Institutional Change and Economic Development*, New York: UNU Press.
- Coghlan, B., P. Ngoy, F. Mulumba, C. Hardy, V. Bemo, T. Steward, J. Lewis, R. Brennan (2007), *Mortality in the Democratic Republic of Congo: An Ongoing Crisis*, International Rescue Committee and Burnet Institute, [[http://www.theirc.org/resources/2007/2006-7\\_congomortalitysurvey.pdf](http://www.theirc.org/resources/2007/2006-7_congomortalitysurvey.pdf)].
- Colin, P. (1955), *Récensement des Travailleurs Indépendants de la Cité Indigène de Léopoldville*, Leopoldville: Service de la Population Noire.
- Collier, P. (2009), *Wars, Guns and Votes. Democracy in Dangerous Places*, NY: Harper Collins.
- Cox, G. (1987), *The Efficient Secret: The Cabinet and the Development of Political Parties in Victorian England*, Cambridge: Cambridge University Press.
- Dayal, R. (1976), *Mission for Hammarskjöld*, Princeton: Princeton University Press.

- Djankov, S., E. Glaeser, R. La Porta, A. Shleifer (2003), *The New Comparative Economics*, NBER Working Paper 9608.
- Doom, R. and K. Vlassenroot (2001), 'Violent Culture or Culture of Violence? The Case of Eastern Congo', in F. Columbus (ed.), *Politics and Conflict in Africa*, NY: Nova, 57-82.
- Drèze, J. and A. Sen (2002), *India: Economic Development and Social Opportunity*, NY: Oxford University Press.
- Dutt, A. (2011), 'Institutional Change and Economic Development: Concepts, Theory and Political Economy', *Journal of Institutional Economics*, 7(4): 529-34.
- Ebenga, J. and Th. N'Landu (2005), 'The Congolese National Army: In Search of an Identity', in M. Rupiya (ed.), *Evolutions & Revolutions: A Contemporary History of Militaries in Southern Africa*, Pretoria: Institute for Security Studies, 63-83.
- Edgerton, R. (2002), *The Troubled Heart of Africa: A History of the Congo*, NY: St. Martin's Press.
- Emizet, K. (1998), 'Confronting Leader at the Apex of the State: The Growth of the Unofficial Economy in Congo', *African Studies Review*, 41: 99-137.
- Emizet, K. (1997), 'Zaire after Mobutu: A Case of a Human Emergency', *UNU-Wider Research for Action*, 32: 1-109.
- Engerman, St. and K. Sokoloff (2008), 'Institutional and Non-Institutional Explanations of Economic Differences', in C. Menard and M. Shirley (eds.), *Handbook of Institutional Economics*, New York: Springer, 639-66.
- Evans, P. (1995), *Embedded Autonomy: States and Industrial Transformation*, Princeton: Princeton University Press.
- Evans, P. (2004), 'Development as institutional change: The pitfalls of monocropping and the potentials of deliberation', *Studies in Comparative International Development*, 38(4): 30-52.
- Exenberger, A. and S. Hartmann (2007), *The Dark Side of Globalization. The Vicious Cycle of Exploitation from World Market Integration: Lesson from the Congo*, Working Papers in Economic and Statistics, University of Innsbruck, No. 2007-31.
- Exenberger, A. and S. Hartmann (2013), 'Extractive Institutions in the Congo: Checks and Balances in the Longue Durée', in E. Frankema and F. Buelens, *Colonial Exploitation and Economic Development. The Belgian Congo and the Netherlands Indies Compared*, London: Routledge.
- Frankema, E. (2013), 'Colonial Education and Postcolonial Governance in the Congo and Indonesia', in E. Frankema and F. Buelens, *Colonial Exploitation and Economic Development. The Belgian Congo and the Netherlands Indies Compared*, London: Routledge.
- Freeman, C. (1995), 'The 'National System of Innovation' in Historical Perspective', *Cambridge Journal of Economics*, 19: 5-24.
- Freeman, R. (2000), *Single Peaked Vs. Diversified Capitalism: The Relation Between Economic Institutions and Outcomes*, NBER Working Paper No. 7556.
- Fox, R. (1965), 'The Second Independence: A Case Study of the Wilu Rebellion in the Congo', *Comparative Studies in Society and History*, 8(1): 78-109.

- Gann, L. and P. Duignan, (1979), *The Rulers of Belgian Africa 1884-1914*, Princeton: Princeton University Press.
- Gardner, L. (2012), *Taxing Colonial Africa: The Political Economy of British Imperialism*, Oxford: Oxford University Press.
- Gardner, L. (2013), 'Fiscal policy in the Belgian Congo in comparative perspective', in E. Frankema and F. Buelens (eds.), *Colonial Exploitation and Economic Development. The Belgian Congo and the Netherlands Indies Compared*, London: Routledge.
- Gennaioli, N and I. Rainer (2007), 'The Modern Impact of Precolonial Centralization in Africa', *Journal of Economic Growth*, 12: 185-234.
- Gleditsch, K. and M. Ward (1997), 'Double Take: A Re-Examination of Democracy and Autocracy in Modern Polities', *Journal of Conflict Resolution*, 41: 361-383.
- Gould, D. (1977), 'Local Administration in Zaire and Underdevelopment', *Journal of Modern African Studies*, 15: 349-78.
- Gould, D. (1979), 'The Administration of Underdevelopment', in G. Gran (ed.), *Zaire: The Political Economy of Underdevelopment*, NY: Praeger, 87-107.
- Hall, P and D. Soskice (2001), *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*, NY: Oxford University Press.
- Herbst, J. (2000), *States and Power in Africa – Comparative Lessons in Authority and Control*, Princeton: Princeton University Press.
- Higginson, J. (1989), *A Working Class in the Making: Belgian Colonial Labor Policy, Private Enterprise, and the African Mineworker, 1907-1951*, London: University of Wisconsin Press.
- Hodgson, G. (2002), 'The Evolution of Institutions: An Agenda for Future Theoretical Research', *Constitutional Political Economy*, 13: 111-27.
- Hodgson, G. (2006), 'What are Institutions?' *Journal of Economic Issues*, 40: 1-25.
- Hopkins, A. (2009), 'The New Economic History of Africa', *Journal of African History*, 50: 155-77.
- Houben, V. and J. Seibert (2013), '(Un)freedom: Colonial Extraction and Labor relations in the Belgian Congo, 1908-1930', in E. Frankema and F. Buelens (eds.), *Colonial Exploitation and Economic Development. The Belgian Congo and the Netherlands Indies Compared*, London: Routledge.
- ILC/IBASH (2009), 'Rebuilding courts and trust: An assessment of the needs of the justice system in the Democratic Republic of the Congo', <http://www.afrimap.org/english/images/documents/DRC-IBA-ILAC-Justice-Aug09.pdf>.
- ILO (2010), *Trade union pluralism and proliferation in French-speaking Africa*, Geneva: ILO.
- Isralson, M. (1956). *Les Banques Congolaises et le Credit aux Indigènes*, Extrait de la Revue de la Banque No. 7-8.
- Janssens, E. (1979), *Histoire de la Force Publique*, Burxelle: Ghesquière.
- Jewsiewicki, B. (1972), 'Notes sur l'histoire socio-économique du Congo (1880-1960)', *Etudes d'Histoire Africaine*, 3: 209-41.

- Jourdan, L. (2004), 'Being at War, Being Young: Violence and Youth in North Kivu', in K. Vlassenroot and T. Rayemaekers (eds.), *Conflict and Social Transformation in Eastern DR Congo*, Gent: Gent Academia Press, 157-76.
- Kaiser, K., and S. Wolters (2013): 'Fragile States, Elites, and Rents in the Democratic Republic of the Congo (DRC)' in D. North, J. Wallis, S. Webb, and B. Weingast (eds.), *In the Shadow of Violence: Politics, Economics, and the Problems of Development*, Cambridge: Cambridge University Press.
- Katzenellenbogen, S. (1996), 'It Didn't Happen at Berlin: Politics, Economics and ignorance in the Setting of Africa's Colonial Boundaries', in P. Nugent and A. Asiwaju (eds.), *African Boundaries: Barriers, Conduits and Opportunities*, NY: Pinter.
- Lacroix, J.-L. (1965), 'Le concept d'Import Substitution dans la théorie du développement économique', *Université Lovanium, Institut de Recherches Economiques et Sociales, Cahiers Economiques et Sociaux*, III(2): 141-76.
- Lake, D., M. Baum, and A. Matthew (2001), 'The Invisible Hand of Democracy: Political Control and the Provision of Public Service', *Comparative Political Studies*, 34(6): 587-621.
- Leclercq, H. (1965), 'Un mode de mobilisation des ressources: le système fiscal. Le cas du Congo pendant la période coloniale', *Contribution à l'histoire économique du Congo, II, Cahiers Economiques et Sociaux*, III(2): 95-141.
- Leisz, S. (1998), 'Zaire country profile', in J. Bruce (ed.), *Country profiles of land tenure: Africa, 1996*, Wisconsin: University of Wisconsin.
- Lemarchand, R. (1964), *Political Awakening in the Belgian Congo*, Cambridge: Cambridge University Press.
- Lemarchand, R. (2003), 'The Democratic Republic of Congo: From Failure to Potential Reconstruction', in R. Rotberg (ed.), *State Failure and State Weakness in a Time of Terror*, Washington: Brookings Institution Press.
- Likaka, O. (1994), 'Rural protest: the Mbole against Belgian rule, 1897-1959', *The International Journal of African Historical Studies*, 27: 589-617.
- Lutundula-Report (2005), 'Assemblée Nationale Commission Spéciale Chargée de l'Examen de la Validité des Conventions a Caractere Economique et Financier', <http://www.freewebs.com/congo-kinshasa/>.
- MacGaffey, J. (1991), *The Real Economy of Zaire – The Contribution of Smuggling & Other Unofficial Activities to National Wealth*, Philadelphia: University of Pennsylvania Press.
- Mahoney, J. and K. Thelen (eds. 2010), *Explaining Institutional Change: Ambiguity, Agency, and Power*, Cambridge: Cambridge University Press.
- Mamdani, M. (1996), *Citizen and Subject. Contemporary Africa and the Legacy of Late Colonialism*, Princeton: Princeton University Press.
- Mamdani, M. (2001), *When Victims Become Killers: Colonialism, Nativism, and the Genocide in Rwanda*, Princeton: Princeton University Press.
- McNulty, M. (1999) 'The Collapse of Zaire: Implosion, Revolution or External Sabotage?', *The Journal of Modern African Studies*, 37: 53-82.
- Meditz, S. and T. Merrill (1993), *Zaire A Country Study (Library of Congress)*; Washington: The Division.



- Mukenge, L. (1974), *Businessmen of Zaire: Limited Possibilities for Capital Accumulation under Dependence*, PHD Thesis in Anthropology, McGill University.
- Musafiri, P. (2008), 'Democratic Republic of Congo. The dispossession of indigenous land rights in the DRC: A history and future prospects', in V. Couillard, J. Gilbert, J. Kenrick, A. Kidd (eds.), *Land rights and the forest peoples of Africa: Historical, legal and anthropological perspectives*, Brussels: Forest Peoples Programme.
- Ndikumana, L. and J. Boyce (1998), 'Congo's Odious Debt: External Borrowing and Capital Flight in Zaire', *Development and Change*, 29: 195-217.
- Ndikumana, L. and K. Emizet (2005), 'The Economics of Civil War: The Case of the Democratic Republic of Congo', in P. Collier and N. Sambanis (eds.), *Understanding Civil War – Evidence and Analysis, Vol. 1: Africa*, Washington: The World Bank.
- Ndongala, E. (1966), 'Développement Rural et Fonction Coopérative dans l'Agriculture Congolaise avant la Décolonisation', *Cahiers Economiques et Sociaux*, IV(4), Université Lovanium.
- Nelson, R. (2005), *Technology, Institutions, and Economic Growth*, Cambridge: Harvard University Press.
- North, D. (1990), *Institutions, Institutional Change and Economic Performance*, Cambridge: Cambridge University Press.
- North, D. (1994), 'Economic Performance through Time', *American Economic Review*, 84: 359–68.
- North, D. (2005), *Understanding the Process of Economic Change*, Princeton: Princeton University Press.
- North, D., J. Wallis, and B. Weingast (2009), *Violence and Social Orders, A Framework for Interpreting Recorded Human History*, Cambridge: Cambridge University Press.
- North, D., J. Wallis, S. Webb, and B. Weingast (eds. 2013), *In the Shadow of Violence: Politics, Economics, and the Problems of Development*, Cambridge: Cambridge University Press.
- Northrup, D. (1988), *Beyond the Bend in the River*, Ohio: Ohio University Center for International Studies.
- Northrup, D. (2007), 'Slavery and Forced Labour in the Eastern Congo, 1850-1910', in H. Medard and S. Doyle, *Slavery in the Great Lakes Region of East Africa*, Ohio: Ohio University Press.
- Nunn, N. and L. Wantchekon (2011), 'The Slave Trade and the Origins of Mistrust in Africa', *American Economic Review*, 101(7): 3221-52.
- Ostrom, E. (1990), *Governing the Commons: The Evolution of Institutions for Collective Action*, Cambridge: Cambridge University Press.
- Ostrom, E. (2005), *Understanding Institutional Diversity*, Princeton: Princeton University Press.
- Ostrom, E. (2008), 'Developing a Method for Analyzing Institutional Change', in S. Batie, and N. Mercuro (eds.), *Alternative Institutional Structures: Evolution and Impact*, NY: Routledge, 48–76.
- Olsson, O. (2009), 'On the democratic legacy of colonialism', *Journal of Comparative Economics*, 37(4): 534-551.

- Peemans, J.-Ph. (1997), *Le Congo-Zaire au Gre du XXe Siecle: Etat, Economie 1880-1990*, Paris: L'Harmattan.
- Persson, T. and G. Tabellini (2003), *The Economic Effects of Constitutions: What do the Data Say?* Cambridge: MIT Press.
- Pierson, P. (2004), *Politics in Time: History, Institutions, and Social Analysis*, Princeton: Princeton University Press.
- Posner, R. and E. Rasmusen (1999), 'Creating and Enforcing Norms, with Special Reference to Sanctions', *International Review of Law and Economics*, 19: 369-82.
- Prados de la Escosura, L. (2011), Human Development in Africa: A Long-Run Perspective, Ehes Working Papers In Economic History No. 8. [http://ehes.org/EHES\\_No8.pdf](http://ehes.org/EHES_No8.pdf).
- Rigobon, R. and D. Rodrik (2005), 'Rule of Law, Democracy, Openness, and Income: Estimating the Interrelationships', *The Economics of Transition*, 13(3): 533-64.
- Reno, W. (1998), *Warlord Politics and African States*, London: Lynne Rienner.
- Richens, B. (2009), The Economic Legacies of the "Thin White Line": Indirect Rule and the Comparative Development of Sub-Saharan Africa, Working Paper 131/09, Economic History Department (London School of Economics), [eprints.lse.ac.uk/27879/1/WP131.pdf](http://eprints.lse.ac.uk/27879/1/WP131.pdf) (accessed 9 December 2011).
- Robinson, J. (2013), 'Measuring institutions in the Trobriand Islands: a comment on Voigt's paper', *Journal of Institution Economics*, 9: 27-29.
- Rodrik, D. (2008), 'Second-Best Institutions', *American Economic Review*, 98(2): 100-4.
- Rodrik, D., A. Subramanian, A., and F. Trebbi (2004), 'Institutions Rule: The Primacy of Institutions over Geography and Integration in Economic Development', *Journal of Economic Growth*, 9: 131-65.
- Rodrik, D. (2005), 'Growth Strategies', in P. Aghion and S. Darlauf (eds.), *Handbook of Economic Growth Volume 1A*, Amsterdam: Elsevier.
- Rodrik, D. (2004), Industrial Policy for the Twenty-First Century, Centre for Economic Research DP 4767.
- Rodrik, D. (2012), *Globalization Paradox: Democracy and the Future of the World Economy*, New York: Norton.
- Roes, A. (2010), Centre or Periphery? The Colonial Administration and the Valorization of Congolese Natural Resources, 1885-1914. Presented at the African Economic History Workshop, London School of Economics.
- Roland, G. (2004), 'Understanding Institutional Change: Fast-moving and Slow-moving institutions', *Studies in Comparative International Development*, 38(4):109-131.
- Rubbers, B. (2004), 'La dislocation du secteur minier au Katanga: pillage ou recomposition?', *Politique Africaine*, 93: 21- 41.
- Schatzberg, M. (1988), *The Dialectics of Oppression in Zaire*, Bloomington: Indiana University Press.
- Schatzberg, M. (1997), 'Beyond Mobutu: Kabila and the Congo', *Journal of Democracy*, 8(4): 70-84.
- Seibert, J. (2010), 'More Continuity than Change? – New Forms of Unfree Labor in the Belgium Congo 1908-1930', in: M. van der Linden (ed.), *Humanitarian Intervention and*

- Changing Labor Relations: The Long-Term Consequences of the Abolition of the Slave-Trade*, Leiden, 369-386.
- Sen, A. (1981), *Poverty and Famines: an essay on entitlement and deprivation*, Oxford: Clarendon Press.
- Sen, A. (1999), *Development as Freedom*, Oxford: Oxford University Press.
- Shleifer, A. and R. Vishny (1993), 'Corruption', *Quarterly Journal of Economics*, 108: 599-617.
- Shirley, M. (2002 ed.), *Thirsting for Efficiency. The Economics and Politics of Urban Water System Reform*, Oxford: Elsevier Science.
- Shirley, M. (2008), 'Institutions and Development', in: C. Menard and M. Shirley (eds.), *Handbook of Institutional Economics*, New York: Springer.
- Shirley, M. (2008a), *Institutions and Development*, MA: Edward Elgar.
- Shirley, M. (2013), 'Measuring institutions: how to be precise though vague', *Journal of Institution Economics*, 9: 31-33.
- Slade, R. (1960), *The Belgian Congo. Some Recent Changes*, London: Oxford University Press.
- Slade, R. (1962), *King Leopold's Congo: Aspects of the Development of Race Relations in the Congo Independent State*, London: Oxford University Press.
- Stengers, Jean and J. Vansina (1985), 'King Leopold's Congo, 1886-1908', in O. Roland and G. Sanderson (eds.), *The Cambridge History of Africa. Volume 6: from 1870 to 1905* Cambridge: Cambridge University Press, 315-58.
- Streeck, W. and K. Thelen (eds. 2005), *Beyond Continuity: Institutional Change in Advanced Political Economies*, Oxford: Oxford University Press.
- Ulloa, A., F. Katz, and N. Kekeh (2009), *Democratic Republic of the Congo, A Study of Binding Constraints*, [http://www.hks.harvard.edu/fs/drodrik/Growth%20diagnostics%20papers/DRC\\_Growth\\_Diagnostic.pdf](http://www.hks.harvard.edu/fs/drodrik/Growth%20diagnostics%20papers/DRC_Growth_Diagnostic.pdf).
- UN (2001), *Report of the Panel of Experts on the Illegal Exploitation of Natural Resources and other Forms of Wealth of the Democratic Republic of the Congo (S/2001/357)*.
- UNDP (1990), *Human Development Report 1990: Concept and Measurement of Human Development*, New York: United Nations.
- US Department of State (2006), *Congo, Democratic Republic of the (Bureau of Democracy, Human Rights, and Labor)*, <http://www.state.gov/j/drl/rls/hrrpt/2006/78728.htm>.
- Van Acker, F. (2005), 'Where did all the land go? Enclosure & Social Struggle in Kivu (D.R.congo)', *Review of African Political Economy*, 32: 79-98.
- Van Reybrouk, D. (2012), *Kongo. Eine Geschichte*, Berlin: Suhrkamp Verlag.
- Vellut, J.-L. (1982), 'Hégémonies en construction: Articulations entre Etat et Entreprises dans le bloc colonial Belge (1908-1960)', *Revue Canadienne des Études Africaines*, 16(2): 313-330.
- Vellut, J.-L. (1983), *Articulations entre Entreprises et l'Etat: Pouvoirs Hégémoniques dans le Bloc Colonial Belge (1908-1960)*, Paris: L'Harmattan.

- Vlassenroot, K. and C. Huggins (2005), 'Land, migration and conflict in eastern DRC', in C. Huggins and J. Clover (eds.), *From the ground up: Land rights, conflict and peace in Sub-Saharan Africa*, SA: Institute for Security Studies, 115-195.
- Voigt, S. (2013), 'How (Not) to Measure Institutions', *Journal of Institutional Economics*, 9: 1-21.
- Wallis, J. and D. North (1986), 'Measuring the Transaction Sector in the American Economy, 1870-1970', in St. Engermann and R. Gallman (eds.), *Income and Wealth: Long-Term Factors in American Economic Growth*, Chicago: University of Chicago Press.
- Wallis, J. (2011), 'Institutions, Organizations, Impersonality, and Interests: The Dynamics of Institutions', *Journal of Economic Behavior & Organization*, 79(1-2): 48-64.
- Wauters, A. (1930), 'Belgian Policy in the Congo', *Journal of the Royal Institute of International Affairs*, 9(1): 51-62.
- Wedeman, A. (1997), 'Looters, Rent-Scrapers, and Dividend-Collectors: Corruption and Growth in Zaire, South Korea, and the Philippines', *The Journal of Developing Areas*, 3 (4): 457-78.
- Weingast, B. (1995), 'The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development', *Journal of Law, Economics and Organization*, 11: 1-31.
- White, B. (2005), 'The Political Undead: Is It Possible to Mourn for Mobutu's Zaire?', *African Studies Review*, 48(2): 65,-85.
- Williamson, O. (1985), *The Economic Institutions of Capitalism, Firms, Markets and Relational Contracting*, New York: Free Press.
- Williamson, O. (2000), 'The new institutional economics: taking stock, looking ahead', *Journal of Economic Literature*, 38(3): 595-613.
- Williamson, C. (2009), 'Informal institutions rule: institutional arrangements and economic performance', *Public Choice*, 139: 371-87.
- Wolfe, A. (1966), 'Capital and the Congo', J. Davis and J. Baker (eds.), *Southern Africa in Transition*, NY: Praeger Publishers.
- Young, C. (1965), *Politics in the Congo. Decolonization and Independence*, Princeton: Princeton University Press.
- Young, C. (1984), 'Zaire: Is There a State?', *Canadian Journal of African Studies*, 1: 80-83.
- Young, C. and Th. Turner (1985), *The Rise and Decline of the Zairian State*, Madison: University of Wisconsin Press.

## ANNEX: Tables and Figures

**Table 1: Institutions and outcomes**

	effective institutional change	ineffective institutional change	non-institutional change
institutions	change	change	persistence
outcomes	improvement	stagnation/deterioration	improvement

**Table 2: Institutional functions, indicators and evaluation questions**

Institutional functions	Indicators	Evaluation questions
political centralization	(1) degree of territorial control (2) degree of resource control (3) bottom-up accountability of authorities	(1) How much of a countries territory is effectively controlled by the government? (2) How broad is the material base of government? (3) How accountable are local authorities to those by whom they are ruled or administered?
plurality	(4) degree of political participation (5) access to organization (6) top-down accountability of authorities	(4) How many people have effectively access to the political process? (5) How many people have effectively access to private organizations? (6) How accountable are authorities to those they rule or administer?
rule of law	(7) access to legal procedures (8) arbitrariness of decision	(7) What share of the population can actually put others to trial? (8) How relevant is the danger of intervention by politicians or other elites in the juridical process?
security of property	(9) access to property (10) property at risk	(9) How constrained are people to buy and sell property and labor? (10) What risk of expropriation or other procedures threatening their property do people face?
economic liberty	(11) freedom of production (12) access to exchange	(11) How constrained are people to produce what and how they want and to choose their occupation? (12) How constrained are people to exchange what and how they want?

**Table 3: Institutional Development in the Congo, 1910s-2000s**

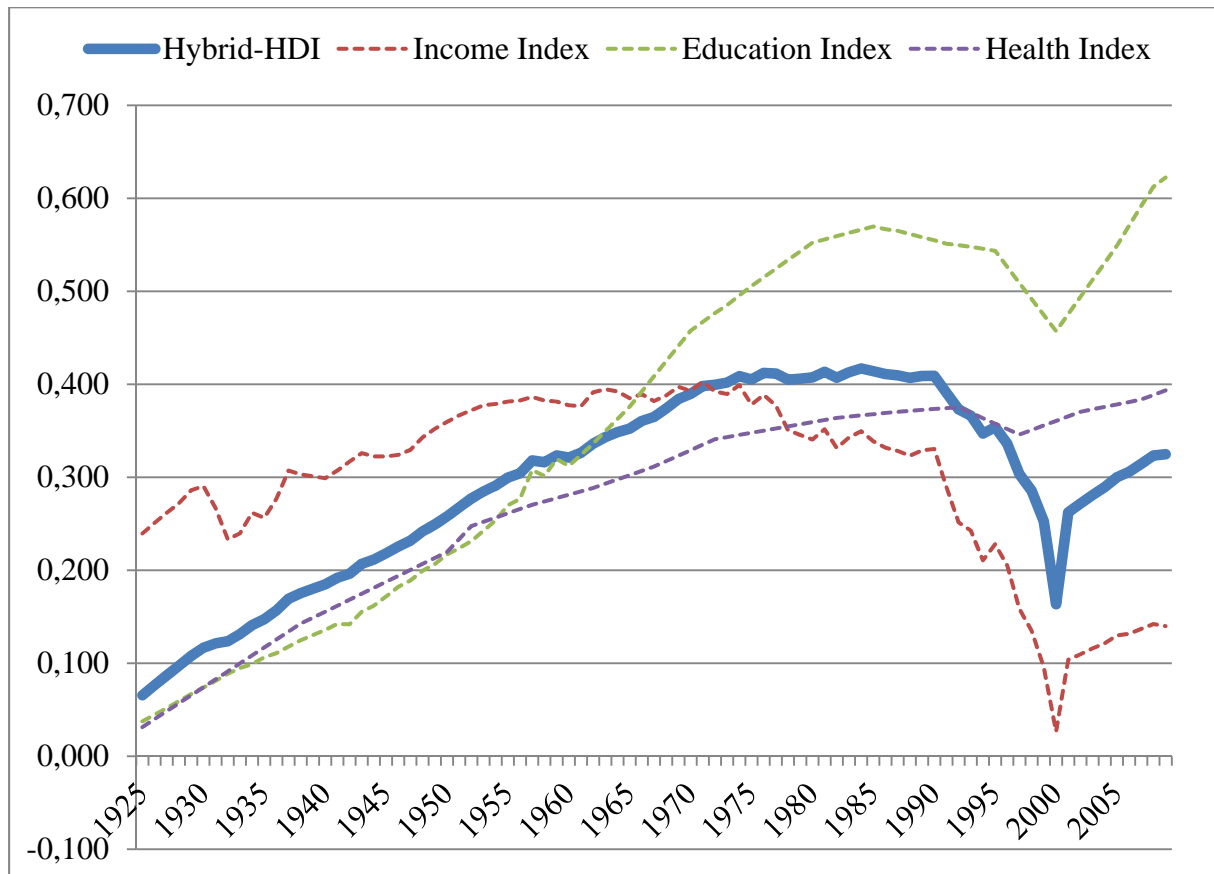
Indicators	1910s	1920s	1930s	1940s	1950s	1960s	1970s	1980s	1990s	2000s
(1) degree of territorial control	continuous increase					breakdown (early 1960s) and recovery		stable	breakdown (early 1990s) and low-level stabilization	
(2) degree of resource control	taxation increase (shift from poll to corporate/import tax) until 1970s; later deterioration of taxation (total in 1990s) increased resource exploitation (concessions, copper) until 1960, continuation afterwards, loss of control in the 1990s colonial transfers (non-linear increase), strategic rents (breakdown around 1990), ODA (increasing recently)									
(3) bottom-up accountability of authorities	increasing		stabilizing			deteriorating (personalization)			low accountability	
(4) degree of political participation	extremely restricted		slowly expanding		expansion	deterioration		by force	expansion	
(5) access to organization	slowly increasing (1920s: unions, 1940s: <i>évolués</i> , 1950s: parties)					single party	Zairanization (+) but authoritarianism (-)		high degree of instability	
(6) top-down accountability of authorities	practically absent					in theory only and deteriorating			none (by force only)	
(7) access to legal procedures	segregation (diversity of customary law enforcement)					in theory only and ineffective			practically absent	
(8) arbitrariness of decision	endemic impunity, insufficient and after the 1960s even decreasing level of enforcement									
(9) access to property	practically absent (concessions, etc.)			<i>évolués</i>		expansion	ethnization	nationalization	by force only	
(10) property at risk	low risk (for the few in possession)					increasing risk (cronyism)			total lack of security	
(11) freedom of production	widespread directly and indirectly forced labor				still limited access		state monopolies	increasing informalization		
(12) access to exchange	limited by decree (state monopolies, concessions, etc.), food trade partly free (forced supply if necessary), smuggling and trade taxes					free in theory (“get what you can”), high tariffs, smuggling		free by force, large scale smuggling		

**Table 4: Documented Violent Events (1920-2009)**

Name and duration	place	Recorded death tolls
Watsi-Kengo rebellion, 1920-1923,	the Salonga and the Lomela rivers	NA
Bas Congo peasant protests 1920-1922	Bas Congo	NA
Peasant protests, throughout the 1930s	various, recurrent	NA
Pende Revolt, 1931	heavy fighting (Pende)	minimum 400 (official Belgian figures)
Strikes and rebellions in Katanga, 1941	Katanga	min 60 deaths, 100s of injured (qualitative assessment many, many people died during the protests)
Masisi-Lubut rebellion, 01/1944-05/1944, Luluabourg protests, 1944 (4 months ongoing) Matadi Rebellion, 1944, several more rebellions	Katanga, Kivu, Matadi	Casualties were several 100s (railway employees and peasants, women, children, dock workers)
Protests throughout the country (Belgians announced release of the country into independence in 1985)	All over the country	NA
Kinshasa protests, 1/1959 (after a football game), Kinshasa unrest after dissolving ABAKO party event, 4 <sup>th</sup> Jan 1959 (several days), Stanleyville	Kinshasa, Stanleyville, several other spots throughout the country	Officially: 47 death (241 injured), eyewitnesses: several 100s Deaths and injured (no exact figure) Officially: 49 Congolese, 49 Europeans (Slade 1960: 49, estimates: Dozens)
Katanga secession, 7/1960-1/1963	Katanga region	80,000-110,000
Kasai secession, 8/1960-2/1962	Kasai region	2,000-5,000
Kwilu rebellion, 1/1964-12/1965	Kwilu region	3,000-6,500
Eastern rebellion, 4/1964-7/1966	South Kivu and North Katanga; Army = Simba	200 whites, over 46,000 nationals
Shaba I, 3/1977-5/1977	Shaba region	850-1,200
Shaba II, 7/1978-6/1978	Shaba region	1,000-3,500
Anti-Mobutu rebellion, 10/1996-5/1997	Large army, conquered the country	234,000-237,000
Anti-Kabila rebellion and aftermath instable situation, 8/1998-2007	Kivu, Equateur, Katanga, Kasai	Directly war-related violent deaths are estimated at about 300,000 (from a study of "excess mortality," estimating the overall conflict-related losses to 5.4 million deaths).

Sources: van Reybrouk (2011: 195-198, 231-4, 243, 293-4, 297, 304), Ndikumana and Emizet (2005: Table 3.1), Coghlan et al. (2007: 13).

**Figure 1: Hybrid-HDI (1925-2009)**



**Sources:**

- *Income*: income data for 1960-2009 is taken from PWT (2012) for GDP per capita in 2005 PPP\$ (chain rule), and connected for 1925-59 with indexed “produit par tête” from Bezy et al. (1981): 191.
- *Education*: enrollment data is taken from Frankema (2013): 221-5 (primary, secondary and tertiary gross enrollment; annual data for the Congo, partially extrapolated); literacy-data is calculated from primary enrollment and population data taken from Frankema (2013) and UNPD (2010) and adjusted with Prados de la Escosua (2011): 65 (decadal data for Central Africa on literacy).
- *Health*: life expectancy at birth for 1950-2010 (quinquennial data) is taken from UNPD (2010) and projected backwards using Prados de la Escosua (2011): 65 (decadal data for Central Africa on life expectancy at birth).
- All transformations are own calculations following the methodology outlined in Prados de la Escosura (2011).

**References:**

Bezy et al. (1981): Bezy, Fernand, Peemans, Jean-Philippe, Wautelet, Jean-Marie: *Accumulation et sous-développement au Zaïre, 1960-1980*, Louvain, Presses Universitaires de Louvain.

Frankema (2013): Frankema, Ewout: “Colonial Education and Postcolonial Governance in the Congo and Indonesia”, in: *Colonial Exploitation and Economic Development: The Belgian Congo and the Netherlands Indies Compared*, edited by Ewout Frankema and Frans Buelens, London: Routledge.

Prados de la Escosura (2011): Prados de la Escosura, Leandro: *Human Development in Africa: A Long-Run Perspective*, EHES Working Papers in Economic History No. 8, [http://ehes.org/EHES\\_No8.pdf](http://ehes.org/EHES_No8.pdf).

PWT (2012): Alan Heston, Robert Summers and Bettina Aten, *Penn World Table Version 7.1*, Center for International Comparisons of Production, Income and Prices at the University of Pennsylvania, November 2012, [https://pwt.sas.upenn.edu/php\\_site/pwt\\_index.php](https://pwt.sas.upenn.edu/php_site/pwt_index.php).

UNPD (2010): *World Population Prospects, the 2010 Revision*, <http://esa.un.org/unpd/wpp>.



University of Innsbruck - Working Papers in Economics and Statistics  
Recent Papers can be accessed on the following webpage:

<http://eeecon.uibk.ac.at/wopec/>

- 2013-09 **Andreas Exenberger, Simon Hartmann:** How does institutional change coincide with changes in the quality of life? An exemplary case study
- 2013-08 **E. Glenn Dutcher, Loukas Balafoutas, Florian Lindner, Dmitry Ryvkin, Matthias Sutter:** Strive to be first or avoid being last: An experiment on relative performance incentives.
- 2013-07 **Daniela Glätzle-Rützler, Matthias Sutter, Achim Zeileis:** No myopic loss aversion in adolescents? An experimental note
- 2013-06 **Conrad Kobel, Engelbert Theurl:** Hospital specialisation within a DRG-Framework: The Austrian case
- 2013-05 **Martin Halla, Mario Lackner, Johann Scharler:** Does the welfare state destroy the family? Evidence from OECD member countries
- 2013-04 **Thomas Stöckl, Jürgen Huber, Michael Kirchler, Florian Lindner:** Hot hand belief and gambler's fallacy in teams: Evidence from investment experiments
- 2013-03 **Wolfgang Luhan, Johann Scharler:** Monetary policy, inflation illusion and the Taylor principle: An experimental study
- 2013-02 **Esther Blanco, Maria Claudia Lopez, James M. Walker:** Tensions between the resource damage and the private benefits of appropriation in the commons
- 2013-01 **Jakob W. Messner, Achim Zeileis, Jochen Broecker, Georg J. Mayr:** Improved probabilistic wind power forecasts with an inverse power curve transformation and censored regression
- 2012-27 **Achim Zeileis, Nikolaus Umlauf, Friedrich Leisch:** Flexible generation of e-learning exams in R: Moodle quizzes, OLAT assessments, and beyond
- 2012-26 **Francisco Campos-Ortiz, Louis Putterman, T.K. Ahn, Loukas Balafoutas, Mongoljin Batsaikhan, Matthias Sutter:** Security of property as a public good: Institutions, socio-political environment and experimental behavior in five countries
- 2012-25 **Esther Blanco, Maria Claudia Lopez, James M. Walker:** Appropriation in the commons: variations in the opportunity costs of conservation

- 2012-24 **Edgar C. Merkle, Jinyan Fan, Achim Zeileis:** Testing for measurement invariance with respect to an ordinal variable
- 2012-23 **Lukas Schrott, Martin Gächter, Engelbert Theurl:** Regional development in advanced countries: A within-country application of the Human Development Index for Austria
- 2012-22 **Glenn Dutcher, Krista Jabs Saral:** Does team telecommuting affect productivity? An experiment
- 2012-21 **Thomas Windberger, Jesus Crespo Cuaresma, Janette Walde:** Dirty floating and monetary independence in Central and Eastern Europe - The role of structural breaks
- 2012-20 **Martin Wagner, Achim Zeileis:** Heterogeneity of regional growth in the European Union
- 2012-19 **Natalia Montinari, Antonio Nicolo, Regine Oexl:** Mediocrity and induced reciprocity
- 2012-18 **Esther Blanco, Javier Lozano:** Evolutionary success and failure of wildlife conservancy programs
- 2012-17 **Ronald Peeters, Marc Vorsatz, Markus Walzl:** Beliefs and truth-telling: A laboratory experiment
- 2012-16 **Alexander Sebald, Markus Walzl:** Optimal contracts based on subjective evaluations and reciprocity
- 2012-15 **Alexander Sebald, Markus Walzl:** Subjective performance evaluations and reciprocity in principal-agent relations
- 2012-14 **Elisabeth Christen:** Time zones matter: The impact of distance and time zones on services trade
- 2012-13 **Elisabeth Christen, Joseph Francois, Bernard Hoekman:** CGE modeling of market access in services
- 2012-12 **Loukas Balafoutas, Nikos Nikiforakis:** Norm enforcement in the city: A natural field experiment *forthcoming in European Economic Review*
- 2012-11 **Dominik Erharder:** Credence goods markets, distributional preferences and the role of institutions
- 2012-10 **Nikolaus Umlauf, Daniel Adler, Thomas Kneib, Stefan Lang, Achim Zeileis:** Structured additive regression models: An R interface to BayesX
- 2012-09 **Achim Zeileis, Christoph Leitner, Kurt Hornik:** History repeating: Spain beats Germany in the EURO 2012 Final

- 2012-08 **Loukas Balafoutas, Glenn Dutcher, Florian Lindner, Dmitry Ryvkin:** To reward the best or to punish the worst? A comparison of two tournament mechanisms with heterogeneous agents
- 2012-07 **Stefan Lang, Nikolaus Umlauf, Peter Wechselberger, Kenneth Harttgen, Thomas Kneib:** Multilevel structured additive regression
- 2012-06 **Elisabeth Waldmann, Thomas Kneib, Yu Ryan Yu, Stefan Lang:** Bayesian semiparametric additive quantile regression
- 2012-05 **Eric Mayer, Sebastian Rueth, Johann Scharler:** Government debt, inflation dynamics and the transmission of fiscal policy shocks
- 2012-04 **Markus Leibrecht, Johann Scharler:** Government size and business cycle volatility; How important are credit constraints?
- 2012-03 **Uwe Dulleck, David Johnston, Rudolf Kerschbamer, Matthias Sutter:** The good, the bad and the naive: Do fair prices signal good types or do they induce good behaviour?
- 2012-02 **Martin G. Kocher, Wolfgang J. Luhan, Matthias Sutter:** Testing a forgotten aspect of Akerlof's gift exchange hypothesis: Relational contracts with individual and uniform wages
- 2012-01 **Loukas Balafoutas, Florian Lindner, Matthias Sutter:** Sabotage in tournaments: Evidence from a natural experiment *forthcoming in Kyklos*

University of Innsbruck

Working Papers in Economics and Statistics

2013-09

Andreas Exenberger, Simon Hartmann

How does institutional change coincide with changes in the quality of life? An exemplary case study

**Abstract**

This paper provides a framework to assess correlations between the change of institutional functions (political centralization, plurality, rule of law, security of property, economic liberty, measured by 12 indicators) and improvements in human development (income, education, health) and violence limitations (conflict-related death tolls) to separate effective from ineffective institutional change. We apply this framework to a low-end institutional environment and provide a century case study of today's Democratic Republic of the Congo (DRC). Major results are threefold: first, we provide a thick description of institutional development in the Congo in a colonial and post-colonial and hence long-run setting; secondly, we identify periods of institutional change with distinctly different degrees of effectiveness; and thirdly, we are able to provide qualitative information on the questions of perspective (we follow a non-elitist approach), institutional connections, and timing of effects. Finally we propose extension of the framework, especially with respect to in-depth studies of critical transition periods, and its application to comparative case studies.

ISSN 1993-4378 (Print)

ISSN 1993-6885 (Online)