

MAFE Working Paper 2

**Political turmoil, economic crises, and
international migration in DR Congo**
Evidence from event-history data (1975-2007)

SCHOUMAKER Bruno, Université catholique de Louvain

VAUSE Sophie, Université catholique de Louvain

MANGALU José, Université de Kinshasa

April 2010



*Funded under the
Socio-economic
Sciences & Humanities
Theme*



The MAFE project is coordinated by INED (C. Beauchemin) and is formed, additionally by the Université catholique de Louvain (B. Schoumaker), Maastricht University (V. Mazzucato), the Université Cheikh Anta Diop (P. Sakho), the Université de Kinshasa (J. Mangalu), the University of Ghana (P. Quartey), the Universitat Pompeu Fabra (P. Baizan), the Consejo Superior de Investigaciones Científicas (A. González-Ferrer), the Forum Internazionale ed Europeo di Ricerche sull'Immigrazione (E. Castagnone), and the University of Sussex (R. Black). The MAFE project received funding from the European Community's Seventh Framework Programme under grant agreement 217206. The MAFE-Senegal survey was conducted with the financial support of INED, the Agence Nationale de la Recherche (France), the Région Ile de France and the FSP programme 'International Migrations, territorial reorganizations and development of the countries of the South'. For more details, see: <http://www.mafeproject.com>

ABSTRACT

This study documents the impact of political and economic crises in DR Congo on international migration since the mid 1970s. Using a recent longitudinal survey conducted in Kinshasa and event history models, we show that political and economic troubles have influenced migration from DR Congo. Separate models by destination show notably that political crises have had a strong impact on migration to developed countries, while both political and economic troubles influenced migration to African countries. Finally we show that migration is less selective with respect to education in times of political crises.

1. Introduction

Since its independence in 1960, DR Congo¹ has been hardly hit by economic and political crises. The deteriorating economic context and the wars that have affected the country over the last decades epitomize the complex situations faced by many African countries. Political instability in DR Congo has generated large flows of refugees to neighboring countries², illustrating the impact of crises on international migration. Since the 1980s, migration flows from DR Congo to Europe (measured with immigration statistics and asylum claims) have also increased significantly (Migration Policy Institute, 2007) and are thought to be reflecting the deteriorating economic and political situation in the country (Sumata, 2002a).

Although the existing data suggest a link between deteriorating political and economic conditions and international migration, the impact of crises on international migration in DR Congo has received very little attention in the scientific literature. One reason may be that this impact seems obvious. Yet, research in other contexts (mainly in

Latin America) has shown that the influence of political and economic crises on migration may be complex, and that crises do not necessarily increase international migration. Previous research also suggests that economic or political crises may influence migration to different destinations in different ways (Massey and Capoferro, 2006; Jokisch and Pribilsky, 2002). Likewise, crises can influence the composition of the flows of migrants or, said differently, can have different effects on different categories of people (Massey and Capoferro, 2006; Jones, 1989).

The lack of studies on this topic also reflects the lack of appropriate data. Data on migration flows from DR Congo to African countries are very limited (not to say inexistent). Data on 'stocks' of refugees (UNHCR, 2010a), and on the variations in stocks of refugees (Moore and Shellman, 2004) provide useful information to analyze trends in migrations. However, they cover refugees and refugee-like people (UNHCR, 2010b), but do not include other categories of migrants. Data on refugees may also be affected by serious measurement error³, and often do not include individual characteristics (age, sex...) of refugees.

In Western countries, existing data on Congolese migration mainly include data on flows of Congolese immigrants and asylum seekers. While these data are also very useful, they have several drawbacks for analyzing the impact of crises on migration from DR Congo (and from developing countries more generally). First, the analyses are conditioned by the availability of data in the destination countries, and such data are not readily available in many countries.⁴ Lack of data on undocumented migrants is another limitation. In addition, the dates recorded in the statistics on immigration and asylum demands may not correspond to the dates of departure of the countries of origin, and may not be appropriate to analyze the relationship between crises and migration⁵.

Finally, aggregate data on migration flows do not allow analyzing differential migratory responses according to individual characteristics.

The aim of this study is to document the impact of political and economic crises in DR Congo on international migration, using a recent longitudinal survey on international migration conducted in Kinshasa (MAFE-Congo 2007)*. These individual data collected in the origin area allow more detailed analyses than the aggregate data presented above. Using event history models, they are combined with macro-level variables to measure the impact of political and economic crises on migration (see details in data section).

This paper is organized around three objectives:

(1) The first objective is to measure the impact of economic and political crises on the risks of international migration. Even though the impacts of economic and political changes are not easily disentangled in migration analysis (Morrison, 1993), we take into account both political and economic macro-level variables to distinguish their influences on migration.

(2) The second objective is to test if political and economic crises have had similar effects on migrations to African countries and to Western countries (Europe and North America). Existing data make it difficult to estimate if some destinations are preferred during crisis. While aggregate data on immigration and asylum claims in European countries suggest that European countries are particularly attractive in times of crises, such conclusions do not take into account the fact that migration to other destinations may also increase.

(3) The third objective of this study is to evaluate if economic and political changes influence different people in different ways. More specifically, we test the hypothesis that migration is less selective with respect to education in times of economic and political troubles or, said differently, that the impact of crises is stronger on the less educated than on the more educated people.

2. The Political and Economic Context in DR Congo

The Democratic Republic of Congo is one of the largest countries in Sub-Saharan Africa. It is the second largest Sub-Saharan African country in term of area (after Sudan), and with a population estimated at 59 millions in 2005 (United Nations, 2009), DR Congo is also the third most populated country in Sub-Saharan African (after Nigeria and Ethiopia), and the largest country in francophone Africa. DR Congo is currently one of the poorest countries in the World. According to the Human Development Index (UNDP, 2009), it ranked 177 out of 179 countries in 2008.

Since the country gained independence in 1960, Congo has experienced a series of economic downturns and of episodes of political instability. Overall, seven broad periods can be distinguished in the country's political and economic history (**Erreur ! Source du renvoi introuvable.**). The period from 1960 to 1965 (First republic) started with independence from Belgium and ended with the seizing of power by Joseph Mobutu (Stengers, 1989; Ndaywel, 1998; Bamba, 2003). That period was a time of political instability, in which several parties struggled for power, most of which were constituted on regional or tribal grounds (Putzel et al., 2008). From the economic point of view, the period was characterized by a stagnating economy, high inflation, and a deterioration of external balance (Peemans, 1997; RDC and UNDP, 2000). However, the repercussions of the economic troubles on the population are thought to have been

limited at that time, notably because infrastructure and social systems were still operating (Ndaywel, 1998).

-- Table 1 about here --

The Mobutu regime started at the end of 1965, and opened a new era in Congo's political and economic history (the Second Republic), which lasted from 1965 to 1997. At first the political situation was fairly stable, and the country's economy also improved at the beginning of the Second Republic. Between 1965 and 1974, the average GDP growth rate was around 7% per year (Nzisabira, 1997; RDC and PNUD, 2000). The high prices on the world copper market, the increase of foreign direct investments, and the growing internal market all contributed to the positive economic performances (Peemans, 1997; Nzisabira, 1997). However, government spending and debts also increased during that period, notably to fund projects of dubious profitability (Peemans, 1997; Nzisabira, 1997; RDC and PNUD, 2000).

Between 1975 and 1982, the economic situation seriously deteriorated. The 1973 oil crisis, along with the collapse of the price of copper (1974) and of other commodities, and bad economic policy (notably the process of zaïrianisation of the economy which started in 1973), ruined the benefits of the preceding period (Peemans, 1997; Nzisabira, 1997). Foreign investments decreased, public expenditures increased, and the country accumulated a large foreign debt, in unfavourable conditions (RDC and PNUD, 2000). From 1975 to 1978, the GDP dropped by 3.5 percent annually. That period was also characterized by political turmoil. Opponents to the regime started wars to try gain control of the country, notably in 1977 and in 1978 (Shaba wars). The

support of Western countries was decisive to control the rebellions (Peemans, 1997; Ndaywel, 1998).

The period from 1983 to 1989 started with economic reforms, and with a slight increase of the GDP, along with the start of a structural adjustment program with the World Bank and the IMF (Nzisabira, 1997; RDC et PNUD, 2000). In 1986, the country broke off the negotiations with Bretton Woods institutions, and the GDP growth rate plunged (Nzisabira, 1997; Mutamba Lukusa, 1999). Inflation increased (from 65% in 1986 to 75% in 1987), and the devaluation of the currency accelerated (Peemans, 1997). At the end of that period, the GDP growth rate was negative (-1.3 % in 1989). This also coincided with the end of the cold war and with serious changes in the political situation in DR Congo.

The 1990s is one of the darkest periods in Congo's recent political and economic history. The combined pressure of the internal opposition and of the international community forced the President Mobutu to announce (in April 1990) the democratization of the regime. However, the democratization process not only lagged, but was also accompanied by political instability. Riots erupted in 1991, shortly after the *Conférence Nationale Souveraine* was set up to decide the future of the country (Hesselbein, 2007). The political situation was very tense and unstable. In 1994, the genocide in Rwanda leads to massive flows of people from Rwanda to DR Congo, mainly refugees but also "members of the former Rwandese Government along with the army and militias who had organized and committed the genocide (Hesselbein, 2007: 38). This contributed to political instability in DR Congo. In 1996, with the support of Rwanda, Uganda and Angola, Laurent-Désiré Kabila declared war on the Mobutu regime (McCalpin, 2002). By May 1997, Mobutu had fled to Morocco and the

rebellion led by Laurent-Désiré Kabila (AFDL) had seized power. In 1998, “Rwanda and Uganda orchestrated another rebellion in eastern Congo – this time with the goal of deposing the man they had imposed a year earlier” (Dunn, 2002: 63). This was the start of the second Congo War, which was to last until 2003.

Laurent-Désiré Kabila remained in power until he was assassinated in January 2001. He was replaced by his son Joseph, who quickly made overtures to the international community, with the willingness to move towards peace (Putzel et al., 2008). From 2002, violence was significantly reduced after agreements were signed by the belligerents (Hesselbein, 2007), and the second Congo War officially ended in 2003. In 2006, elections were organized and Joseph Kabila was elected President. Despite the end of the war, eastern Congo has continued to be regularly prone to violence.

The 1990s were also characterized by a rapid deterioration of the economic situation. The estimated GDP growth rate, which was already negative at the beginning of the period, decreased from -6.6% in 1990 to -14% in 1999. Congo’s economy was struck by hyperinflation, and the country’s public debt also soared. Official Development Aid also decreased drastically in the 1990s (Hesselbein, 2007; Mutamba Lukusa, 1999). During that period, the purchasing power of the Congolese population declined considerably.

Since the year 2000, and especially since 2003, the economic context and living conditions of the population have slightly improved. In 2002, the country experienced positive GDP growth rates for the first time since 1995. The improvement in the economic situation is explained by the post-war reunification of the country, by the resumption of international development aid, the control of public finances, and a

massive injection of foreign currency by the IMF (IMF, 2002). However, the living conditions of the Congolese population remain extremely difficult.

As shown by this overview, Congo's history has been characterized by large economic and political changes. It is also clear that, in DR Congo as elsewhere, economic and political troubles are closely intertwined (Akokpari 1999; Smith 1992), which makes it difficult to disentangle their effects on migration. However, political and economic conditions are not perfectly correlated, and results of event history models shed light on their respective effects on international migration.

3. Congolese Migration over the Last Decades

As noted by several researchers, Congolese migration has been little studied (Ngoie Tshibambe and Vwakyankazi, 2008). In Western countries, Congolese migration has mainly been studied using immigration statistics and statistics on asylum seekers. In African countries, data sources are even scarcer, and quantitative research on Congolese migration to other African countries are not readily available, apart from some research on migration to South Africa (Steinberg 2005). Despite the lack of data and studies, it is possible to draw a general picture of Congolese migration.

Congolese migrations within Africa are to a large extent directed to neighbouring countries. For instance, Angola and Congo-Brazzaville are major destinations for migrants originating from Western Congo, where Kinshasa is located (Schoumaker, Mangalu and Vause, 2009), while Zambia is a common destination for migrants coming from Katanga in South-Eastern Congo (Ngoie Tshibambe and Vwakyankazi, 2008). Congolese migrations to neighbouring countries also include movements of refugees, which have been quite large since Congo's independence. In 2008, according to the UNHCR (2010a), more than 200 000 Congolese refugees were living in neighbouring

countries, most of them in Tanzania, Zambia, Rwanda and Uganda. Since the 1990s, South Africa has also become a major destination for Congolese migrants (Steinberg, 2005; Sumata, 2002). It started increasing in 1989 and intensified in the early 1990s as a result of economic uncertainty (Steinberg, 2005) as well as political instability and looting (Kadima 1999, Ngoie Tshibambe and Vwakyankazi, 2008; Sumata, 2002b). Between 1994 and 2004, around 25 000 Congolese applied for refugee status in South Africa (Crush, 2008). More than 20 000 Congolese were registered as refugees in South Africa in the early 2000s, and many more were living without refugee status (Steinberg 2005).

Congolese migration to Western countries has also increased significantly over the last 30 years, according to migration statistics in selected European Countries. Congolese migration to Europe started in the early 1960s, after Congo gained its independence from Belgium. At that time, migration to Europe was primarily a migration of elites moving to Belgium for training (Kagne and Martiniello, 2001; Ngoie Tshibambe and Vwakyankazi, 2008). In the 1980s, economic migration gained momentum and, since the 1990s, asylum-seekers have represented a very large proportion of Congolese migrants in Europe. Over the past 30 years, the profiles of Congolese migrants and their destinations have also progressively diversified (Sumata 2002a; Ngoie Tshibambe and Vwakyankazi, 2008). While Congolese migrants were mainly constituted of elites before the 1980s, less educated and poorer people are thought to have increasingly participated in international migration to Western countries (Sumata, 2002a). Destinations have also changed: France became an increasingly popular destination among Congolese and, more recently, the United Kingdom and Germany have attracted a sizeable share of the Congolese migrants in Europe (Sumata,

Trefon and Cogels, 2004). Other destinations such as Canada and the United States have also become increasingly popular among Congolese migrants, but the number of Congolese migrants living in these countries remains much lower than in Europe. Currently, the largest communities of Congolese migrants in Western countries live in France (approximately 90 000 Congolese migrants in the early 2000s, see Bazenguissa-Ganga, 2005) and in Belgium (approximately 50,000 Congolese migrants in 2007, Schoonvaere, 2009).

Although data and research point to increasing numbers of Congolese migrants in African, European and North American countries, especially since the 1990s, there is a lack of research on the timing of migrations and on the characteristics of migrants. If one wants to link increasing migration with economic and political troubles, time series on migration are needed. In African countries, statistics on migration flows are lacking, and to our knowledge, no study has been done on Congolese migration trends to African countries. In Europe, immigration statistics and statistics on asylum seekers provide a more detailed picture of variations in Congolese migration over the last decades. The available data suggest that migration from DR Congo to Europe was especially intense during the periods of crisis in DR Congo since the early 1990s. According to Sumata (2002a: 625), the “unprecedented level of political and socioeconomic crises was a fertile ground for continuing [Congolese] immigration [to Europe]”. However, data on annual migration flows to Europe may be difficult to interpret for several reasons: lack of data on undocumented migrants, time lag between departure from Africa and arrival in Europe, lack of information on place of departure of migrants. As stated before, lack of data on the characteristics of migrants also hamper detailed analyses of Congolese

migration, and of the differential impacts of crises according to individual characteristics.

4. Crises and Migrations: A Brief Review of the Literature

To date, the impact of macro economic and political conditions on migration has, surprisingly, received relatively little attention in developing countries. From a theoretical point of view, many authors recognize that macro-economic and political conditions are major driving factors in migration. For instance, in the African context, Adepoju (1994) mentions four types of macro conditions that can explain migration dynamics: the deterioration of economic conditions, changes in demographic population (which increase under unemployment), political instability and cultural practices (traditional practices tend to push young people to leave the country). According to him, economic conditions and political instability are the two most important factors behind the flows of migrants and refugees. Yet, empirical analyses on this topic, especially in sub-Saharan Africa, are quite scarce.

Migratory responses to wars and political turmoil (including movements of refugees and asylum-seekers) have been documented in places like ex-Yugoslavia (Conti and Mamolo 2007), the Gulf Countries (Addleton, 1991; Russell, 1992) and Vietnam (Merli, 1997). Moore and Shellman (2004: 723) also used a global sample of countries over 40 years to measure the impact of violence (wars, dissident violence...) on forced migration, and concluded that “violent behavior has a substantially larger impact on forced migration than variables such as the type of political institution or the average size of the economy”. All in all, political turmoil generally has a positive impact on migration, although – as we shall see later – this general conclusion should be qualified.

Most of the empirical literature on the impact of economic crises in departure countries on migration has been done on Latin American countries⁶. A recent paper by Massey and Capoferro (2006) studied the impact of the deteriorating economic context on international migration in Peru in the 1980s and the 1990s. Using longitudinal data of the Latin American Migration Project (LAMP) and event history models, they showed that the start of the structural adjustment programme, along with the deterioration of employment opportunities and wages, coincided with an increase in international migrations. They also showed a diversification of the destinations of migrations (with an increase of migration to European countries), as well as a decrease in the selectivity of migration. Their work indicates that, before the economic crisis, migration was more selective with respect to education. Their explanation is that, in a 'reasonably functioning labor market', people are likely to move to maximize earnings, and will be positively selected with respect to education, as expected from the neoclassical theoretical perspective (Massey and Capoferro, 2006). On the other hand, in periods of economic downturns, people tend to flee deteriorating economic conditions rather than seek to maximize earnings abroad, and migration becomes less selective. The authors suggest this type of behavior is more in line with the new economics of labor migration, according to which people move to overcome missing or failed markets.

Work was also done in Ecuador on this topic (Jokisch and Pribilsky, 2002), although the impacts of economic and political troubles on migration were not tested in statistical models. The authors consider that new Ecuadorian migrations are a response to economic and political crises. Before the 1990s, Ecuadorian international migrations were mainly directed to the United States. From the 1990s, Ecuador experienced a

political and economic crisis, which coincided with stronger immigration policies in the US. The authors observe increasing migration flows in times of crisis, a change in destinations (more migrations to European countries like Spain, France, Italy), and a diversification of migrants profiles in terms of gender (feminization) and socio-economic status. Contrary to results found by Massey and Capoferro in Peru, Jokisch and Pribilsky (2002: 91) suggest that migration to the United States are mainly done by “poor *campesinos* from the countryside”, while “migration to Spain is a phenomenon capturing the imagination of Ecuadorians of all classes”. In short, migration is also less selective in times of crises, but in a different way from what is found in Peru.

Little research has looked simultaneously at the effects of economic and political troubles on migration. One of the early works on this topic was done by Stanley (1987), who studied international migration from Salvador to the United States in the early 1980s, and tried to distinguish the impact of political and economic factors. Using aggregate time series data on migration flows (US Immigration and Naturalization Service apprehensions statistics) and indicators of economic and political troubles (political violence), Stanley (1987: 147) concluded that "fear of political violence is an important and probably the dominant motivation of Salvadorans who have migrated to the U.S. since the beginning of 1979". In contrast, economic factors were considered less important, although the author underlines that economic conditions interact with political turmoil in a number of ways, e.g. violence can “disrupt economic activities, thereby eliminating jobs and reducing pay levels” (Stanley, 1987: 133). Also working on migration from Salvador to the United States, Jones (1989) reached different conclusions. According to him, bad economic conditions did influence migration to the United States. A spatial analysis of regions of origin of migrants to the United States led

him to conclude that “political violence has most affected the relatively poor Northern provinces, but a lack of money and knowledge makes flight to the United States out of the question” (Jones, 1989: 194)⁷.

All in all, the existing research remains scarce, is overall not very recent and has led to mixed conclusions. The general idea is that deteriorating economic and political conditions tend to increase migration, although this should be qualified, notably because the impact can vary according to the destination of migration and according to the characteristics of individuals (e.g. education and gender). Research on the relative importance of political and economic crises has also provided mixed results. Finally, the impact of economic and political crises on African migration is almost totally absent from the literature.

In this paper, we treat the three following questions:

Question #1: *Do economic and political troubles increase migration?* Our hypothesis is that, as economic conditions deteriorate, people will move to neighboring countries or more distant countries to secure a job or better wages. As stated by the New Economics of Labour Migration, migration can be viewed as a risk-diminishing strategy in a context of market failures (Massey and Capoferro, 2006). As local possibilities of diversification are scarce in DR Congo, international migration is a major way of diversifying sources of income in a context of economic deterioration, hyperinflation and lack of credit and insurance markets (Sumata, 2002a). We also expect migration to increase in times of political troubles. People may flee to neighboring countries during wars⁸. Another reason why people moved during periods of political troubles may be due to the regime change, especially among people who used to be close to the Mobutu regime (Sumata, 2002a).

Question #2: Do the impacts of economic and political troubles on migration vary by destination? As discussed in the literature review, economic and political crises may have different impacts depending on the destination. We expect that the impact of deteriorating economic conditions will be larger on migration to Africa than on migration to Europe. Our hypothesis is that, as the economy deteriorates, financial resources to move to distant countries are less readily available, and people may be tempted to move to close countries with better economic prospects (e.g. South Africa, Angola). Although the impact of political crises on migration may also vary by destination, the differences are not obvious a priori. Fleeing to close countries may be easier, and as a result it may be expected that migration from Kinshasa to neighbouring countries would increase more than migration to Western countries. On the other hand, Western countries may be viewed as a safer alternative, and migration to these countries may increase to a greater extent in periods of political troubles.

Question #3: Is migration more or less selective according to education in times of crises? According to Massey and Capoferro (2006), migration is less selective in times of economic crises. Their argument can be summarized as follows: in periods of economic downturns (and probably in periods of political instability), people tend to flee deteriorating economic conditions rather than to maximize earnings abroad. As a result, the selectivity should be lower in periods of crisis than in periods of economic stability. A similar argument was also put forward by Sumata (2002a) in the case of DR Congo. According to him, in the 1990s, “both rich and poor had no choice but to seek political asylum” (Sumata, 2002a: 625). In contrast, Jones’ work on migration from Salvador to the United States (Jones, 1989), has pointed out that the poorest people were not able to migrate to the United States to flee violence in periods of political

crises. In other words, migration could be more selective with respect to education in times of crises.

5. Data

This study relies on retrospective data collected in Kinshasa (DR Congo) in August-September 2007 as part of a research project called “Crisis and international migration in DR Congo”. This project is a collaborative research project between the University of Kinshasa (DR Congo) and the University of Louvain (Belgium), and is part of an international research program on ‘Migration between Africa and Europe’ (MAFE⁹).

The survey was conducted among a representative sample of 943 households in Kinshasa, the capital city of DR Congo¹⁰. Selected retrospective data were collected in the household survey, and full life histories were also collected from 992 adults in these households (males and females, return migrants and non-migrants) aged between 20 and 60. Only data from the household questionnaire are used in this paper.

In all the households, questions were asked to identify all the people who had lived in the household at some point in time and who had gone abroad for at least three months, whether they were still living abroad or had returned to DR Congo. In addition, brothers and sisters of the household head and of his/her spouse who had lived out of DR Congo were also identified through this questionnaire. Data on the migrations of these individuals (year of departure, destination country, year of first return if the person returned, etc.) were collected. In addition, socio-demographic characteristics (age, gender, education, marital status and date of marriage, place of birth) were recorded for all the current members of the households as well as for the migrants. The availability of data for both migrants and non-migrants, as well as data on the timing of migration enables the use of event history models. In this research we use data on current

members of household and past members of households (data on brothers and sisters are not used, unless they were part of the household at some point in time).

Macro-level data are used in this research to measure changes in economic and political conditions. Two types of data are used. Political conditions are captured using an index of political troubles. The index is computed using the “Internal Wars and Failures of Governance, 1955-2007” data set prepared by the Political Instability Task Force (PITF) at the School of Public Policy (George Mason University)¹¹. The dataset includes four types of political instability events for all the years since 1955. These events include “ethnic wars, revolutionary wars, genocides and politicides, and adverse regime changes. Each annual record for each event includes three measures of magnitude and a composite magnitude score” (PITF 2009).¹² Our index of political troubles uses all four types of events, and is computed as a weighted average of the four composite magnitude scores, using principal components analysis. The first component, which explains 68% of the variance, is used as the index of political troubles. The value of this indicator is shown on Figure 1. Economic conditions are measured with the GDP growth rate. The GDP data were obtained from the World Development Indicators online data base (World Bank 2009). In the event history models, the average of these (standardized) indicators for the two preceding years is used. This is based on the idea that migrants respond with a time lag to deteriorating economic and political conditions, both because some time may be needed to realize that the situation is deteriorating, and some time may also be required to decide and organize the migration.

These indicators suffer from some limitations. For example, the GDP growth rate is affected by measurement errors. Also, the GDP does not necessarily measure precisely the deterioration of the living conditions of the population, especially in a

country with a large informal sector. However, it is one of the few indicators for which time series are available, and which reasonably describes economic conditions in the country. The index of political troubles also has some limitations. One of them is that all the conflicts are taken into account in the indicator even if they do not directly affect Kinshasa. However, we believe this indicator provides a more detailed picture of the intensity of political troubles in the country than simple dichotomous indicators.

6. Methods

Event history models are used to reconstruct migration trends and to evaluate the impact of political and economic crises on migration since 1975 among people aged 15. Event history models are particularly well-suited to study the impact of sudden economic and political changes on migration, as time-varying variables at micro and macro levels can be included in the models (Henry, Schoumaker and Beauchemin, 2004).

Piecewise exponential models are used (Allison, 1995; Blossfeld et al., 2007). These models rely on the organization of the data file as a person-period file. Each line in the data file represents a period of time during which the explanatory variables (including age and year) are constant. The dependent variable (dummy variable) indicates if the event (international migration) takes place during the time interval corresponding to the line in the data file. The rate of migration is supposed constant within each time interval. Age (in single years) and years are included in the models as time varying variables, so that in practice migration rates are allowed to vary each year and at each age. The model is estimated with Poisson regression (Allison 1995; Blossfeld et al. 2007), and an offset is included in the models to control for the varying lengths of the periods (exposure)¹³.

The population at risk of experiencing a migration includes all the people currently living in the households, and people who lived in the household in the past and who have migrated to another country for at least 3 months (whether they were still living abroad at the time of the survey or had returned to DR Congo). The data set includes non-migrants, return migrants, as well as migrants still living abroad. Individuals are included in the data set from age 15 and from year 1975. For people older than 15 when entering the data set (1975), this corresponds to a situation of late entry (left truncation) (Allison, 1995; Guo, 1993). The analysis period starts in 1975 for two reasons. First, because of the retrospective nature of the migration data, sampling errors increase as one goes back in time and as the sample size gets smaller. Moreover, as explained in section 2, the economic and political situation was fairly stable until the mid 1970s. The analyses are also restricted to migration after age 15, as we are interested in autonomous migration¹⁴.

The reconstruction of migration trends is done using the piecewise exponential model only including age and year as independent variables. A linear function of age and logarithm of age is included in the model to control for age, and calendar time (years) is taken into account in the models in two separate ways. First, it is included as a series of dummy variables (non parametric approach), in order to measure annual variations in migration risks. Secondly, linear splines are fitted to smooth migration rates and to identify breaking points in migration trends. The number and location of the knots (breaking points) are estimated using a stepwise forward method of selection (Marsh and Cormier, 2001).¹⁵ Results are presented in Section 7.1.2.

Piecewise exponential models are also used to test the impact of political and economic troubles on migration rates. Three series of models are estimated, that correspond to the 3 research questions.

The first series of models are fitted to measure the impact of political and economic troubles on migration rates (Question #1). The two indicators of political and economic troubles are first included separately in the models, and are then included jointly. Individual variables (age, marital status, education) are controlled in the models, as well as a variable measuring the migration trend (year).

The second series of models is similar to the first series, but distinguishes migration by broad destination (Europe and North America vs. Africa). These models are fitted to test if the impact of economic and political troubles on migration varies by destination (Question #2). Separate analyses rely on recoding the dependant variable to take into account the migration of interest. For example, if one is interested in migrations to Europe and North America, the dependant variable is equal to 1 if a person migrates to Europe or North America, and zero otherwise. Migration to the other region is considered as censoring.

Finally, the third series of models explores the interactions between economic and political troubles and education. More specifically, the objective is to identify if migration is less or more selective with respect to education in times of crisis (Question #3). Said differently, these models aim at testing if crises impact different people in different ways. Models with interactions are estimated separately for migration to Western countries, African countries and all countries.

7. Results

We first present descriptive results, and next turn to the event history models corresponding to the three research questions.

7.1 Influence of Political and Economic Crises on Migration: Descriptive Analyses

7.1.1 *Political and economic crises: 1975-2007*

The two indices presented in section 5 are used to measure changes in economic and political conditions since 1975 in DR Congo (Figure 1). They illustrate the very changing political and economic conditions in DR Congo described in section 2. As shown by the GDP growth rate, economic conditions started deteriorating seriously at the end of the 1980s and remained very poor until the early 2000s. The situation was at its worst in the early 1990s, when the GDP was decreasing at a rate close to 10% per year. Since 2002, the country's economic situation has improved significantly but the situation remains fragile.

-- Figure 1 about here --

The index of political troubles summarizes the political history of DR Congo since the mid-1970s. The first hump corresponds to the 80-day war and the Shaba war in 1977 and 1978. The 1980s were fairly stable from a political point of view. The situation started deteriorating in the early 1990s with the regime crisis and riots in 1991 and 1992. The start of the war in 1996 and the regime change in 1997 (replacement of President Mobutu by President L. Kabila) correspond to periods of increasing political troubles. Between 1996 and 2002 (periods of wars) the value of the index remains very high. The war officially ended in 2002, and the political situation improved significantly from 2003.

7.1.2 *Reconstruction of migration trends: 1975-2007*

Event history models were used to estimate rates of first international migration by age and year. We use life table methodology to translate these rates into 'lifetime risks' of doing at least one international migration between age 15 and 50¹⁶. The lifetime risk of international migration can be interpreted as the probability of doing at least one international migration between 15 and 50. Figure 2 shows annual lifetime risks of international migration and linear splines fitted to these annual risks. The overall trend is clearly an upward trend: the risks were a little over 10% until the mid-1980s, they went as high as 50% in the early 2000, and decreased to about 30% in 2007. Four knots, which correspond to breaking points in the migration trends, were located with the spline regressions: 1983, 1991, 1996, and 2001. Rates started to increase significantly around 1983; in the early 1990s, the trend stabilized. Of particular significance is the large increase in migration risks after 1996 (starting in 1997, the end of the Mobutu Regime), and the significant decrease after 2001, when economic and political conditions improved.

-- Figure 2 about here --

7.1.3 Comparisons of political and economic conditions and migration trends

The comparison of the indices of economic and political troubles¹⁷ and migration rates (Figure 3a and Figure 3b) indicates overall a good consistency between migration trends and trends in political and economic conditions. The consistency is particularly striking for the index of political troubles: the large increase in international migration rates at the end of the 1990s corresponds with the intense political crisis. The correlation between migration rates and changing economic conditions is less striking; however, this figure shows that since the mid-1990s, periods of deteriorating economic conditions

(grey curve going up) correspond to increasing migration rates, while periods of economic improvement are accompanied by decreasing migration rates.

-- Figures 3a and 3b about here --

7.2 Influence of Political and Economic Crises on Migration: Event history models

Although graphical analyses provide strong hints of a positive relationship between political and economic troubles and migration, they do not allow testing the statistical significance of these relationships, nor do they allow distinguishing the effects of economic and political conditions, or testing the differential impact of crises on different categories of people. In the next section, event history models are used to measure the relationships between political and economic conditions and international migration from Kinshasa.

7.2.1 Question #1: Do economic and political troubles increase migration?

Models 1 to 3 measure the effects of economic and political troubles on migration. All the models include age, education, gender and marital status as individual control variables (age not shown). Year is also included to capture the overall trend in migration, regardless of the variations in political and economic conditions. In the first model, the index of political troubles is included as the only macro variable. GDP growth rate is included alone in the second model. The third model includes both variables.

First, individual-level variables show expected results. Males are significantly more likely to migrate than females. People who have never been married are also twice as likely to migrate for the first time at each age as married people. Finally, education is strongly correlated to migration. People with secondary or higher education are more

than twice as likely to migrate as their less educated counterparts. Results also show a positive migration trend (variable 'year'), but the trend is not significant in two of the three models.

-- Table 2 about here --

When included separately in the models, economic and political troubles both significantly increase the risk of international migration, controlling for individual factors (Table 2). In the first model, an increase of one standard deviation in the index of political troubles is associated with an increase of migration rates of 27%. The second model shows that an increase of one standard deviation of the GDP growth rate is associated with a decrease in migration rate of 11%. When both indicators are included in the same model (model 3), the impact of economic conditions is almost completely offset and is not significant. The impact of political troubles, on the other hand, is very strong and largely significant. Economic and political conditions are not independent from each other; but this result suggests that migration is much more responsive to political troubles than to economic troubles (in DR Congo, for the time period concerned).

7.2.2 Question #2: Do the impacts of economic and political troubles on migration vary by destination?

Separate analyses by destination show several important results (Table 3). First, as expected, education is a major determinant of migration to Europe and North America, but much less so for African migration. Rates of first migration to Europe and North America are more than ten times higher among people with higher education than among less educated people. Migrations to Africa are, on the other hand, more likely

among people with secondary education. Interestingly, gender is a strong determinant of migration, but with opposite effects for migration to African and to Western countries. Migration rates to Europe and North America are more than 50% higher among females, while migrations to Africa are more frequent among males. For both destinations, single persons are, as expected, significantly more likely to migrate.

With regards to economic and political conditions, models show contrasting results by destination. Migrations to Europe and North America seem to depend only on political conditions, while economic conditions do not influence migration to Europe when controlling for political troubles. An increase of one standard deviation of the political troubles index is associated with a 41% increase of migration rate to Western countries. Interestingly, the overall trend measured by the variable 'year' is negative: in other words, after controlling for political troubles in DR Congo, there is a slight decrease of migration rates to Europe and North America. It suggests that the improvement of political conditions in DR Congo might lead to a stabilization of migration rates to Europe and North America.

-- Table 3 about here --

Migrations to Africa, on the other hand, depend on both economic and political conditions. Both indices have similar (and expected) effects on migration (the GDP growth rate is more significant): an increase of one standard deviation in political or economic troubles corresponds to an increase in the rate of migration of a little more than 10%. The model also shows that there is a residual positive trend in migration rates, after controlling for political and economic troubles. Said differently, migration to Africa has been increasing, regardless of political and economic troubles.

Overall, crises influence migration to Western countries and to Africa, but in different ways. Deteriorating economic conditions tend to influence migration to Africa, but have no clear impact on migration to Western countries. This suggests that migration to Western countries – which is more costly - is not the preferred strategy in times of economic crisis. If jobs or better wages are available in neighboring countries, these destinations seem to be preferred. On the other hand, political troubles strongly influence migration to Western countries. As discussed before, this may be due to the fact that Western countries are considered as safer destinations in times of political crises. As discussed below, greater legal possibilities of migration to Western countries in times of political crises may also increase the incentive of moving to these countries.

7.2.3 Question #3: Is migration less selective according to education in times of crises?

Previous models have shown that political and economic crises influence migration. Economic and political troubles both influence migration to Africa, while migration to Europe and North America is influenced only by political conditions in the departure country. These models have also shown that migration propensities depend on individual characteristics. As explained earlier, crises may influence different categories of people in different ways. The third hypothesis we test in this section is that migration became less selective with respect to education in times of crises.

Table 4 shows the results of three models that include the interactions between education and the two macro-level variables (for all destinations, Africa, Europe & North America). The interactions between education and political conditions show a clear pattern, consistent across destinations: deteriorating political conditions have a significantly stronger impact on people with no education or primary education than on their more educated counterparts. On the contrary, economic conditions do not interact

with education. In other words, the impact of deteriorating or improving economic conditions does not vary significantly by level of education.

-- Table 4 about here --

As shown in the first model (all destinations), the rate ratio for the impact of political troubles on the less educated is equal to 1.83: an increase of one standard deviation in the index of political troubles is associated with an 83% increase in the rate of first migration. In contrast, political troubles are not associated with a significant increase in migration among people with higher education (rate ratio equal to 1.17, not significant). A similar (but less pronounced) result is found for migration to Africa. On the other hand, the interaction between education and political troubles is very strong and highly significant for migration to Western countries. In periods of political troubles, rates of first migration increase more than threefold among the less educated, while they change more slightly among the more educated (rate ratio equal to 1.30, not significant).

Another way of interpreting this interaction is to look at the impact of education in period of political crises vs. periods of relative political stability. As shown on Figure 4, rates of migration are much higher in periods of intense political crises (corresponding to the average plus two standard deviations of the indicators) than in periods of political stability. This figure also clearly shows that the impact of crises is stronger among the less educated than among the more educated (measured by the ratio of the black bar to the grey bar). In other words, migration is much less selective with respect to education in periods of political troubles than in periods of political stability. However, as is also

clear from this figure, the more educated remain much more likely to migrate than their less educated counterparts, even in periods of political troubles.

-- Figure 4 about here --

These models show that, as the political situation deteriorates, the propensity of migration increases essentially among the less educated, and very little among the more educated, resulting in less selective migration. Contrary to what was observed in Peru (Massey and Capoferro, 2006), selectivity by education decreases as a result of *political troubles*, but does not depend on *economic conditions*. Again, the distinction between economic and political conditions may not be clear-cut, as these variables are correlated, but these results at least indicate a strong impact of political conditions on the selectivity of migration.

One possible explanation is that the less educated as well as the more educated are affected by political crises, and tend to flee violence and insecurity, while in periods of stability, the more educated are much more likely to seek to migrate. In other words, this supports the idea that, during crises, people tend to flee deteriorating conditions (Massey and Capoferro, 2006; Sumata, 2002a), and that migrations depend to a lesser extent on human capital in such periods than in periods of stability. Another possible explanation (maybe complementary) is that in times of political crises – legal possibilities of migration are less selective with respect to education. In times of stability, the less educated usually have less legal possibilities of migrating than their educated counterparts, who can more easily get visas for higher education and for family reunification. In contrast, asylum applications – which is one of the major way of legal entry in Western countries among the Congolese since the 1990s with the political

troubles in DR Congo – is open to the less educated as well as to the more educated. A third possible reason for the lower selectivity of migration according to education may be due to the fact that bilateral cooperation seriously slowed down with political troubles. As a result, a decrease in the number of scholarships granted to Congolese students may have had an offsetting effect among the better educated on the increasing desire to migrate in period of political troubles.

8. Discussion and Conclusion

Using recent retrospective data and event history models, we have shown that international migration from DR Congo since the mid-1970s has been clearly influenced by political troubles and, to a lesser extent, by economic crises. Periods of political instability and wars have contributed to significantly higher risks of migration, especially to Europe and North America, but also to Africa. The graphical analyses and the robust results of event history models show clearly that international migration and political crises are closely related in DR Congo. This expected impact of political crises is in line with results in other parts of the world (Moore and Shellman, 2004; Stanley, 1987), and suggests that improving political conditions in departure countries may contribute to stabilizing migration flows. The recent slowdown of migration from DR Congo (since 2002) illustrates this influence of the improvement of the political conditions in DR Congo on migration.

Economic troubles have also increased migration, but their effect is less clear-cut than the impact of political troubles. Results suggest that, when controlling for political conditions in the models, deteriorating economic conditions only increase migrations to Africa. In contrast, migrations to Europe seem largely unaffected by economic conditions, and have varied essentially with the political situation in DR Congo. One

possible explanation is that, in periods of crises, the availability of resources to migrate to distant places may not be available. Although desires to move may increase, the financial resources may be lacking. This result should be qualified however. First, economic troubles and political troubles are not independent from each other. Models including only economic indicators show that economic troubles increase migration when all destinations are considered together (the coefficient is also positive for migration to Western countries, but not significant). In other words, migrations do increase in periods of economic crises, but the association between economic conditions and migration is very much reduced when political conditions are taken into account. Secondly, the indicator of economic troubles that was used (GDP growth) may also partly explain that the impact of economic conditions is not significant. More refined indicators might lead to stronger results. However, at this stage, it seems reasonable to say that political conditions clearly have a strong impact on migrations, while the effects of economic conditions are less conclusive.

Models have also shown that educated and uneducated people respond in different ways to crises (Figure 4). A consistent result across all the models is that political crises have a significantly stronger impact on migration among the less educated than among the more educated, and the impact is much stronger on migration to Europe and North America than on migration to Africa. This means that, in times of political crises, migration to Western countries is much less selective by education than in periods of relative stability. This might be interpreted, as in Massey and Capoferro's study in Peru (2006), as the result of different migration strategies prevailing in periods political troubles compared to more stable periods. This may also reflect changes in legal possibilities of migration to Western countries in times of crises – with more

possibilities of legal entry for the less educated than in periods of stability- and a decrease in number of scholarships for Congolese students in Western countries, offsetting a possibly greater desire to move to Western countries.

Further work is needed on several issues. The mechanisms by which political and economic crises influence migrations have not been dealt with in detail in this paper. The analysis of in-depth interviews conducted with Congolese migrants will provide further insight into the motivations of migrations in times of crisis. Retrospective quantitative data collected in Kinshasa among non migrants may also help understand the way crises influence migration. These data include information on migration attempts, which make it possible to estimate if increasing migrations in times of crises reflect increasing desires to migrate (higher migration attempts), or a higher “success rate” of migration attempts (i.e. higher probability that an attempt is transformed into an effective migration). Finally, retrospective quantitative data recently collected among Congolese migrants in Belgium and the UK as part of the MAFE project will also shed light on the dynamics of Congolese migration in times of crises.

References

- Addleton J. 1991. The impact of the Gulf war on migration and remittances in Asia and the Middle East, *International Migration*, 29(4): 509-26.
- Adepoju A. 1994. Preliminary Analysis of Emigration Dynamics in Sub-Saharan Africa, *International Migration*, 32(2): 197-216.
- Akokpari, John, 1999. The political economy of migration in Sub-Saharan Africa, *African Sociological Review*, 3(1): 15.
- Allison P. 1995. *Survival Analysis using the SAS System*, SAS Institute, Cary, p.292.

- Bamba, D. L. 2003. *La démystification du Parti-Etat au Zaïre. Contribution à une dynamique de renouveau démocratique au Congo*, PhD Dissertation, Université catholique de Louvain, Louvain-la-Neuve, p.277.
- Bazenguissa-Ganga, R. 2005. *Democratic Republic of Congo (Congo-DRC) and Republic of Congo (Congo) Country Study. A part of the report on Informal Remittance Systems in Africa, Caribbean and Pacific (ACP) countries*, ESRC Centre on Migration, Policy and Society (COMPAS), Oxford, p.22.
- Blossfeld H.-P., Rohwer G. and Golsch K. 2007. *Event History Analysis with Stata*, Lawrence Erlbaum, Philadelphia, p.300.
- Conti C. and M. Mamolo 2007. Yougoslavie et Asie centrale : terres de conflits et de migrations, in AIDELF, *Les migrations internationales. Observation, analyse et perspectives*, Presses Universitaires de France, Paris: 499-509.
- Crush J. 2008. South Africa: Policy in the Face of Xenophobia, *Migration Policy Institute Country Profiles*. (<http://www.migrationinformation.org>).
- Dunn, K.C. 2002. A survival guide to Kinshasa. Lessons of the father, passed down to the son, in Clark J. F. (ed), *The African Stakes of the Congo War*, Fountain Publishers, Kampala: 53-74.
- Henry S., Schoumaker B. and C. Beauchemin. 2004. The Impact of Rainfall on the First Out Migration: A Multi-level Event- History Analysis in Burkina Faso, *Population and Environment*, 25(5): 423-460.
- Hesselbein G. 2007. The rise and decline of the Congolese State. An analytical narrative of state-making, *Crisis States Research Centre, London School of Economics, Working Paper*, n°21, London School of Economics, London, p. 78.

- Guo, G. 1993. Event-History Analysis for Left-Truncated Data, *Sociological Methodology*, 23: 217-243
- IMF, 2002. IMF Approves US\$750 million PRGF Arrangement for the Democratic Republic of the Congo, *Press Release No. 02/27 June 13, 2002*, International Monetary Fund, Washington D.C.
- Jokisch B. and J. Pribilsky. 2002. The Panic to Leave: Economic Crisis and the 'New Emigration' from Ecuador, *International Migration*, 40(4): 75-101.
- Jones R. 1989. Causes of Salvadoran Migration to the United States, *Geographical Review*, 79(2): 183-194.
- Kadima D., 1999, Motivations à l'émigration et activités économiques des immigrés congolais (RDC) en Afrique du Sud, in Bouillon A. (ed.), *Immigration africaine en Afrique du Sud. Les migrants francophones des années 1990*, IFAS/Kartha la, Johannesburg/Paris: 105-124
- Kagne B. and Martiniello M. 2001. L'immigration sub-saharienne en Belgique, *Courrier hebdomadaire du CRISP*, n°1721, p.50.
- Marsh L. and Cormier D. 2001. *Spline regression models*, Quantitative Applications in the Social Sciences, Sage, Thousand Oaks, p.80.
- Martin, P. 2009. "Recession and migration: A new era for labor migration?", *International Migration Review*, 43(3): 671-691.
- Massey D. and C. Capoferro. 2006. Sálvese Quien Pueda: Structural Adjustment and Emigration from Lima, *The Annals of the American Academy of Political and Social Science*, 606(1): 116-127.
- McCalpin J. 2002. Historicity of a crisis. The origins of the Congo War, in Clark J. F. (ed), *The African Stakes of the Congo War*, Fountain Publishers, Kampala: 33-50.

- Merli G. 1997. Estimation of international migration for Vietnam, 1979-1989, *Center for Studies in Demography and Ecology*, University of Washington, Seattle, p.59.
- Migration Policy Institute. 2007. Migration Policy Institute Data Hub, Migration Policy Institute, Washington D.C., online database (<http://www.migrationpolicy.org>).
- Moore W. and S. Shellman. 2004. Fear of Persecution. Forced Migration, 1952-1995, *Journal of Conflict Resolution*, 40(5): 723-745.
- Morrison A. 1993. Violence or Economics: What drives internal migration in Guatemala?, *Economic Development and Cultural Change*, 41(4): 817-831.
- Morrison A. and May R. 1994. Escape from terror: violence and migration in post revolutionary Guatemala, *Latin American Research Review*, 29(2): 111-132.
- Mutamba Lukusa G., 1999. *Congo/Zaire, la faillite d'un pays. Déséquilibre macro-économique et ajustements (1988-1999)*, Cahiers africains, n°37-38, CEDAF/L'Harmattan, Tervuren/Paris, p.190.
- Ndaywel è Nziem, I. 1998. *Histoire générale du Congo. De l'héritage ancien à la République démocratique*, De Boeck/Larcier, Bruxelles/Paris, p.955.
- Ngoie Tshibambe G. and Vwakyankazi M. 2008, Country Paper: the Democratic Republic of Congo. Profil migratoire par pays: cas de la RDC, *Perspectives africaine sur la mobilité humaine*, Université de Lubumbashi, Lubumbashi, p. 48.
- Nzisabira, J. 1997. *Gaspillage technologique, récession économique, expansion de la pauvreté et dégradation de l'environnement au Zaire*, Institute for New Technologies, United Nations University, Maastricht, p.175.
- PITF. 2009. *Political Instability Task Force. Internal Wars and Failures of Governance 1955-2006 (Problem Set Annual Data)*, online database, consulted on May 2, 2009 (<http://globalpolicy.gmu.edu/pitf/pitfpset.htm>).

- Peemans, J. -P. 1997. *Le Congo-Zaïre au gré du 20^{ème} siècle. Etat, économie, société 1880 1990*, collection Zaïre-Histoire et Société, L'Harmattan, Paris et Montréal, p.279.
- Putzel J., Lindemann S. and C. Schouten, 2008. Drivers of change in the Democratic republic of Congo. The rise and decline of the state and challenges for reconstruction. A literature review, *Crisis States Research Centre, London School of Economics, Working Paper*, n°26, London School of Economics, London, p.43.
- RDC and PNUD 2000. *Rapport National sur le Développement Humain 2000. Gouvernance pour le développement humain en RDC*, UNDP, Kinshasa, p.227.
- Russell S. 1992. International migration and political turmoil in the Middle East, *Population and Development Review*, 18(4): 719-727.
- Smith D. 1992. Conflicts and Wars, in George, S. (ed), *The Debt Boomerang: How Third World Debt Harms us All.*, Pluto, London.
- Stanley W. 1987. Economic Migrants or Refugees from Violence? A Time-Series Analysis of Salvadoran Migration to the United States, *Latin American Research Review*, 22(1), pp. 132-154.
- Schoonvaere Q. 2009. *Etude de la migration congolaise et de son impact sur la présence congolaise en Belgique. Analyse des principales données démographiques*, Master dissertation, Université catholique de Louvain, Louvain-la-Neuve, p.127.
- Schoumaker B., Mangalu J. and S. Vause. 2009. *Crises et migrations internationales en RD Congo*, Research report, FISP program « Migrations internationales, recompositions territoriales et développement », Université catholique de Louvain/Université de Kinshasa, Louvain-la-Neuve/Kinshasa, p. 191.

- Steinberg, J. 2005. *A mixed reception. Mozambican and Congolese Refugees in South Africa*, ISS Monograph Series, n°11 7, Institute for Security Studies, Cape Town, p.45.
- Stengers, J. 1989. *Congo. Mythes et réalités. 100 ans d'histoire*, Duculot, Paris-Louvain-la Neuve, p.283.
- Sumata, C. 2002a, Migradollars and poverty alleviation issues in Congo (DRC), *Review of African Political Economy*, 29(93): 619-628.
- Sumata, C. 2002b, Risk aversion, international migration and remittances: Congolese refugees and asylum seekers in Western countries, UNU/ WIDER Conference "Poverty, International Migration and Asylum", September 2002, Helsinki, p.27.
- Sumata, C., T. Trefon and S. Cogels, 2004. Images et usages de l'argent de la diaspora congolaise: les transferts comme vecteur d'entretien du quotidien à Kinshasa, in T. Trefon (ed.), *Ordre et désordre à Kinshasa : réponses populaires à la faillite de l'Etat*. Tervuren/Paris, Institut africain/L'Harmattan: 135-154.
- UNDP. 2009. *Statistics of the Human Development Report*, online database, consulted on March 23, 2009 (<http://hdr.undp.org/en/statistics/>).
- UNHCR, 2010a. *UNHCR Statistical Online Population Database*, Online database, consulted on January 12, 2010 (<http://apps.who.int/globalatlas/default.asp>).
- UNHCR, 2010b. *UNHCR Statistical Online Population Database: sources, methods and data consideration*, online paper, consulted on January 12, 2010 www.unhcr.org/45c06c662.html#refugees
- United Nations. 2009. *World Population Prospects. The 2008 revision*. United Nations, New York.

World Bank. 2009. *World Development Indicators*, online database, The World Bank, Washington DC.

Table 1 : Broad periods in Congo's political and economic history

Period	Political situation	Economic situation
1960-1965	Political instability after independence	Stagnation
1965-1974	Mobutu seizes power . Relative political stability	Growth of the economy
1975-1982	Shaba wars in the late 1970	Deterioration of the economy
1983-1989	Relative stability	Economic reforms and slow growth
1990-1996	End of cold war , de mocratization process and start of serious political instability. Riots in the early 1990s, start of the first Congo war in 1996.	Economic deterioration, negative growth rates, decrease in international development aid.
1997-2002	Regime change (Mobutu replaced by L-D Kabila) , first and second Congo wars. Assassination of L.-D. Kabila in 2001 replaced by his son J. Kabila.	Negative growth rates
2003-2007	End of the war , election in 2006 of Joseph Kabila.	Improvement of the economic situation, resumption of international aid

Table 2. Event-history models of first international migration, Kinshasa (DR Congo), 1975-2007 (results expressed as rate ratios).

Variables	Categories	Models		
		1	2	3
Education	No / primary	1.00	1.00	1.00
	Secondary	2.16***	2.24***	2.23***
	Higher education	2.33***	2.50***	2.48***
Gender M	ales	1.00	1.00	1.00
	Females	0.77**	0.78**	0.77**
Marital status	Ever married	1.00	1.00	1.00
	Never married	2.10***	2.06***	2.10***
Year (exponential trend)		1.02 (ns)	1.05***	1.02 (ns)
GDP growth (a)			0.89***	0.97 (ns)
Political troubles (b)		1.27 ***		1.25***
Sample size		4485	4485	4485

Notes:

a) average GDP growth rate over the two previous years (standardized variable)

b) average index of political troubles over the two previous years (standardized variable)

Significance: *: p<0.10; **: p<0.05; ***: p<0.01 ; (ns) : not significant.

Table 3. Event-history models of first international migration by destination of migration, Kinshasa (DR Congo), 1975-2007 (results expressed as rate ratios).

Variables	Categories	Destination	
		Europe & N.A.	Africa
Education	No / primary	1.00	1.00
	Secondary	4.98***	1.69**
	Higher education	11.62***	1.28 (ns)
Gender M	ales	1.00	1.00
	Females	1.58***	0.57***
Marital status	Ever married	1.00	1.00
	Never married	2.41***	1.77***
Year (linear trend)		0.97**	1.07***
GDP growth (a)		1.03 (ns)	0.89***
Political troubles (b)		1.41***	1.13*
Sample size		4485	4485

Notes:

a) average GDP growth rate over the two previous years (standardized variable)

b) average index of political troubles over the two previous years (standardized variable)

Significance: *: p<0.10; **: p<0.05; ***: p<0.01 ; (ns) : not significant.

Table 4. Event-history models of first international migration by destination, including interactions between education and economic and political troubles, Kinshasa (DR Congo), 1975-2007 (rate ratios).

Variables	Categories	Destination		
		All destinations	Europe & N.A.	Africa
Education	No / primary	1.00	1.00	1.00
	Secondary	2.82***	9.36***	2.07**
	Higher education	3.21***	23.47***	1.59**
Gender M	ales	1.00	1.00	1.00
	Females	0.78*	1.57***	0.57***
Marital status	Ever married	1.00	1.00	1.00
	Never married	2.05***	2.45***	1.79***
Year (linear trend)		1.02*	0.97***	1.07***
Interactions				
GDP growth (a) *	No /primary	1.09 (ns)	1.05 (ns)	0.99 (ns)
Education	Secondary	0.93 (ns)	1.05 (ns)	0.85 (ns)
	Higher education	1.03 (ns)	1.00 (ns)	1.00 (ns)
Political troubles (b)	No /primary	1.83***	3.51***	1.46 **
* Education	Secondary	1.24 (ns)	1.47 (ns)	1.12 (ns)
	Higher education	1.17 (ns)	1.30 (ns)	1.00 (ns)
Sample size		4485	4485	4485

Notes:

a) average GDP growth over the two previous years (standardized variable)

b) average index of political troubles over the two previous years (standardized variable)

Significance: *: p<0.10; **: p<0.05; ***: p<0.01 ; (ns): not significant.

Figure 1. Indices of economic conditions (GDP growth) and political troubles, DR Congo, 1975-2007.

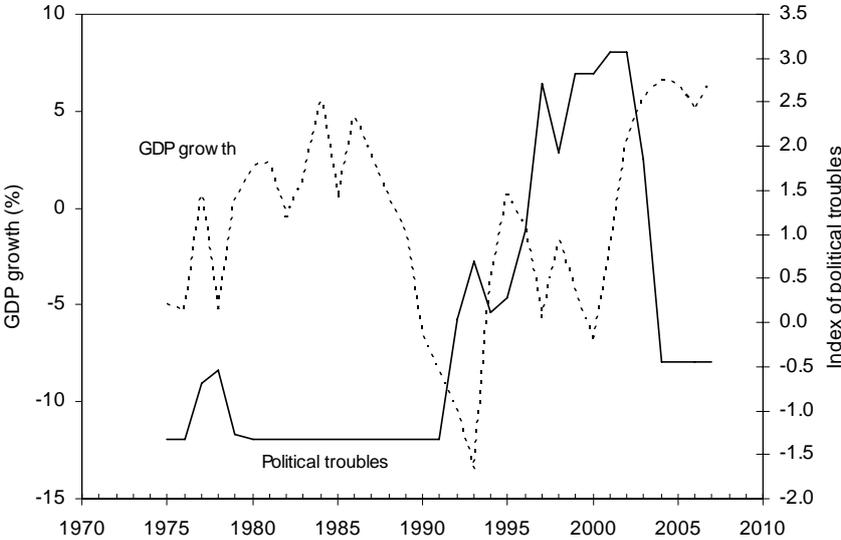


Figure 2. 'Lifetime risk' of international migration, Kinshasa (DR Congo), 1975-2007.

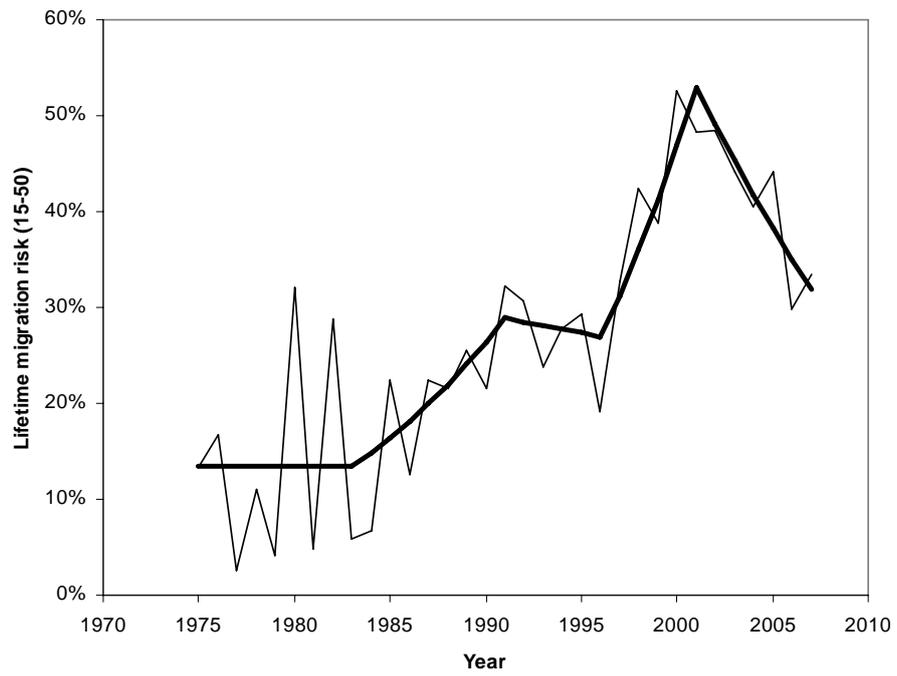
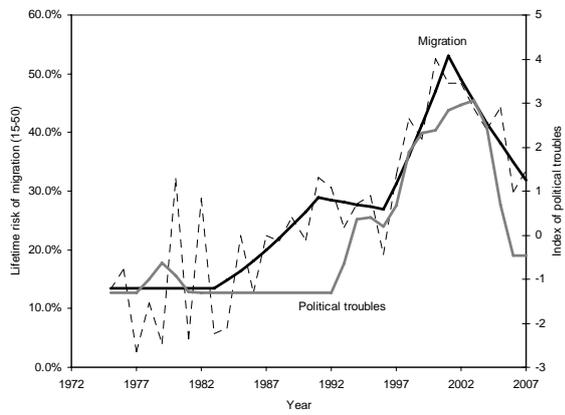
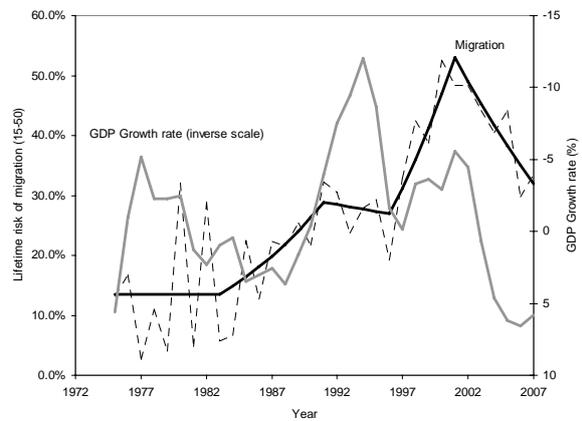


Figure 3. Comparison of migration rates and (a) index of political troubles and (b) GDP growth rate, DR Congo, 1975-2007.



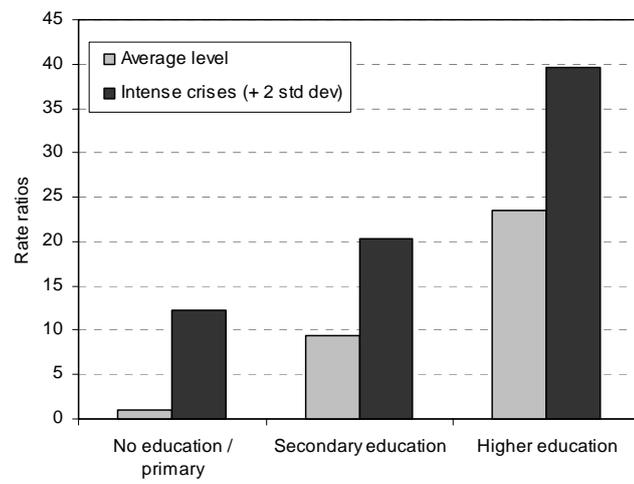
(a) Index of political troubles



(b) GDP growth rate

Note: both indices are computed as the average of the original indices over the two preceding years (e.g. the index represented for the year 1995 is the average for the years 1993 and 1994).

Figure 4 . Impact of economic and political troubles on migration to Western countries, by level of education.



¹ We use the current name of the country (Democratic Republic of Congo, abbreviated as DR Congo) throughout this article. Between 1971 and 1997, the country was known as Zaïre.

² According to the UNHCR, more than 300 000 Congolese refugees were living in neighboring countries in the early 2000s, and around 220 000 in 2008 (UNHCR, 2010a).

³ Various data sources are used to estimate populations of refugees, and, as stated by the UNHCR (2010b, no page number), “in mass refugee situations and when populations are highly mobile, maintaining a refugee register is a serious challenge”.

⁴ And when they are available, they are not necessarily comparable across countries.

⁵ For instance, some migrants can take several months or years to reach their ‘final destination’.

⁶ Research has also been done on the impact of crises in destination countries on migration (see for example Martin, 2009), but is not directly relevant to this paper.

⁷ Research of relevance to our work has also been done on internal migration. For instance, Morrison (1993), and Morrison and May (1994) compare the impact of economic factors and violence on internal migration, and conclude that “even when political violence is explicitly introduced, the coefficients on purely economic variables continue to be strongly significant, and the elasticity of migration response with respect to economic variables is significantly larger than it is with respect to violence variables (Morrison 1993, p. 828).

⁸ Although Kinshasa was not the centre-stage of the wars in the late 1990s, it was nevertheless prone to violence. One of its manifestations was “a brief witch-hunt against all eastern Congolese and perceived foreigners, often judged exclusively by facial appearances” (Dunn, 2002, p.67). This was sparked by Laurent-Désiré Kabila’s portraying of the second rebellion in 1998 as a foreign invasion by Rwanda and Uganda (Dunn, 2002).

⁹ The survey used in this research was funded by the French Government through the FSP program « *Migrations internationales, recompositions territoriales et développement* ». The design of the survey and of the questionnaires was done by the University of Louvain and University of Kinshasa, in close collaboration with INED in France and IPDSR in Senegal. The MAFE program (mafe.site.ined.fr) is now funded by the European Union, and involves three African countries (DR Congo, Senegal, and Ghana) and six European countries (France, Belgium, Italy, Spain, The Netherlands and United Kingdom).

¹⁰ The sampling frame of the 2007 Demographic and Health Survey was used to select randomly 29 primary sampling units (neighbourhoods) in Kinshasa. Four streets (secondary sampling units) were selected randomly in each neighbourhood, and 8 households (tertiary sampling units) were selected in each street. Overall, 943 households were successfully interviewed.

¹¹ The data sets are available at <http://globalpolicy.gmu.edu/pitf/pitfpset.htm>.

¹² <http://globalpolicy.gmu.edu/pitf/pitfpset.htm>, consulted on May 11, 2009.

¹³ Complex sample design (stratification, multi-stage sampling, weighting) is taken into account in the analyses. Standard errors of coefficients are corrected for the clustering of observations in the same neighborhoods.

¹⁴ Although age 18 could be more appropriate for migrations to Western countries, migrations to other African countries (e.g. Angola) can be done alone at younger ages. Results are not sensitive to this choice.

¹⁵ The p-value for a variable to enter the model was set to 0.09 (Wald test), and the p-value for the variable to remain in the model was set to 0.10.

¹⁶ Rates of first migration by age were transformed into probabilities of first migration by age. These probabilities are then transformed into probabilities of surviving to migration between age 15 and age 50. The 'lifetime risk' of migration is computed as one minus the probability of surviving to first migration at age 50 (rates of first migration are negligible beyond age 50). A lifetime risk of, say, 30% indicates that if the rates of migration by age observed in a specific year (e.g. 2007) were constant, 30% of a generation of people would migrate at least once between age 15 and age 50.