

Analysis of Capital Flight from Burundi

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Abstract

Burundi has reportedly lost resources amounting to 10.2% of gross domestic product to capital flight, on average, over the period 1985–2013. Given the episodes of political instability and poor governance that have characterized Burundi's landscape in the past decades, an institutional analysis of capital flight is undertaken and some instances of embezzlement of public funds reviewed in this study. Data analysis of the main trends of capital flight is also undertaken. In addition, this study examines the drivers of capital flight from Burundi. The estimation results seem to be sensitive to the capital flight measurement used, but in general they suggest that external debt, political instability and wars, as well as exports, are the main drivers of capital flight from Burundi. To discourage capital flight, the findings of this study suggest that Burundi should promote peace and political stability. In addition, more responsibility, transparency and accountability are required from the Government of Burundi in managing external debt. Moreover, some actions are needed to reduce trade misinvoicing, which is a major channel of capital flight from Burundi.

Key words: *Capital flight, Drivers of capital flight, Burundi*

1. Introduction

Since the late 1980s and 1990s, capital flight has been the subject of considerable theoretical and empirical research (among the pioneers are Cumby and Levich, 1987; Ajayi, 1992, 1995; Ojo, 1992; Boyce, 1992). According to Ajayi (1992), Ndikumana and Boyce (2003, 2011 a) and Ndiaye (2014), both private actors and public authorities are responsible for capital flight. Because of macroeconomic uncertainty, political instability, less developed financial systems and higher rates of return differentials abroad, private actors prefer to hold their savings abroad, while because of corruption, public authorities embezzle funds and transfer them to overseas banks. Burundi, a small landlocked and resource-scarce economy recovering from a civil war, has not escaped the capital flight problem. For the period 1985–2013, Burundi is reported to have lost resources amounting to \$3.7 billion (constant 2013 prices) in the form of capital flight, of which \$799 million (21.6%) was lost due to balance of payments (BoP) leakages and \$2,894 million (78.4%) through trade misinvoicing (import and export misinvoicing). In spite of being a small, non-resource-rich, poor country, the phenomenon of capital flight seems to be sizeable. Compared to most East African Community (EAC) countries, capital flight from Burundi is high. For the period 1985–2010 capital flight from Burundi was \$4.1 billion, from Rwanda it was \$492.6 million and \$6.2 billion from Uganda, while Kenya and Tanzania experienced a capital flight reversal of \$109.8 million and \$1.5 billion, respectively. While in absolute terms it might seem that the capital flight problem is not alarming, in relative terms the magnitude of capital flight from Burundi is large. Over the period 1985–2013, total capital flight represents 10.2% of GDP, on average (see Table 3).

Capital flight from Burundi can be considered a paradox given the prevalence of poverty and low level of human development. While the majority of Burundians, especially in rural areas, are deprived of essential services such as access to healthcare, education, clean water and proper sanitation, large sums of money flow out of the country in the form of capital flight instead of being invested domestically to help the citizens meet the very basic needs. As Nkurunziza (2015) points out, capital flight reduces the stock of financial resources available for financing growth-enhancing investments such as in agriculture and infrastructure. In fact, while the unmet financing need is large in Burundi, given the saving-investment gap of 17.7% of GDP, total capital flight from Burundi for the period 1985–2013 represents 149% of total domestic investment in that period (see Table 3). The loss of investment due to capital flight hampers economic growth and poverty reduction. As Ndikumana (2014) points out, one of the major constraints to growth in Africa and one of the reasons why most African countries are still trapped in poverty is low domestic investment.

Burundi presents an interesting case study of capital flight because of its history of political risk and wars. Since independence in 1962, Burundi has recorded five episodes of civil war, which created political and macroeconomic instability that encourages capital flight (Ndikumana and Boyce, 2003). Burundi has been experiencing macroeconomic instability characterized by high inflation rates and low growth rates. In addition, Burundi is characterized by high corruption and poor governance (see Table A.1). In fact, in its corruption perception index, Transparency International ranks Burundi among the most corrupt countries in the world. As Ndiaye (2011) points out, in a context of poor governance and weak institutions, corrupt elites embezzle public funds and transfer them abroad. Another element worth mentioning is external debt, as the stock of external debt has been increasing in Burundi. It is said that external debt provides resources to corrupt leaders, and these resources are channelled overseas as private assets (Ndikumana and Boyce, 2003; Ndiaye, 2011).

Given the episodes of political instability and poor governance that have characterized Burundi's landscape in the past decades, coupled with the prevailing macroeconomic instability, the question then arises as to what factors determine capital flight from Burundi. Although a number of studies have examined the drivers of capital flight—Burundi was even included as one of the sample countries in cross-country studies (see for instance Ndikumana and Boyce, 2003; Ndikumana and Boyce, 2011; Ndikumana et al., 2015)—no study has examined capital flight specifically from Burundi. In effect, cross-country studies do not take into account specificities across countries in the analysis. This study contributes to the existing capital flight literature in three ways, by: (1) undertaking the first ever country-specific study focusing on Burundi, (2) undertaking an institutional analysis of capital flight to understand the political, economic and institutional issues behind capital flight from Burundi, and (3) reviewing some cases of financial scandal and embezzlement of public funds, which are relevant in understanding the capital flight problem in Burundi. The focus in this study is on Burundi because of the burden that capital flight imposes on this already impoverished country. In effect, capital flight over the period 1985–2013 represents 149% of gross fixed capital formation, on average, implying that if resources that left could be repatriated, investment could more than double, which would enhance growth and poverty reduction. Understanding the drivers of capital flight is therefore important.

The rest of the paper is organized as follows. Section 2 reviews the literature; and conceptual issues and measurement of capital flight are discussed, as well as the drivers of capital flight. Section 3 analyzes the trend of capital flight from Burundi. Section 4 presents an institutional analysis of capital flight from Burundi. Section 5 reviews some cases of financial scandal and embezzlement of public funds in Burundi. Section 6 presents the econometric results, and Section 7 gives a conclusion.

2. Literature review

Definition of capital flight: Conceptual issues

There is no consensus on the definition of capital flight, not simply because the distinction between normal capital outflows and capital flight is not easy to define (Harrigan et al., 2007), but also because of the difficulty in distinguishing between legal and illegal capital outflows (Hermes et al., 2002). In addition, as Makochekeanwa (2007) puts it, the term 'capital flight' has been asymmetrically applied to developed and developing countries. According to Ajayi (1995), while capital outflows from developed countries are termed as foreign direct investment by some economists, the same activity is referred to as capital flight when it is undertaken by residents of a developing country. Ajayi (1992) highlights some definitions of capital flight found in the literature (Cuddington, 1986; Morgan Guaranty Trust Company, 1986; Deppler and Williamson, 1987; Husted and Melvin, 1990). Cuddington (1986) defines capital flight as short-term capital outflows due to political or financial crises, higher taxes, expected tightening of capital controls, expected major currency devaluations, and other risks. Similarly, according to Deppler and Williamson (1987), capital flight is an outflow of resources motivated by factors such as the fear of capital loss arising from the risk of expropriation, exchange rate depreciation, the imposition of capital controls, taxation and financial repression, and expected economic instability such as hyperinflation; all things that would reduce the value of an asset compared with its value when invested abroad. Morgan Guaranty Trust Company (1986) defines capital flight as “the reported and unreported acquisition of foreign assets by the non-bank private sector and elements of the public sector”. Husted and Melvin (1990) define capital flight as capital that flees in response to economic or political crises, as opposed to normal capital outflows which correspond to ordinary portfolio diversification of domestic residents. Recent definitions of capital flight are found in Schneider (2003), Epstein (2005), Harrigan et al. (2007) and Ajayi and Ndikumana (2015). Schneider (2003) defines capital flight as capital outflows occurring in response to perceived changes in risk and return influenced by uncertainties not captured by the portfolio theory. Epstein (2005) defines capital flight as the unrecorded export of capital from developing to developed countries. According to him, the capital flight phenomenon is a puzzle for standard economic theory, which would predict poor resource-scarce countries to be importers of capital instead of the reverse. Harrigan et al. (2007) define capital flight as “capital that is running away from the domestic financial market to avoid losses and is in conflict with the interests, goals and objectives of the domestic society”. In their recent book, Ajayi and Ndikumana (2015) define capital flight as “capital flows from a country that are not recorded in the official

records of the transactions between the country and the rest of the world”, that is, the BoP. In other words, they define capital flight as the difference between the recorded inflows of foreign exchange and their uses. Ajayi and Ndikumana (2015) point out that although capital flight and illicit financial flows are used interchangeably, they are different concepts: “the concept of illicit financial flows covers a broader set of transactions than capital flight”. However, they recognize that most, if not all, capital flight is illicit.

The above discussion shows that there is a lack of consensus on the definition of capital flight, which implies the existence of various methods to measure capital flight. In this study, we use the definition of Ajayi and Ndikumana (2015).

Measuring capital flight

The methods of capital flight measurement found in the literature are the 'residual method', the 'Morgan Guaranty method', the 'Dooley method', the 'hot money method', and the 'asset method' (Hermes et al., 2002; Ndiaye, 2011; Murinde et al., 2015; Ndikumana et al., 2015).

The residual method

The residual approach, also known as the World Bank (1985) method, takes capital flight as the difference between the recorded inflows (net increases in external debt and net inflow of foreign investment) and recorded uses of foreign exchange (the current account deficit and additions to foreign reserves), that is, the difference between inflows and outflows of foreign exchange in a country's BoP (Ndikumana et al., 2015).

The residual approach of capital flight is given by:

$$KF_t = \Delta ED_t - FDI_t - CAD_t - \Delta FR_t \quad (1)$$

where KF is capital flight, ΔED is the change in the stock of external debt, FDI is the net foreign direct investment inflows, CAD is the current account deficit, and ΔFR is the change in the stock of official foreign reserves.

However, as Ndikumana et al. (2015) point out, debt inflows are often understated in BoP accounts. It is therefore advised to get debt information from other sources such as the Global Development Finance database of the World Bank.

Some adjustments have been made to the residual approach to include trade misinvoicing and unreported remittances (Boyce and Ndikumana, 2001 ; Ndiaye, 2011; Ndikumana et al., 2015)⁸. Trade misinvoicing is computed as below.

Trade misinvoicing

According to Schneider (2003), capital flight can occur when traders keep capital abroad by faking the trade documents, mostly due to exchange controls, by underinvoicing

exports and/or overinvoicing imports. According to Ndikumana et al. (2015), the amount of trade misinvoicing is estimated by comparing the imports of a country and the exports of its trading partners.

Export discrepancies with the industrialized trading countries (DXIC) are given by:

$$DXIC_t = VXIC_t - (XIC_t * CIF_t) \quad (2)$$

where VXIC is the value of imports from the African country as reported by the industrialized trading countries, XIC is the African country's exports to industrialized countries as reported by the African country, and CIF is the c.i.f/f.o.b factor and represents the costs of freight and insurance.

Import discrepancies with the industrialized trading countries (DMIC) are given by:

$$MISINV_t = \frac{DXIC_t}{ICXS_t} + \frac{DMIC_t}{ICMS_t} \quad (3)$$

where MIC is the African country's imports from the industrialized trading countries as reported by the African country, and VMIC is the industrialized countries' exports to the African country as reported by the industrialized trading countries.

Total trade misinvoicing is then given by the sum of export misinvoicing and import misinvoicing as follows:

$$KF_t = \Delta ED_t - FDI_t - CAD_t - \Delta FR_t + MISINV_t \quad (4)$$

where ICXS is the advanced economies' share in the country's total exports, and ICMS is the advanced economies' share of the country's total imports.

According to the residual approach, after adjusting for trade misinvoicing, capital flight is given by:

$$KF_t = \Delta ED_t - FDI_t - CAD_t - \Delta FR_t + MISINV_t \quad (5)$$

The Morgan Guaranty method

Morgan Guaranty (1986) builds on the residual approach of capital flight and incorporates an additional term, that is, the change in the short-term foreign assets of the domestic banking system (ΔB). The Morgan Guaranty approach of capital flight is thus given by:

$$KF_t = \Delta ED_t - FDI_t - CAD_t - \Delta FR_t + \Delta B_t \quad (6)$$

The Dooley method

The Dooley method takes capital flight to be the total amount of externally held assets of the private sector that do not generate income recorded in the BoP statistics of a country (Hermes et al., 2002). According to the Dooley method, capital flight is the difference between total capital outflows and the change in the stock of external assets corresponding to reported interest income. The Dooley method proceeds by first computing total capital outflows as reported in the BoP statistics and the stock of external assets as follows.

Total capital outflows as reported in the BoP statistics is given by:

$$TKO_t = FB_t + FDI_t - CAD_t - \Delta FR_t - \Delta WBIMF_t \quad (7)$$

where TKO is total capital outflows, FB is foreign borrowing as reported in the BoP statistics, EO is net errors and omissions, and $WBIMF$ is the difference between the change in the stock of external debt reported by the World Bank and foreign borrowing reported in the BoP statistics published by the IMF.

The stock of external assets corresponding to reported interest earnings is:

$$ES_t = \frac{INTEAR_t}{r_{US}} \quad (8)$$

where ES is external assets, r_{us} is the US deposit rate representing international market interest rate, and $INTEAR$ is the reported interest earnings.

Capital flight is then measured as the difference between total capital outflows and the change in the stock of external assets corresponding to reported interest income:

$$KFT_t = TKO_t - \Delta ES_t \quad (9)$$

The hot money method

The hot money method introduced by Cuddington (1986) measures capital flight as the sum of net short-term capital outflows of the non-bank private sector and recorded errors and omissions in the BoP statistics. According to the hot money method, capital flight is given by:

$$KF_t = SCO_t - EO_t \quad (10)$$

where *SCO* is short-term capital outflows by the non-bank private sector; and *EO* is errors and omissions, representing unrecorded capital outflow.

Errors and omissions

According to Epstein (2005), errors and omissions (with a minus sign) in the BOP tables should capture the residual measure of capital flight. And according to Cervena (2006), although it is the narrowest measure of capital flight since it underestimates the real magnitude of capital flight, it gives an idea of the situation when the necessary data for other estimates are not available.

$$KF_t = -EO_t \quad (11)$$

The asset method

The asset method considers capital flight to be the total stock of assets of non-bank residents held at foreign banks (Hermes et al., 2002).

It can be observed from the above discussion that a number of methods have been suggested to measure capital flight, but have different conceptual approaches to measure it. In other words, they differ significantly in their definition of what constitutes capital flight and therefore produce different estimates of capital flight. However, as Hermes et al. (2002) point out, the Dooley method and the hot money method are conceptually wrong. Why, for instance, should capital flight consist of short-term capital movements only? In addition, they argue that the asset method is too narrow and probably leaves out potentially large parts of capital flight. Because of the limitations of the other methods, the residual approach is the most commonly used method to estimate capital flight found in the literature (see for example, Hermes et al., 2002; Ndiaye, 2011; Ndikumana et al., 2015), and that is also the approach followed in this study.

Drivers of capital flight

Ndikumana and Boyce (2003), Ndikumana and Boyce (2011a), Ndiaye (2011), and Ndikumana et al. (2015) identified the main determinants of capital flight, which include capital inflows, macroeconomic instability, risk and returns to investment, financial development, governance and institutional quality, and political risks and war.

The first group of determinants of capital flight found in the literature includes capital inflows. According to Ndikumana and Boyce (2003) and Ndikumana et al. (2015), external debt is an important determinant of capital flight. They argue that corrupt leaders

tend to re-export the overseas part of the borrowed funds as private assets. This is the phenomenon referred to as 'debt-fueled capital flight' (Ajayi, 1995, 1997; Ndikumana and Boyce, 2003). From a panel data including 33 sub-Saharan African countries, Ndikumana and Boyce (2011a) found that for each dollar of external borrowing, 60 cents are re-exported overseas in the form of capital flight. In other words, external borrowing finances capital flight. External debt can also cause capital flight as a high debt overhang worsens macroeconomic conditions which deteriorate the investment climate (Ajayi and Khan, 2000; Ndikumana and Boyce, 2003). A positive impact of external debt on capital flight is therefore expected. Ndikumana and Boyce (2011a) and Ndikumana et al. (2015) find that external debt stock has a significant positive impact on capital flight. Other forms of capital inflows such as foreign direct investment and external aid are among the potential causes of capital flight found in the literature. According to Ndiaye (2011), their impact is not known a priori; it can be positive or negative. Since they are a source of foreign currency, they can finance capital flight, which is a positive impact in this case. However, as Ndiaye (2011) argues, an increase in these inflows can be a sign of a boost in the confidence of foreign investors concerning the economic perspective of the country, which reduces capital flight. From a panel of 134 developing countries, Cerra et al. (2005) find that external debt stimulates capital flight but FDI and aid reduce it. For the Franc Zone countries, Ndiaye (2011) finds that external debt has a significant positive impact on capital flight. For each dollar of external debt, he finds that 96 cents are channelled overseas as capital flight. He also finds that the effect of aid is positive and significant.

The second group of determinants of capital flight found in the literature is macroeconomic instability. Inflation and economic growth are macroeconomic indicators highlighted in the literature as the main determinants of capital flight. According to Ndiaye (2011), high inflation encourages capital flight as it reduces the real value of domestic assets, causing residents to hold their assets abroad. To the contrary, according to Ndikumana and Boyce (2003), high economic growth discourages capital flight as investors expect high overall returns to capital in the country. Hence, a positive impact of inflation on capital flight is expected, and a negative impact on economic growth. Alam and Quazi (2003) find that economic growth is one of the determinants of capital flight from Bangladesh. Ndiaye (2011) finds that the economic growth rate differential between the Franc Zone countries and France does not have a significant impact on capital flight. Ndikumana and Boyce (2003) find that the growth rate differential between African countries and their OECD trading partners has a significant negative impact on capital flight, while inflation has an insignificant positive impact.

The third group of determinants of capital flight includes indicators of risk and returns to investment, such as interest rate differentials and exchange rate movements. According to Ndiaye (2011), capital flight may be due to the difference in the returns on assets at home and overseas. A positive impact of interest rate differential on capital flight is expected. Capital flight increases as investing abroad is more profitable than investing domestically. Hermes and Lensink (1992) and Murinde et al. (1996) find no significant impact of interest rates on capital flight. Ndiaye (2011) also find no significant impact on the Franc Zone countries. Alam and Quazi (2003) find that interest rate differential has a significant negative impact on capital flight from Bangladesh. On the impact of

exchange rate movements, Ndikumana and Boyce (2003) argue that exchange rate overvaluation causes economic agents to expect a currency depreciation, which induces them to shift their portfolio composition in favour of foreign assets. Ndiaye (2011) finds that exchange rate overvaluation has a significant positive impact on capital flight in the Franc Zone countries. Similarly, Chukwuma and Uju (2014) find a significant positive impact of exchange rate on capital flight from Nigeria. Ndikumana et al. (2015) use the interest differential corrected for inflation and interest differential corrected for exchange rate depreciation as measures of returns to investments and find no robust evidence for a relationship between capital flight and these measures of return to investment.

Indicators of financial development are another group of determinants of capital flight found in the literature. These include domestic credit to private sector, and monetary aggregates M2 and M3. According to Ndikumana and Boyce (2003), the effect of financial development on capital flight is not known a priori. They argue that if financial development is accompanied by an expansion of opportunities for domestic portfolio diversification, capital flight will reduce, but capital flight increases if financial development facilitates international capital transfers. The impact of financial development can therefore be positive or negative. Ndikumana and Boyce (2003) find a significant negative impact of the domestic credit to private sector on capital flight, implying that a well-developed financial system discourages capital flight. However, Ndikumana et al. (2015) find no significant effect of financial development on capital flight.

Another group of determinants of capital flight includes political and governance factors. According to Ndikumana and Boyce (2003), political instability and poor governance encourage capital flight by worsening the overall investment climate through increased uncertainty. Alam and Quazi (2003) find that political instability is the most significant cause of capital flight from Bangladesh. Similarly, AfDB et al. (2012) African Economic Outlook (2012) argue that corruption increases risk and uncertainty in the domestic economy, thereby discouraging domestic investment and encouraging capital flight. It is also through corruption that the elite embezzle assets and transfer them abroad. Bakare (2011) finds that corruption is the main cause of capital flight from Nigeria. Using a GMM estimation, Ndikumana et al. (2015) find that capital flight is lower in better-governed countries, but increases with regime duration.

Variables of fiscal policy, i.e. budget deficits and taxation, are also found to be determinants of capital flight in the literature. Higher budget deficits encourage capital flight (Ndikumana and Boyce, 2003). High expected tax rates encourage capital flight by lowering expected net returns to domestic investment. Volatility in the tax rate also encourages capital flight by increasing investment risk, which in turn reduces risk-adjusted returns to domestic investment. Pastor (1990) and Hermes and Lensink (1992) do not find a statistically significant link between the tax/GDP ratio and capital flight. Hermes and Lensink (1992) and Chukwuma and Uju (2014) find that fiscal deficits do not significantly affect capital flight. Hermes and Lensink (2001) find that uncertainty of government tax policy has a significant positive effect on capital flight.

As Ndikumana and Boyce (2003) point out, although not often found in studies on determinants of capital flight, exports provide a mechanism of capital flight through underinvoicing. In addition, corrupt leaders of resource-rich countries may transform

export revenues into own assets which they transfer abroad. We can therefore expect capital flight to increase with exports. Ndiaye (2011) finds that total exports have a significant positive impact on capital flight for the Franc Zone countries. However, Ndikumana et al. (2015) find that the effect of the presence of natural resources on capital flight depends on the country's political and governance regime.

The literature surveyed above shows mixed evidence of the drivers of capital flight. Although drivers of capital flight differ from country to country, it is evident that the main causes of capital flight are external debt, macroeconomic instability, political instability and wars, as well as poor governance and corruption. Risk and returns to investment seem not to be the main drivers of capital flight from developing countries. It is notable that although Burundi has been included as one of the sample countries in cross-country studies on capital flight (see for instance Ndikumana and Boyce, 2003; Ndikumana and Boyce, 2011 a; Ndikumana et al., 2015), a country-specific study is yet to be done.

3. Analysis of the trend of capital flight from Burundi

Description of some of the components of capital flight

External debt outstanding

An analysis of the trend of external debt stock for Burundi shows that most of the external debt was accumulated in the 1980s. The stock of external debt was \$342.7 million in 1980 and \$1,248.1 million in 1990, which is an increase of \$905.4 million. The stock of external debt continued to increase throughout the 1990s but at a much slower pace, reaching \$1,264.6 million in 2000, which is an increase of \$16.55 million compared to \$905.4 million in the 1980s. The stock of external debt was \$1,288.9 million in 2008, but declined significantly from then because of the debt relief the country benefited from since 2009 under the enhanced Highly Indebted Poor Countries (HIPC) Initiative and the Multilateral Debt Relief Initiative (MDRI). From 2008 to 2009, the stock of external debt reduced by half, falling from \$1,288.9 million in 2008 to \$558.5 million in 2009 and \$538.6 million in 2011. The stock of external debt in Burundi has been changing from year to year. It increased for most of the 1985–2013 period, with negative changes only observed in 1996, 1997, 2000, 2001, 2004 and 2005. The stock of external debt increased by \$830.7 million during the period 1985–1989 and increased by \$479.6 million during 1990–1994, and by \$49.5 million during 1995–1999. It increased by \$168.0 million during 2000–2004, by \$166.0 million during 2005–2009, and by \$120.5 million during the period 2010–2013. From 1985 to 2013, the stock of external debt increased by \$1,814.4 million.

Net foreign investment

The amount of foreign investment Burundi has attracted over the years is very insignificant. The country has attracted only a total of \$52.5 million for the entire period 1985–2013. For some periods, such as 1994, 1996, 1997, 1999, 2001, 2002, 2003, 2004, 2006 and 2009, the country attracted less than half a million US Dollars. This is not surprising because of the decade-long civil war that ended in 2005. For the period 1985–1989, net foreign investment was \$9.4 million, but reduced to \$5.1 million during 1990–1994 and then increased slightly to \$5.9 million during 1995–1999. There was an improvement during 2000–2004, a period in which the country attracted an amount of

\$15.5 million, most of which (\$15.4 million) was received in 2000. This was probably a response to a call by the Government of Burundi and the international community to support the peace process that was ongoing at the time. Net foreign investment again dropped to \$5.1 million in 2005–2009 and increased to \$11.6 million in the period 2010–2013, probably due to the creation of the Burundian investment and promotion authority in late 2009. The inability to attract foreign investment in Burundi is mainly due to the political and macroeconomic instability that has been prevailing in the country, and poor governance and corruption, among other things, all of which are detrimental to the investment climate.

Current account

For the period 1985–2013 the current account was in deficit, except for the years 1995 and 1997 during which Burundi experienced surpluses of \$15.0 million and \$8.5 million, respectively. On average, the current account deficit was \$91.9 million for the period 1985–1989, which was reduced to \$45.0 million during the 1990s, but increased again during the 2000s decade to \$91.9 million. The situation worsened during the period 2010–2013 when the country experienced a deficit of \$280.6 million on average.

Change in foreign reserves

Between 1985 and 1995, the country accumulated foreign reserves only in 1987 and 1990 of \$4.8 million and \$5.2 million, respectively; the rest of the time the country experienced only outflows of foreign reserves. A total decline in foreign reserves of \$367.5 million was recorded during the period 1985–1995, and foreign reserves declined by \$33.4 million per year on average. From 1996 to 2006, the foreign reserves situation improved and only accumulation is observed during that period. A total of \$2,167.1 million in foreign reserves was accumulated in that period, which is an accumulation of \$197.0 million per year on average. From 2007 to 2013, the foreign reserves situation worsened again and an accumulation is only observed twice, in 2010 and 2011, of about \$9.8 million and \$36.4 million, respectively. On average, the stock of foreign reserves reduced by \$33.5 million per year in that period.

Magnitude of capital flight from Burundi

An analysis of the trend of capital flight from Burundi (see, Table 1) indicates that the country lost resources amounting to \$3,692.7 million during the period 1985–2013, with a maximum of \$499.3 million in 1995 and a minimum of \$-292.3 million in 2008 (corresponding to capital inflow), and an average of \$127.3 million per year. For the whole period, the stock of real capital flight is equal to \$4,186.2 million, which is the accumulated capital loss, assuming capital flight was invested abroad and earned interest at a return rate equal to the US Treasury Bill rate. While the country experienced net unrecorded capital outflows (positive capital flight) from 1985 to 2006, a rather unusual trend is observed from 2007 to 2013, when Burundi experienced capital flight reversal

(negative capital flight). From 1985 to 2006, \$4,895.9 million of unrecorded capital left the country, while from 2007 to 2013, \$1,203.2 million of unrecorded capital entered Burundi. In addition, as is evident from Table 2, an analysis of the composition of capital flight from Burundi shows that apart from the periods 2000–2004 and 2010–2013, the majority of capital flight was due to trade misinvoicing. For the whole period 1985–2013, more than three quarters of total capital flight (\$2,893.9 million, that is, 78.4%) was due to trade misinvoicing (of which \$2,300.5 million, that is 62.3%, was from export underinvoicing and \$593.4 million, that is 16.1%, from import overinvoicing), while 21.6% went through BoP leakages.

**Table 1: Total capital flight from Burundi and its components
(constant 2013 US\$ million)**

Period	BoP residual	Export misinvoicing	Import misinvoicing	Trade misinvoicing	Total capital flight
1985–1989	375.8	524.4	106.5	630.9	1006.7
1990–1994	86.3	829.6	-115.0	714.7	801.0
1995–1999	339.6	899.4	28.1	927.5	1267.1
2000–2004	1066.0	16.1	-42.8	-26.7	1039.3
2005–2009	-101.3	146.7	195.9	342.6	241.4
2010–2013	-967.7	-115.8	420.7	304.9	-662.8
1985–2013	798.8	2300.5	593.4	2893.9	3692.7

Source: Author, using extended series from Boyce and Ndikumana (2012), available at https://www.peri.umass.edu/images/Capital_flight_from_39_African_countries_1970-2010_Dec2012_1.xlsx www.peri.umass.edu/300.

**Table 2: Contribution of each component to total capital flight
(% of total capital flight)**

Period	BoP residual	Export misinvoicing	Import misinvoicing	Trade misinvoicing	Total capital flight
1985–1989	37.3	52.1	10.6	62.7	100.0
1990–1994	10.8	103.6	-14.4	89.2	100.0
1995–1999	26.8	71.0	2.2	73.2	100.0
2000–2004	102.6	1.6	-4.1	-2.6	100.0
2005–2009	-41.9	60.8	81.2	141.9	100.0
2010–2013	146.0	17.5	-63.5	-46.0	100.0
1985–2013	21.6	62.3	16.1	78.4	100.0

Source: Author, using extended series from Boyce and Ndikumana (2012), available at https://www.peri.umass.edu/images/Capital_flight_from_39_African_countries_1970-2010_Dec2012_1.xlsx www.peri.umass.edu/300.

An analysis by period indicates that for the period 1985–1989, of the \$1,006.7 million that left during that period, 37.3% (\$375.8 million) was through BoP leakages and 62.7% (\$630.9 million) through trade misinvoicing (of which 52.1%, that is \$524.4 million, was from export underinvoicing, and 10.6%, that is \$106.5 million, from import overinvoicing). During the period 1990–1994, \$801 million left the country, of which \$86.3 million, that is 10.8%, was through BoP leakages and \$714.7 million, that is 89.2%, through trade misinvoicing. Trade misinvoicing was again a major channel of capital flight during this period; a total of \$829.6 million was due to export underinvoicing, and \$115 million was import underinvoicing (import smuggling). For the period 1995–1999, resources amounting to \$1,267.1 million left the country, of which 26.8% (\$339.6

million) was through BoP leakages, and 73.2% (\$927.5 million: \$899.4 million as export underinvoicing and \$28.1 million as import overinvoicing) through trade misinvoicing.

Capital flight for the period 2000–2004 amounted to \$1,039.3 million, of which \$1,066 million was an unrecorded outflow (through BoP leakages), and an unrecorded inflow of \$26.7 million through trade misinvoicing. Trade misinvoicing in this period was made up of \$16.1 million of export underinvoicing and \$42.8 million of import underinvoicing. For the period 2005–2009, Burundi experienced an unrecorded capital inflow amounting to \$101.3 million and an unrecorded capital outflow of \$342.6 million through trade misinvoicing (\$146.7 million of export underinvoicing and \$195.9 million of import overinvoicing), making a total of \$241.4 million due to capital flight during that period. Similarly, for the period 2010–2013, there was a huge unrecorded capital inflow of \$967.7 million (BoP leakages) and an unrecorded capital outflow of \$304.9 million of trade misinvoicing (\$115.8 million of export overinvoicing and \$420.7 million of import overinvoicing). During this period, Burundi received \$662.8 million through illegal channels.

Capital flight burden in Burundi

The capital flight burden in Burundi can be seen in Table 3. It shows that at the end of the year 2013, the stock of capital flight was \$4,186.2 million while the stock of external debt stood at \$682.7 million, which makes a total of net external assets of \$3,503.5 million. This indicates that Burundi would be debt-free if some of the resources that left illegally were used to pay back the debt. The same conclusion is reached if an analysis is conducted period by period. Except for the period 1985–1989, where the stock of external debt exceeds the stock of capital flight, in other periods, the stock of capital flight greatly exceeds the stock of external debt. This shows that since the 1990s, Burundi would have been able to pay its external debt if resources that fled were used for that purpose. This is confirmed by the ratio of the stock of capital flight to the stock of external debt. While this ratio stood at 43.7% during 1985–1989, it increased significantly during the subsequent periods. This shows that since the 1990s, half the amount that left the country in the form of capital flight could have been enough to repay external debt. Over the whole of the period 1985–2013, the ratio of stock of capital flight to stock of external debt was 282%. The capital flight burden can also be seen through the ratio of capital flight to domestic investment. While Burundi is one of the poorest and least developed countries in the world, a huge amount of resources have been leaving illegally which, if it had been invested locally would have changed the situation. We can see from Table 3 that for the whole period 1985–2013 capital flight is, on average, about 149% of domestic investment. This suggests that if capital flight funds had been invested locally, domestic investment would have more than doubled. In addition, by comparing capital flight to the size of the economy we see that, on average, for the period 1985–2013, capital flight was about 10.2 % of GDP. The ratio of capital flight to GDP was 9.9% during 1985–1989 and kept increasing for the subsequent periods to reach 19.8% during the period 2000–2004. The ratio of capital flight to GDP dropped to 5% during the period 2005–2009, when unrecorded capital outflows were partly offset by unrecorded capital inflows.

Table 3: Capital flight burden in Burundi

Period	Capital flight	Stock of capital flight ¹	External debt stock ¹	Net external assets ²	KF-GDP ratio ³ (%)	KF-debt ratio ⁴ (%)	KF-GFCF ratio ⁵ (%)
1985–1989	1006.7	1071.5	1496.4	-424.9	9.9	43.7	59.9
1990–1994	801.0	1999.9	1650.6	349.3	10.1	105.3	95.3
1995–1999	1267.1	3730.7	1554.9	2175.8	19.7	203.1	290.3
2000–2004	1039.3	4834.7	1642.0	3192.7	19.8	287.1	411.8
2005–2009	241.4	5137.2	647.7	4489.5	5.0	444.1	25.9
2010–2013	-662.8	4186.2	682.7	3503.5	-6.9	690.0	-23.5
1985–2013	3692.7	4186.2	682.7	3503.5	10.2	282.0	149.0

Notes: (1) The stock of the variable at the end of the period. (2) Computed by taking the stock of capital flight minus stock of external debt. (3) The ratio of capital flight to GDP. (4) The ratio of the stock of capital flight to external debt stock. (5) The ratio of capital flight to domestic investment.

Moreover, while large sums of money have been lost through capital flight in Burundi, economic and social indicators show that development is badly needed in the country, indicating the real burden of capital flight. Each dollar lost from the country is indeed a big loss. Table A.3 in the Appendix shows that Burundi's level of GDP per capita is very low; among the lowest in the world. In fact, it has been ranked by the World Bank as one of the bottom three in the last five years. Although GDP per capita increased from the 1960s to the 1980s, it declined in the 1990s and 2000s due to the civil war, which started in 1993 and lasted more than a decade (1993–2005). The low level of GDP per capita also reflects the level of poverty, which is very high as measured by the headcount ratio (\$1.25 a day) that was 84.2% in 1992, and increased to 86.4% in 1998. Although it reduced in 2006, it is still very high (81.3%). The level of human development in Burundi is also among the lowest in the world. Burundi is usually classified among the top 10 countries with the lowest human development. The Human Development Index (HDI) was 0.23 in 1980, then increased to 0.29 in 1990 and remained at the same level in 2000. There was a slight improvement in human development in 2005 and in 2010, but it remained unchanged in 2013. The low level of human development in Burundi is not surprising given the prevailing level of social and health indicators. Table A.4 shows that the situation is really bad in Burundi; the number of physicians (per 1,000 people) is, on average, equal to 0.039, which would place it among the lowest in the world; 1,000 people on average share one bed in hospital [the number of hospital beds (per 1,000 people) is on average equal to 1.07]; the prevalence of child malnutrition is around 30%, and although access to electricity (% population) has improved, it remains very low. The pupil-teacher ratio is high for primary school (an average of 48 for the period 1970–2013), and moderate for secondary school (an average of 20 for the period 1970–2013). Significant progress has been made in reducing the infant mortality rate; infant mortality rate it (per 1,000 live births) reduced from 146.4 in the 1960s to 71.7 during the period 2000–2013. Recall that the MDGs required that the under-five mortality rate be reduced by two thirds between 1990 and 2015. In 1990, the infant mortality rate was 103.4, and reduced to 54.8 in 2013. If funds that left the country in the form of capital flight had been used to fight poverty by investing in social services such as health, education, infrastructure, providing clean water and electricity, they would have

contributed to better economic performance.

In addition, empirical evidence (see, for example, Ndikumana and Boyce, 2003; Ndikumana and Boyce, 2007 11a; Ndiaye, 2011) has shown that capital flight can be fuelled by external borrowing. A graphic analysis of the relationship between capital flight and external debt (see Figure 2) indeed shows a positive relationship between the two variables, indicating that high external borrowing could be associated with high capital flight from Burundi. As Ndikumana and Boyce (2011b) point out, this is another burden as the country services the debt that was turned into personal assets and channelled abroad by corrupt leaders. They argue that there is a human cost to capital flight and debt servicing in that it reduces public health expenditure. They estimate that each dollar of debt service reduces public health expenditure by 29 cents and that a reduction in health expenditure of \$40,000 translates into one additional infant death. Thus one can say that debt-service payments on loans that fuel capital flight translate into deaths. For the period 1970–2013, the government of Burundi used \$1,031.6 million on external debt servicing, most of which must have been odious debt. It is therefore not surprising that public health expenditure is low. The ratio of public health expenditure (% GDP) is 3.1% for the period 1995–2013 and, on average, the government of Burundi spends \$20 per person annually on healthcare.

It can be observed from the discussion above that while in absolute terms capital flight from Burundi does not seem alarming, the capital flight burden is evident in relative terms. For the period 1985–2013, capital flight represented, on average, 10.2% and 149% of GDP and gross fixed capital formation, respectively. On the composition of capital flight, trade misinvoicing constitutes the major channel of capital flight from Burundi. About 78.4% of total capital flight went through that channel, while only 21.6% went through BoP leakages. It is also observed that for the period being considered in this study, the stock of capital flight vastly exceeds the stock of external debt; over the period 1985–2013, the ratio of the stock of capital flight to the stock of external debt was 282%, indicating that Burundi would be debt-free if part of the resources that left illegally were used to pay back the debt.

4. Institutional analysis of capital flight from Burundi

In this section we analyze some political, economic and institutional factors that can explain the trend and magnitude of the observed capital flight.

The literature identifies political instability and wars as one of the causes of capital flight (see, for example, Lensink et al., 1998; Hermes and Lensink, 2001). Burundi is generally known for its history of political instability and civil wars. Most episodes of crisis in Burundi were motivated by the search to capture or recapture political and economic power by the two main ethnic groups, the Hutus and Tutsis. Before colonization, Tutsis and Hutus coexisted although the Tutsi ethnic group enjoyed relatively more economic privileges and political power. Tensions and divisions between the two ethnic groups were exacerbated by the colonial masters' policy, which was based on divide and conquer (Nkurunziza and Ngaruko, 2008) and, as a result, the two ethnic groups have had a series of violent clashes over the years. Since independence in 1962, Burundi has experienced five military coups, in 1966, 1976, 1987, 1993 and 1996, and has recorded five episodes of civil war in 1965, 1969, 1972, 1988 and 1993. Until 1966, Burundi was a monarchy, which came to an end when an army officer, Captain Michel Micombero, deposed the last king, Ntare V, and declared the first republic of Burundi. During his reign, two civil wars took place in 1969 and 1972, resulting in the death of thousands of people and causing thousands more to flee the country. Micombero's reign ended in 1976, when he was deposed by another army officer, Colonel Jean-Baptiste Bagaza, to start the second republic. Although no civil war was recorded during Bagaza's reign (1976–1987), it was characterized by a continuation of the political repression that had started after the crisis of 1972. In addition, in the early 1980s, Burundi experienced economic difficulties, which encouraged capital flight. These economic difficulties were due to high budget deficits and the high servicing cost of debt contracted in the 1970s, which became unsustainable in the 1980s (Nkurunziza and Ngaruko, 2008). Ajayi (1992) and Hermes et al. (2002) show that budget deficits stimulate capital flight. During the second republic, capital flight must have been high as Burundi recorded capital flight of \$613.9 million for the period 1985–1987 only.

Colonel Bagaza was deposed in 1987 by Major Pierre Buyoya, another army officer, who ruled until 1993. In 1988, there was another civil war that, according to Nkurunziza and Ngaruko (2008), was a result of political tensions prevailing in the two preceding regimes. Thus, from 1966 to 1993, three military dictatorship regimes ruled the country. In 1993, Burundi got its first democratically elected president, Melchior Ndadaye, who was unfortunately killed three months later in another military coup. The coup turned into chaos and led to a long civil war that claimed over 300,000 lives and paralyzed the

economy for more than a decade (1993–2005). Basically, capital flight observed during the period 1985–2005 (\$4,473.7 million) can to a great extent be explained by political instability and wars. As Ndiaye (2011) explains, the fall in confidence in a domestic political situation induces economic agents to channel their assets abroad. In 1995, the country was in total chaos, led by President Sylvestre Ntibantunganya who lacked charisma. It was weakened by everyday demonstrations by Tutsi youth, the army that the president did not control (the army was still in the hands of Tutsis) and the attacks by Hutu rebel groups, which intensified that year. It is not surprising that capital flight from Burundi rose in 1995 to around \$499.3 million. In July 1996, there was another military coup, by Major Pierre Buyoya, which was sanctioned by an economic embargo by the international community. During the period of economic embargo (1996–2000), the import and export of some strategic products were done illegally, even by the government, causing trade misinvoicing. For the year 1996, for example, \$338 million left the country through trade misinvoicing, including \$362.6 million export underinvoicing that was partly offset by \$24.3 million worth of import underinvoicing (import smuggling). As Nkurunziza and Ngaruko (2008) point out, speculation and corruption in the period of economic embargo reached new heights and caused an increase in transaction costs, which could have encouraged capital flight.

Macroeconomic instability is another factor found in the literature that can affect capital flight (see, for example, Ndiaye, 2011). Burundi has experienced macroeconomic instability in the past decades, characterized by high inflation and low economic growth rates (See, Table A.2). During the period 1985–1989, the economic growth rate in Burundi was on average 5.4%, which was higher than the African average growth rate (see Nkurunziza and Ngaruko, 2008). Inflation was also low in that period, being a single digit (5.7%). However, surprisingly, a considerable amount of resources (\$1,006.7 million) left the country during that period. This implies that capital flight in that period was caused by other factors. In the next decade (1990–1999), economic growth became negative (-1.43% on average) due to the civil war (1993–2005). In fact, from 1993 to 2000, Burundi recorded a positive growth rate (4.75%) only once (in 1998); in the other periods only negative growth rates were recorded (See, Figure A.3). In addition, the inflation rate during this period was quite high, 13.5% on average (See, Figure A.2). This shows that macroeconomic instability was high in this period. Consequently, capital flight soared and reached \$2,068 million in the 1990s. However, was capital flight during this period due to high macroeconomic instability or political instability and wars (which were also prevalent)? In the period which followed (2000–2006), there was an improvement in terms of economic growth (2.2% on average) and even the inflation rate declined (9.6% on average), but an improvement in macroeconomic conditions was not enough to deter capital flight; \$1,821.1 million left the country during that period. During the period 2007–2013, a moderate growth rate of 4.3% was recorded and inflation reached 12.2% on average, but a rather unusual trend of capital flight was observed (negative capital flight); unrecorded capital amounting to \$1,203.2 million entered the country during that period.

While the trend of capital flight (See, Figure A.1) from 1985 to 2006 can be explained by some known factors in the literature such as capital inflows, macroeconomic instability, governance and institutional quality, political instability and wars, the trend

observed from 2007 to 2013 (negative capital flight, that is, unrecorded capital inflows) cannot be explained by those factors. However, we might get a clue as to why this happened if we look at some practices that are prevalent in Burundi. Recently, there has been a lack of transparency in the way tax exemptions are granted and a lack of transparency in the allocation of mining concessions in Burundi. A report by the US department of State indicates that since 2008, the executive branch of Burundi has granted large fiscal exemptions to private foreign companies through discretionary presidential decree or ministerial ordinance. This is confirmed by Holmes and Llewellyn-Jones (2013) who argue that “Burundi’s level of tax exemptions remains unacceptably high in relation to its current tax take”, especially for a country with high grant dependence. However, the tax exemption problem does not seem to be new. Nkurunziza and Ngaruko (2008) indicate that in 1993, import tax exemptions were about 50% of total import tax revenue, whereas in 1996, discretionary exemptions amounting to \$10 million represented 42% of total exemptions. As Nkurunziza and Ngaruko (2008) point out: “the problem is that most officials making these tax exemption decisions do not hesitate to monetize them”. Similarly, another problem which might explain capital flight into Burundi is how permits for the exploration and exploitation of minerals have been granted in a non-transparent way. For instance, according to a report by the International Crisis Group (2012), the contract to exploit the rich nickel deposits in eastern Burundi was negotiated at the highest level and in the greatest secrecy. According to the same report, the traditional legal procedure of entrusting the consideration of applications for mining exploration permits to experts and an inter-ministerial committee, which reported to the Council of Ministers, was not followed. The Council of Ministers even questioned the award of an exploration permit to a South African company and asked whether the company had the capacity to manage such a project successfully. The local anti-corruption observatory (OLUCOME) denounced the obscure mechanisms in the award of contracts to foreign mining companies. According to OLUCOME, these foreign mining companies transfer funds on an account named “support to good initiatives” managed by the President of the Republic, through his civilian chief of staff. These two problems, namely the lack of transparency in the way tax exemptions are granted and the lack of transparency in the allocation of mining concessions, and other malpractices which occurred can help explain the negative BoP residual observed in 1988, 1992, 1993, 1996, as well as from 2007 to 2013. In fact, from 2007 to 2013, Burundi experienced a negative BoP residual of \$1,642.5 million (unrecorded capital inflow), which was partly offset by positive trade misinvoicing (unrecorded capital outflow) of \$439.4 million, to make negative capital flight, that is, unrecorded capital inflows amounting to \$1.2 billion. These unrecorded capital inflows might have been kickbacks, that is, transfers of money from foreign companies made on account of government officials as payment for mineral exploitation contracts granted illegally and other illegal transactions that occurred.

However, it should be noted that although corruption was high in the period 2007–2013, and financial scandals and other malpractices occurred, it was a period of relative peace and political stability. Therefore, negative capital flight in that period might have been capital flight reversal; resources which had left the country during the various episodes of civil war and political instability were returned because of the relative

improvement in the investment climate in Burundi due to peace and political stability.

From the above analysis, it seems that political instability and wars as well as macroeconomic instability can help explain the capital flight observed during the period 1985–2006. For the period 2007–2013, negative capital flight was observed (unrecorded capital inflow); however, it is difficult to consider that to be capital flight reversal given the political, institutional and economic situations which were prevailing in that period. One can rather think of it as kickbacks because of corruption and poor governance and other government malpractices that occurred in that period as discussed above. Consequently, in the model specification in our econometric analysis in Section 6, a war dummy variable is included to capture political instability and wars and another dummy variable to capture all the malpractices that occurred in the period 2007–2013 that induced capital inflows. In addition, following the insights from the institutional analysis of capital flight, we start our estimation with a capital flight model with political instability and economic growth as regressors, to which we add external debt, which is a major driver of capital flight from developing countries in the empirical literature.

5. Some examples of financial scandals and embezzlement of public funds in Burundi

Some examples of financial scandals and economic embezzlement that were reported by the media or the anti-corruption observatory in Burundi (OLUCOME) are reviewed in this section; cases which might have fed capital flight. It should be noted that this is the first time such cases have been assembled from various sources.

In November 2001 Dr. Kassy Manlan, who was the World Health Organization (WHO) representative in Burundi, was assassinated. Around that time, malaria was killing many people in Burundi, especially in rural areas. Since the Government of Burundi was unable to intervene due to lack of finances, the WHO donated \$40 million to the government to help the fight against malaria. The grant money had to be transferred. It is said that the President of the Republic at the time asked the Governor of the Central Bank of Burundi to give the order to transfer the funds through an intermediary account. The WHO donation was channelled through an account in Paris and diverted to another destination. It never reached Burundi. It is said that Dr. Kassy Manlan was killed while investigating the embezzlement of the WHO money.

The irregular sale of the presidential jet “FALCON 50” in June 2006 was a major national financial scandal. It is said that the then finance minister sold the jet to an American society, Delaware Corporation based in Dubai, at around \$6.85 million, whereas its value was estimated at \$11 million according to an audit. The media and OLUCOME denounced the sale vigorously. The minister of finance was fired because of that financial scandal. On the same issue, OLUCOME demonstrated in its press release on 30 April 2014 that the State continued to budget for maintenance costs of the presidential plane while the aircraft had been sold in 2006. According to the statement, while the plane was sold in 2006, the government budget for subsequent financial years laws still contained the subheading “maintenance and repair of the Government aircraft”, under the heading “budget of the Presidency of the Republic”. Until 2014, a total amount of BIF3.5 billion (Burundian franc) had been budgeted while there was no plane.

In 2007, there was another financial scandal involving government officials. OLUCOME exposed embezzlement that occurred when the government was paying an oil importing company, Interpetrol Bujumbura. It is said that the finance minister at the time authorized an illicit payment to the oil company. The finance minister is alleged to have asked the Central Bank to pay money to the company amounting to \$20 million, four times the bill of \$5 million that was supposed to be paid. It is said that Interpetrol Bujumbura had supplied oil products to the State of Burundi during the years of civil war and during the period of economic embargo, 1996–2000.

In 2013, the director of Bujumbura Port was fired because of embezzlement, which was

revealed by the head of the Civil Cabinet of the President. The office of the President of the Republic denounced some huge sums of money which had been regularly transferred abroad to unknown names; until April 2013, BIF189 million had been transferred. The same correspondence from the presidency said that the vice director was also involved in the embezzlement. Each month, a sum of BIF7.94 million was transferred to his personal account, yet his net monthly salary was BIF 850,000. The presidency also said there was over BIF50 million on an account for expenditures made that had no supporting documents. In total, it is said that resources amounting to BIF411 million were embezzled.

In 2011, in a letter to the President of the Republic, OLUCOME denounced the embezzlement of debt repayment funds by government officials amounting to about \$15.3 million. This was a debt that Uganda owed to Burundi dating back to 1980 during the second republic. Uganda paid back the debt (with interest of course) but Burundian government officials claimed that the loan payment was used to purchase school supplies from Picfare Industries Ltd (a Ugandan company), yet the package was actually a gift from the Government of Uganda to Burundi in support of the free tuition programme that had started in 2005.

According to a report by the International Crisis Group (2012) in March 2010, an illegal contract of \$500 million was concluded between the Government of Burundi and the American Society AAE Systems Inc. in violation of the law on public procurement, for the supply of communication equipment for the presidency, the provinces, the army and Bujumbura Airport. This was denounced by OLUCOME and the issue received wide media coverage. The finance minister at the time said he did not have knowledge of the contract, yet he was supposed to be the one authorizing state expenditure. The international community, especially the IMF, pressured the Government of Burundi over the incident, and the government was forced to sign an act of renunciation in January 2011. Had the contract not been cancelled, it was going to cause the biggest political and financial scandal in Burundi. The same report by the International Crisis Group (2012) indicates that in 2010 a donation in kind of 7 million litres of oil was made by the Government of Japan to Burundi. The donation was to be sold and used in accordance with the Japanese Development Cooperation. A management committee was put in place to organize the sale, but it complained of being bypassed. The committee also denounced the irregularities of the contract and recommended that it be cancelled. The irregularities were also denounced by the second vice president of the republic, who said that “the way in which this donation in kind by Japan was negotiated, accounts opened and the transaction managed violated Burundi’s laws and regulations” (International Crisis Group, 2012).

A US Department of State report denouncing corruption in Burundi reported that in 2014 there was an increase in taxation in the telecommunications and mining sectors in Burundi, either by presidential decree or ministerial ordinance. However, the report indicated that “the revenues from the new tax were kept off-budget by routing to a private bank account managed individually by a government official” (US Department of State, 2014). Another financial scandal related to the presidential jet occurred in 2014. In 2014, Burundians were informed that a presidential jet was purchased. However, the mystery was the source of the funds since the money which was used was not in any section of the revised law of finance. Another surprising thing was that even the cabinet

was not aware of the transaction. After pressure from the media and OLUCOME, the government acknowledged the transaction but claimed that the funds used came from “friends of Burundi”. The spokesman of the Presidency of the Republic later held a press conference and said that the jet had cost around \$8.5 million, but did not reveal the source of the funds. After investigations by the media and OLUCOME, it was revealed that the funds were from the African Union Mission in Somalia (AMISOM). However, what they did not realize was that the money was not used to buy a presidential jet but was just being transferred to accounts abroad. Burundians have not yet seen that plane and probably never will.

For some time now, Burundi has been participating in various peace-keeping missions, such as AMISOM in Somalia and MINUSCA in the Central African Republic. Burundi receives considerable amounts of money from those missions. However, Burundians wonder how these funds are managed. The president of OLUCOME said he had interviewed people from the Ministry of Finance, the Ministry of Defence and the Presidency of the Republic, but no one could tell him how those funds were managed. The president of OLUCOME was outraged to know that the funds were handled by one person, i.e., the then civil Chief of Staff for the President, through a verbal directive from the President of the Republic, yet these were public funds, what he qualified as “opaque” management of public funds.

In 2013, another case of embezzlement of funds was denounced. OLUCOME argues that in 2005 senior officials from the ministry of public security started a good initiative (the intentions of which were not clear), to open an account for a fund to help policemen suffering from HIV/AIDS. Since 2005, contributions have been made and according to OLUCOME, an amount of over BIF2 billion has been contributed but no policeman suffering from the disease has ever benefited from this fund. The president of OLUCOME stated that about half of the funds collected (about BIF1 billion) had been withdrawn, but the destination remains unknown.

From the above discussion, we observe that financial scandals and embezzlement of public funds in Burundi are common, a sign of poor governance and corruption. In Burundi, being one of the poorest countries in the world, with the majority of the population deprived of essential services such as clean water, proper sanitation, health care and electricity, it is a paradox that the few resources the country has are embezzled and turned into private assets instead of being used for the improvement of citizens’ welfare. It should be noted that embezzlement of public funds undermines social service delivery; as a consequence, ultimately it is not only stolen money but lost human lives (Ndikumana and Boyce, 2011 b).

However, it must be acknowledged that although the information provided in this section is interesting and relevant for understanding the capital flight problem in Burundi, one weakness is that most cases presented are based on a single source and it is difficult to determine the quality of the sources.

6. Analysis of the drivers of capital flight from Burundi

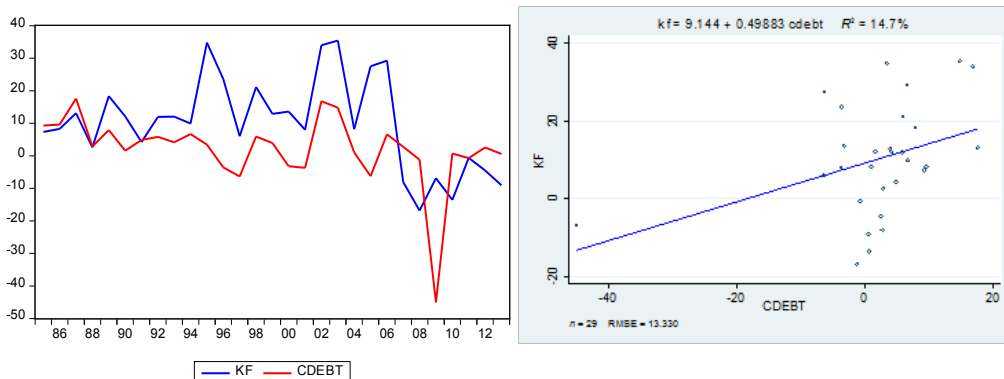
Graphic analysis of the relationship between capital flight and some potential determinants

This section graphically analyzes the relationship between capital flight and some of the determinants known in the literature, such as external debt, external aid, macroeconomic instability, and financial development

Debt inflow and capital flight

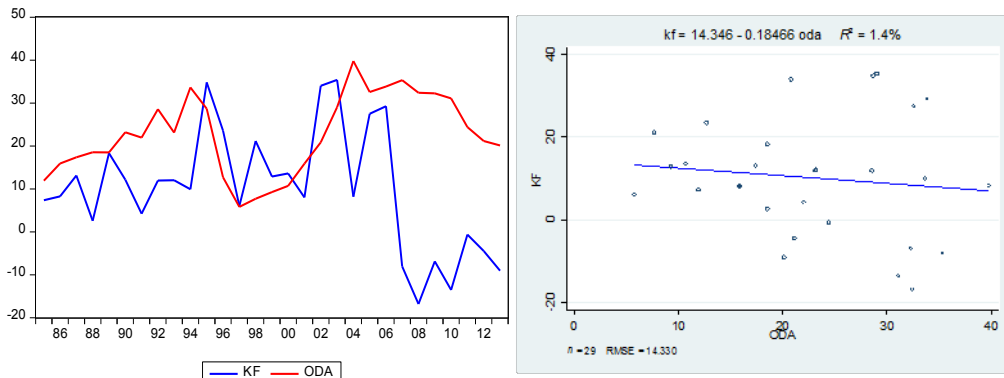
From 1985 to 2013, Burundi received resources amounting to \$1.4 billion in external borrowing. It is said that corrupt leaders may transform a share of external borrowing into their own assets and transfer them abroad (see, for example, Ndikumana and Boyce, 2007; Ndiaye, 2011). Has external borrowing been fuelling capital flight in Burundi? Figure 2 presents the relationship between capital flight and external debt. It shows that external debt and capital flight were moving in the same direction most of the time for the period 1985–2013. In the periods 1990–1991 and 1992–1995, 1999–2000, 2002–2003, 2004–2005 and 2008–2013, external debt and capital flight moved in opposite directions, while in the other periods external debt and capital flight were moving in the same direction. For instance, for the periods 1985–1987, 1988–1989, 1997–1998 and 2001–2002, an increase in external debt is associated with an increase in capital flight, while for the periods 1987–1988, 1989–1990, 1995–1997, 2000–2001 and 2003–2004, a decrease in external debt is associated with a decrease in capital flight. This indicates a positive correlation between external debt and capital flight as also confirmed by the scatter diagram (see Figure 1) where the slope of the regression line is positive.

Figure 1: Relationship between capital flight and change in the stock of external debt



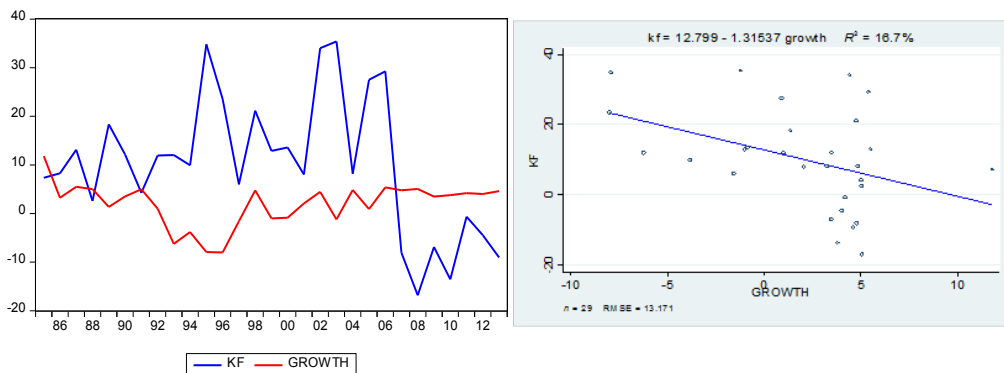
External aid and capital flight

Figure 2 presents the relationship between capital flight and Official Development Assistance (ODA) in Burundi. Burundi has received a considerable amount of money in the form of development assistance from donors. For the period 1985–2013, \$10.8 billion of ODA was received. According to Ndikumana and Boyce (2011b), aid is a loutable resource which can be embezzled by corrupt leaders and channelled abroad. Has aid been used to finance capital flight in Burundi? We look closely at their correlation by analyzing their trends over time. An increase in external aid is associated with an increase in capital flight for the periods 1985–1987, 1991–1992, 1997–1998, 1999–2000, 2001–2003 and 2005–2006, while a decrease in external aid is associated with a decrease in capital flight for the periods 1990–1991, 1995–1997, 2007–2008, 2009–2010 and 2011–2013, which suggests a positive correlation between the two variables. However, in some other periods, external aid and capital flight are inversely correlated. An increase in external aid is associated with a decrease in capital flight for the periods 1987–1988, 1989–1990, 1993–1994, 1998–1999, 2000–2001, 2003–2004 and 2006–2007, while a decrease in external aid is associated with an increase in capital flight for 1988–1989, 1992–1993, 1994–1995, 2004–2005, 2008–2009 and 2010–2011. For the whole period, the scatter diagram suggests a negative correlation, although weak, between external aid and capital flight in Burundi. This is in accordance with Collier et al. (2004 b), who suggested that at low levels aid tends to deter capital flight and implied that “aid to Africa is not associated with more capital flight”.

Figure 2: Relationship between capital flight and Official Development Assistance

Economic growth and capital flight

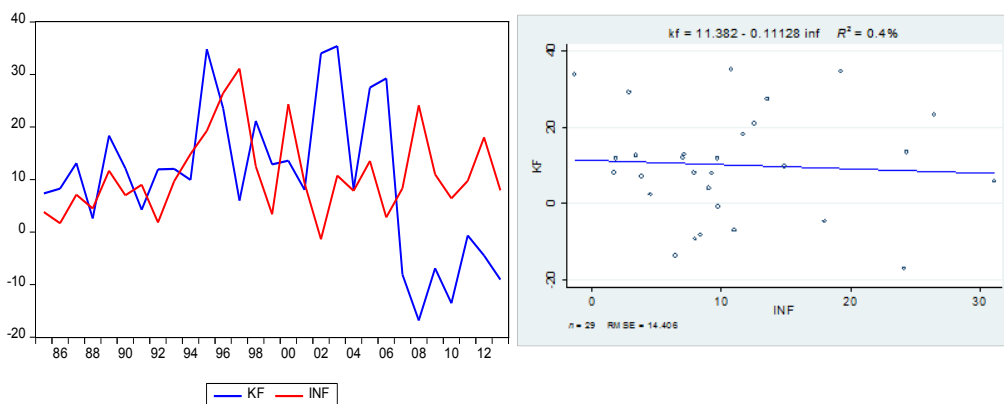
Figure 3 presents the relationship between capital flight and economic growth. It shows that for the periods 1985–1986, 1988–1989, 1991–1993, 1994–1995, 2002–2003, 2004–2005 and 2008–2009, a decrease in economic growth is associated with an increase in capital flight, while for the periods 1989–1991, 1993–1994, 1996–1997, 2000–2001, 2003–2004, 2007–2008, 2009–2010 and 2012–2013, an increase in economic growth is associated with a decrease in capital flight. For these two sets of periods a negative relationship exists between economic growth and capital flight, as the theory predicts. However, for some other periods, there seems to be a positive correlation between economic growth and capital flight, which is not consistent with what the theory predicts. Economic growth and capital flight both increased for the periods 1986–1987, 1997–1998, 1999–2000, 2001–2002, 2005–2006 and 2010–2011, and they both decreased for the periods 1987–1988, 1995–1996, 1998–1999, 2006–2007 and 2011–2012. Nonetheless, for the whole period, the scatter diagram shows that the regression line is negatively sloped, indicating a negative correlation between capital flight and economic growth.

Figure 3: Relationship between capital flight and economic growth

Inflation and capital flight

Figure 4 presents the relationship between capital flight and inflation in Burundi. A closer look at the figure suggests that an increase in inflation is associated with an increase in capital flight for the periods 1986–1987, 1988–1989, 1992–1993, 1994–1995, 1999–2000, 2002–2003, 2004–2005 and 2010–2011, while a decrease in inflation is associated with a decrease in capital flight for the periods 1987–1988, 1989–1990, 1998–1999, 2000–2001, 2003–2004, 2009–2010 and 2012–2013. This suggests a positive correlation between capital flight and inflation, which is consistent with the theory. For some periods, however, the correlation between capital flight and inflation seems to contradict theory. An increase in inflation is associated with a decrease in capital flight for the periods 1990–1991, 1993–1994, 1995–1997, 2006–2008 and 2011–2012, while a decrease in inflation is associated with an increase in capital flight for the periods 1985–1986, 1991–1992, 1997–1998, 2001–2002, 2005–2006 and 2008–2009, suggesting a negative correlation between the two variables. For the whole period, the scatter diagram suggests that capital flight and inflation are not correlated.

Figure 4: Relationship between capital flight and inflation rate

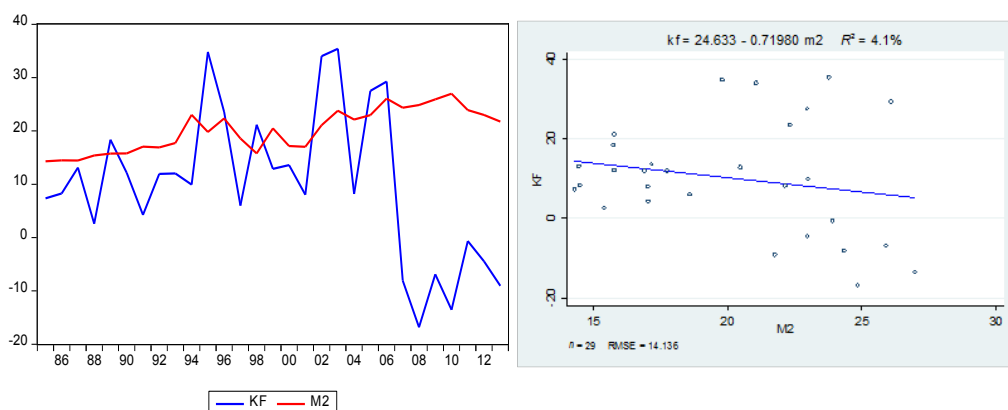


Financial development and capital flight

The literature identifies financial development as one of the factors which can determine capital flight. Financial development can deter or encourage capital flight depending on whether it is accompanied by an expansion of opportunities for domestic portfolio diversification or whether it facilitates international capital transfers (Ndikumana and Boyce, 2003). Figure 5 presents the relationship between capital flight and financial development as measured by the ratio of M2. Both possibilities of a positive or a negative correlation are found. For the periods 1985–1986, 1988–1989, 1992–1993, 1995–1996, 2001–2003, 2004–2006 and 2008–2009, more financial development is associated with more capital flight, while less financial development is associated with less capital flight for the periods 1996–1997, 2000–2001, 2003–2004, 2006–2007 and 2011–2013, suggesting a positive correlation between financial development and capital

flight. However, in some other periods an inverse correlation is observed; more financial development is associated with less capital flight for the periods 1987–1988, 1989–1991, 1993–1994, 1998–1999, 2007–2008 and 2009–2010, and less financial development is associated with more capital flight for 1986–1987, 1991–1992, 1994–1995, 1997–1998, 1999–2000 and 2010–2011. Overall, the scatter plot indicates a negative correlation between financial development and capital flight.

Figure 5: Relationship between capital flight and financial development



Although the scatter diagrams seem to show a clear correlation between capital flight and the potential explanatory variables considered, a closer look indicates a lack of consistency in the relationship between capital flight and the variables considered, probably indicating the presence of breaks in the relationship. Nonetheless, the scatter diagrams suggest that capital flight is positively correlated with external debt and negatively correlated with economic growth, aid inflows and financial development. But there seems to be a very low or no correlation between inflation and capital flight.

Econometric analysis of the determinants of capital flight from Burundi

Model and data

To analyze the determinants of capital flight from Burundi, the following equation is estimated:

$$KF_t = c + X_t B + \varepsilon_t \quad (12)$$

where KF_t , the ratio of capital flight to GDP, is the dependent variable, X is a vector of explanatory variables, and ε is the error term. Given the number of observations available

(1985–2013), a parsimonious model is estimated. Following the literature on the drivers of capital flight, the following are considered explanatory variables:

- ratio of domestic credit to the private sector (*CPS*) and the ratio of M2 to GDP (*M2*), as measures of financial development;
- ratio of Official Development Assistance to GDP (*ODA*) and the ratio of the change in the stock of external debt to GDP (*DEBT*), as indicators of capital inflows;
- annual change in real effective exchange rate (*CREER*), as an indicator of risk and returns to investment;
- following Ndikumana and Boyce (2003), the ratio of total exports to GDP (*EXPORT*), as exports may provide a mechanism for capital flight through underinvoicing;
- Polity2 index, Polity2, a political regime index provided by the Polity IV Project, as a proxy for governance (*GOVERN*). The score of the Polity2 index ranges from +10 (strongly democratic) to -10 (strongly autocratic). Another variable, “constraint on the executive power”, is used as a measure of institutional quality (*INST*). According to Ndiaye (2011), it measures the extent of regular institutional constraints on the executive power arising, for example, from the legislature and judiciary groups. Its value ranges from 1 (unlimited executive authority) to 7 (executive parity);
- war dummy variable (*WARDUM*), to capture the effect of political risks and war, taking the value of 1 for the civil war periods 1988 and 1993–2005, and 0 for the other years;
- another dummy variable (*DUM07-13*), to capture the malpractices which took place in the period 2007–2013 and induced unrecorded capital inflows. It takes the value 1 for the period 2007–2013, and 0 for the other years.

According to the literature, a positive sign is expected for the coefficients of inflation rate, the ratio of total exports, and political instability (political risks and war); a negative sign is expected for the coefficients of real GDP growth rate, governance, institutional quality, and exchange rate overvaluation. The expected impact of financial development and capital inflows is not known a priori; it can be either positive or negative. The sources of data are: capital flight series is from Boyce and Ndikumana (2012), but is extended to 2013; and the real GDP growth rate, inflation rate, the ratio of domestic credit to the private sector, the ratio of M2, the stock of external debt, real effective exchange rate, ratio of exports, and the ratio of ODA are from *World Development Indicators* (World Bank, 2015) of the World Bank; while the Polity2 index, a political regime index, and the constraint on executive power are from the Polity IV project database. The period of study is 1985–2013. The descriptive statistics of the variables used are reported in Table 4 and Table A.5. Table A.6 highlights the correlation between capital flight and its potential determinants. It indicates that capital flight is negatively associated with the financial development indicator (M2), governance indicator, ODA, inflation, economic growth, export, change in real effective exchange rate and institutional quality, but positively associated with political instability (war dummy), credit to the private sector, and external debt. However, the correlation between capital flight and its potential determinants seems to be low and is even close to 0 for inflation and CPS, indicating that there is no association between

capital flight and those two variables. However, although low, the correlation coefficient between capital flight and economic growth, political instability, external debt and institutional quality is significant (at the 5% level).

Table 4: Descriptive statistics of the variables used

Variable	Obs.	Mean	Std. Dev.	Min	Max
KF	29	10.16	14.17	-16.82	35.40
M2	29	20.09	3.98	14.30	26.98
ODA	29	22.62	9.22	5.79	39.77
INFLATION	29	10.91	7.94	-1.37	31.11
GROWTH	29	2.00	4.40	-8	11.78
EXPORT	29	8.56	2.06	4.68	12.92
CREER	29	-4.23	13.05	-32.23	24.04
CPS	29	14.30	5.56	3.57	23.66
CDEBT	29	2.05	10.90	-45.00	17.60

Note: Capital flight (KF) is measured by the World Bank method.

Estimation results

We first analyze the time series properties of the variables used to determine the appropriate estimation technique to employ. To check the order of integration of the variables, the study uses the Elliott-Rothenberg-Stock DF-GLS, and Ng-Perron tests. The test results in Table 5 suggest that all the variables are stationary processes, except the ratio of money balances (M2), the ratio of CPS and the governance indicator (GOVERN), which become stationary after one differentiation. However, since the economy of Burundi has been hit by many shocks, economic and political, the study also uses a unit root test with breaks of Zivot and Andrews (1992). The results of the Zivot and Andrews (1992) test in Table A.7 reach a more or less similar conclusion.

Table 5: DF-GLS and Ng-Perron unit root tests

Variables	Elliott-Rothenberg- Stock DF-GLS test t-statistic	Ng-Perron test		Order of integration
		MZa	MZt	
KF(WB)	-2.818**	-10.439**	-2.207**	I(0)
KF(MISINV)	-3.181**	-11.14**	-2.34**	I(0)
CDEBT	-4.287**	-11.870**	-2.431**	I(0)
ODA	-1.691**	-5.657	-1.681*	I(0)
INF	-3.685**	-11.587*	-2.406**	I(0)
GROWTH	-2.286**	-5.361**	-1.636**	I(0)
M2	-1.587	-2.625	-1.087	I(1)
CPS	-1.066	-0.804	-0.486	I(1)
CREER	-3.922**	-13.257**	-2.574**	I(0)
EXPORT	-9.63***	-9.69**	-2.18**	I(0)
GOVERN	-0.508	0.336	0.283	I(1)
INST	-2.338**	-8.636**	-2.065**	I(0)

Notes: KF (WB) is capital flight measured by the World Bank method and KF (MISINV) is capital flight captured by trade misinvoicing. 5% CV for DF-GLS is -1.953; 5% CV for Ng-Perron test is -8.100 for MZa, and -1.980 for MZt. *, **, and *** indicate significance at 10%, 5% and 1%, respectively.

As almost all the variables are found to be stationary, we cannot proceed to test for the existence of a long-run relationship among the variables and estimate an error correction model. This is because the traditional cointegration tests such as the Johansen (1992) and Engle and Granger (1987) tests require all the variables to be integrated of the same order, $I(1)$. Even the cointegration bounds testing approach of Pesaran et al. (2001) cannot be applied in this case since the dependent variable (the ratio of capital flight) is also a stationary process. The study therefore uses the least squares method to estimate the equation of capital flight. However, as shown in the influence statistics in Figure A.4, when the ordinary least squares method is used, the presence of outliers is noticed at the observation corresponding to year 2009. The presence of outliers makes the ordinary least squares (OLS) estimators inaccurate in capturing the statistical relationship between the variables (Macdonald, 2007). The study therefore uses the method of robust least squares advanced by Huber (1973), Rousseeuw and Yohai (1984) and Yohai (1987), which can account for outliers in the dependent and regressor variables. As mentioned before, since data on capital flight (measured by the World Bank method) is only available for the period 1985–2013, that is 29 observations, a parsimonious model of capital flight is estimated. Following an institutional analysis of capital flight carried out in Section 4, the starting point of estimation is a capital flight model with political instability and economic growth as regressors to which we add external debt, which is a major driver of capital flight from developing countries in the empirical literature. We then add more regressors, one by one. The estimation results are in Table 6.

Table 6: Estimation results using the World Bank measure of capital flight

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
DEBT	0.49 (2.36)**	0.53 (0.03)**	0.46 (2.08)**	0.46 (2.12)**	0.48 (2.23)**	0.43 (1.83)*	0.42 (1.88)*	0.46 (2.10)**	0.48 (2.35)**	0.42 (1.84)*	0.20 (1.05)
WARDUM	10.66 (1.93)*	9.76 (0.09)*	9.99 (1.71)*	10.34 (1.84)*	10.47 (1.85)*	10.74 (1.93)*	11.13 (2.00)**	9.81 (1.65)*	11.72 (2.16)**	10.80 (1.85)*	3.94 (0.72)
GROWTH	-0.72 (-1.13)	-0.91 (-1.29)	-0.99 (1.26)	-0.83 (-1.18)	-0.87 (-1.24)	-0.75 (-1.16)	-0.67 (0.29)	-0.67 (-1.03)	-0.85 (-1.26)	-0.81 (-1.09)	-0.70 (-1.31)
INFt-1		0.11 (0.32)									
ODA			0.13 (0.28)								
M2				0.62 (0.62)							
CPS					0.27 (0.24)					0.06 (0.05)	
CREER						-0.09 (-0.45)					
GOVERN							-0.40 (-0.87)			-0.30 (-0.59)	
INST								-0.03 (0.44)			
EXPORTt-1									1.82 (1.79)*		

continued next page

Table 6 Continued

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
DUM07-13											-15.99 (-2.78)***
C	5.28 (1.26)	4.53 (0.38)	5.83 (1.31)	5.41 (1.27)	5.28 (1.22)	4.99 (1.18)	4.74 (1.12)	5.03 (1.17)	4.72 (1.15)	5.00 (1.12)	12.30 (2.64)***
R-squared	0.40	0.42	0.41	0.42	0.41	0.41	0.40	0.40	0.47	0.41	0.49
Rw-squared	0.45	0.46	0.47	0.47	0.46	0.46	0.49	0.46	0.56	0.49	0.65
Rn-squared	17.43	17.27	17.24	17.53	17.13	17.42	18.23	17.22	22.19	16.78	33.92
Statistic	(0.000)	(0.001)	(0.001)	(0.001)	(0.001)	(0.000)	(0.001)	(0.001)	(0.000)	(0.001)	(0.000)

Note: Rn-squared statistic tests whether all the coefficients in the equation are jointly equal to zero.

The estimation results in Table 6 indicate that a change in external debt stock has a positive coefficient which is statistically significant, and this is consistent for almost all the equations estimated. This suggests that external debt has positively and significantly affected capital flight from Burundi. External debt has been providing resources to corrupt leaders, and was channelled overseas as capital flight, confirming the phenomenon of debt-fuelled capital flight. In fact, the estimation results indicate that for each dollar of external borrowing, 42–53 cents are channelled overseas as capital flight. This confirms the findings of previous studies that external debt is a major cause of capital flight (see, for example, Lensink et al. 1998; Ndikumana and Boyce, 2007; Ndikumana et al., 2015; Ljungwall and Wang, 2008; Ndiaye, 2011). Another capital inflow that was considered in the estimations is ODA. The estimation results show that its coefficient is positive but statistically insignificant, indicating that ODA does not cause capital flight from Burundi, which confirms the findings of Collier et al. (2004b) that aid to Africa is not associated with more capital flight. Other studies have found similar results (see, for example, Hermes and Lensink, 1992; Murinde et al. 1996; Lensink et al., 1998; Hermes et al., 2002).

Regarding the impact of macroeconomic instability on capital flight from Burundi, the study considered three indicators: economic growth, inflation, and the change in the real effective exchange rate. As expected, the estimation results show that the coefficient of economic growth is negative, but its impact was found to be insignificant. Burundi has been performing poorly in terms of economic growth, but this seems not to have significantly affected capital flight. Economic growth is therefore not a factor that explains capital flight from Burundi. Some studies have also found that economic growth does not affect capital flight (see, for example, Ajayi, 1992; Hermes and Lensink, 1992; Murinde et al., 1996; Henry, 1996; Ndiaye, 2011). Similarly, the coefficient of inflation is positive as expected, but is also statistically insignificant, implying that inflation does not significantly encourage capital flight from Burundi. Cuddington (1986), Hermes and Lensink (1992), Murinde et al. (1996), Lensink et al. (2000), Hermes and Lensink (2001), Ndikumana and Boyce (2003), and others reached similar conclusions. The impact of the change in the real effective exchange rate on capital was found to be negative and statistically insignificant.

As far as the impact of financial development on capital flight is concerned, the study uses two indicators: the ratio of money balances (M2) and the ratio of domestic CPS. The results show that the impact of both indicators on capital flight is positive but statistically insignificant, suggesting that financial development does not explain capital flight from Burundi. Collier et al. (2001) and Ndikumana and Boyce (2007) found similar results.

On the impact of governance and institutional quality, following Ndiaye (2011), the study used the Polity2 index as a proxy of governance, and the constraints on the executive power as a proxy for institutional quality. As expected, the estimation results show that the coefficients of governance and institutional quality are negative, but statistically insignificant. This finding is not surprising for Burundi; the levels of governance and institutional quality in Burundi are very low and have therefore not been able to deter capital flight. In fact, corruption is found everywhere in Burundi, even in the judiciary system. The judiciary system mostly works to cover the crimes of the elite. In the past, they have cleared many cases of embezzlement of public funds. Collier et al. (2001) also found that governance indicators do not explain capital flight.

To capture the impact of political instability and wars, the study used a dummy variable (WARDUM), which takes the value of 1 for the periods of political instability and civil wars (1988, 1993–2005) and 0 for the other years. The estimation results indicate that it has a positive and statistically significant coefficient, and this is consistent for almost all the estimations done. This suggests that political instability and wars induce capital flight from Burundi. Investors fear losses in their domestic assets and prefer sheltering them abroad. This finding corroborates those of Lensink et al. (2000), Hermes and Lensink (2001), Collier et al. (2004 a), Alam and Quazi (2003), Quazi (2004), Fielding (2004), Le and Zak (2006) and Davies (2008), who also found that political instability and war significantly increase capital flight.

The results also show that the impact of total exports on capital flight is positive and statistically significant, suggesting that exports are among the factors causing capital flight from Burundi. Ajayi (1992) identifies exports as a mechanism of capital flight – exports cause capital flight through trade misinvoicing. According to Boyce and Ndikumana (2001), exporters tend to understate the value of total exports in a bid to retain the difference between the true value and the declared value abroad. Ndikumana et al. (2015) found that exports determine capital flight.

To see how capital flight measurement may influence the regression results, we consider another measure of capital flight through trade misinvoicing. The estimation results are reported in Table 7 and show that all the coefficients are statistically significant except for the ratio of M2 and the governance indicator. All the coefficients are well signed. The results confirm what was previously found in Table 6, which is that external debt, political instability and exports encourage capital flight. In addition, compared to previous results, the results in Table 7 also show that growth, ODA and the change in the exchange rate affect capital flight. As expected, the coefficient of growth is negative, implying that high economic growth discourages capital flight. The coefficient of ODA is positive indicating that ODA inflows encourage capital flight. Indeed, aid is a lootable resource which can be embezzled by corrupt leaders and channelled abroad (Ndikumana and Boyce, 2011b).

Table 7: Estimation results using trade misinvoicing as measure of capital flight

Variables	Coefficient	z-statistic	Prob.
C	-23.350***	-4.342	0.000
GROWTH	-0.791***	-4.014	0.000
DEBT	0.141*	1.905	0.056
WARDUM	4.487**	2.281	0.022
ODA	0.422***	3.847	0.000
M2	-0.199	-0.632	0.527
CREER	0.202***	4.068	0.000
GOVERN	-0.280	-1.353	0.175
EXPORT(-1)	2.425***	5.549	0.000
R-squared	0.459		
Rw-squared	0.854		
Rn-squared stat.	109.32 (0.000)		
Observations	44		

Note: Rn-squared statistic tests whether all the coefficients in the equation are jointly equal to zero.

There seems to be consistency between the graphical and correlation analysis, and the results from the econometric analysis. There exists a positive and significant correlation between capital flight and external debt, and between capital flight and political instability, which is consistent with what is found in Tables 6 and 7 where external debt and political instability have a positive and significant impact on capital flight. However, for the impact of economic growth and institutional quality on capital flight, there seems to be inconsistencies between the results from the econometric analysis and the insights from the graphic and correlation analysis. Although a negative and significant correlation exists between capital flight and economic growth, as well as between capital flight and institutional quality, the regression results (when capital flight is measured by the World Bank method) indicate that economic growth and institutional quality do not affect capital flight from Burundi. However, it is necessary to remember that correlation is not causality.

7. Conclusion

The study aimed at analyzing capital flight from Burundi. Over the period 1985–2013, Burundi reportedly lost resources amounting to \$3.7 billion. Although in absolute terms it does not seem so alarming, in relative terms the capital flight burden is evident. Over the sample period, capital flight represents, on average, 10.2% and 149% of GDP and gross fixed capital formation, respectively. On the composition of capital flight from Burundi, trade misinvoicing constitutes the major channel – about 78.4% of total capital flight left through that channel, while only 21.6% went through BoP leakages. Given the episodes of political instability and wars that were witnessed, as well as corruption and poor governance, an institutional analysis of capital flight was undertaken in this study. This has shown that political instability and wars, as well as macroeconomic instability, can help explain capital flight. A review of some cases of financial scandals and economic embezzlement that were reported by the media or the anti-corruption observatory in Burundi has shown that considerable amounts of public funds are constantly embezzled by corrupt leaders, which is a paradox since Burundi is one of the poorest countries in the world with the majority of the population, especially in rural areas, deprived of essential services such as clean water, proper sanitation, health care, and electricity.

To examine the factors behind capital flight from Burundi, the method of robust least squares is used to account for the presence of outliers in the data. The estimation results show that the main drivers of capital flight from Burundi are external debt, political instability and wars, as well as exports. The findings confirm the phenomenon of debt-fuelled capital flight for Burundi, implying that external debt has been providing resources to corrupt leaders, which they channelled overseas as capital flight. In addition, the finding that “political instability and wars” is one of the main causes of capital flight from Burundi does not come as a surprise. Indeed, Burundi has had a number of episodes of political instability and wars, and this can cause investors to fear losses in their domestic assets, thus transferring them abroad in a bid to shelter them from losses. The results also indicate that exports positively and significantly influence capital flight from Burundi. As Ajayi (1992) points out, exports cause capital flight through trade misinvoicing. In fact, about 78% of total capital flight from Burundi left through trade misinvoicing.

It is important that the regression results seem to be sensitive to the capital flight measure used. When another measure of capital flight is used, results indicate that economic growth, ODA and the change in the exchange rate also affect capital flight. Economic growth negatively affects capital flight while ODA and the change in the exchange rate positively affect capital flight.

The findings of this study imply that to discourage capital flight, the Government of Burundi should promote peace and political stability. In addition, more responsibility, transparency and accountability are required from the Government of Burundi in managing resources from external debt. Moreover, some actions are needed to fight trade misinvoicing, which was seen to be a major channel of capital flight from Burundi. However, it is acknowledged that the econometric analysis results in this study might not be robust because of data limitations related to the World Bank measure of capital flight. It is also acknowledged that the results from the empirical analysis may be biased due to the endogeneity problem, since several of the determinants of capital flight may be influenced by capital flight. Also, several determinants may jointly impact capital flight, that is, they can influence each other, which then leads to capital flight. This problem was also not addressed in the analysis and could bias the results. A further study can take these problems into account in the analysis.

Notes

1. Author computation using extended series from Boyce and Ndikumana (2012), available at https://www.peri.umass.edu/images/Capital_flight_from_39_African_countries_1970-2010_Dec2012_1.xlsx, using the same methodology.
2. Information from the capital flight database created by Boyce and Ndikumana (2012), available at https://www.peri.umass.edu/images/Capital_flight_from_39_African_countries_1970-2010_Dec2012_1.xlsx
3. Average real GDP per capita for Burundi for 2000–2012 is \$149, which is among the lowest in the world. The poverty headcount ratio (\$1.25 a day) was 84.24% in 1992, 86.43% in 1998 and 81.32% in 2006 (WDI, 2013).
4. According to the Human Development Index, Burundi ranked 178 out of 186 in 2012, and 180 out of 187 countries in 2013.
5. Computed using data from World Bank, *World Development Indicators* (WDI, 2015)
6. All the indicators of governance, namely voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law and control of corruption, have negative scores for all years.
7. Transparency International ranked Burundi 168 out of 180 countries in 2009, and 170 out of 178 countries in 2010.
8. The measure of capital flight used in this study does not include adjustment for unrecorded remittances due to lack of updated baseline data on remittances.
9. This is the sum of capital flight and the interest it would earn if it was invested at a return rate equal to the US Treasury Bill rate.
10. US Department of State (June 2014): 2014 Investment Climate Statement.
11. <http://kieranholmes.com/burgeoning-burundi>
12. An analysis of the budget structure for Burundi for the period 2005–2014 indicates that 48.8% of expected government resources were anticipated to come from external grants, 46.1% from taxes and 4.2% from non-tax revenue.

13. See <http://revue-afrique.com/pierre-nkurunziza-dans-le-collimateur-dolucome/>
14. From a report by International Crisis Group available at <https://d2071andvip0wj.cloudfront.net/185-burundi-a-deepening-corruption-crisis.pdf>
15. Details available at <http://agenceafrique.com/1397-lolucome-corruption-au-burundi-au-sommet-letat.html>
16. Information available at http://archives.lesoir.be/burundi-le-docteur-kassy-malan-en-savait-trop-buyoya-ci_t-20050211-Z0Q95Z.html
17. Information available at <https://clubbujumburanews.wordpress.com/2014/04/30/lolucome-exige-une-lumiere-sur-la-vente-de-lavion-presidentiel-le-falcon-50/>
18. See <https://clubbujumburanews.wordpress.com/2014/04/30/lolucome-exige-une-lumiere-sur-la-vente-de-lavion-presidentiel-le-falcon-50/>
19. Information available at <http://www.iwacu-burundi.org/port-de-bujumbura-411-millions-detournes-dg-limoge-introuvable/>
20. It is said that the former President of Burundi, Colonel Bagaza, had provided the NRA (National Resistance Army) fighters with military hardware and food estimated at US\$13 million, to be repaid once the NRA seized power (see <http://www.panapress.com/Govt-officials-cleared-of-embezzling-debt-repayment-funds-in-Burundi--3-813951-0-lang1-index.html>).
21. Information available from <http://burundinews.fr/actualites/cahiersougandaisjan12.html>
22. Details can be found here <http://www.iwacu-burundi.org/mystere-autour-du-nouveau-jet-presidentiel/>
23. <https://bujanews.wordpress.com/2014/10/21/lolucome-denonce-la-gestion-jugee-tres-opaque-des-fonds-de-lamisom/>
24. Details available at <http://www.iwacu-burundi.org/lolucome-denonce-un-detournement-de-fonds-destines-aux-policiers-malades-de-sida/>
25. Pesaran et al. (2001) actually say that a level relationship can be estimated regardless of whether the regressors are a mixture of $I(0)$ and $I(1)$.
26. All variables used are stationary.
27. For example, see <https://www.state.gov/j/drl/rls/hrrpt/2010/af/154334.htm>
28. Capital flight does not include adjustment for unrecorded remittances due to lack of updated baseline data on remittances.

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Appendix

Table A.1: Governance in Burundi (1996–2012)

Period	Voice accountability	Political stability and absence of violence	Government effectiveness	Regulatory quality	Rule of law	Control of corruption
1996	-1.75	-2.24	-1.73	-1.67	-1.72	-1.39
1998	-1.61	-2.43	-1.66	-1.59	-1.48	-1.15
2000	-1.63	-2.15	-1.44	-1.22	-1.56	-1.01
2002	-1.22	-2.39	-1.45	-1.32	-1.39	-0.94
2003	-1.24	-2.31	-1.47	-1.22	-1.54	-1.05
2004	-1.31	-2.51	-1.31	-1.20	-1.60	-0.97
2005	-0.64	-1.51	-1.26	-1.36	-1.18	-0.90
2006	-0.75	-1.40	-1.08	-1.21	-0.97	-1.07
2007	-0.74	-1.32	-1.24	-1.24	-1.09	-1.12
2008	-0.71	-1.63	-1.09	-1.23	-1.05	-1.02
2009	-0.71	-1.27	-1.03	-1.15	-1.16	-1.07
2010	-0.94	-1.60	-1.10	-1.10	-1.19	-1.11
2011	-0.98	-1.78	-1.06	-1.00	-1.13	-1.12
2012	-0.93	-1.68	-1.33	-0.96	-1.09	-1.46
Average	-1.08	-1.87	-1.30	-1.25	-1.30	-1.10

Source: Worldwide Governance Indicators, 2013, World Bank.

Table A.2: Economic growth rate in Burundi 1980–2012 (%)

Period	Real GDP growth rate	Real GDP per capita growth
1980–1989	4.3	1.2
1990–1999	-1.4	-3.2
2000–2012	3.1	-0.05
1980–2012	2.1	-0.7

Source: Data from the WDI (2013) dataset, World Bank.

Table A.3: GDP per capita, poverty and human development in Burundi

Period	GDP per capita (constant 2005 US\$)	Period	Poverty headcount ratio (\$1.25 a day, % of population)	HDI
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1960–1969	144.8	1980		0.230
1970–1979	185.2	1990		0.291
1980–1989	208.5	1992	84.2	
1990–1999	185.4	1998	86.4	
2000–2013	149.6	2000		0.290
1960–2013	172.9	2005		0.319
		2006	81.3	
		2010		0.381
		2013		0.389

Source: Data from World Development Indicators (World Bank, 2015) ; data on HDI from <http://hdr.undp.org/en/content/table-2-human-development-index-trends-1980-2013>

Table A.4.1: Some social indicators in Burundi

Periods	Infant mortality rate (per 1,000 live births)	Pupil-teacher ratio, primary	Pupil-teacher ratio, secondary	Public health expenditure (per capita, constant 2011 \$)	Public health expenditure (% of GDP)	Debt service (% GDP)
1960–1969	146.4					
1970–1979	144.5	33.0	15.1			0.7
1980–1989	112.3	52.2	15.7			2.3
1990–1999	101.4	58.5	20.8	9.7	1.7	4.0
2000–2013	71.7	50.2	26.6	22.9	3.5	2.1
1960–2013	105.2	48.2	20.4	19.4	3.1	2.3

Notes: Author, using data from World Development Indicators (World Bank, 2015).

Table A.4.2: Some more social indicators in Burundi

Periods	Number of physicians (per 1,000 people)	Hospital beds (per 1,000 people)	Malnutrition prevalence, weight for age (% of children under 5)	Access to electricity (% of population)
1960	0.010	1.12		
1965	0.017			
1970	0.017	0.28		
1975	0.012	1.12		
1984	0.046			

ODA	-0.120	0.641*	0.615*	1			
INFL	-0.062	0.155	0.038	-0.189	1		
GROWTH	-0.409*	-0.090	0.065	0.048	-0.500*	1	
EXPORT	-0.157	-0.357	-0.400*	-0.043	0.024	0.010	1
DUMMY 1	0.531*	-0.072	-0.047	-0.218	0.294	-0.583*	-0.196
CREER 0.046	-0.172	0.410*	0.319	0.151	0.635*	-0.192	0.000
CPS	0.028	0.711*	0.797*	-0.317	0.132	-0.155	0.050
-0.697*	0.283	-0.261	1				
DEBT	0.383*	-0.361	-0.316	-0.150	-0.325	0.084	0.182
0.050	-0.483*	-0.188	1				
INST	-0.419*	-0.027	-0.066	-0.295	0.173	-0.374*	0.175
-0.483*	0.124	-0.290	-0.256	1			

Note: Capital flight (KF) is measured by the World Bank method.

Table A.6.2: Pairwise correlation between capital flight and its potential determinants

EXPORT	KF DUMMY	M2 CREER	GOVERN CPS	ODA DEBT	INFL INST	GROWTH	
KF	1						
M2	-0.064	1					
GOVERN	-0.188	0.899*	1				
ODA	-0.029	0.778*	0.753*	1			
INFL	0.199	0.134	0.026	-0.076	1		
GROWTH	-0.413*	-0.192	-0.078	-0.130	-0.398*	1	
EXPORT	0.127	-0.469*	-0.503*	-0.324*	0.094	0.173	1

DUMMY 1	0.079	0.238	0.226	0.098	0.154	-0.498*	-0.296
CREER -0.069	0.163 1	0.160	0.086	-0.010	0.469*	0.033	0.021
CPS -0.687*	-0.158 0.443*	0.831* 0.110	0.862* 1	0.586*	0.112	- 0 . 2 2 1	
DEBT -0.024	0.046 -0.341*	-0.280 -0.177	-0.286 1	-0.149	-0.165	0.086	0.188
INST -0.521*	-0.068 0.159	-0.195 -0.402*	-0.239 -0.205	-0.405* 1	0.124	0.290	0.256

Note: Capital flight (KF) is measured by trade misinvoicing.

Table A.7: Zivot and Andrews unit root test with one break

Variables	Break type				
	Innovational outlier		Additive outlier		Order of integration
	Break date	t-statistic (Prob.)	Break date	t-statistic	
KF(WB)	2006	-5.91*** (0.00)	2006	-6.00*** (0.00)	I(0)
KF(MISINV)	1996	-4.97*** (0.000)	1995	-5.95*** (0.000)	I(0)
CDEBT	2009	-7.35*** (0.00)	2007	-5.52*** (0.00)	I(0)
ODA	1996	-2.49 (0.90)	1995	-2.55 (0.88)	I(1)
INF	-	-	1996	-5.48 *** (0.00)	I(0)
GROWTH	2000	-3.78 (0.24)	1996	-3.96 (0.16)	I(1)
M2	2001	-3.68 (0.29)	1993	-3.95 (0.17)	I(1)

CREER	1994	-4.89** (0.01)	1993	-5.16*** (0.00)	I(0)
EXPORT	1996	-10.13*** (0.00)	1996	-10.46 (0.00)	I(0)
GOVERN	2000	-3.31 (0.49)	2001	-4.42 * (0.052)	I(0)
INST	2007	-4.38* (0.058)	2007	-4.90 ** (0.01)	I(0)

Notes: Between parentheses is the asymptotic one-sided p-value of Vogelsang (1993).

Table A.8. Components of capital flight (World Bank measure) from Burundi (constant 2013 US\$)

Period	BoP residual	Export misinvoicing	Import misinvoicing	Trade misinvoicing	Total capital flight
1985	96.0	5.1	59.8	64.9	160.9
1986	97.0	34.5	53.2	87.7	184.8
1987	195.1	57.4	15.7	73.2	268.2
1988	-78.4	131.3	-4.0	127.3	48.9
1989	66.1	296.1	-18.2	277.9	343.9
1990	93.9	182.7	-53.9	128.9	222.8
1991	9.8	96.6	-29.0	67.6	77.5
1992	-24.9	239.6	-17.1	222.5	197.6
1993	-6.8	180.7	-5.0	175.6	168.8
1994	14.2	130.0	-9.9	120.1	134.3
1995	37.4	448.2	13.7	462.0	499.3

1996	-50.3	362.6	-24.3	338.3	288.1
1997	34.4	8.2	38.1	46.4	80.8
1998	178.9	50.9	28.7	79.6	258.6
1999	139.1	29.3	-28.1	1.2	140.3
2000	103.5	15.2	37.4	52.6	156.1
2001	116.7	-11.1	-14.8	-25.8	90.9
2002	335.5	1.5	19.3	20.8	356.3
2003	322.5	13.6	9.3	22.9	345.4
2004	187.9	-3.2	-94.1	-97.3	90.6
2005	293.2	75.5	-9.2	66.3	359.6
2006	280.4	8.1	133.7	141.8	422.2
2007	-137.6	42.9	-25.7	17.2	-120.4
2008	-323.7	-16.3	47.7	31.4	-292.3
2009	-213.6	36.5	49.4	85.9	-127.7
2010	-276.2	-58.9	46.0	-12.9	-289.1
2011	-223.1	-25.1	232.6	207.5	-15.6
2012	-222.4	-31.8	142.1	110.3	-112.1
2013	-245.9	0.0	0.0	0.0	-245.9

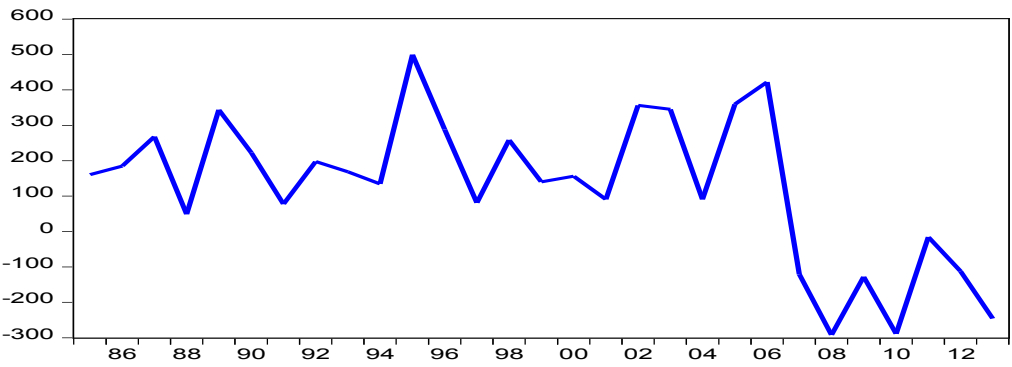
Source: Extended series from Boyce and Ndikumana (2012), available at https://www.peri.umass.edu/images/Capital_flight_from_39_African_countries_1970-2010_Dec2012_1.xlsx www.peri.umass.edu/300).

Table A.9. Capital flight measured by trade misinvoicing (constant 2013 US\$)

Period	Export misinv.	Import misinv.	Total misinv.	Period	Export misinv.	Import misinv.	Total misinv.
1970	98.62	-18.35	80.27	1993	180.66	-5.04	175.62
1971	51.49	24.06	75.55	1994	130.00	-9.94	120.06
1972	2.86	27.24	30.10	1995	448.23	13.72	461.95
1973	11.53	-6.15	5.38	1996	362.60	-24.25	338.35
1974	-24.17	-16.41	-40.58	1997	8.24	38.14	46.38
1975	65.80	86.48	152.28	1998	50.94	28.68	79.62
1976	-16.93	37.32	20.39	1999	29.34	-28.15	1.20
1977	64.38	33.25	97.63	2000	15.24	37.39	52.63
1978	104.94	14.85	119.79	2001	-11.06	-14.76	-25.81
1979	52.61	63.36	115.97	2002	1.53	19.30	20.83
1980	275.30	32.46	307.76	2003	13.62	9.28	22.90
1981	125.90	13.38	139.27	2004	-3.19	-94.06	-97.25
1982	223.91	82.26	306.17	2005	75.53	-9.20	66.33
1983	84.32	47.62	131.94	2006	8.09	133.73	141.82
1984	136.31	-15.34	120.98	2007	42.87	-25.69	17.18
1985	5.08	59.83	64.92	2008	-16.33	47.74	31.41
1986	34.54	53.20	87.74	2009	36.54	49.35	85.89
1987	57.43	15.73	73.16	2010	-58.88	45.98	-12.90
1988	131.28	-4.02	127.26	2011	-25.08	232.60	207.52
1989	296.05	-18.20	277.85	2012	-31.81	142.08	110.27
1990	182.75	-53.88	128.87	2013	0.00	0.00	0.00
1991	96.62	-28.99	67.62				
1992	239.62	-17.10	222.52				

Source: Author's computation.

Figure A.1: Trend of capital flight from Burundi (millions of US\$, constant 2013 prices) (1985–2013)



Source: Author, using extended series from Boyce and Ndikumana (2012), available at https://www.peri.umass.edu/images/Capital_flight_from_39_African_countries_1970-2010_Dec2012_1.xlsx www.peri.umass.edu/300 using the same methodology.

Figure A.2.: Trend of inflation rate in Burundi (1970–2012)