



Munich Personal RePEc Archive

## **Illicit financial outflows from Africa: measurement and determinants**

Mossadak, anas

Mohammed V University

2018

Online at <https://mpra.ub.uni-muenchen.de/104620/>  
MPRA Paper No. 104620, posted 28 Dec 2020 18:26 UTC

# ILLICIT FINANCIAL OUTFLOWS FROM AFRICA: MEASUREMENT AND DETERMINANTS

**MOSSADAK Anas**

Mohammed V University, Faculty of law, economics and social sciences (Salé) Department of economics and management, Morocco

anas.mossadak@gmail.com

*International Journal of Economics, Commerce and Management, issue 12, Volume IV, pages 265-276. 2018*

## **Abstract:**

Illicit financial outflows can be defined as the capitals that leave from developing countries to tax havens and western economies as the consequence of political and economic instability and fear of taxation or confiscation. Nevertheless, the most important motivation of illicit flows appears to be the desire to hide accumulation of wealth generated by illegal activities such as corruption and tax evasion. African countries have experienced at least 610 Billions of dollars of illicit outflows over the period 2005-2014 (Global financial integrity, 2017). This huge outflow of financial resources could be used to finance productive investments, infrastructure, as well as social actions aimed to improve the life quality of millions of Africans.

The main objectives of this paper are to analyze the evolution of illicit financial outflows from Africa and investigate their main determinant using a panel data model. The empirical analysis indicate that lack of governance and political instability are the main factors encouraging illicit outflows from Africa. Several actions can be undertaken by the government to reduce the magnitude of illicit flows. Indeed, governments must improve the transparency of financial transactions and tax information, enhance customs enforcement to detect intentional misinvoicing of trade transactions and finally require international companies to publicly declare all their financial operations and staff levels for each country where they operate.

**Key words:** *Illicit; Financial Flows; Panel Data; Africa.*

## **INTRODUCTION**

The latest estimates of the Global Financial Integrity (2017) assess the level of illicit financial flows at least to 54 billions of dollars for the year 2014 for the whole African continent. Over the period 2005-2014, the estimation of illicit financial outflows is more than 610 billion of dollars. These resources represent a huge shortfall for African economies knowing the scarcity of financial resources and the structural recourse to external indebtedness. They could have been an important driver for economic and social development, particularly if they are used in productive investment, access to basic services and infrastructure improvements. Instead, these funds are placed in the bank accounts of corrupt officials and traffickers in western countries and tax havens.

Illicit financial flows refer to the transfers of capitals generated by activities such as bribery, smuggling, criminal activities and tax evasion. They involve also capitals that are gained through legal activities but transferred in such a way as to circumvent the capital controls applicable to cross-border transfers. In other words, if capital flows are not recorded or if they avoid capital controls, they are considered as illegal.

According to Kapoor (2007), illicit financial flows have a number of similarities: they are not recorded in official balance of payments statistics, they are often associated with losses in the public sector and gains for individuals and finally, profits from illicit financial flows are generally not repatriated to their home land. The objective of this paper is to analyze the evolution of illicit financial flows in Africa during the last decade and identify, through a panel data analysis, their main determinants in Africa.

## **CALCULATION METHODOLOGY OF ILLICIT FINANCIAL FLOWS**

The global financial integrity (GFI) uses two approaches to estimate illicit financial flows. The Trade misinvoicing method and the "Balance of Payments Leakage" method. The trade misinvoicing is calculated by comparing the country's trade statistics with those of its trading partners in advanced economies. This approach was implemented for the first time by Bhagwati (1974). The objective is to verify if there is a difference between the exports reported

by the developing country and the declared imports of the developed country from the developing country. This approach is summarized by the following equations (GFI report 2017):

$$ID_{jp,t} = I_{jt} - X_{pt}$$

$$ED_{jp,t} = I_{pt} - X_{jt}$$

Where:

$I_{jt}$  : Imports by the developing country  $j$  from the partner country  $p$  at time  $t$

$I_{pt}$  : Partner country  $p$ 's imports from the developing country  $j$  at time  $t$

$X_{jt}$  : Developing country  $j$ 's exports to partner country  $p$  at time  $t$

$X_{pt}$  : Partner country  $p$ 's exports to developing country  $j$  at time  $t$

A negative value of  $ID_{jp,t}$  indicates import under-invoicing (illicit inflows), and a positive value shows import over-invoicing (illicit outflows). In the same way, a negative value of  $ED_{jp,t}$  represents export over-invoicing (illicit inflows), while a positive value shows export under-invoicing (illicit outflows). The GFI relies on the Direction of Trade Statistics (DOTS) database of the international monetary fund (IMF) to implement this approach.

Balance of payments leakage is the registered amounts in the "Net errors and omissions" component of the balance of payments. In practice, errors and omissions is a residual account of the balance of payments which normally displays a very small amount and must, on average tends to 0. Otherwise, if the errors and omissions are constantly positive (inflows) or negative (outflows), then they are associated with illicit financial flights (often called "hot money"). The GFI assumes that these unreported leaks represent unregistered and possibly illegal transactions.

$$\text{Balance of payments} = \text{Current account balance} + \text{Financial transactions balance} + \text{Net errors and omissions}$$

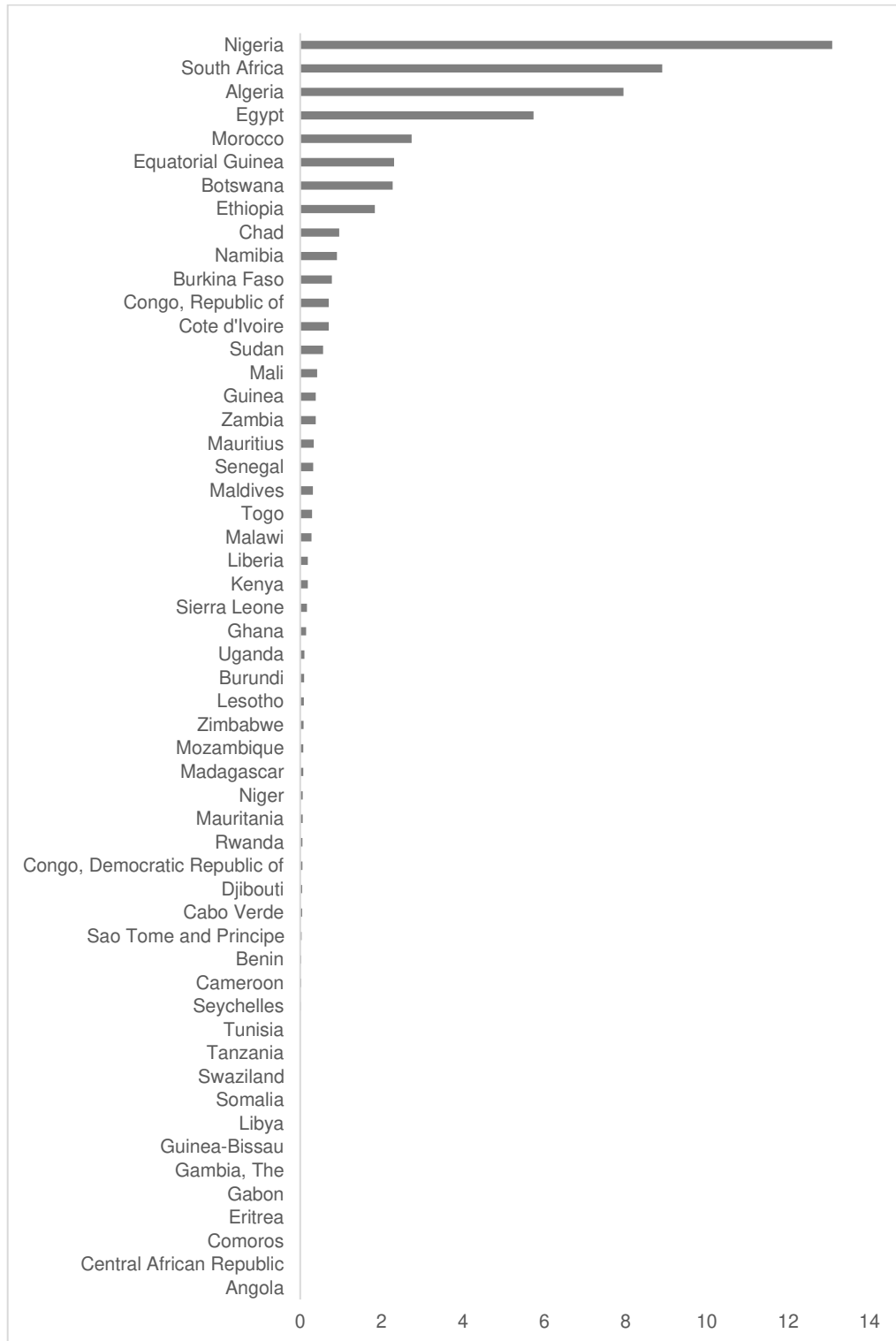
The sum of the two approaches gives an estimate of the total illicit flows for each country. It should be noted that the approaches presented above do not include smuggling activities that are completely beyond the control of the authorities. The flows generated by these activities are often the source of massive illicit financial flows as traffickers seek to secure funds generated by their trafficking in foreign countries (Lahlou and Mossadak, 2013).

In the following, we analyze only the financial outflows (and not the inflows) as we consider that they are more important for the developing countries (loss of resources). Also, the GFI calculates two types of estimates: the low and high estimates. We will focus only on the low estimates of illicit flows.

## **EVOLUTION OF ILLICIT FINANCIAL OUTFLOWS FROM AFRICA**

In 2014, the most affected countries by the phenomena of illicit financial outflows are mainly Nigeria, South Africa, Algeria, Egypt and Morocco. These 5 countries (out of 54) account for almost 70% of the total capital flight, or 38.4 over 53.8 billions of dollars. On its own, Nigeria has experienced more than 13 billion of capital flight (Figure 1).

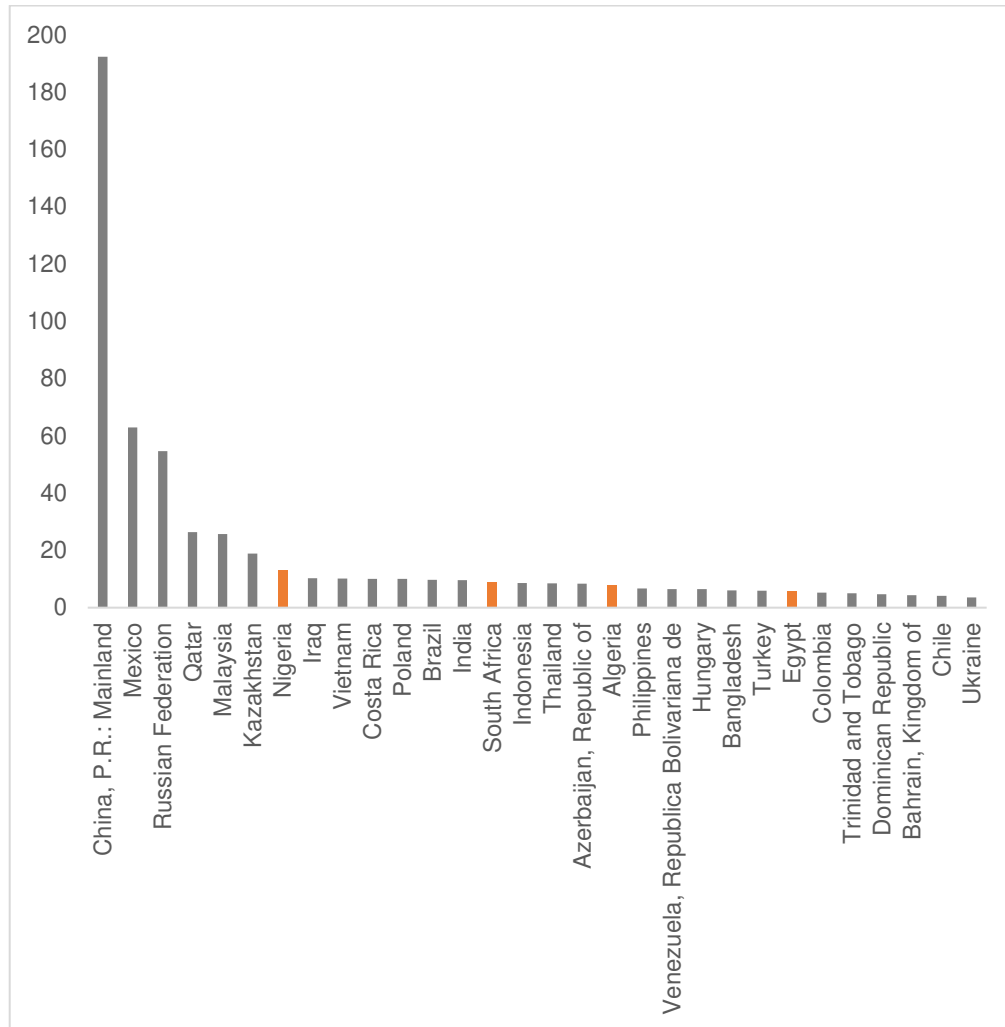
**Figure 1: Illicit financial outflows from African countries in 2014 (billions of dollars)**



**Source: Global Financial Integrity**

Compared to the emerging and developing countries with the most illicit financial outflows, only four African countries are among the top 30 countries with the highest amounts of illicit outflows in the world (Figure 2).

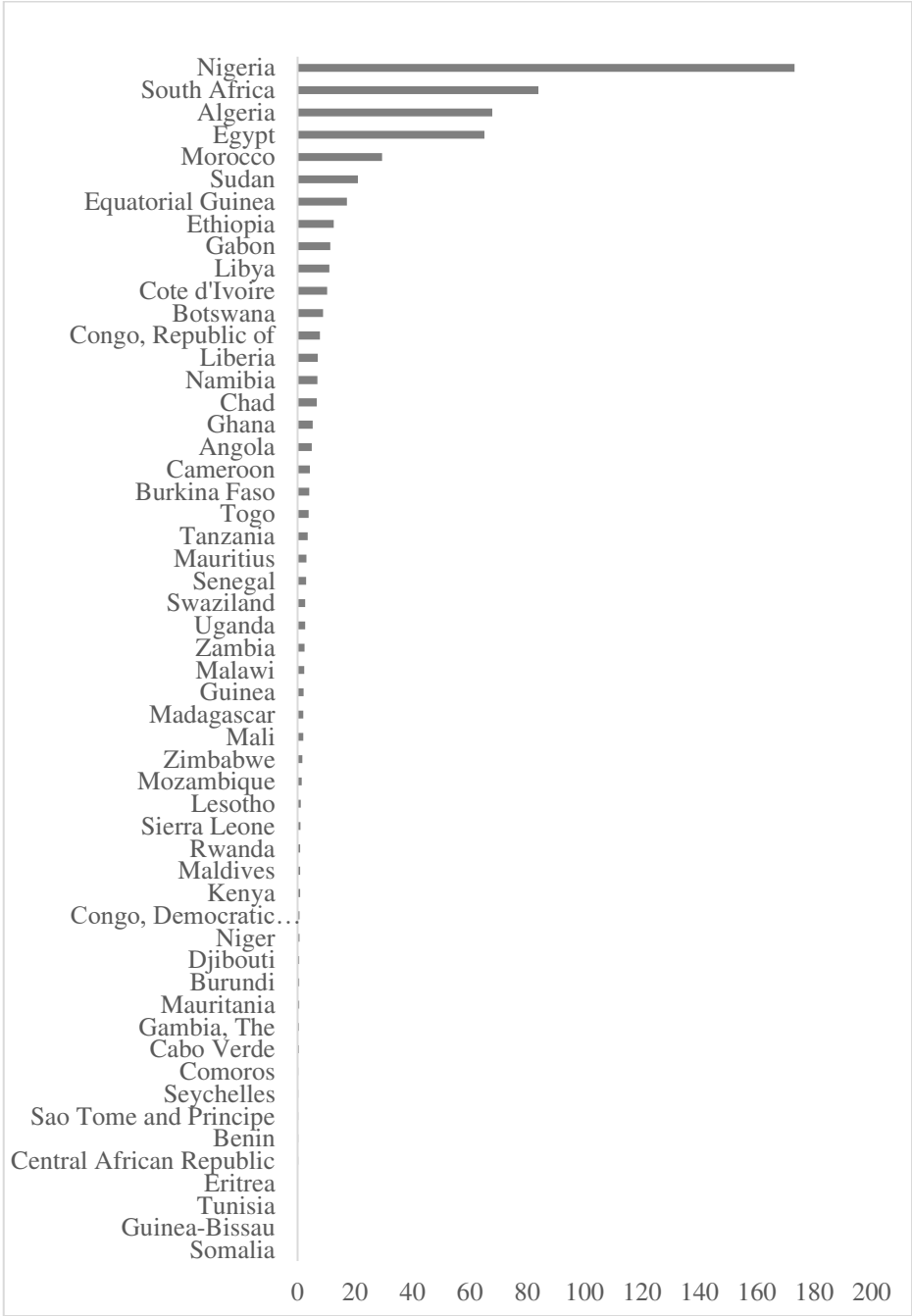
**Figure 2: Top 30 global illicit financial outflows in 2014 (billions of dollars)**



**Source: Global Financial Integrity**

Over the period 2005-2014, the African continent experienced a massive illicit capital outflow of about 610 billion dollars. The top 5 countries, namely Nigeria, South Africa, Algeria, Egypt and Morocco have experienced more than 419 billion dollars of illicit outflows, which represents more than 69% of the whole African continent's illicit outflows (Figure 3).

**Figure 3: Illicit financial outflows from African countries during the period 2005-2014 (billions of dollars)**

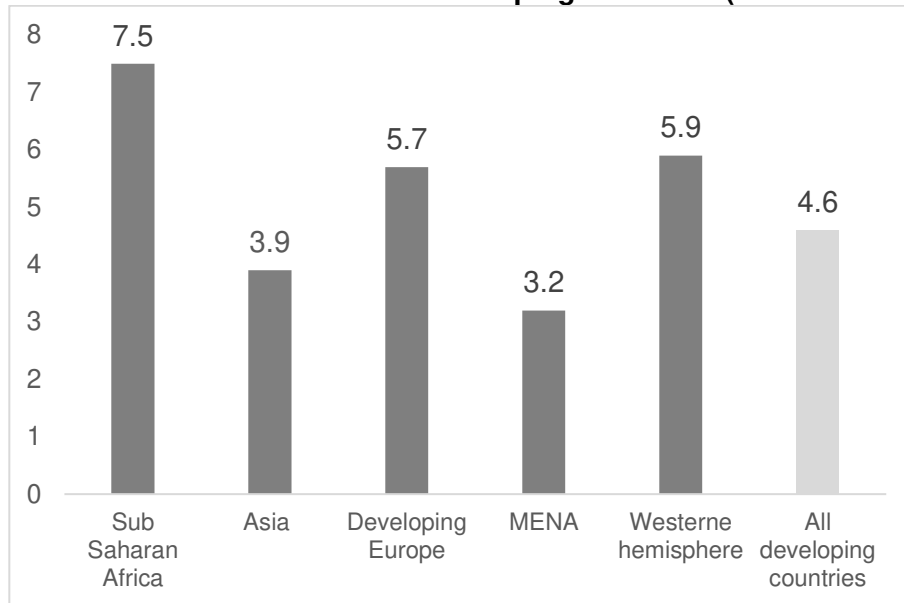


**Source: Global Financial Integrity**

In a more global perspective, the phenomenon of illicit financial flows impacts all the developing countries but with different intensity. Indeed, the sub-Saharan countries are the most affected by illicit outflows as they represent at least 7.5% of their total trade. Countries of Latin America and developing European countries came second with about 6% and finally MENA region and Asia with less than 4% (Figure 4).



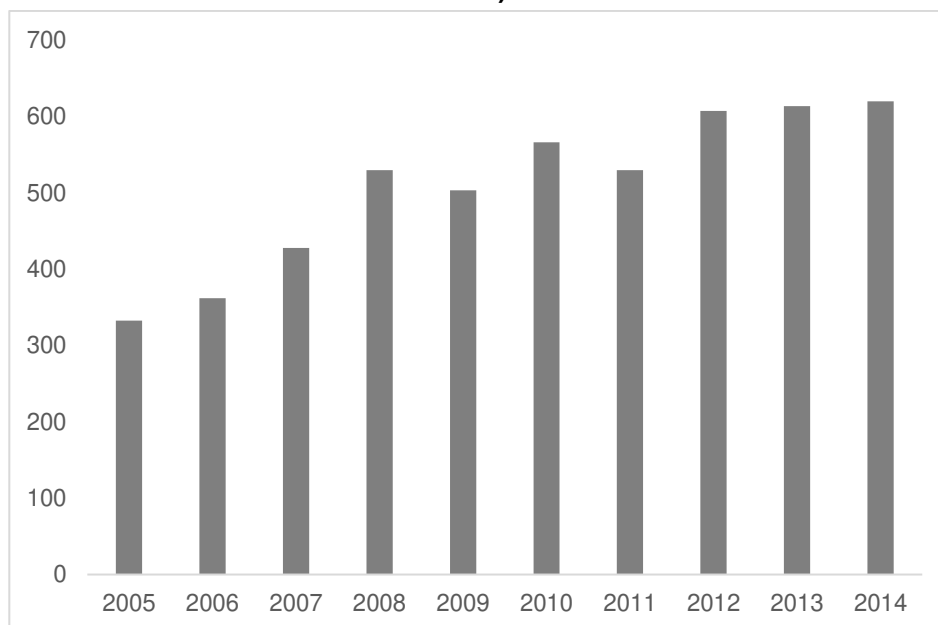
**Figure 4: Illicit financial outflows from developing countries (%of trade in 2014)**



**Source: Global Financial Integrity**

Another important fact is that despite the efforts of national and international authorities, the illicit financial outflows from developing countries are growing rapidly. Despite a fall in 2011, between 2005 and 2014, the annual average growth rate is 7.6% (figure 5).

**Figure 5: Illicit financial outflows from developing countries (2005-2014) (billions of dollars)**



**Source: Global Financial Integrity**

These important amounts of illicit financial outflows from Africa (and all over the world) challenge the factors that amplify this phenomenon. Indeed, understanding these factors is a crucial to reduce this scourge and thus allow countries to take advantages of their resources

which should be channeled to productive investment, social assistance to the most disadvantaged social classes and to strengthening infrastructure and access to basic services, particularly health and education.

## **DETERMINANTS OF ILLICIT FINANCIAL OUTFLOWS FROM AFRICA**

The empirical literature enumerates a number of determinants encouraging illicit financial flights. The worsening of macroeconomic environment appear to be the most important one. The empirical literature has focused its attention on four important macroeconomic indicators: indebtedness, high inflation, low growth rate and the public deficits.

External indebtedness appears to be a major factor as long as high over-indebtedness can lead to a deteriorating of country's solvency and increases the probability of a debt crisis. In a cross-sectional study, Collier, Hoeffler and Pattillo (2001) found a positive and statistically significant impact of the stock of debt on capital flight.

A high level of inflation makes assets denominated in national currency less attractive than those denominated in foreign currencies, pushing economic agents to acquire foreign assets in legal or illegal ways. Empirical studies also argue that low rates of growth encourages illicit capital flight. For example, Pastor (1990) finds that the growth rate differential between the United States and the Latin American countries is an important determinant of illicit financial flight in this region. Also, Nyoni (2000) concluded that capital flight from Tanzania is positively correlated with the growth rate differential between Tanzania and the United Kingdom.

Concerning fiscal policy, empirical studies have shown that worsening of public finances is positively correlated with illicit financial flight. Indeed, high anticipated taxes, as a consequence of high fiscal deficits, imply lower expected net returns for domestic investment and thus encourage economic agents to transfer their funds using legal or illegal methods. Also, the volatility of the tax rate entails a higher risk and a lack of visibility for economic operators and consequently fosters illicit flight. Finally, discriminatory tax treatment for foreign assets (often used to attract foreign capital) may also discourage domestic investment (Boyce and

Ndikumana 2003). Hermes and Lensink (2000) find a positive link between capital flight and the uncertainty of the government's fiscal policy. The interest rate differential is also considered an important determinant of capital flight. For example, Dooley (1988) finds that financial repression, characterized by artificially low interest rates on domestic deposits, is an important determinant of capital flight.

Finally, governance variables such as corruption and political stability can also have an important effect on illicit financial flows. Le and Rishi (2006), conducted a study on the relationship between corruption and illicit flows using a large sample of countries. Their analyses indicate a significantly positive relationship between corruption and illicit outflows of capital from most developing countries.

Thus, the main determinants of illicit capital flight can be summarized in the following table:

**Table 1: Theoretical determinants of illicit capital flight**

Determinants	Used variables
Macroeconomic environment	GDP growth, fiscal deficit, inflation, public debt
Governance	Corruption index, governance index, political stability index
Risk and arbitrage	Exchange rate, Interest rate differential

The empirical analysis is conducted using a panel data model. The data used covers the period 2005-2014 and concerns 48 African countries. Countries that have not been considered are those that do not have data on the analysis period. The explanatory variables of illicit financial outflows (IF) are Political stability (PS), governance index (GOV), Corruption index (CORUP), Inflation (INF), exchange rate (EX), real growth rate (GDP), public debt (DBT), current account balance (CAB) and the General government net lending/borrowing (DEF). The sources are the World Bank database, the world economic outlook (WEO) IMF database, and the Global Financial integrity (GFI) database. The equation to be estimated is given by:

$$IF_{it} = a_1PS_{it} + a_2INF_{it} + a_3GOV_{it} + a_4GDP_{it} + a_5EX_{it} + a_6DBT_{it} + a_7CORUP_{it} + a_8CAB_{it} + a_9DEF_{it} + c_{it} + \varepsilon_{it}$$

The estimation in panel data was conducted using the generalized method of moments (GMM). Following the Hausman test the model is specified with random effect (Table 3). The estimation results are presented in the following tables:

**Table 2: Estimations results**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
<b>POLS</b>	<b>-2.539866</b>	<b>0.386157</b>	<b>-6.577288</b>	<b>0.0000</b>
INF	0.052581	0.034561	1.521421	0.1294
<b>GOV</b>	<b>-2.635237</b>	<b>0.971913</b>	<b>2.711391</b>	<b>0.0072</b>
GDP	-0.020404	0.056295	-0.362458	0.7173
EXR	-0.000101	8.54E-05	-1.185027	0.2371
<b>DBT</b>	<b>0.014142</b>	<b>0.006423</b>	<b>2.201871</b>	<b>0.0286</b>
CORUP	-0.297312	0.885306	-0.335830	0.7373
<b>CAB</b>	<b>0.064399</b>	<b>0.024337</b>	<b>2.646159</b>	<b>0.0087</b>
BUD	-0.027036	0.023639	-1.143670	0.2539
<b>C</b>	<b>1.752742</b>	<b>0.583083</b>	<b>3.005988</b>	<b>0.0029</b>
R-squared	0.241396	Mean dependent var		2.014040
Adjusted R-squared	0.214087	S.D. dependent var		4.295327
S.E. of regression	3.807883	Sum squared resid		3624.992

Source: Author's calculation

**Table 3: Hausman test**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	8.564892	9	<b>0.4784</b>

Source: Author's calculation

Thus, the most important variables influencing illicit outflows in Africa are political stability, governance and to a lesser extent public debt and the balance of payments deficit. Indeed, the lack of political stability and the weakness of governance create an environment of uncertainty that pushes economic actors to transfer their funds legally or illegally to safer countries. Also, the increase in public debt and the widening of the balance of payments deficit encourage the flight of capital as long as they deteriorate the macroeconomic environment.

## CONCLUSION AND RECOMMENDATIONS

The objective of this paper was to analyse the evolution of illicit financial flows in Africa during the last decade and identify, through a panel data analysis, their main determinants.

Over the period 2005-2014, the African continent experienced a massive illicit capital outflow of about 610 billion of dollars. The top 5 countries, namely Nigeria, South Africa, Algeria, Egypt and Morocco have experienced more than 419 billion dollars of illicit outflows, more than 69% of the African continent total.

The empirical analysis shows that the most important variables encouraging illicit financial flows are political instability, bad governance, public indebtedness and the balance of payments deficit. These factors create an environment of uncertainty and deteriorate macroeconomic situation that pushes economic actors to transfer their funds legally or illegally to safer countries.

Illicit financial outflows deprive the economy of important financial resources that can be used for socioeconomic development projects. Therefore a number of measures can be considered in order to reduce the magnitude of this phenomena. Following the GFI report (2017), several measures can be adopted to reduce illicit flows:

- Governments should verify beneficial ownership information on all legal entities, and all banks should know the true beneficial of any account in their financial institutions.
- Multinational companies must publish their revenues, profits, losses, sales, taxes paid, subsidiaries, and staff levels on a country-by-country basis;
- All countries around the world should actively participate in the movement towards the automatic exchange of tax information;
- Trade transactions involving a tax haven should be treated with the highest level of scrutiny;

- Finally, governments should significantly boost their customs enforcement by equipping and training officers to better detect intentional misinvoicing of trade transactions.

## REFERENCES

Bhagwati, N. (1974) "On the Underinvoicing of Imports," in *Illegal Transactions in International Trade*, ed. (Amsterdam: North-Holland Publishing Company, 138–47.

Collier, P and all. (2001). Flight capital as a portfolio choice, *IMF working paper*.99/171.

Dooley, M. P. (1988). Capital flight: A response to differences in financial risks. *IMF Staff Papers*. Washington. 35(3) 422-436.3.

Global financial Integrity report (2008). Illicit Financial Flows from Developing Countries: 2002-2006.

Global financial Integrity report (2017). Illicit Financial Flows to and from Developing Countries: 2005-2014

Kapoor, S. (2007). Haemorrhaging Money: A Christian Aid Briefing on the Problem Illicit Capital Flight. *Christian Aid*.

Lahlou K. & Mossadak A. (2013) Empirical investigation on the illicit financial flows from MENA region, *British Journal of Social Sciences*. Vol. 1, No. 9, pp 1-11.

Le, Q. & Rishi, M., (2006). Corruption and Capital Flight: An Empirical Assessment, *International Economic Journal*, Vol. 20, No. 4, pp. 523-540, December.

Lensink, R., & all (2000). The effect of financial liberalization on capital flight in African economies. *World Development*, 26(7), 1349-1368.

Ndikumana, L. & Boyce, J., (2003). "Public Debts and Private Assets: Explaining Capital Flight from Sub-Saharan African Countries," *World Development*, vol. 31(1), 107-130, January.

Nyoni, T. (2000) Capital flight from Tanzania. In S. I. Ajayi & S. K. Mohsin (Ed.), *External debt and capital flight in Sub Saharan Africa*, *International Monetary Fund*.

Pastor, M. (1990). Capital flight from Latin America. *World Development*. 18(1).