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EXECUTIVE SUMMARY

Cross-border capital movements that serve to conceal illegal activities or evade taxation have been recently placed at the centre of the international agenda. Trade misinvoicing, profit shifting by multinational corporations, and offshore bank deposits to conceal the proceeds of crime or simply to avoid taxes, all deprive national treasuries of much needed resources - which could otherwise be invested in development. Vulnerable populations in developing countries are the most affected by the harmful consequences of illicit financial flows. Revenue losses due to illicit financial flows compromise development and impede the effective provision of public services in affected countries.

This study offers a comparative analysis of 42 countries, examining common trends among causes leading to illicit cross-border money transfers. Its findings support existing theoretical frameworks on the key drivers of illicit financial flows. Our analysis has identified that most countries that experience large transfers to offshore bank accounts are characterized by weak regulatory systems: i.e., shortcomings in the institutional capacities to detect, monitor and prosecute illicit financial flows are the primary drivers behind tax evasion.

Other factors that influence tax evasion using offshore accounts include a country's dependence on natural resources, the corporate tax rate for domestic businesses and the levels of corruption. Our findings also suggest that, in non-resource-endowed countries, high levels of tax evasion are driven by a combination of low regulatory capacity and high corporate tax rates. Resource-dependent economies experience high revenue losses due to a combination of low regulatory capacity and high levels of corruption. The case studies of South Africa, Kenya, and Mexico illustrate our findings and highlight the ways in which different factors result in different levels and types of illicit financial outflows.

While our findings cover only some of the countries under examination, the high magnitude of IFFs in other cases appear to be driven by additional conditions, which should be explored by future research. Also, further study is needed regarding the prevalence of certain types of illicit financial flows in specific contexts. Thus, more in-depth, country-level studies would enrich our understanding of the mechanisms of illicit cross-border money flows.

The growing availability of macroeconomic and governance data on developing countries provides avenues for more detailed research on illicit financial flows in the future. As alternative methodologies for measuring these flows become more sophisticated, there is both a pressing need and a huge potential for the advancement of a research agenda focusing on illicit cross-border money flows.

CHAPTER 1

INTRODUCTION

1.1. CONCEPT OF ILLICIT FINANCIAL FLOWS AND THE INTERNATIONAL COMMUNITY

One clear demonstration of the growing international concern around IFFs is that, for the first time ever, the United Nations-driven renewed global development agenda incorporates a specific target related to combating illicit financial flows. The 2030 Agenda for Sustainable Development that includes 17 goals with 169 targets and is reflected in the UN Resolution on Transforming Our World (adopted by the UN General Assembly on 25 September 2015), makes specific reference to IFFs. In particular, target 4 of Goal 16 (SDG 16.4) aims to "significantly reduce illicit financial and arms flows, strengthen the recovery and return of stolen assets and combat all forms of organized crime".[1]

This target reflects the growing importance of IFFs over the last few years. Previously, the Millennium Development Goals (MDGs) had not established sufficiently clear links between development and the draining of financial resources to which many developing countries were subjected, as a result of illicit cross-border movements of large sums of money.

Several social movements raised awareness of the massive capital flight from developing countries and their activists have called for policy-makers' attention towards the damaging phenomenon of IFFs. Organisations such as the Tax Justice Network and Global Financial Integrity made important contributions in this respect during the mid-2000s, by drawing worldwide attention to IFFs and making the international community aware of the severe damage that certain undesirable tax practices were inflicting on low-income countries. This was somewhat controversial, as it not only altered the contemporary international discourse on cooperation - which was centred mainly on the MDGs - by incorporating an essential, previously neglected component (IFFs), but also launched the debate about the legitimacy of those offshore financial centres that - under cover of secrecy clauses - offer shelter to financial resources originating from any kind of activity, whether lawful or not.

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[1] United Nations General Assembly, "Resolution Adopted by the General Assembly on 1 September 2015," A/RES/69/315, September 15, 24, http://www.undocs.org/A/RES/69/315. UNODC and UNCTAD are the custodians of the Indicator 16.4.1.

The United Nations did not take long to react. In 2011, as the 2008 global financial crisis was drawing to a close, the United Nations Development Programme (UNDP) commissioned a discussion paper for the UN IV Conference on Least Developed Countries, which took place in Istanbul in May of that year. The paper highlights the way in which illicit capital flight represents a major hindrance to the mobilization of domestic resources for development.[2] Although the document primarily focuses on resources lost to tax evasion and trade mispricing (the latter category alone accounts for 65–70 per cent of illicit outflows), it also acknowledges the necessity of curtailing tax avoidance by multinational corporations and anticipates that the "international community could support the development of an international accounting standard requiring that all multi-national corporations report sales, profits, and taxes paid in all jurisdictions in their audited annual reports and tax returns." That same year, the United Nations Office on Drugs and Crime (UNODC) also dedicated significant efforts to measuring IFFs resulting from drug trafficking and other transnational organized crime.[3]

Only two years later, in 2013, growing evidence of both the extent of IFFs in the global economy and of their harmful effects on developing countries gave rise to a greater awareness among international institutions of the need to take action to combat both criminal IFFs and tax avoidance practices. In February 2013, the OECD published a seminal report entitled "Addressing Base Erosion and Profit Shifting (BEPS)."[4] The report popularized the term BEPS, which provided a convenient label for a crucial problem. It also led to the first package of measures to fight abusive tax practices by multinational corporations. In September 2013, the G20 leaders endorsed the ambitious and comprehensive BEPS Action Plan,[5] developed within the OECD, which led to the BEPS Package to combat tax avoidance (endorsed by the G20 Leaders Summit in Antalya on 15–16 November 2015).[6] The package included proposals to report on 15 actions, designed to ensure that the profits of multilateral corporations are taxed at the locations where the economic activities generating those profits take place, thus allowing countries to protect their taxable base.

On 27 July 2015, a few months before the G20 endorsed the BEPS Package, the General Assembly adopted Resolution A/RES/69/313 of the Addis Ababa Action Agenda of the

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[2] UNDP (2011), *Illicit Financial Flows from the Least Developed Countries: 1990–2008*. Discussion Paper, May 2011, http://content-ext.undp.org/aplaws_publications/3273649/IFFs_from_LDCs_web.pdf.

[3] See the UNODC 2011 research report on this issue entitled *Estimating Illicit Financial Flows Resulting from Drug Trafficking and Other Transnational Organized Crimes,* https://www.unodc.org/documents/data-and-analysis/ Studies/Illicit_financial_flows_2011_web.pdf.

[4] See OECD (2013), *Addressing Base Erosion and Profit Shifting* (Paris: OECD Publishing), http://www.oecd.org/tax/addressing-base-erosion-and-profit-shifting-9789264192744-en.htm.

[5] OECD (2013), *Action Plan on Base Erosion and Profit Shifting* (Paris: OECD Publishing), http://dx.doi.org/10.1787/9789264202719-en.

[6] See OECD (2015), "BEPS 2015 Final Reports," http://www.oecd.org/ctp/beps/beps-2015-final-reports.htm.

Third International Conference on Financing for Development, which might be viewed as the cornerstone of the UN regulatory framework on IFFs.[7]

At the first Financing for Development Conference, which led to the 2002 Monterrey Consensus, Member States already acknowledged the need to address capital flight. At the second Conference, which led to the 2008 Doha Declaration, they acknowledged the importance of the problem of IFFs. At the Third International Conference, the Addis Ababa Action Agenda declared a strong political commitment to fight IFFs, distinguishing between flows that are *ipso facto* illegal (e.g. tax evasion and corruption), which are to be eliminated by 2030, and tax avoidance and similar flows, which the plan aims to reduce.

The commitment is worth quoting in full:

We will redouble efforts to substantially reduce illicit financial flows by 2030, with a view to eventually eliminating them, including by combating tax evasion and corruption through strengthened national regulation and increased international cooperation. We will also reduce opportunities for tax avoidance and consider inserting anti-abuse clauses in all tax treaties.

In its latest report,[8] the Inter-Agency Task Force on Financing for Development, convened by the UN Secretary-General to follow up on the Addis Ababa Action Agenda, points out that there is still a widespread lack of intergovernmental agreement on the definition of the term IFF in the international cooperation arena. The task force recommends component-by-component and channel-by-channel analysis and estimation of IFFs.

During the IFF discussions, the UN Economic Commission for Africa (UNECA) made a strong statement about the irreparable damage that tax evasion causes on the African continent. To combat this, UNECA established the High-Level Panel on Illicit Financial Flows from Africa. In February 2015,[9] the Panel produced a crucial report highlighting the importance of considering as IFFs certain legal but abusive tax practices, which are draining the African continent of essential financial resources. The report emphasises that

We also felt that the term 'illicit' is a fair description of activities that, while not strictly illegal in all cases, go against established rules and norms, including avoiding legal

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[7] United Nations General Assembly (2015), "Resolution adopted by the General Assembly on 27 July 2015," A/RES/69/313, http://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_69_313.pdf.

[8] Inter-agency Task Force on Financing for Development (2018), *Financing for Development: Progress and Prospects 2018* (New York: United Nations), https://developmentfinance.un.org/sites/developmentfinance.un.org/ files/Report_IATF_2018.pdf.

[9] United Nations General Assembly (2018), "Resolution Adopted by the General Assembly on 20 December 2017," A/RES/72/207, January 23, https://unctad.org/meetings/en/SessionalDocuments/ares72d204_en.pdf.

obligations to pay tax. Our purpose in doing so - including such transactions in the IFF definition - was to establish the nature of such outflows, given the harm that they cause to African economies.

In line with UNECA, the Office of the High Commissioner for Human Rights (OHCHR) has also explicitly proclaimed the need to include tax avoidance and tax abuse practices in the global IFF debate. In March 2015, the Independent Expert on the effects of foreign debt and other related international financial obligations of States on the full enjoyment of all human rights, particularly economic, social and cultural rights assigned by the Human Rights Council, highlighted the severe damage such practices inflict: not only to the development agendas of low-income economies but also to human rights worldwide.[10] The expert's main task was to analyse the negative impact of IFFs on human rights. He noted that:

Tax evasion and abuse are considered to be responsible for the majority of all illicit financial outflows, followed by illicit financial flows relating to criminal activities, such as drug and human trafficking, the illicit arms trade, terrorism and corruption-based illicit financial flows.[11]

In the same report, the independent expert suggests moving beyond the current OECD/G20 BEPS framework and recommends that States:

Consider the establishment of an intergovernmental committee on tax cooperation, under the auspices of the United Nations, to ensure that all countries, including the least developed countries, will benefit from the emerging new system of automatic exchange of tax information and can fully participate in its further design and implementation.

In the final report, issued in January 2016,[12] the independent expert reiterates that:

Member States should initiate negotiations to draft a United Nations convention to combat abusive tax practices, which should evolve into a convention that would adopt a consolidation and apportionment system for taxing global corporate profits.

This is an important step forward. It shows that, within the international community, there is an increasing demand for the establishment of a supranational body with

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[10] United Nations General Assembly (2015), "Illicit Financial Flows, Human Rights and the Post-2015 Development Agenda, Interim Study by the Independent Expert," A/HRC/28/60, February 10, https://undocs.org/A/HRC/28/60.

[11] See a summary at UNHROHC (n.d.), "Illicit Financial Flows and Human Rights," https://www.ohchr.org/ EN/Issues/Development/IEDebt/Pages/Consultation.aspx.

[12] United Nations General Assembly (2016), "Final study on illicit financial flows, human rights and the 2030 Agenda for Sustainable Development of the Independent Expert on the effects of foreign debt and other related international financial obligations of States on the full enjoyment of all human rights, particularly economic, social and cultural rights," A/HRC/31/6, January 15, http://www.undocs.org/A/HRC/31/61.

a remit surpassing the BEPS framework. The G77[13] has identified the UN - perhaps specifically the Committee of Experts on International Cooperation in Tax Matters that is the UN's key forum for advancing international tax cooperation - as the appropriate host of an intergovernmental taxation body. It views the OECD efforts, including the new Inclusive Framework on BEPS, as insufficient to the needs and specific circumstances of developing countries. The 2015 Panama Papers and the 2017 Paradise Papers both exposed the fact that large sums of money are held in tax havens. The leaked documentation generated a strong reaction and enhanced awareness on the necessity of a more global and participatory way of confronting the gaps in tax legislation, which are still all too often exploited by multinational organizations, in order to artificially shift profits to low- or no-tax jurisdictions.

Despite the range of positions at the multilateral level and the lack of an intergovernmental consensus, UN Member States continue to express deep concerns about IFFs and are insisting on greater international cooperation to combat them, probably in the hope that urgent attention will be paid to all harmful financial transactions, from a unified perspective, without overlooking any relevant category or country. At the United Nations General Assembly in January 2018, Member States called on the next President of the General Assembly to convene "a high-level meeting on international cooperation to combat illicit financial flows and strengthen good practices on assets returned to foster sustainable development."[14]

The final determination of the scope of IFFs and the inclusion of abusive tax practices in this category has yet to be decided. More understanding and analysis is still needed, in order to work towards a desirable consensus. The main objective of this research is to enhance awareness and generate consensus.

1.2. STUDY DESIGN

A remarkable variety of factors may affect illicit outflows of capital from its jurisdiction of origin. Although it is known that non-economic factors play an important role in IFFs, empirical literature on extra-economic determinants of IFFs is scarce. This report seeks to fill this gap by examining governance-related drivers of IFFs and their interactions, in order to identify common patterns among different countries and contribute to the elaboration of context-specific policies aimed at combatting IFFs.

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[13] At the United Nations ECOSOC special meeting on international cooperation in tax matters (7 April 2017), G77 (chaired by Ecuador) and China reiterated their demand for an intergovernmental tax body at the UN. Additional statements in support of the issue were made by Egypt, Brazil, India and CARICOM (14 Member States of the Caribbean community) in their national and regional capacity. See Department of Economic and Social Affairs (2017), "ECOSOC Special Meeting on International Cooperation in Tax Matters," April 7, http://www.un.org/esa/ffd/ events/event/ie-2017-ictm.html.

[14] United Nations General Assembly, "Resolution Adopted by the General Assembly on 20 December 2017."

The research agenda on IFFs, spearheaded by the Global Financial Integrity think tank, has focused primarily on developing countries. Developing countries are known to face profound problems of governance, which cause a disproportionate loss of resources that are needed for the development of public services and infrastructures.[15] Our study therefore focuses on developing countries and attempts to discover common factors that lead to high illicit outflows.

Discussion of IFFs often focuses on the threat that money laundering, tax evasion, and terrorist financing pose to the international developmental agenda and to national treasuries, which IFFs deprive of much-needed revenues. Little attention has been paid to the drivers of IFFs at the country level and the ways in which they interact with different aspects of governance. What conditions cause the proliferation of illicit financial outflows from a country? Are some conditions more important than others in enabling IFFs?

To answer these questions, the present research uses fuzzy set qualitative comparative analysis (fsQCA) which, to our knowledge, has never been applied to the study of IFFs. Our aim is to identify the factors that most affect IFFs and to indicate which patterns give rise to the spread of IFFs within a given country. The study is structured as follows:

- Chapter 2 reviews the literature on IFFs, paying special attention to linkages between IFFs and different aspects of governance;
- Chapter 3 describes the research method - fuzzy set qualitative comparative analysis (fsQCA) - and its key assumptions, strengths and limitations;
- Chapter 4 presents the results of the analysis and explains them in the context of the theoretical framework; and
- Chapter 5 presents the conclusion, discusses the implications for policy making, and outlines avenues for future research.

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[15] Stephanie Blankenburg and Mushtaq Khan (2012), “Governance and Illicit Flows,” in *Draining Development? Controlling Flows of Illicit Funds from Developing Countries,* ed. Peter Reuter (Washington DC: World Bank), 21-68.

CHAPTER 2

ILLICIT FINANCIAL FLOWS: THE CURRENT STATE OF KNOWLEDGE

2.1. DEFINING ILLICIT FINANCIAL FLOWS

“Illicit financial flows” is a relatively new term which has been promoted by Global Financial Integrity since 2006.[16] It is a highly contested term among both scholars and practitioners. In a narrow sense, the term refers to unrecorded capital that is illegally earned, transferred or utilized. This may include funds from illicit activities, such as drug-trafficking or corruption; tax evasion, through the transfer of funds abroad in violation of national tax regulations; and funds used for illegal purposes, such as the financing of terrorism.

In recent years, however, a broader definition of IFFs has dominated the international agenda. This definition involves capital that is earned, transferred, or utilized through legal loopholes and questionable schemes that aim to circumvent national and international legal principles. Examples include tax avoidance schemes (such as profit shifting practices) by transnational corporations or wealthy people.[17] This broad definition has been criticized by some experts for its lack of precision, since it arguably renders the concept as obscure as the funds to which it refers.[18]

Nevertheless, tax avoidance is just as detrimental to national economies and developmental efforts as purely illegal transfers of funds. It has therefore become a prominent topic on the international agenda and we consider it worth including in

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[16] Raymond Baker (2015), “A Brief Biography of Illicit Financial Flows,” in *Illicit Financial Flows: The Most Damaging Economic Condition Facing the Developing World*, ed. Global Financial Integrity, September 1-6, https://www.gfintegrity.org/report/illicit-financial-flows-damaging-economic-problem-facing-developing-world/.

[17] Alex Cobham (2014), *The Impacts of Illicit Financial Flows on Peace and Security in Africa 2014*, Study for Tana High-Level Forum on Security in Africa, April, https://www.africaportal.org/documents/12549/ IFFs_and_Security_1.pdf.

[18] Peter Reuter (2017), *Illicit Financial Flows and Governance: The Importance of Disaggregation*, background paper for the World Development Report 2017 (Washington, D.C.: World Bank); Maya Forstater (2018), “Illicit Financial Flows, Trade Misinvoicing, and Multinational Tax Avoidance: The Same or Different?” CGD Policy Paper 123, March (Washington, D.C.: Center for Global Development); Fredrik Eriksson (2017), “Illicit Financial Flows Definitions - Crucial Questions Putting the Iff Agenda in Action at the Country Level,” October 5, https://medium.com/u4-anti-corruption-resource-centre/country-level-iff-research-for-counter-iff-support-694d3b3ced0.

a discussion of IFFs, although we must distinguish it analytically from funds of illegal origin. Consequently, the present report adopts a broader perspective on IFFs by focusing on illegality and illicitness across different stages of the trajectory of funds.

Defined broadly, IFFs are present in all geographical regions and in all types of economies, both developed and developing. While some countries are characterized by high outflows of illicit capital, others experience high inflows or both. IFFs also vary significantly in their impact on local economies across countries. The fact that some countries lose about 7% of their GDP due to IFFs cannot be ignored and should serve as a call to action: it is vital to stem these cross-border flows. Since this research is concerned with IFFs as a developmental issue, we focus on developing countries, as the most vulnerable to their detrimental effects.

There is a relative consensus among experts that, for analytical and policy purposes, IFFs should be disaggregated into types, depending on their sources and channels of movement. IFFs are usually divided into four major categories: market abuse, tax abuse, abuse of power, and proceeds of crime.[19] These categories are not mutually exclusive and often overlap; the same channel (transfer mechanism) can be used by different actors seeking to transfer funds from different types of sources.[20] Using the broad definition of IFFs, this research report discusses the first three types, excluding the category of criminal proceeds.[21]

1. **Market/regulatory abuse**. This includes trade misinvoicing (over-pricing of exports and under-pricing of imports), and the anonymous sale of public assets and contracts in order to conceal market dominance.

2. **Tax abuse**. This comprises tax evasion (using illegal practices and rules violations to pay less tax) and tax avoidance (using legal instruments, such as transfer mispricing and other techniques of corporate profit shifting, to pay less tax).[22]

3. **Abuse of power**. This includes the theft of state funds through the under-priced sale of public assets and the transferring of proceeds deriving from corruption to an offshore location.

4. **Proceeds of crime**. This includes the proceeds of illegal activities, such as drug-trafficking, trafficking in persons and arms trafficking.

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[19] Economc Commission for Africa and African Union, *Illicit Financial Flows*; Cobham, *The Impacts of Illicit Financial Flows*; Reuter, *Illicit Financial Flows and Governance*.

[20] See Reuter, *Illicit Financial Flows and Governance*.

[21] In methodological terms, it is extremely difficult to measure the amount of funds generated by illegal activities; least the proceeds of these activities transferred abroad. Serious attempts to provide statistical estimates are currently under way, under the auspices of the UNODC, but there are no available country-level data as of today.

[22] Gillian Brock and Thomas Pogge (2014), “Global Tax Justice and Global Justice,” *Moral Philosophy and Politics* 1 (1), 1–15.

This report does not attempt to provide an exhaustive view of all the drivers of illicit financial flows. The following discussions are meant to complement economic and political explanations of IFFs provided elsewhere, using the latest available data and a novel methodological approach.

2.2. DRIVERS OF ILLICIT FINANCIAL FLOWS: LITERATURE REVIEW

Existing research on IFFs has primarily focused on two areas: estimates of IFFs and of their impact on governance and development. The first area measures the volumes of IFFs related to legal financial flows, including trade.[23] The second highlights the consequences of IFFs and assesses international and domestic policies designed to curb them.[24] Both lines of research recognize the impact of IFFs on governance and advocate for greater control over the illicit movement of funds.

It is crucial to recognise the importance of non-economic factors such as corruption, institutional capacity and political stability, if we want to find ways to tackle revenue losses due to illicit capital outflows. In a 2012 World Bank study, Mick Moore points out that decisions by multinational corporations (MNCs) and wealthy individuals to transfer their profits offshore result from a combination of several institutional, political, and policy factors. Specifically, in institutionally weak states, owners of significant capital have both major non-economic incentives to convert their earnings into illicit outflows and many opportunities to do so, due to lax institutional controls and regulations.[25] A 2013 quantitative study by Global Financial Integrity finds that IFFs from developing countries are driven by each country's state of overall governance, among other regulatory factors.[26] Similarly, the 2017 Basel AML Index Report highlights the fact that countries with weak anti-money laundering and counter-terrorism financing (AML/CFT) regulations, high levels of corruption, a weak judiciary and major political risks are most vulnerable to money-laundering and terrorism financing activities.[27] Thus, IFFs are likely to be driven by a combination of economic, institutional and political factors.

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[23] Global Financial Integrity (2017), *Illicit Financial Flows to and from Developing Countries: 2005-2014*, April, https://www.gfintegrity.org/report/illicit-financial-flows-to-and-from-developing-countries-2005-2014/; John Zdanowicz (2009), "Trade Based Money Laundering and Terrorist Financing," *Review of Law and Economics* 5 (2), 855-878.

[24] Reuter, *Draining Development*; Brock and Pogge, "Global Tax Justice"; United Nations General Assembly, "Final Study on Illicit Financial Flows."

[25] Mick Moore (2012), "The Practical Political Economy of Illicit Flows," in *Draining Development? Controlling Flows of Illicit Funds from Developing Countries*, ed. Peter Reuter (Washington DC: World Bank), 457-482.

[26] Dev Kar and Brian LeBlanc (2013), *Illicit Financial Flows from Developing Countries: 2002-2011* (Washington, DC: Global Financial Integrity).

[27] Basel Institute on Governance (2017), *Basel AML Index 2017*, Report, August 16, Basel, Switzerland, https://index.baselgovernance.org/sites/index/documents/Basel_AML_Index_Report_2017.pdf.

The key role played by **institutions** has been highlighted in numerous studies of IFFs. In general, countries with weak institutions tend to experience major capital flight, including illicit outflows.[28] Governments with low institutional capabilities are generally characterized by a low capacity to regulate, monitor and tax capital. This makes it easier for individuals to hide illegal proceeds abroad and for multinational corporations to evade payment of taxes by resorting to profit shifting or trade misinvoicing.[29] A recent World Bank study on tax evasion among firms in Africa and Latin America has found that a poor business environment and low regulatory quality are major determinants of tax evasion in these regions. On the one hand, weaknesses in regulatory frameworks provide incentives for entrepreneurs to evade taxes; on the other, poor institutional quality generates losses for firms, which they try to counterbalance by resorting to tax evasion. [30] Thus, regulatory capacity constraints play an important role in draining resources from countries.

However, administrative and policy reforms aimed at improving the technical capacities of the institutions concerned are not enough to curtail illicit outflows. Political stability is central to good governance as it reinforces the confidence of economic actors in the national economic and financial system. Like the broader phenomenon of capital flight, IFFs are driven by the perception of **political risk**. Research reveals that multinational enterprises engage in profit shifting practices in response to such political risks as appropriation of their assets, unpredictable changes in laws and regulations, or a weak and unstable currency in the host country.[31] As Max Everest-Phillips (2012) points out, "tax evasion and corruption translate into capital flight and illicit flows not only if the opportunity arises to place assets abroad. Capital flight arises from political risk; illicit flows arise from a perceived lack of political consensus about building an effective state."[32] In a 2010 study on capital flight through trade misinvoicing Patnaik et al. identify political stability as one of the significant factors related to misinvoicing. According to their findings, more stable countries experience less trade misinvoicing; by contrast, residents of unstable countries often seek to take their money out of the country, to avoid the risk of losing their holdings.[33] A 2017 study on IFFs from Sub-

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[28] For country-specific analyses, see a series of articles in a special issue of *African Development Review* 28 (S1), AERC's Project on "Capital Flight from Africa," April 2016.

[29] Anselm Komla Abotsi (2018), "Influence of Governance Indicators on Illicit Financial Outflow from Developing Countries," *Contemporary Economics* 12 (2), 139-152.

[30] Wilfried Kouamé and Jonathan Goyette (2018), *Tax Evasion in Africa and Latin America: The Role of Distortionary Infrastructures and Policies*, WPS8522, Office of the Chief Economist, Africa Region, World Bank Group, July.

[31] Lorraine Eden (2012), "Transfer Price Manipulation," in *Draining Development? Controlling Flows of Illicit Funds from Developing Countries*, ed. Peter Reuter (Washington DC: World Bank), 214.

[32] Max Everest-Phillips (2012), "The Political Economy of Controlling Tax Evasion and Illicit Flows," in *Draining Development? Controlling Flows of Illicit Funds from Developing Countries*, ed. Peter Reuter (Washington DC: World Bank), 69-107.

[33] Ila Patnaik, Abhijit Sen Gupta, and Ajay Shah (2010), "Determinants of Trade Misinvoicing," Working Paper No. 2010-75, October, National Institute of Public Finance and Policy, New Delhi.

Saharan Africa also finds a strong negative association between political stability and trade misinvoicing in the region.[34]

Corruption - the misuse of public funds or abuse of office for private gain[35] - plays a dual role with regard to IFFs. It can be either considered as a source or a as a channel of cross-border illicit transactions.[36] As a source of IFFs, the proceeds of corruption produce wealth that needs to be hidden. This creates a demand for financial services in high-secrecy jurisdictions or tax havens. Individuals willing to transfer their funds abroad in order to avoid taxation may use bribery of tax or customs authorities as a channel.[37] A number of empirical studies link corruption to high levels of IFFs and regulatory weaknesses.[38] Abotsi (2017) finds that corruption has a significant positive effect on IFFs through trade misinvoicing.[39] Bernd Schlenther shows how, in the context of institutional weaknesses, patronage networks complicate enforcement efforts by tax authorities and reduce tax compliance in Africa.[40]

The presence of **natural resources** is often a major driver of illicit flows from developing countries. In recent decades, the world has seen a remarkable growth in rents from energy and minerals, the extraction of which requires large investments, is highly concentrated, and tends to generate large profits.[41] This provides opportunities for

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[34] Emmanuel Orkoh, Carike Claassen and Derick Blaauw (2017), "Corruption, Political Stability and Illicit Financial Outflows in Sub-Saharan Africa," African Economic Conference, December 4-6, https://www.afdb.org/en/aec-2017/papers/paper/corruption-political-stability-and-illicit-financial-outflows-in-sub-saharan-africa-5553/; Anas Mossadak and Kamal Lahlou (2013), "Empirical Investigation on the Illicit Financial Flows from MENA Region," *British Journal of Social Sciences* 1(9), 1-11.

[35] This is a narrow definition of corruption that focuses on the public sector. The 2015 Report by the High Level Panel on Illicit Financial Flows from Africa calls close attention to be paid to the corruption emanating from the private sector (Economic Commission for Africa and African Union, *Illicit Financial Flows*, 32-33).

[36] Quentin Reed and Alessandra Fontana (2011), *Corruption and Illicit Financial Flows: The Limits and Possibilities of Current Approaches*, U4 – Anti-Corruption Resource Center, No 2, January, https://www.u4.no/publications/corruption-and-illicit-financial-flows-the-limits-and-possibilities-of-current-approaches-2.pdf.

[37] On the distinction between corruption and tax abuse see Robert Barrington (2016), "When Is Tax Abuse Corruption? The New Official View of Transparency International," December 2, http://www.transparency.org.uk/ when-is-tax-abuse-corruption/#.Wp00KhPFLeQ.
For a review of global anti-corruption policies, see Erik Solheim (2015), "Illicit Financial Flows and Development," in Illicit Financial Flows: The Most Damaging Economic Condition Facing the Developing World, ed. Global Financial Integrity, September 123-145, https://www.gfintegrity.org/report/illicit-financial-flows-damaging-economic-problem-facing-developing-world/. For an excellent case study on how corruption facilitates smuggling of good across the Tri-Border Area, see Vanessa Neumann and Stuart Page (2018), *The Many Criminal Heads of the Golden Hydra: How the Tri-Border Area's Interlocking Arcs of Crime Create LatAm's #1 International Fusion Center*, Report by Counter Extremism Project (CEP) and Asymmetrica, https://www.counterextremism.com/sites/default/files/The%20Many%20Criminal%20Heads%20of%20the%20Golden%20Hydra%20%28May%202018%29.pdf.

[38] Bernd Schlenther (2017), "The Impact of Corruption on Tax Revenues, Tax Compliance and Economic Development: Prevailing Trends and Mitigation Actions in Africa," *eJournal of Tax Research* 15(2), 217-242; Kar and LeBlanc, *Illicit Financial Flows from Developing Countries*.

[39] Abotsi, "Influence of Governance Indicators."

[40] Schlenther, "The Impact of Corruption on Tax Revenues."

[41] Moore, "The Practical Political Economy," 464.

corruption on a grand scale, especially in the context of weak institutions.[42] Therefore, IFFs are particularly prevalent in resource-rich countries characterized by weaknesses in the regulatory framework that governs resource revenues.[43] Indeed, some studies have demonstrated that higher rents from natural resources are associated with higher outflows through trade misinvoicing.[44] Moreover, a government's dependence on natural resource rents may reduce its reliance on taxpayers.[45] This, in turn, may lead to lower tax compliance and disincentivises government investment in regulatory capacity building.[46] For example, in a study of fifteen Sub-Saharan economies, McGuirk shows that resource dependence has a negative effect on tax enforcement.[47]

Tax policy has been at the centre of recent discussions on IFFs as tax abuse has been a principal source of illicit trans-border transfers. A significant tax burden, such as **high tax rates**, is sometimes viewed as a major determinant of tax evasion among individuals or domestic firms.[48] Research shows that higher taxes are associated with an unfavourable corporate investment environment, which in turn discourages tax compliance.[49] For example, Tandon and Kavita (2017) find that, in some countries, high corporate tax rates are associated with extensive misinvoicing of imports.[50] Others, however, point out that the relation between high tax rates and IFFs is controversial. As Alstadsæter et al. (2018) argue in their study of offshore holdings, "among those with the lowest stock of offshore assets, one finds relatively low-tax countries alongside the

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[42] FATF (2011), *Laundering the Proceeds of Corruption* (Paris, France: FATF/OECD); Zorka Milin (2014), "Global Tax Justice and the Resource Curse: What Do Corporations Owe?" *Moral Philosophy and Politics* 1(1), 17–36; Léonce Ndikumana and Mare Sarr (2016), "Capital Flight and Foreign Direct Investment in Africa: An Investigation of the Role of Natural Resource Endowment," UNU–WIDER Working Paper 58/2016, United Nations University–World Institute for Development Economics Research, Helsinki, https://www.wider.unu.edu/sites/default/ files/wp2016-58.pdf.

[43] Annette Alstadsæter, Niels Johannesen, and Gabriel Zucman (2018), "Who Owns the Wealth in Tax Havens? Macro Evidence and Implications for Global Inequality," *Journal of Public Economics* 162, 90; African Development Bank and Global Financial Integrity (2013), *Illicit Financial Flows and the Problem of Net Resource Transfers from Africa: 1980-2009*, May, https://www.gfintegrity.org/storage/gfip/documents/reports/ AfricaNetResources/gfi_afdb_iffs_ and_the_problem_of_net_resource_transfers_from_africa_1980-2009-web.pdf; Economic Commission for Africa and African Union, *Illicit Financial Flows*.

[44] Suranjali Tandon and R. Kavita Rao (2017), "Trade Misinvoicing: What can we Measure?" Working Paper No. 200, National Institute of Public Finance and Policy, New Delhi, July 4.

[45] Moore, "The Practical Political Economy," 464.

[46] Vanessa van den Boogaard et al. (2018), "Tax Revenue Mobilization In Conflict-Affected Developing Countries," *Journal of International Development* 30, 358; Mick Moore (2008), "Between Coercion and Contract: Competing Narratives on Taxation and Governance," in *Taxation and State Building in Developing Countries: Capacity and Consent*, eds. Deborah Bräutigam, Odd-Helge Fjeldstad, and Mick Moore, 34–63 (Cambridge: Cambridge University Press).

[47] Eoin McGuirk (2013), "The Illusory Leader: Natural Resources, Taxation and Accountability," *Public Choice* 154, 285–313.

[48] Bruno Chiarini, Elisabetta Marzano, and Friedrich Schneider (2013), "Tax Rates and Tax Evasion: An Empirical Analysis of the Long-Run Aspects in Italy," *European Journal of Law and Economics* 35(2), 273–293; Raymond Fisman and Shang-Jin Wei (2004), "Tax Rates and Tax Evasion: Evidence from 'Missing Imports' in China," *Journal of Political Economy* 112(2), 471-500.

[49] PwC and The World Bank Group (2014), *Paying Taxes 2014: The Global Picture*, https://www.pwc.com/ payingtaxes.

[50] Tandon and Rao, "Trade Misinvoicing."

world's highest tax countries."[51] The relationship between corporate tax rates and IFFs is not straightforward and requires further examination.

Based on the reviewed literature, it is possible to formulate several hypotheses to be tested in this study:

Hypothesis 1: Countries with lower regulatory capacity are likely to experience higher levels of illicit financial outflows.

Hypothesis 2: Countries with higher political risk, often in conjunction with corruption, exhibit higher levels of illicit outflows.

Hypothesis 3: Countries with higher levels of corruption are expected to have weaker regulatory environments and experience higher levels of illicit outflows.

Hypothesis 4: Resource-rich countries with weak institutions are prone to high levels of corruption and illicit outflows.

Hypothesis 5: Countries with higher tax rates are likely to be sources of illicit financial flows.

The literature review has shown that the theoretical arguments about governance-related drivers of IFFs from developing countries are interrelated. For example, as hypothesis 4 states, some countries experience high illicit outflows due to high resource rents and weak institutions. Thus, any analysis of IFFs should take into account the interactive nature of their determinants. It is also clear from the literature that none of the arguments constitutes a deterministic prescription for high IFFs: among countries that suffer their detrimental effects, one finds both resource-rich and resource-poor, high-tax and low-tax countries. In other words, several causal conditions or combinations of conditions may lead to the same outcome (equifinality). Therefore, an appropriate method for the analysis of IFFs would allow for the interaction of causal variables and the possibility of equifinality. The next section introduces the study's methodological approach – qualitative comparative analysis (QCA).

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[51] Alstadsæter et al., "Who Owns the Wealth in Tax Havens?" 90.

CHAPTER 3

RESEARCH METHOD

This section outlines the process through which the research project on the drivers of IFFs was developed, including the data used and some of the methodological choices involved. Most studies of IFFs are quantitative in nature, at the expense of accuracy and the detailed analysis of specific contexts. Recently, scholars have been stressing the importance of qualitative data and country-level analyses for the IFFs research agenda.[52] To the best of our knowledge, this study is one of the first attempts to apply QCA to the subject of illicit financial flows. By using a research method rarely applied to this field, this study contributes to current efforts to shed light on the elusive phenomenon of trans-border financial crossings. While it does not pretend to be comprehensive, the study aims to demonstrate the usefulness of this approach when studying IFFs.

3.1. ON FUZZY-SET QUALITATIVE COMPARATIVE ANALYSIS (FSQCA)

Qualitative Comparative Analysis (QCA) was developed by Charles Ragin in the late 1980s, as a middle ground between small-n case studies and large-N strictly quantitative analyses with social science applications. The main advantage of QCA is that it allows us to analyse an intermediate-sized sample of 15 to 50 cases without sacrificing context-specific details. This method combines the depth of a case study with the generalizing power of a quantitative analysis. The purposive selection of cases ensures modest generalization, while the in-depth case knowledge inherent to the QCA approach guarantees internal validity.[53]

The QCA method is based on set theory, which focuses on the presence or absence of certain conditions in order to determine whether a case belongs to a certain set of cases. For example, the statement “countries with lower regulatory capacity are likely to experience higher levels of illicit financial outflows” (our first hypothesis) essentially argues that countries with weak anti-IFF regulation form a subset of the set of countries with high illicit outflows. In other words, this statement argues that

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[52] Reuter, Illicit Financial Flows and Governance; Fredrik Eriksson (2018), “Country-Level IFF Research for Counter-IFF Support,” U4 Anti-Corruption Resource Centre, February 2, https://medium.com/u4-anti-corruption-resource-centre/country-level-iff-research-for-counter-iff-support-694d3b3ced0.

[53] Eva Thomann and Martino Maggetti (2017), “Designing Research with Qualitative Comparative Analysis (QCA): Approaches, Challenges, and Tools,” *Sociological Methods & Research*, October, 1-31.

the condition “low regulatory capacity” is a subset of the outcome “high IFFs.” It does not imply, however, that well-regulated countries do not experience high IFFs; other paths to high cross-border flows may well exist.

Analysis of subset relationship in QCA entails two main steps which represent two different types of relations. The first analytical step involves identifying *necessary* conditions: that is, causal conditions shared by cases with the same outcome. The second step involves examining cases with those causal conditions, or combinations of conditions, in order to identify *sufficient* conditions.[54]

In real-world phenomena, cases differ not only qualitatively, but also in the degree to which they display a condition or outcome. For example, not all countries in the set of high IFFs experience equally high outflows. Alternatively, not all high corporate tax rates are equally high. Fuzzy-set QCA (fsQCA) is a type of QCA that reflects variations in degree among cases. In set-theoretic terms, fsQCA allows cases to have partial membership in sets.[55] The process of determining the degree of membership in a condition, a set of conditions, or an outcome is called calibration. It involves assigning each case a membership score from 0 to 1.[56] This process is both qualitative and quantitative in nature, as it requires subjective expert assessment of the cases, together with empirical, often numerical, evidence to distinguish between degrees.

Once calibration is completed, QCA involves building a truth table of all possible combinations of conditions of interest and then allocating cases to these combinations based on their membership scores. If the degree of consistency among cases in the outcome of interest is high enough, the solution is considered a causal path or “recipe” for the outcome.

The output also includes combinations that do not have empirical cases (*logical remainders*). In the next step, the truth table rows - which correspond to all possible combinations of conditions - are simplified to provide a solution formula. During this process, three types of solution are produced depending on how the remainders are treated: a solution based only on the combinations that correspond to empirically observed cases (*the complex solution*), a solution based on empirically observed combinations and those remainders that contribute to the parsimony of the solution (*the intermediate solution*), and a solution based on empirical cases, which also incorporates all logical remainders (*the parsimonious solution*).[57] The intermediate solution is the preferred approach among QCA proponents and is therefore presented in this study.

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[54] Charles Ragin (2008), *Redesigning Social Inquiry: Fuzzy Sets and Beyond* (Chicago and London: University of Chicago Press), 20. Chapter 4 of the present report describes these steps in greater detail.

[55] Charles Ragin (2000), *Fuzzy-Set Social Science* (Chicago, IL: University of Chicago Press).

[56] This process is described in greater detail in the following sections.

[57] Ragin, *Redesigning Social Inquiry*, Chapters 8-9.

One of the main advantages of QCA is that it pays close attention to the interaction of independent variables and allows us to identify the different combinations of factors affecting the outcome. It also recognizes that different pathways can lead to the same outcome and a condition can have different effects in different contexts. QCA fuzzy set variation does not always require strict quantitative data, often relying instead on the researcher's expert knowledge in assigning scores to the case. This is especially crucial in the research area of illicit financial flows, which suffers from scarcity of data and the lack of a standardized approach to estimates.

The fsQCA procedure consists of the following steps: 1) identifying relevant cases and conditions; 2) calibrating data; 3) testing for necessary conditions; 4) identifying sufficient conditions; 5) analysing the truth table; and 6) evaluating the results. The following section outlines the case selection strategy.

3.2. CASE SELECTION

As discussed above, the QCA method is well suited to an analysis of an intermediate number of cases, as it combines features of both qualitative and quantitative research. In order to uncover regularities in the causes of high illicit financial outflows from developing countries, cases should be selected to reflect various possible sets of causal conditions and variations of the outcome. Since the outcome of interest is a high volume of IFFs, the selected cases include both countries known for their high volume of IFFs (positive cases) and those that "fail" to display this (negative cases).

At the same time, the QCA method requires a certain homogeneity among the selected cases. Thus, the cases in our study have been selected from the list of middle- and low-income developing economies compiled by the United Nations in 2013.[58] Our sample excludes major tax heavens, or the destination countries of IFFs, as they present a different set of conditions from those of the source countries.[59] We have also excluded countries that were experiencing major armed conflicts, insurgencies or political turmoil during 2013 or the five years prior to 2013.[60] Institutions in these countries would not have been stable enough to be analysed for their performance. Such countries would have exhibited a distinct set of drivers of IFFs.

The final criterion for case selection was the availability of data: the sample includes only those countries for which there is sufficient data on all dependent and independent

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[58] United Nations (2014), *World Economic Situation and Prospects 2014* (New York: United Nations), 143-144, https://unctad.org/en/PublicationsLibrary/wesp2014_en.pdf.

[59] We define "major tax heaven" as a country within the top 20 developing countries on the Financial Secrecy Index 2018 compiled by the Tax Justice Network. Additional tax havens that appear on the European Union list of tax havens were also excluded from the sample.

[60] We use 2013 as our reference year because it is the year with most data available across all variables and cases.

variables.[61] The resulting sample of 42 cases (see Table 3.1) represents a compromise between diversity and homogeneity, which takes the features of the research method into account.[62]

Table 3.1. Distribution of Selected Cases across Regions

AFRICA	LATIN AMERICA AND THE CARIBBEAN	ASIA
Algeria	Argentina	Bangladesh
Benin	Bolivia	Indonesia
Burkina Faso	Colombia	Nepal
Cameroon	Dominican Republic	
Chad	Ecuador	
Democratic Republic of Congo	El Salvador	
Côte d'Ivoire	Honduras	
Ethiopia	Mexico	
Gabon	Nicaragua	
Kenya	Paraguay	
Lesotho	Venezuela	
Madagascar		
Malawi		
Mali		
Mauritania		
Mozambique		
Niger		
Nigeria		
Rwanda		
São Tomé and Príncipe		
Senegal		
Sierra Leone		
South Africa		
Sudan		

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[61] Before the application of the final criterion, our list of developing countries consisted of 58 cases. 14 following cases were further excluded for the lack of data (Angola, Burundi, Central African Republic, Comoros, Republic of the Congo, Costa Rica, Cuba, Djibouti, Eritrea, Guinea, Guinea-Bissau, Guyana, Myanmar, Papua New Guinea, Somalia, The Gambia, Togo).

[62] It is generally recommended to select between 10 and 50 cases for a QCA analysis.

Tanzania		
Uganda		
Zambia		
Zimbabwe		

3.3. CASE STUDIES

We also conducted in-depth case studies to illustrate in detail the causal mechanisms revealed by the “truth table” in detail. Three (3) countries - South Africa, Kenya and Mexico - were selected for the case study analyses, based on their relevance, availability of data sources and practical considerations. All three countries experience high illicit financial outflows, represent large economies within their respective regions and vary in terms of the potential drivers of IFFs. A closer examination of them may therefore potentially uncover different “recipes” for high IFFs. The case studies involved both desk research and research trips to these countries by the UNICRI team. Data sources for case studies included semi-structured interviews with subject matter experts, governmental statistics on IFFs and existing research reports. In each country, we conducted exploratory interviews with both governmental officials and members of civil society.

3.4. CALIBRATION

Data calibration involves the transformation of the original interval data for both conditions and outcomes into fuzzy membership scores. Fuzzy membership scores reflect the degree to which different cases belong to a set (for example, a set of countries with high IFFs, or a set of less corrupt countries). To assign the set membership scores, we must first define three basic breaking points: 1 (full membership in a set), 0 (full non-membership in a set), and 0.5 (a point of maximum ambiguity as to whether the case is more “in” or more “out” of the set).[63] In other words, a score of 1 signals the full presence of the condition in a case, 0 signals the complete absence of the condition, and 0.5 signals the maximum ambiguity. The researcher then selects a number of thresholds to which each case will be pegged. Thus, each case is assigned a value between 0 and 1 signalling the degree to which a condition is present or absent. Following Ragin 2009, we use the four-value scheme recommended in situations in which the nature of the data is not identical across cases.[64] We therefore define the thresholds as follows:

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[63] Rihoux, Benoît, and Charles Ragin, eds. (2008), *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques* (Thousand Oaks, CA: Sage), 90.

[64] Rihoux and Ragin, *Configurational Comparative Methods*, 90.

1 – the case is “fully in” the set

0.67 – the case is “more in than out”

0.33 – the case is “more out than in”

0 – the case is “fully out” of the set.[65]

3.5. OPERATIONALIZATION OF RESEARCH VARIABLES

Due to the complexity of the phenomenon of IFFs, any attempt to estimate their volumes runs inevitably into a series of obstacles. First, as previously discussed, the concept of IFFs includes various types of cross-border transfers, which cannot be measured by a single indicator. Second, the quality and availability of data vary significantly from country to country and the existing data do not always cover all countries in a comparable way. To overcome these challenges, we initially identified three different measures of IFFs: data on offshore bank deposits from individual households (from Annette Alstadsæter, Niels Johannesen and Gabriel Zucman, 2018);[66] data on revenue loss due to profit shifting by MNCs (from Alex Cobham and Petr Jansky, 2018);[67] and statistics on trade misinvoicing (Global Financial Integrity database). These sources provide extensive and accurate country-level data. The three indicators do not represent mutually exclusive money flows, but different methodological approaches to measuring a certain portion of IFFs. This publication focuses on one of the three measures identified (offshore bank deposits), leaving the other two measures (revenue loss due to profit shifting and trade misinvoicing) for future investigation.

Our outcome variable, *offshore wealth*, indicates how much residents of each country own in offshore bank deposits as the share of their country’s GDP. To calibrate this indicator, we define the 90th percentile and the 10th percentile as thresholds that determine the presence or absence of the condition. Since the 50th percentile defines the point of maximum ambiguity, we assign the 0.33 score to the values that fall within the 11th and the 50th percentile, and the 0.67 score to the values between the 51st and the 89th percentile. In our dataset, 10% of offshore wealth as a share of GDP represents the 50th percentile. In the resulting membership scores scale, countries with offshore wealth 1% and less receive the score of 0, and countries with offshore wealth 30% and

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[65] Note that the 0.33 and 0.67 scores are assigned to values located below and above the 0.5 crossover point respectively.

[66] Alstadsæter et al., “Who Owns the Wealth in Tax Havens?”

[67] Alex Cobham and Petr Jansky (2018), “Global Distribution of Revenue Loss from Corporate Tax Avoidance: Re-Estimation and Country Results,” *Journal of International Development* 30(2), 206–232.

higher receive the score of 1. Thus, 1 represents the highest share of offshore wealth as percentage of GDP.

To operationalize *political risk*, we use an indicator of political stability and absence of violence/terrorism from the Worldwide Governance Indicators index. This indicator "measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism."[68] The original index scale runs from -2.5 (worst) to 2.5 (best) which invites a straightforward calibration, in which the -2.5 value is assigned a score of 0; the 2.5 value is assigned a score of 1; the 0 value becomes the mid-point; -1.25 becomes the 0.33 threshold; and 1.25 becomes the 0.67 threshold.

The preliminary exercise showed that the presence of the condition "political risk" in combination with any other condition leads to inconsistent results. This could be explained by two factors: too many conditions or an overly broad measure of political risk. With a complex phenomenon such as IFFs, four conditions seem to represent the optimal number for an fsQCA. Adding a fifth condition significantly increases the number of possible causal "recipes" and decreases the consistency of the solution. We also decided to discard the "political risk" condition because it is a broad measure and therefore probably not optimally suited to an analysis of IFFs. The WGI indicator used for this variable "measures perceptions of the likelihood of political instability and/or politically-motivated violence, including terrorism."[69] In the case of IFFs, however, it might be more accurate to use a measure of political risk that would be more sensitive to IFFs. We leave the exploration of alternative indicators for future research.

To operationalize *regulatory capacity,* we use the degree of technical compliance with anti-money laundering and counter-terrorism financing (AML/CFT) recommendations.[70] The country-level data were obtained from the Financial Action Task Force (FATF) dataset compiled by the Basel Institute on Governance. The Basel Institute systematically reviews FATF Mutual Evaluation Reports (MERs), in which countries are rated, according to their compliance with 40 + 9 recommendations, as "non-compliant," "partly compliant," "largely compliant," and "compliant." The Basel Institute standardizes and converts this rating into a 0-10 scaling system, where 0 and 10 denote the lowest and highest risks of money laundering/terrorism financing respectively. Thus, countries with higher compliance receive lower risk scores. We transform this scale into fuzzy set membership scores 0 to 1 (highest to lowest capacity) by assigning four thresholds to each quartile. That is, values between 0 and 2.49 receive a membership score of 0; values from 0.5 to 4.99 are assigned a membership score of 0.33; values from 5.0 to 7.49 receive a membership score of 0.67; and values of 7.5 and higher are assigned a membership score of 1.

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[68] World Bank (2017), "World Development Indicators," online database, http://databank.worldbank.org/data/source/world-development-indicators/.

[69] World Bank, "World Development Indicators."

[70] Instead of using a broader indicator of "regulatory quality" from the Worldwide Governance Indicators, we focus on a narrower measure of institutional capacity that is more directly related to IFFs.

To measure the level of *corruption*, we use the Political Corruption Index from the Varieties of Democracy (V-Dem) dataset, which runs from 0 to 1.[71] To calibrate this indicator, we define the 90th percentile and the 10th percentile as thresholds that determine the presence or absence of the condition. Since the 50th percentile defines the point of maximum ambiguity, we assign the 0.33 score to the values that fall within the 11th and the 50th percentile, and the 0.67 score to values between the 51st and the 89th percentile. In the resulting membership scores scale, 1 represents the highest level of corruption.

Dependence on natural resources measures how much an economy depends on the extraction of natural resources (oil, gas and minerals). We use the Extractives Dependence Index (EDI) elaborated by Degol Hailu and Chinpihoi Kipgen (2017). The EDI is a composite index made up of three indicators: 1) export earnings from extractives as a share of total export earnings; 2) revenue from extractives as a share of total fiscal revenue; and 3) the extractive industry value added in GDP.[72] The EDI values range from 0 to 100, with 100 being the highest dependence score. This scale is converted into a four-point scale from 0 to 1 (lowest to highest dependence), where membership scores of 0 and 0.33 are assigned to economies not dependent on extractive industries; and the 0.67 and 1 scores are assigned to resource-dependent economies, in which natural resource rents constitute more than 20% of GDP.

Corporate tax rate is measured by the Total Tax Rate, which indicates the cost of all the taxes and contributions a business bears, expressed as a share of its commercial profits. This measure is provided in the 2014 Paying Taxes Report, which compares the tax systems of 189 economies worldwide.[73] The original values range from 0 to 100 and represent a percentage of overall profit: the higher the score, the higher the total corporate tax rate. This indicator is calibrated using the 90th percentile and the 10th percentile as thresholds that determine the presence or absence of the condition. We assign the 0.33 score to the values that fall within the 11th and the 50th percentile, and the 0.67 score to the values between the 51st and the 89th percentile. In the resulting scale of membership scores, 1 represents the highest total corporate tax rate.

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[71] Kelly McMann et al. (2016), "Strategies of Validation: Assessing the Varieties of Democracy Corruption Data," V-Dem Working Paper, series 2016:23, University of Gothenburg, https://www.v-dem.net/media/filer_public/ 2a/7d/2a7d55e0-15c7-46e0-8a15-3a3f894ab12d/v-dem_working_paper_2016_23.pdf; Michael Coppedge et al. (2017), *V-Dem Codebook v7*, Varieties of Democracy (V-Dem) Project.

[72] Degol Hailu and Chinpihoi Kipgen (2017), "The Extractives Dependence Index (EDI)," *Resources Policy* 51, 251-264.

[73] PwC and The World Bank Group, *Paying Taxes 2014*.

Table 3.2. Summary of Indicators

Notation	Meaning	Data Year	Source
Conditions			
Deregulation	Regulatory capacity	Multiple years from 2006 to 2016	Basel Institute on Governance
Corruption	Level of corruption	2013	V-Democracy index of political corruption
Resources	Dependence on natural resources	2011	Hailu and Kipgen (2017)
Tax_rate	Corporate tax rates	2012	PWC and World Bank Group, *Paying Taxes 2014*
Outcome			
Offshore	Offshore wealth as % of GDP	2007	Alstadsæter, Johannesen, Zucman (2018)

We created a dataset of the outcome (offshore wealth) and four causal conditions (regulatory capacity, level of corruption, natural resources, total tax rate) for each of the 42 cases under consideration (see Appendix). After the calibration process had been completed, we performed a fsQCA analysis using all four conditions that could potentially lead to the outcome: low regulatory capacity, prevalent corruption, availability of natural resources and high tax rates. Our preliminary analysis showed that the outcome “offshore wealth” (*offshore*) renders consistent results.[74] Therefore, in the next sections of this report, we focus on this measure of IFFs. The membership scores of all 42 cases in the outcome and the four conditions are reported in the Appendix.

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[74] This indicator is calibrated similar to others with 0 to 100 scale, using the 10th and 90th percentiles as thresholds for 0.33 and 0.67 respectively. The resulting scores run from 0 to 1 (lowest to highest share of offshore wealth as % of the country’s GDP).

CHAPTER 4

APPLYING FSQCA TO THE STUDY OF ILLICIT FINANCIAL FLOWS

The first step involves constructing a dataset of 42 cases, with four governance-related conditions as independent variables (*deregulation, corruption, resources, tax rate*) and one outcome variable - *offshore* (see Appendix). The four conditions or their combinations are believed to foment illicit outflows of capital and money, which end up in offshore bank deposits (Figure 4.1).

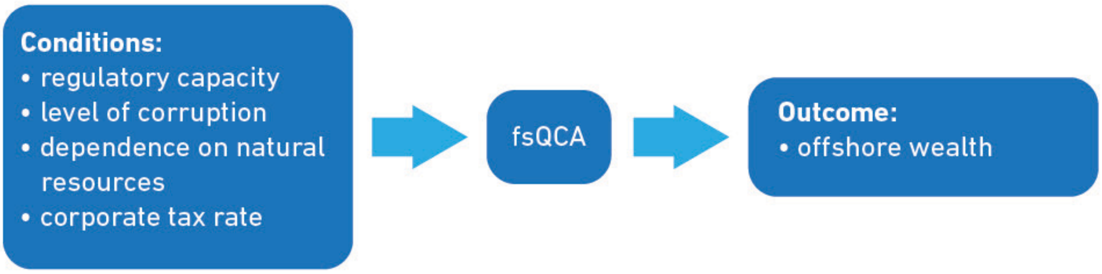

Figure 4.1. Setup of Fuzzy-Set Qualitative Comparative Analysis

In the next stage of the analysis, we checked the necessity and sufficiency of each condition (or its absence) for the outcome. According to our set theoretic approach, the absence of a certain condition (marked “~”) can potentially also be causal for the outcome. Therefore, each condition has its “negative” counterpart, included in the analysis.

To determine necessity and sufficiency, each condition or combination of conditions was assessed in terms of its consistency and coverage. Consistency shows the degree to which the cases which share a given combination of conditions (e.g. weak regulatory capacity and high tax rates) also display the same outcome (e.g. high levels of offshore wealth). A high consistency score shows the researcher that a given combination deserves attention and may be considered as leading to the outcome. Coverage score, in turn, is only a meaningful indicator for consistent results, as it assesses the empirical relevance of a consistent combination. In other words, coverage shows the degree to which a cause or causal combination explains instances of an outcome.[75] The analysis of necessary and sufficient conditions was performed using the fsQCA 3.0 software.

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[75] Charles Ragin (2006), “Set Relations in Social Research: Evaluating Their Consistency and Coverage,” *Political Analysis* 14(3), 291–310.

4.1. ANALYSIS OF NECESSARY CONDITIONS FOR THE OUTCOME “OFFSHORE WEALTH”

We first tested to see whether any of the conditions might be necessary for large illicit financial outflows to occur among our 42 country cases. To be considered necessary, a condition must display a very high consistency score. We use the widely accepted threshold of 0.90 for a necessary condition. In this context, consistency indicates the degree to which outcome is a subset of the causal condition; and coverage shows the empirical relevance of the condition. As can be seen from the results displayed in Table 4.1, there is only one condition (*deregulation*) with a consistency score above 0.90. This causal necessity can be translated into the statement “a high level of offshore wealth can only be expected in countries characterized by low regulatory capacity.” This is consistent with our hypotheses, most of which include deficiencies in the regulatory environment as a prerequisite for high illicit outflows.

Table 4.1. Analysis of Necessary Conditions for the Outcome “Offshore Wealth”

Condition Tested	**Consistency**	**Coverage**
Deregulation	0.923290	0.643064
~Deregulation	0.351201	0.876487
Resources	0.522181	0.604925
~Resources	0.706562	0.655660
Corruption	0.691312	0.773927
~Corruption	0.674676	0.644023
Tax_rate	0.782810	0.794187
~Tax_rate	0.689926	0.722303

Figure 4.2 is a graphic representation of the relationship between the condition *deregulation* and the outcome. For a condition to be necessary, all (or almost all) cases should be located around or below the bisecting line.[76] The plot in Figure 4.2 shows that the majority of cases (37 in total) are on or below the line. Note that some countries have low levels of IFFs (*offshore*), despite high levels of *deregulation* (see especially Chad, Burkina Faso, Mali, Mozambique, Nepal, Sierra Leone, and Uganda). This means that weak regulatory institutions are necessary but not sufficient for high levels of offshore wealth and that the countries listed lack some unspecified condition, which would cause higher offshore wealth to be deposited by their residents.

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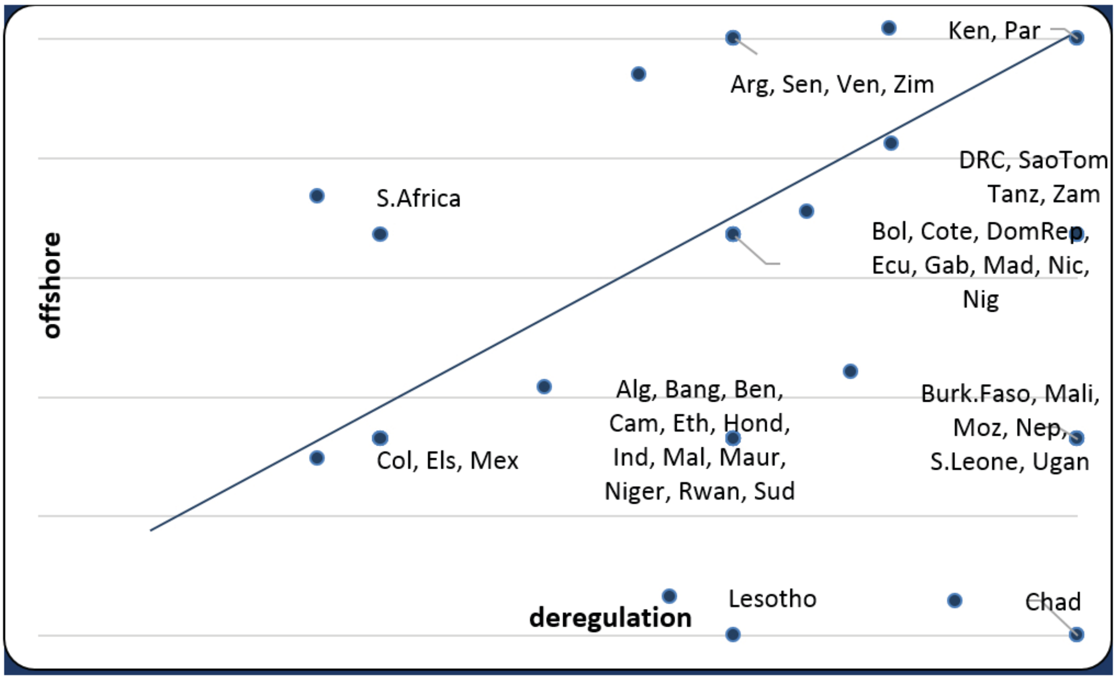
[76] Ragin, *Fuzzy-Set Social Science*, 215.

South Africa is the only case that contradicts the argument of causal necessity. According to Ragin (2008), for the necessary condition to be consistent, when the membership score in the condition is low, the membership score in the outcome must be low as well.[77] Thus, we needed to take a closer look at South Africa in order to explain the causes of high offshore wealth in the context of a relatively strong regulatory framework. The case study of South Africa is presented in Box 1 below.

Figure 4.2. Necessary Condition for the Outcome "Offshore Wealth"



Overall, our analysis of necessary conditions is consistent with the presence of the condition *deregulation* in most of the hypotheses. Indeed, weak anti-money laundering and counter-terrorism financing (AML/CFT) regime is the factor most commonly associated with high financial outflows, as the Financial Action Task Force (FATF) recommendations demonstrate. Therefore, the first step towards fighting different types of IFFs, including tax evasion, is to strengthen compliance with FATF recommendations and improve the implementation of AML/CFT policies.

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77 Ragin, *Redesigning Social Inquiry*, 53.

Box 1: Illicit Financial Flows from South Africa

In the context of this research, South Africa represents a special case: its regulatory framework is relatively strong (its membership score in the *deregulation* set is 0.33) and it scores low on other hypothetical drivers of IFFs (see Table A in the Appendix). Nevertheless, it is one of the leading exporters of IFFs from Africa: about 12% of the country's GDP is held offshore by its residents and it loses an estimated 5% of GDP to trade misinvoicing.

Numerous reports and investigations indicate that the commercial component of IFFs is an especially pressing issue in South Africa (Nicolau and Wu, 2016). The country's well- developed financial system, large extractive sector and the extensive presence of multinational corporations create incentives for trade abuse and profit shifting to avoid taxation (Africa Monitor, 2017).

South African tax authorities have taken numerous measures, including establishing robust research and investigative units to curtail aggressive tax avoidance by multinational corporations. Indeed, the 2015 Africa Capacity Report praises South Africa for making significant progress in improving tax collection efforts (ACBF 2015). The South African Revenue Service has also introduced an electronic filing system, which provides taxpayers with accessible information about the tax process.

Although South Africa is one of the world's top gold producers, its mining sector does not generate the expected levels of tax revenue for the country's economy (Lundstøl, 2017: 110). Tax abuse in the mineral resource sector appears to be a major source of IFFs in the country. For example, a massive tax fraud scheme exposed in 2014 exploited a loophole in tax legislation, making it possible for illegal gold traders to steal billions of Rands from the national Treasury (UNICRI, 2016: 40).

The mining sector is also linked to numerous illegal activities, such as illegal mining, smuggling of migrants, and illicit trade in gemstones and precious metals (UNICRI, 2016). According to the South African Revenues Service, the country's economy loses about 10% of its annual GDP to the illicit economy. Major illicit activities in South Africa include the smuggling of tobacco products, counterfeit textiles, drug manufacturing and smuggling, illicit mining and trafficking in gold and diamonds, ivory smuggling and the poaching of endangered species (SARS, n.d.).

4.2. ANALYSIS OF SUFFICIENT CONDITIONS FOR THE OUTCOME “OFFSHORE WEALTH”

Sufficient conditions imply the occurrence of the outcome whenever the condition is present. The analysis of sufficient conditions is performed by the Quine-McClusky “truth table” algorithm. The truth table approach considers all logically possible combinations of causal conditions, accounting for their presence or absence. The number of possible combinations is an exponential function of the number of causal conditions (number of combinations = 2^k, where k is the number of causal conditions). Thus, for the four causal conditions thought to lead to high IFFs in our analysis, there will be 16 possible combinations. Examining all possible combinations of causal conditions allows us to change only one condition at a time, thus demonstrating the effect of each cause in each possible context.[78]

The truth table algorithm involves a two-stage analytic procedure. The first step is to create a truth table from the fuzzy data, by specifying the outcome for each configuration and determining which configurations to include in the analysis (see Table B in the Appendix). The causal combinations included in the analysis should pass the sufficiency test, that is, display a consistency score of 0.80 or higher. The second step involves assessing the distribution of cases across the most relevant combinations and simplifying causal recipes in order to draw conclusions about the outcome (simplified solution).

Comparative and case-study research often resorts to the use of counterfactual analysis to prove the larger theoretical argument. This analysis involves imagining hypothetical cases for causal combinations for which empirical evidence is lacking. FsQCA provides an effective way to conduct a counterfactual analysis, by considering only those counterfactuals that are in line with theoretical expectations.[79] In this study, six of the sixteen truth table rows are logical remainders, combinations that have no empirical cases (Table B in Appendix). When these are included in the analysis, the intermediate and conservative solutions are identical.

Note that all logical remainders include the absence of weak regulation (~*deregulation*) as one of the conditions. *Deregulation* has been previously identified as a necessary condition of high offshore wealth. This is in line with theoretical expectations about the importance of a strong regulatory environment to prevent tax evasion, money laundering, and other illicit flows. Thus, the counterfactual cases support the results of the analysis of sufficient conditions.

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[78] Ragin, *Redesigning Social Inquiry*, 125.
[79] Ragin, *Redesigning Social Inquiry*, Chapter 9.

Table 4.2 presents the results of the analysis of sufficient conditions for the outcome “offshore wealth” based on the model *offshore = f (deregulation, resources, corruption, tax rate)*. The consistency of the result (solution consistency) is high (0.91) and the overall coverage score (solution coverage) is satisfactory (0.78), meaning that 78 per cent of the outcome is covered by this result. The truth table analysis reveals two particularly relevant “recipes,” or pathways, to the outcome. That is, two combinations of conditions are sufficient for high offshore wealth:

a. **a) Low regulatory capacity, independence from natural resources, and high corporate tax rate.**

b. **b) Low regulatory capacity, dependence on natural resources, and high levels of corruption.**

When several different paths lead to the same outcome, it is important to calculate raw and unique coverage. These calculations provide the measure of the relative importance of each causally relevant combination.[80] Raw coverage measures what share of the outcome is explained by a specific alternative path. Unique coverage measures what share of the outcome is exclusively explained by a specific individual path.[81]

Table 4.2. Analysis of Sufficient Conditions for the Outcome “Offshore Wealth”

Solution:	**Deregulation* ~resources* tax_rate**	**Deregulation* resources* corruption**	**→ Offshore wealth**
	Argentina Dominican Republic Kenya Nicaragua Senegal Tanzania	Bolivia Côte d’Ivoire Ecuador Gabon Nigeria Venezuela	

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[80] Ragin, *Redesigning Social Inquiry*, 65.
[81] Ragin, “Set Relations in Social Research.”

Consistency:	0.97	0.87	
Raw coverage:	0.57	0.41	
Unique coverage:	0.37	0.22	
Solution consistency:	0.91		
Solution coverage:	0.78		

Note: The consistency threshold has been set at 0.89. The next highest consistency score is 0.86.

Figure 4.3 presents the results in the form of a graph. A relation of sufficiency exists when the cases' membership scores in a causal combination (horizontal axis) are consistently less than or equal to their corresponding membership scores in the outcome (vertical axis). For example, if, among developing countries, the degree of membership in "high corporate tax rate" is consistently less than or equal to the degree of membership in "high offshore wealth", then the former is a sufficient condition for the latter. In the graphical expression of this relationship, for a condition or a combination of conditions to be sufficient, all cases should be located around or above the bisecting line.[82]

The plot shows twelve of the countries located on or above the line, with high membership scores in one of the causal combinations and high membership scores in the outcome. However, there are four cases slightly below the line; that is, they are inconsistent with the claim that the two causal paths lead to high offshore wealth. These four cases have high membership scores (0.67) in the set of the two causal combinations, but low membership scores (0.33) in the set "high offshore wealth." Despite the presence of the first path (deregulation*~resources*tax rate) in Benin and of the second path (deregulation*resources*corruption) in Algeria, Indonesia and Mali, residents of these countries do not own large offshore deposits. One possible explanation involves an additional condition or conditions, which might mitigate the negative effect of the causal combinations. Another possibility would be high levels of IFFs, measured by one of the alternative indicators.[83] We leave further exploration of these cases for future research.

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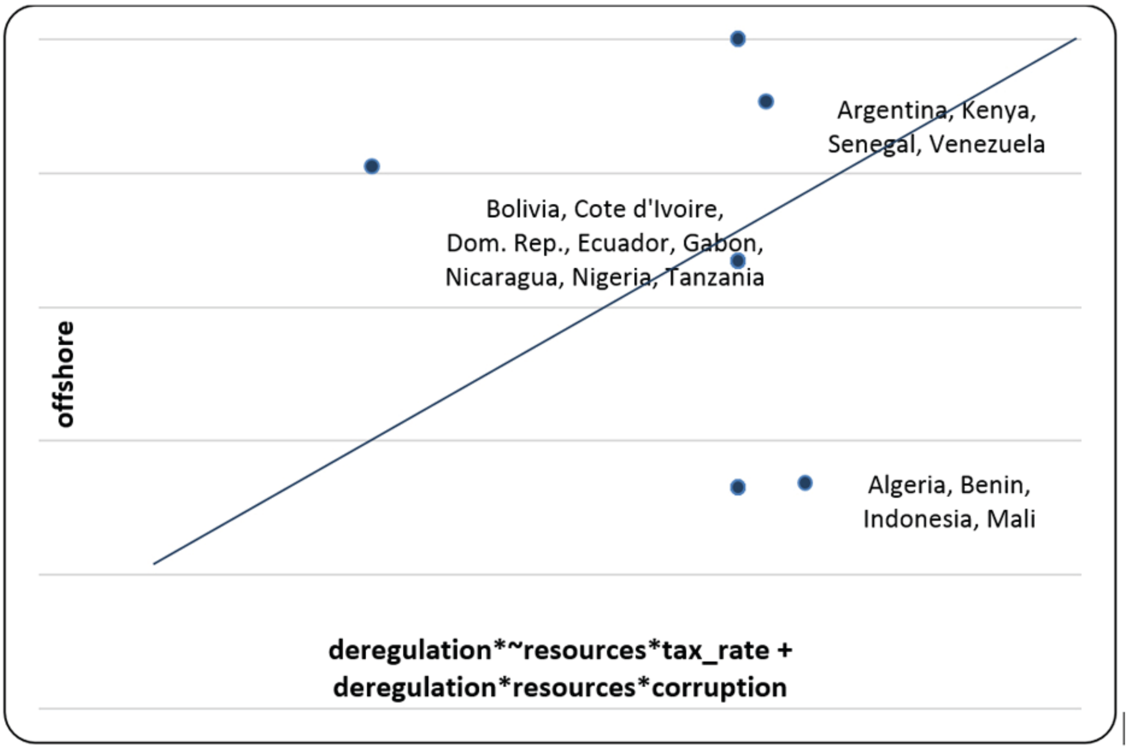
[82] Ragin, *Fuzzy-Set Social Science*, 236.

[83] Indeed, the preliminary fsQCA analysis of IFFs measured by revenue loss due to profit shifting reveals the same pattern as presented in Path 1 and includes Benin. As for the other three countries, Mali scores high on revenue loss due to profit shifting and trade misinvoicing measures of IFFs; there are not enough data available for Algeria's revenue loss; and Indonesia represents an interesting case of low levels of IFFs in all three measures with causal conditions present. For a note on alternative measures of IFFs, see Section 3.5 of the present report.

Figure 4.3. Sufficient Conditions for the Outcome "Offshore Wealth"



The results of the analysis of sufficient conditions raise several points. First, both causal combinations include the condition of *deregulation*, which had previously been identified as necessary for the outcome "high offshore wealth" to occur. That is, all the countries in our sample with high offshore wealth exhibit significant difficulties in their regulatory capacities in terms of AML/CFT regulations (with the exception of South Africa, as discussed in section 4.1).

Second, although the solution results cover only 17 out of 42 countries, they are robust enough to draw conclusions about these 17 cases. The result discussed is based on four conditions that can be combined in 16 ways and the consistency score is high (0.91). Variations in offshore wealth for the remaining 25 countries are likely to be explained by an additional set of conditions not included in the present analysis (see Box 3 for an example).

Third, the results split countries into two groups: resource-driven and non-resource-driven economies. The first combination includes the absence of resource-dependence (~*resources*), while the second includes its presence (*resources*) as a sufficient condition. This is consistent with studies that suggest that the drivers of IFFs differ in resource-rich and resource-poor economies.

The following section discusses the two different causal combinations - or paths - that lead to high offshore wealth. The combination *deregulation*~resources*tax rate* covers Argentina, Dominican Republic, Kenya, Nicaragua, Senegal and Tanzania; and *deregulation*resources*corruption* covers Bolivia, Côte d'Ivoire, Ecuador, Gabon, Nigeria, Venezuela.

Path 1: Independence from Natural Resources + Weak Regulation + High Corporate Tax Rate

The first group is composed of three African (Kenya, Senegal and Tanzania) and three Latin American countries (Argentina, Dominican Republic and Nicaragua). They all experience higher than average levels of IFFs, as measured by offshore wealth. Bank deposits in offshore locations owned by residents of these countries range from 10.3% of GDP in Tanzania to 70% of GDP in Kenya.[84] The causal path resulting from the qualitative comparative analysis shows that the interaction of three factors - the absence of a large extractive sector, high corporate tax rates for domestic businesses, and weaknesses in tax administration - drives these large financial outflows.

While IFFs from many developing countries are driven by the heavy exploitation of natural resources, none of the economies in this group is highly dependent on the extractive sector (which is expressed by the negative condition *~resources*).[85] The absence of energy and minerals resources appears to have implications for taxation in these countries. In a resource-scarce economy, governments cannot rely on resource rents and instead are more dependent on social contract with their citizens and need a broad tax base to increase their revenues.[86] The combination of resource-scarcity (*~resources*) and high-tax-rate (*tax rate*) conditions in Path 1 is consistent with this argument. Thus, tax-compliance is crucial in economies where the primary revenue is obtained from taxation.

In the countries that share the Path 1 causal combination, the amount of taxes and contributions that a domestic company had to pay as a share of their profits in 2012 was higher than the world average of 43%. In regional terms, as of 2012, Africa's average Total Tax Rate of 53% was the highest in the world, followed by South America's (52.7%) and that of Central America and the Caribbean (42.8%). The total tax rate, according to the *Paying Taxes 2014* report varied from 107.5% of profits in Argentina to 43.4% of

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[84] This figure constitutes 13% for the Dominican Republic, 17% for Nicaragua, 36.5% for Argentina, and almost 40% for Senegal (see Alstadsæter et al. 2018).

[85] Although large reservoirs of offshore natural gas have been recently discovered in Tanzania, the country has not yet started production or revenue generation.

[86] McGuirk, "The Illusory Leader"; Merima Ali, Odd-Helge Fjeldstad, and Ingrid Hoem Sjursen (2014), "To Pay or Not to Pay? Citizens' Attitudes Toward Taxation in Kenya, Tanzania, Uganda, and South Africa," *World Development* 64, 828-842. See also Christian von Haldenwang and Maksym Ivanyna (2018), "Does the Political Resource Curse Affect Public Finance? The Vulnerability of Tax Revenue in Resource-Dependent Countries," *Journal of International Development* 30, 323–344.

profits in Dominican Republic. This suggests that high rates might have impeded the development of favourable business environments and created incentives to avoid taxation.[87]

Another important factor that contributes to tax evasion in this group of countries is ineffective implementation of AML/CFT regulations. Note that most of the data is several years old and the governments of these countries have continued to enhance the effectiveness of their respective competent authorities, according to FATF mutual evaluation reports. However, tax evasion and money laundering mechanisms evolve rapidly worldwide, continually posing new challenges to institutions tasked with detecting, monitoring and prosecuting IFFs. For example, the High-Level Panel on Illicit Financial Flows from Africa has identified a number of weaknesses in regulatory environments, which create a vast set of opportunities for tax evasion through commercial activities on the continent.[88] Latin America also faces significant capacity constraints in stemming its tax evasion.[89]

Thus, one of the recipes for large-scale tax evasion in resource-scarce countries appears to be a combination of high tax rates for domestic businesses and ineffective enforcement of tax regulations through AML/CFT institutions. In order to reduce capital flight to tax havens and increase tax compliance, these countries should continue to improve their respective fiscal administrations and provide favourable business environments for domestic entrepreneurs. Our preliminary analysis of the same sample for the outcome "revenue loss due to profit shifting" has confirmed this finding: its solution includes the same causal combination. However, a separate in-depth study is needed, to permit a QCA analysis using other measures of illicit financial flows.

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[87] There has been a global tendency towards reducing total tax rates in recent years, according to the Paying Taxes 2018 report by PwC and The World Bank Group.

[88] Economic Commission for Africa and African Union, *Illicit Financial Flows*.

[89] Juan Carlos Gómez-Sabaíni and Dalmiro Moran (2016), *Evasión tributaria en América Latina: Nuevos y antiguos desafíos en la cuantificación del fenómeno en los países de la región*, Serie Macroeconomía del Desarrollo 172, Comisión Económica para América Latina y el Caribe (CEPAL), Santiago, Naciones Unidas.

Box 2: Illicit Financial Flows from Kenya

Among non-resource-endowed countries in Africa, Kenya is one of the "leaders" in the amount of illicit funds transferred abroad. Its residents keep about 70% of their country's GDP in offshore locations, the highest share among countries on our sample (Alstadsæter et al., 2018). Corporate tax abuse is also high in Kenya: 2.3% of the country's GDP is lost to profit shifting by MNCs (according to data from Cobham and Jansky, 2018). As the country may become a major exporter of natural resources in future, which will create additional possibilities for tax abuse, it is imperative to prevent further revenue losses.

In the recent years, the Kenyan government has made significant advances in developing the country's financial market. In addition, according to the latest World Ultra Wealth Report, Kenya is among the world's top 10 countries with the fastest growing wealth population (Wealth-X, 2018). With the establishment of the new Nairobi International Financial Centre (NIFC) projected for late 2018, Kenya aims to attract major foreign investments and foster development by transforming Nairobi into a regional financial hub. Nevertheless, civil society organizations have warned that this policy risks facilitating further tax abuse and profit shifting practices, which may deprive the country of vital tax revenue resources (Oxfam, 2017).

Other challenges include the high corporate tax rate, which constitutes about 44% of corporate profits for domestic companies; prevalent corruption, estimated at 7 out of 10 (highest) points, according to the Varieties of Democracy index; and institutional capacity constraints. According to the experts interviewed in Kenya, trade misinvoicing, used to avoid proper taxation, is a major channel of IFFs from and to the country. Despite recent improvements, there are still capacity constraints among regulatory authorities, which impede the thorough verification of customs declarations and contents of merchandise. Moreover, trade-based money laundering is employed on a large scale (not only in Kenya, but across the region) to disguise the proceeds of corruption and other illegal activities, such as the illegal wildlife trade. This mechanism involves receiving payments in the form of international shipments of goods (mainly from countries with high trade volumes) in order to return illicit offshore deposits or to receive payments for wildlife trafficking.

To address these challenges, the Kenyan government has been gradually strengthening its regulatory framework in order to mobilize tax revenues and prevent money laundering. For example, tax authorities prioritize audits of companies with subsidiaries in tax havens in order to detect transfer pricing (ECA, 2018: 45). In 2007, in a move to make the financial system more inclusive, Kenya successfully implemented a mobile banking system (M-PESA), which has also had positive effects on domestic resource mobilization (ACBF, 2015).

In 2012, Kenya scored 8.49 out of 10 as one of the highest-risk countries for money laundering and terrorism financing, according to the Basel AML Index database, but by 2017 its score had decreased to 7.72. This improvement has been largely due to the government addressing Financial Action Task Force (FATF) recommendations, following the FATF's 2011 assessment, which found Kenya non-compliant with 32 out of 49 recommendations. By 2017, this number had decreased to 20 "non-compliant" recommendations (ESAAMLG, 2018). Important steps are being taken to strengthen the regulatory framework, and efforts towards the implementation of effective mechanisms to prevent laundering the proceeds of illicit activities in Kenya continue.

Path 2: Dependence on Natural Resources + Weak Regulation + High Levels of Corruption

Like the previous group of countries, the second group includes three African (Côte d'Ivoire, Gabon, Nigeria) and three Latin American (Bolivia, Ecuador, Venezuela) countries. By contrast with the "Path 1" group, however, the economies of these countries rely significantly on the extractive sector. These countries are especially vulnerable to illicit financial outflows, as natural resources have the potential to generate large rents and opportunities for corruption.

Average scores of money laundering risk (measured on a scale from 0 to 10, where 10 represents the highest risk) among these countries are high - ranging from 6 points in Ecuador to 7.8 points in Gabon - with the exception of Venezuela, which at 5.2 is located just above the mid-point.[90] During our data years, institutional compliance with FATF recommendations within this group of countries was mostly low. Nevertheless, continuing reforms towards effective implementation of the FATF recommendations have the potential to improve regulatory capacities and reduce IFFs from these countries.

Corruption levels in the public sector also vary significantly among this group of cases, although they all belong to a set of countries where the level of corruption is significant, according to the V-Democracy Index of Political Corruption. As of 2013, on a scale from 0 to 10, where 10 is most corrupt, Côte d'Ivoire scored the second lowest (5.7) after Ecuador (5.2), while Nigeria scored the highest (9). It appears that the heavy reliance on the extractive sector does foment corrupt practices and hinders governments' efforts to promote sustainable development.

To put it briefly, not all countries are vulnerable in the three dimensions to the same degree; some score higher on institutional weaknesses and lower on corruption and vice versa. Still, they all share such features as poor regulatory environments and prevalent corruption, scoring higher than the mid-point of 5 on both measures. Resource dependence does not necessarily lead to poor governance or high levels of corruption. However, in combination, these factors present an especially serious challenge for developing countries. Because of their reliance on the extractive sector, these countries do not broaden their tax base effectively by taxing the population. Instead, many resource-dependent developing countries rely on multinational corporations for resource rents. This deprives them of incentives to strengthen tax revenue institutions and often leads to chronic institutional weaknesses, including budgetary constraints on tax authorities. In this context, it is hard to prevent corruption proceeds from being deposited in offshore accounts. This finding confirms the scholarly theories on resource rents and their relationship to IFFs[91] summarized in hypothesis 4.

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[90] According to the Basel Institute on Governance calculations based on FATF Mutual Evaluation Reports (dated from 2008 to 2013).

[91] See Jørgen Juel Andersen et al. (2017), "Petro Rents, Political Institutions, and Hidden Wealth: Evidence from Offshore Bank Accounts," *Journal of the European Economic Association* 15(4), 818–860.

Box 3: Illicit Financial Flows from Mexico

Offshore wealth comprises 7% of the country's GDP, which is lower than average, compared to the other developing countries in the sample (see Figure 4.2). According to a 2012 study by Global Financial Integrity, about 80% of IFFs leaving Mexico do so through trade misinvoicing (Kar, 2012). The country loses over USD 50 bln. to trade-based tax evasion (5% of its GDP) annually, which places it among the world's largest exporters of IFFs (Kar and Spanjers, 2015). Trade abuse increased significantly with the trade liberalization around NAFTA in the 1990s, which put additional pressure on government authorities to control these flows.

Besides commercial abuse aimed at hiding legal earnings, a bulk of illicit financial flows from Mexico is due to a large size of criminal economy, especially drug trafficking. A part of the proceeds from criminal activities, such as drug trafficking, trafficking in persons and arms, and extorsion, is further invested in illegal businesses; while other part is "laundered" and injected in the legal economy. While this report does not include the analysis of proceeds of crime from illegal activities, it is important to note that IFFs from countries with large illegal economies are likely to be driven by a set of factors different from the economies with a smaller criminal share.

According to the Federal Police, illicit funds originating in Mexico are transferred to offshore locations in Asia and Europe mostly through shell companies. Central America, the Caribbean and the Andean region of South America receive IFFs from Mexico through shell companies, "mirror trading" mechanisms and the transportation of cash in bulk. The presence of large criminal organizations also makes Mexico a receiver of illicit flows of money, mostly the proceeds of drugs sold in the US, which are often transported back to Mexico as bulk cash. Imports of goods from large trade partners are another vehicle of illicit inflows of funds, used to launder illicit proceeds.

Despite the growing diversification of money laundering techniques, Mexico made significant progress in its regulatory capacity in recent years. The latest Mutual Evaluation Report by the Financial Action Task Force characterizes Mexico's Anti-Money Laundering and Terrorist Financing (AML/CFT) regime as "mature," "with a correspondingly well-developed legal and institutional framework" (FATF and GAFILAT, 2018, 3). Since 2010, Mexican authorities have tightened controls over cash flows and foreign exchange operations by introducing strict reporting requirements for financial institutions and so-called “vulnerable activities” (e.g. the purchase and sale of real estate and vehicles, the granting of loans and credit, and the transmission of property rights). However, there are still challenges ahead. The presence of organized crime groups, prevalent corruption and impunity constitute the main risk factors for money laundering in Mexico, according to the National Risk Evaluation.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Since the concept of illicit financial flows comprises a broad range of activities, the task of analysing them in a single study is challenging. In addition, existing research in this field suffers from significant data limitations, due to the illegal and/or illicit nature of the phenomenon under observation. This report has explored a novel method of studying IFFs and demonstrated how fuzzy-set Qualitative Comparative Analysis can potentially help us analyse the complexity of IFFs, despite the limited data available.

The analysis of 42 middle- and low-income developing countries has shown that special attention should be paid to the regulatory frameworks that govern anti-IFFs policies in each country. Shortcomings at institutional level and in the capacity of agencies tasked with detecting, monitoring, and prosecuting illicit flows appear to be the major drivers of illicit money transfers abroad.

Resource-driven and non-resource-dependent economies seem to differ in their pathways to high offshore wealth stemming from tax abuse practices. For non-resource-endowed countries, it is imperative to increase tax compliance among citizens by promoting healthy business environments, supporting small and medium-sized local firms, and providing effective public services. Resource-dependent economies should pay special attention to anti-corruption measures, to protect their extractive sectors from tax abuses and corrupt practices.

The results of the qualitative comparative analysis also suggest that IFFs may be driven by a different set of factors in economies not covered by the solution formula. Further research is needed to examine additional conditions and explore alternative paths that lead to high IFFs from these countries. The growing availability of macroeconomic and governance data for developing countries provides avenues for more detailed research on specific causality paths in future. In addition, more in-depth country-level studies would enrich our understanding of the mechanisms of illicit cross-border money flows.

The effectiveness of measures to reduce and prevent high revenue losses due to illicit financial flows ultimately depends on national and international commitment. Delivering public goods and services will help increase tax compliance; increasing accountability and transparency will create checks and balances which help reduce corrupt practices; and steady commitment to strengthening institutions through the training and professional education of their personnel will result in more effective regulatory frameworks.

REFERENCES

Abotsi, Anselm Komla. 2018. “Influence of Governance Indicators on Illicit Financial Outflow from Developing Countries.” *Contemporary Economics* 12 (2), 139-152.

ACBF (African Capacity Building Foundation). 2015. *Africa Capacity Report: ACR 2015. Capacity Imperatives for Domestic Resource Mobilization in Africa*. Available at: https://www.acbf-pact.org/what-we-do/how-we-do-it/knowledge-learning/africa-capacity-report/africa-capacity-report-acr-2015.

African Development Bank and Global Financial Integrity. 2013. *Illicit Financial Flows and the Problem of Net Resource Transfers from Africa: 1980-2009*. Joint Report, May. Available at: https://www.gfintegrity.org/storage/gfip/documents/reports/AfricaNetResources/gfi_afdb_iffs_and_the_problem_of_net_resource_transfers_from_africa_1980-2009-web.pdf.

African Development Review. 2016. AERC’s Project on “Capital Flight from Africa.” Volume 28 (S1), April.

African Monitor. 2017. *State of Illicit Financial Flows in South Africa: A Scoping Exercise*. Report 1. Available at: http://www.africanmonitor.org/wp-content/uploads/2017/04/IFF-Report-1.pdf.

Ali, Merima, Odd-Helge Fjeldstad, and Ingrid Hoem Sjursen. 2014. “To Pay or Not to Pay? Citizens’ Attitudes Toward Taxation in Kenya, Tanzania, Uganda, and South Africa.” *World Development* 64, 828-842.

Alstadsæter, Annette, Niels Johannesen, and Gabriel Zucman. 2018. “Who Owns the Wealth in Tax Havens? Macro Evidence and Implications for Global Inequality.” *Journal of Public Economics* 162, 89-100.

Andersen, Jørgen Juel, et al. 2017. “Petro Rents, Political Institutions, and Hidden Wealth: Evidence from Offshore Bank Accounts.” *Journal of the European Economic Association* 15(4), 818–860.

Baker, Raymond. 2015. “A Brief Biography of Illicit Financial Flows.” In *Illicit Financial Flows: The Most Damaging Economic Condition Facing the Developing World*, edited by Global Financial Integrity, 1-6. Available at: https://www.gfintegrity.org/report/illicit-financial-flows-damaging-economic-problem-facing-developing-world/.

Barrington, Robert. 2016. “When Is Tax Abuse Corruption? The New Official View of Transparency International,” December 2. Available at: http://www.transparency.org.uk/when-is-tax-abuse-corruption/#.Wp00KhPFLeQ.

Basel Institute on Governance. 2017. *Basel AML Index 2017*. Report, August 16. Basel, Switzerland. Available at: https://index.baselgovernance.org/sites/index/documents/ Basel_AML_Index_Report_2017.pdf.

Blankenburg, Stephanie, and Mushtaq Khan. 2012. “Governance and Illicit Flows.” In *Draining Development? Controlling Flows of Illicit Funds from Developing Countries*, edited by Peter Reuter, 21-68. Washington DC: World Bank.

Boogaard, Vanessa van den, et al. 2018. “Tax Revenue Mobilization in Conflict-Affected Developing Countries.” *Journal of International Development* 30, 345–364.

Brock, Gillian, and Thomas Pogge. 2014. “Global Tax Justice and Global Justice.” *Moral Philosophy and Politics* 1 (1), 1–15.

Chiarini, Bruno, Elisabetta Marzano, and Friedrich Schneider. 2013. “Tax Rates and Tax Evasion: An Empirical Analysis of the Long-Run Aspects in Italy.” *European Journal of Law and Economics* 35(2), 273–293.

Cobham, Alex. 2014. *The Impacts of Illicit Financial Flows on Peace and Security in Africa 2014*. Study for Tana High-Level Forum on Security in Africa, April. Available at: https://www.africaportal.org/documents/12549/IFFs_and_Security_1.pdf.

Cobham, Alex, and Petr Jansky. 2018. “Global Distribution of Revenue Loss from Corporate Tax Avoidance: Re-Estimation and Country Results.” *Journal of International Development* 30(2), 206–232.

Coppedge, Michael, et al. 2017. *V-Dem Codebook v7*. Varieties of Democracy (V-Dem) Project.

Department of Economic and Social Affairs. 2017. “ECOSOC Special Meeting on International Cooperation in Tax Matters.” April 7. Available at: http://www.un.org/esa/ffd/events/event/ie-2017-ictm.html.

Economic Commission for Africa and African Union. 2015. *Illicit Financial Flows: Report of the High Level Panel on Illicit Financial Flows from Africa*. Addis Ababa: United Nations Economic Commission for Africa and African Union. Available at: https://www.uneca.org/ publications/illicit-financial-flows.

Eden, Lorraine. 2012. “Transfer Price Manipulation.” In *Draining Development? Controlling Flows of Illicit Funds from Developing Countries*, edited by Peter Reuter, 205-233. Washington DC: World Bank.

Eriksson, Fredrik. 2017. “Illicit Financial Flows Definitions — Crucial Questions Putting the Iff Agenda in Action at the Country Level.” U4 Anti-Corruption Resource Centre, October 5. Available at: https://medium.com/u4-anti-corruption-resource-centre/country-level-iff-research-for-counter-iff-support-694d3b3ced0.

Eriksson, Fredrik. 2018. “Country-Level IFF Research for Counter-IFF Support.” U4 Anti-Corruption Resource Centre, February 2. Available at: https://medium.com/u4-anti-corruption-resource-centre/country-level-iff-research-for-counter-iff-support-694d3b3ced0.

ESAAMLG (Eastern and Southern Africa Anti-Money Laundering Group). 2018. *First Round Mutual Evaluation - Post Evaluation Progress Report of Kenya on Anti- Money Laundering and Counter-Terrorist Financing Measures*. Available at: https://www.esaamlg.org/index.php/ Mutual_Evaluations.

Everest-Phillips, Max. 2012. “The Political Economy of Controlling Tax Evasion and Illicit Flows.” In *Draining Development? Controlling Flows of Illicit Funds from Developing Countries*, edited by Peter Reuter, 69-107. Washington DC: World Bank.

FATF (Financial Action Task Force). 2011. *Laundering the Proceeds of Corruption*. Paris, France: FATF/OECD.

FATF and GAFILAT. 2018. *Anti-Money Laundering and Counter-Terrorist Financing Measures -Mexico*. Fourth Round Mutual Evaluation Report. Paris: FATF. Available at: www.fatf-gafi.org/publications/mutualevaluations/documents/mer-mexico-2018.html.

Fisman, Raymond, and Shang-Jin Wei. 2004. “Tax Rates and Tax Evasion: Evidence from ‘Missing Imports’ in China.” *Journal of Political Economy* 112(2), 471-500.

Forstater, Maya. 2018. “Illicit Financial Flows, Trade Misinvoicing, and Multinational Tax Avoidance: The Same or Different?” CGD Policy Paper 123, March. Washington, D.C.: Center for Global Development.

Gómez-Sabaíni, Juan Carlos and Dalmiro Moran. 2016. *Evasión tributaria en América Latina: Nuevos y antiguos desafíos en la cuantificación del fenómeno en los países de la región*. Serie Macroeconomía del Desarrollo 172, Comisión Económica para América Latina y el Caribe (CEPAL). Santiago, Naciones Unidas.

Hailu, Degol, and Chinpihoi Kipgen. 2017. “The Extractives Dependence Index (EDI).” *Resources Policy* 51, 251-264.

Haldenwang, Christian von, and Maksym Ivanyna. 2018. “Does the Political Resource Curse Affect Public Finance? The Vulnerability of Tax Revenue in Resource-Dependent Countries.” *Journal of International Development* 30, 323–344.

Inter-agency Task Force on Financing for Development. 2018. *Financing for Development: Progress and Prospects 2018*. New York: United Nations. Available at: https:// developmentfinance.un.org/sites/developmentfinance.un.org/files/Report_IATF_2018.pdf.

Kar, Dev. 2012. *Mexico: Illicit Financial Flows, Macroeconomic Imbalances, and the Underground Economy*. Washington, DC: Global Financial Integrity.

Kar, Dev, and LeBlanc, Brian. 2013. *Illicit Financial Flows from Developing Countries: 2002-2011*. Washington, DC: Global Financial Integrity.

Kar, Dev, and Joseph Spanjers. 2015. *Illicit Financial Flows from Developing Countries: 2004-2013*. Washington, DC: Global Financial Integrity.

Kouamé, Wilfried, and Jonathan Goyette. 2018. *Tax Evasion in Africa and Latin America: The Role of Distortionary Infrastructures and Policies*. WPS8522, July. Office of the Chief Economist, Africa Region, World Bank Group.

Lundstøl, Olav. 2017. “Mines and Tax in Africa: Fair Benefit Sharing or Exploitation in the Wake of Liberalisation?” In *Lifting the Veil of Secrecy: Perspectives on International Taxation and Capital Flight from Africa*, edited by Odd-Helge Fjeldstad et al., 108-111. Bergen, Norway: Chr. Michelsen Institute.

McGuirk, Eoin. 2013. “The Illusory Leader: Natural Resources, Taxation and Accountability.” *Public Choice* 154, 285–313.

McMann, Kelly, et al. 2016. “Strategies of Validation: Assessing the Varieties of Democracy Corruption Data.” V-Dem Working Paper, series 2016:23. University of Gothenburg. Available at: https://www.v-dem.net/media/filer_public/2a/7d/2a7d55e0-15c7-46e0-8a15-3a3f894ab12d/v-dem_working_paper_2016_23.pdf.

Milin, Zorka. 2014. “Global Tax Justice and the Resource Curse: What Do Corporations Owe?” *Moral Philosophy and Politics* 1(1), 17–36.

Moore, Mick. 2008. “Between Coercion and Contract: Competing Narratives on Taxation and Governance.” In *Taxation and State Building in Developing Countries: Capacity and Consent*, edited by Deborah Bräutigam, Odd-Helge Fjeldstad, and Mick Moore, 34–63. Cambridge: Cambridge University Press.

Moore, Mick. 2012. “The Practical Political Economy of Illicit Flows.” In *Draining Development? Controlling Flows of Illicit Funds from Developing Countries*, edited by Peter Reuter, 457-482. Washington DC: World Bank.

Mossadak, Anas, and Kamal Lahlou. 2013. “Empirical Investigation on the Illicit Financial Flows from MENA Region.” *British Journal of Social Sciences* 1(9), 1-11.

Ndikumana, Léonce, and Mare Sarr. 2016. “Capital Flight and Foreign Direct Investment in Africa: An Investigation of the Role of Natural Resource Endowment.” UNU–WIDER Working Paper 58/2016, United Nations University–World Institute for Development Economics Research, Helsinki. Available at: https://www.wider.unu.edu/sites/default/files/wp2016-58.pdf.

Neumann, Vanessa, and Stuart Page. 2018. *The Many Criminal Heads of the Golden Hydra: How the Tri-Border Area's Interlocking Arcs of Crime Create LatAm's #1 International Fusion Center*. Report by Counter Extremism Project (CEP) and Asymmetrica. Available at: https://www.counterextremism.com/sites/default/files/The%20Many%20Criminal%20Heads%20of%20the%20Golden%20Hydra%20%28May%202018%29.pdf.

Nicolaou-Manias, Kathy, and Yuchen Wu. 2016. "Illicit Financial Flows: Estimating Trade Mispricing and Trade-Based ML For 5 African Countries." Discussion Paper, October. Global Economic Governance (GEG) Africa.

OECD (Organisation for Economic Co-operation and Development). 2013. *Action Plan on Base Erosion and Profit Shifting*. Paris: OECD Publishing. Available at: http://dx.doi.org/10.1787/9789264202719-en.

OECD (Organisation for Economic Co-operation and Development). 2013. *Addressing Base Erosion and Profit Shifting*. Paris: OECD Publishing. Available at: http://www.oecd.org/tax/addressing-base-erosion-and-profit-shifting-9789264192744-en.htm.

OECD. 2015. "BEPS 2015 Final Reports." Available at: http://www.oecd.org/ctp/beps/beps-2015-final-reports.htm.

Orkoh, Emmanuel, Carike Claassen, and Derick Blaauw. 2017. "Corruption, Political Stability and Illicit Financial Outflows in Sub-Saharan Africa." African Economic Conference, December 4-6. Available at: https://www.afdb.org/en/aec-2017/papers/paper/corruption-political-stability-and-illicit-financial-outflows-in-sub-saharan-africa-5553/.

Oxfam. 2017. "Nairobi International Financial Centre: Africa's Newest Tax Haven." *Kenyan WallStreet*, December 11. Available at: https://kenyanwallstreet.com/nairobi-international-financial-centre-africas-newest-tax-haven/.

Patnaik, Ila, Abhijit Sen Gupta, and Ajay Shah. 2010. "Determinants of Trade Misinvoicing." Working Paper No. 2010-75, October. National Institute of Public Finance and Policy, New Delhi.

PwC and The World Bank Group. 2014. *Paying Taxes 2014: The Global Picture*. Available at: https://www.pwc.com/payingtaxes.

Ragin, Charles. 2000. *Fuzzy-Set Social Science*. Chicago, IL: University of Chicago Press.

Ragin, Charles. 2006. "Set Relations in Social Research: Evaluating Their Consistency and Coverage." *Political Analysis* 14(3), 291–310.

Ragin, Charles. 2008. *Redesigning Social Inquiry: Fuzzy Sets and Beyond*. Chicago and London: University of Chicago Press.

Reed, Quentin, and Alessandra Fontana. 2011. *Corruption and Illicit Financial Flows: The Limits and Possibilities of Current Approaches*. U4 – Anti-Corruption Resource Center, No 2, January. Available at: https://www.u4.no/publications/ corruption-and-illicit-financial-flows-the-limits-and-possibilities-of-current-approaches-2.pdf.

Reuter, Peter, ed. 2012. *Draining Development? Controlling Flows of Illicit Funds from Developing Countries*. Washington DC: World Bank

Reuter, Peter. 2017. *Illicit Financial Flows and Governance: The Importance of Disaggregation*. Background paper for the World Development Report 2017. Washington, D.C.: World Bank.

Rihoux, Benoît, and Charles Ragin, eds. 2008. *Configurational Comparative Methods: Qualitative Comparative Analysis (QCA) and Related Techniques*. Thousand Oaks, CA: Sage.

South African Revenue Service (n.d.). “Illicit economy in South Africa.” Available at: www.sars.gov.za/TargTaxCrime/TacCrimeInitiatives/Pages/Illicit-Economy.aspx.

Schlenther, Bernd. 2017. “The Impact of Corruption on Tax Revenues, Tax Compliance and Economic Development: Prevailing Trends and Mitigation Actions in Africa.” *eJournal of Tax Research* 15(2), 217-242.

Solheim, Erik. 2015. “Illicit Financial Flows and Development.” In *Illicit Financial Flows: The Most Damaging Economic Condition Facing the Developing World*, edited by Global Financial Integrity, 123-145. Available at: https://www.gfintegrity.org/report/illicit-financial-flows-damaging-economic-problem-facing-developing-world/.

Tandon, Suranjali, and R. Kavita Rao. 2017. “Trade Misinvoicing: What can we Measure?” Working Paper No. 200, National Institute of Public Finance and Policy. New Delhi, July 4.

Thomann, Eva, and Martino Maggetti. 2017. “Designing Research with Qualitative Comparative Analysis (QCA): Approaches, Challenges, and Tools.” *Sociological Methods & Research*, October, 1-31.

UNECA (United Nations Economic Commission for Africa). *A Study on the Global Governance Architecture for Combating Illicit Financial Flows*. Addis Ababa, Ethiopia: Economic Commission for Africa.

UNDP (United Nations Development Programme). 2011. *Illicit Financial Flows from the Least Developed Countries: 1990–2008*. Discussion Paper, May 2011. Available at: http://content-ext.undp.org/aplaws_publications/3273649/IFFs_from_LDCs_web.pdf.

UNICRI (United Nations Interregional Crime and Justice Research Institute). 2016. *Strengthening the Security and Integrity of the Precious Metals Supply Chain*. Technical Report. Available at: http://www.unicri.it/in_focus/on/Precious_Metals_Supply_Chain_Report.

United Nations. 2014. *World Economic Situation and Prospects 2014*. New York: United Nations. Available at: https://unctad.org/en/PublicationsLibrary/wesp2014_en.pdf.

United Nations General Assembly. 2015. “Illicit Financial Flows, Human Rights and the Post-2015 Development Agenda, Interim Study by the Independent Expert,” A/HRC/28/60. February 10. Available at: https://documents-dds-ny.un.org/doc/UNDOC/GEN/G15/021/21/PDF/ G1502121.pdf? OpenElement.

United Nations General Assembly. 2015. “Resolution Adopted by the General Assembly on 27 July 2015,” A/RES/69/313. Available at: http://www.un.org/en/development/desa/population/ migration/generalassembly/docs/globalcompact/A_RES_69_313.pdf.

United Nations General Assembly. 2015. “Resolution Adopted by the General Assembly on 1 September 2015,” A/RES/69/315. September 15. Available at: http://www.undocs.org/ A/RES/69/315.

United Nations General Assembly. 2016. “Final Study on Illicit Financial Flows, Human Rights and the 2030 Agenda for Sustainable Development of The Independent Expert on the Effects of Foreign Debt and Other Related International Financial Obligations of States on the Full Enjoyment of All Human Rights, Particularly Economic, Social and Cultural Rights,” A/HRC/31/6. January 15. Available at: http://www.undocs.org/A/HRC/31/61.

United Nations General Assembly. 2018. “Resolution Adopted by the General Assembly on 20 December 2017,” A/RES/72/207. January 23. Available at: https://unctad.org/meetings/en/ SessionalDocuments/ares72d204_en.pdf.

UNHROHC (United Nations Human Rights Office of the High Commissioner). n.d.. “Illicit Financial Flows and Human Rights.” Available at: https://www.ohchr.org/EN/Issues/Development/IEDebt/ Pages/Consultation.aspx.

UNODC (United Nations Office on Drugs and Crime). 2011. *Estimating Illicit Financial Flows Resulting from Drug Trafficking and Other Transnational Organized Crimes*. Research Report. Available at: https://www.unodc.org/documents/data-and-analysis/Studies/Illicit_financial_ flows_2011_web.pdf.

Wealth-X. 2018. *World Ultra Wealth Report 2018*. New York, NY: Wealth-X. Available at: https://www.wealthx.com/report/world-ultra-wealth-report-2018/.

World Bank. 2017. “World Development Indicators.” Online database. Available at: http://databank.worldbank.org/data/source/world-development-indicators/.

Zdanowicz, John. 2009. “Trade Based Money Laundering and Terrorist Financing.” *Review of Law and Economics* 5 (2), 855-878.

APPENDIX

Table A. Fuzzy-Set Membership Scores for the Outcome “Offshore Wealth” in 42 Countries

Country	Offshore wealth (*offshore*)	Regulatory capacity (*deregulation*)	Corruption (*corruption*)	Resource-dependence (*resources*)	Corporate tax rate (*tax_rate*)
Algeria	0.33	0.67	0.67	1	0.67
Argentina	1	0.67	0.33	0	1
Bangladesh	0.33	0.67	0	0	0.33
Benin	0.33	0.67	0.33	0	0.67
Bolivia	0.67	0.67	1	1	1
Burkina Faso	0.33	1	0.33	0.67	0.67
Cameroon	0.33	0.67	0	0.67	0.67
Chad	0	1	0	1	0.67
Colombia	0.33	0.33	0.67	0.67	0.67
Côte d'Ivoire	0.67	0.67	0.67	0.67	0.67
Dominican Republic	0.67	0.67	0.33	0	0.67
DRC	0.67	1	0.33	1	1
Ecuador	0.67	0.67	0.67	0.67	0.33
El Salvador	0.33	0.33	0.33	0	0.33
Ethiopia	0.33	0.67	0.33	0	0.33
Gabon	0.67	0.67	0.67	1	0.67
Honduras	0.33	0.67	0.33	0	0.33
Indonesia	0.33	0.67	0.67	0.67	0.33
Kenya	1	1	0.67	0	0.67
Lesotho	0	0.67	0	0.33	0
Madagascar	0.67	0.67	0	0	0.33
Malawi	0.33	0.67	0.33	0	0.33
Mali	0.33	1	0.67	0.67	0.67
Mauritania	0.33	0.67	0.33	1	0.67
Mexico	0.33	0.33	1	0.67	0.67
Mozambique	0.33	1	0.67	0.33	0.33
Nepal	0.33	1	0	0	0.33
Nicaragua	0.67	0.67	0.67	0	0.67

Niger	0.33	0.67	1	0.67	0.67
Nigeria	0.67	0.67	1	1	0.33
Paraguay	1	1	0.67	0	0.33
Rwanda	0.33	0.67	0.33	0	0.33
São Tomé and Príncipe	0.67	1	1	0.33	0.33
Senegal	1	0.67	0	0.33	0.67
Sierra Leone	0.33	1	0.33	0.67	0.33
South Africa	0.67	0.33	0.33	0.33	0.33
Sudan	0.33	0.67	0	1	0.33
Tanzania	0.67	1	0.67	0.33	0.67
Uganda	0.33	1	0.67	0	0.33
Venezuela	1	0.67	1	1	0.67
Zambia	0.67	1	0.33	0.67	0
Zimbabwe	1	0.67	0	0.33	0.33

Table B. Truth Table: Set-Theoretic Consistency of Causal Combinations as Subsets of High Offshore Wealth

Low regulatory capacity (deregulation)	Resource dependence (resources)	Corruption (corruption)	High corporate tax rate (tax_rate)	High offshore wealth (offshore)	Consistency	Cases
1	0	0	0	0	0.78	Bangladesh, Ethiopia, Honduras, Lesotho, Madagascar, Malawi, Nepal, Rwanda, Zimbabwe
1	1	1	1	1	0.89	Algeria, Bolivia, Côte d'Ivoire, Gabon, Mali, Niger, Venezuela
1	1	0	1	0	0.79	Burkina Faso, Cameroon, Chad, DRC, Mauritius
1	0	1	0	0	0.93	Mozambique, Paraguay, São Tomé and Príncipe, Uganda
1	0	0	1	1	0.97	Argentina, Benin, Dominican Republic, Senegal

1	1	0	0	0	0.82	Sierra Leone, Sudan, Zambia
1	1	1	0	1	0.95	Ecuador, Indonesia, Nigeria
1	0	1	1	1	1	Kenya, Nicaragua, Tanzania
0	0	0	0	0	0.90	El Salvador, South Africa
0	1	1	1	0	0.86	Mexico, Colombia
0	1	0	0			
0	0	1	0			
0	1	1	0			
0	0	0	1			
0	1	0	1			
0	0	1	1			

Note: 0 denotes the absence of the condition (or the outcome), and 1 means the presence of the condition (or the outcome).