



## ECONOMIC DEVELOPMENT IN

# AFRICA

## REPORT 2020

**What is the scale of trade misinvoicing in Africa and what are the policy options to curb trade-related IFFs?**

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UNITED NATIONS  
UNCTAD



1. Introduction
2. What are IFFs?
3. Measuring IFFs
4. Trade misinvoicing
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# 1. INTRODUCTION

- The African continent is rich in natural resources; 30 percent of global mineral reserves, 8 percent of oil and 7 percent of natural gas reserves.
- Holds critical reserves in key metals needed for low-carbon transition
- Nevertheless many countries are vulnerable to external shocks, Covid-19 pandemic is estimated to push 49 million people below the US\$ 1.9 a day poverty line (Valensisi 2020)
- More value of natural resources need to retained on the continent to insulate against external shocks, for example many countries are operating below their tax potential and suffer from IFFs linked to their export



## 2. WHAT ARE IFFS?

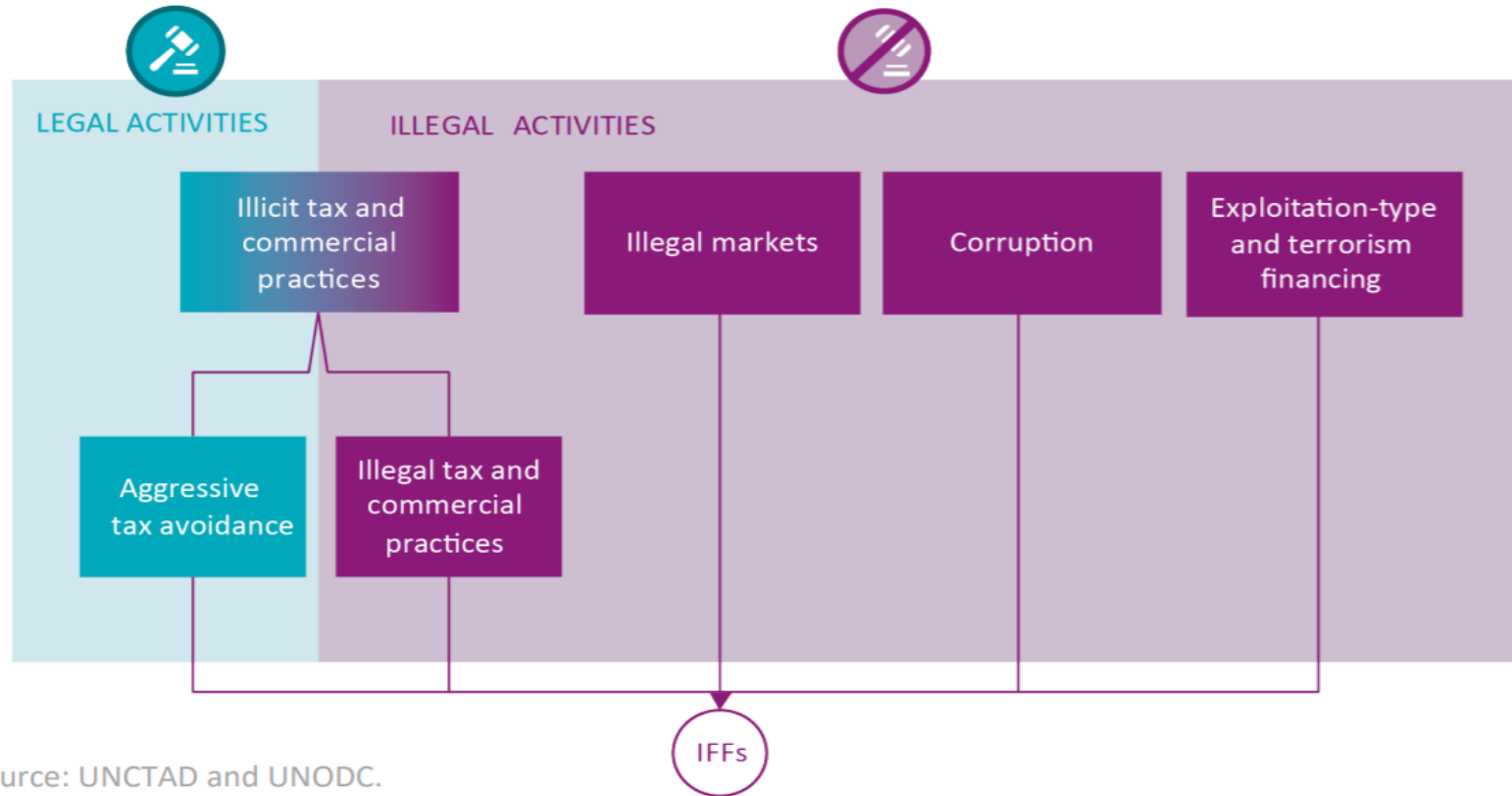
- IFFs are defined cross-border financial flows that are illicit in origin, transfer or use (UNCTAD- UNODC task force 2020)

### Core elements

- Illicit in origin, transfer or use
  - Exchange of value (rather than purely financial flows)
  - Flows of value over time (as opposed to a stock measure)
  - Across a border
- 
- SDG 16.4 on combatting illicit financial and arms flows are grouped under peace and inclusive institutions

# 2. WHAT ARE IFFS?

**Figure 1: Categories of activities that may generate illicit financial flows**



Source: UNCTAD and UNODC.



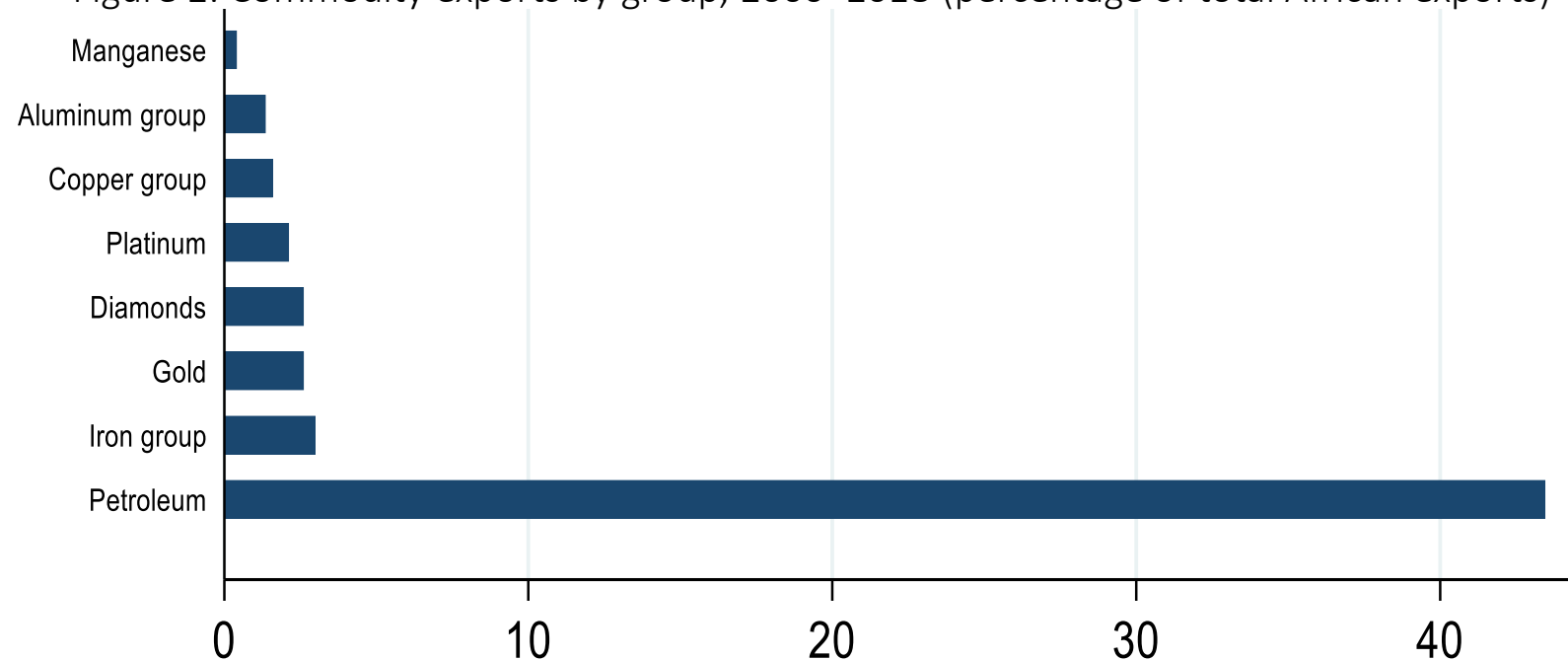
# 3. MEASURING IFFS

- Measuring IFFs is difficult because they are clandestine in nature and are inherently intertwined
  
- Data is scarce and lacks international comparability, especially for non-criminal activities
  
- Therefore researchers have resorted to measuring the channels through which IFFs flow abroad.
  - (i) financial transactions like bank payments (i.e. trade in services),
  - (ii) trade transactions like customs invoices and
  - (iii) the physical smuggling of value across borders.

# 3. MEASURING IFFS

- Results presented in the EDAR 2020 are a subset of global IFFs, since they are based on trade records only
- Focus lies on the export of 8 extractive commodity groups that matter for the continent

Figure 2: Commodity exports by group, 2000–2018 (percentage of total African exports)





## 4. TRADE MISINVOICING

- The analysis tries to identify trade misinvoicing by comparing bilateral trade flows for the same good recorded by the two trading partners
- This technique is called mirror trade analysis and is based on double-accounting in trade records, meaning a good will be recorded once as export by country A and then recorded as import by country B
- The underlying assumption is that asymmetries in bilateral trade records can be used to infer on systemic export misinvoicing





## 4. TRADE MISINVOICING

- There are valid logistical reasons why exports by reported by country A to country B do not match with imports reported by country B for the same product, thus asymmetries in bilateral trade flows cannot be directly be attributed to export underinvoicing (for more details see UNCTAD Statistical Handbook)
- Estimates should be taken as a risk indicator for illicit activity in specific industries



## 4. TRADE MISINVOICING

- Export underinvoicing which is the fraudulent understatement of value of goods on customs invoices to move resources abroad clandestinely and conceal profits in foreign accounts

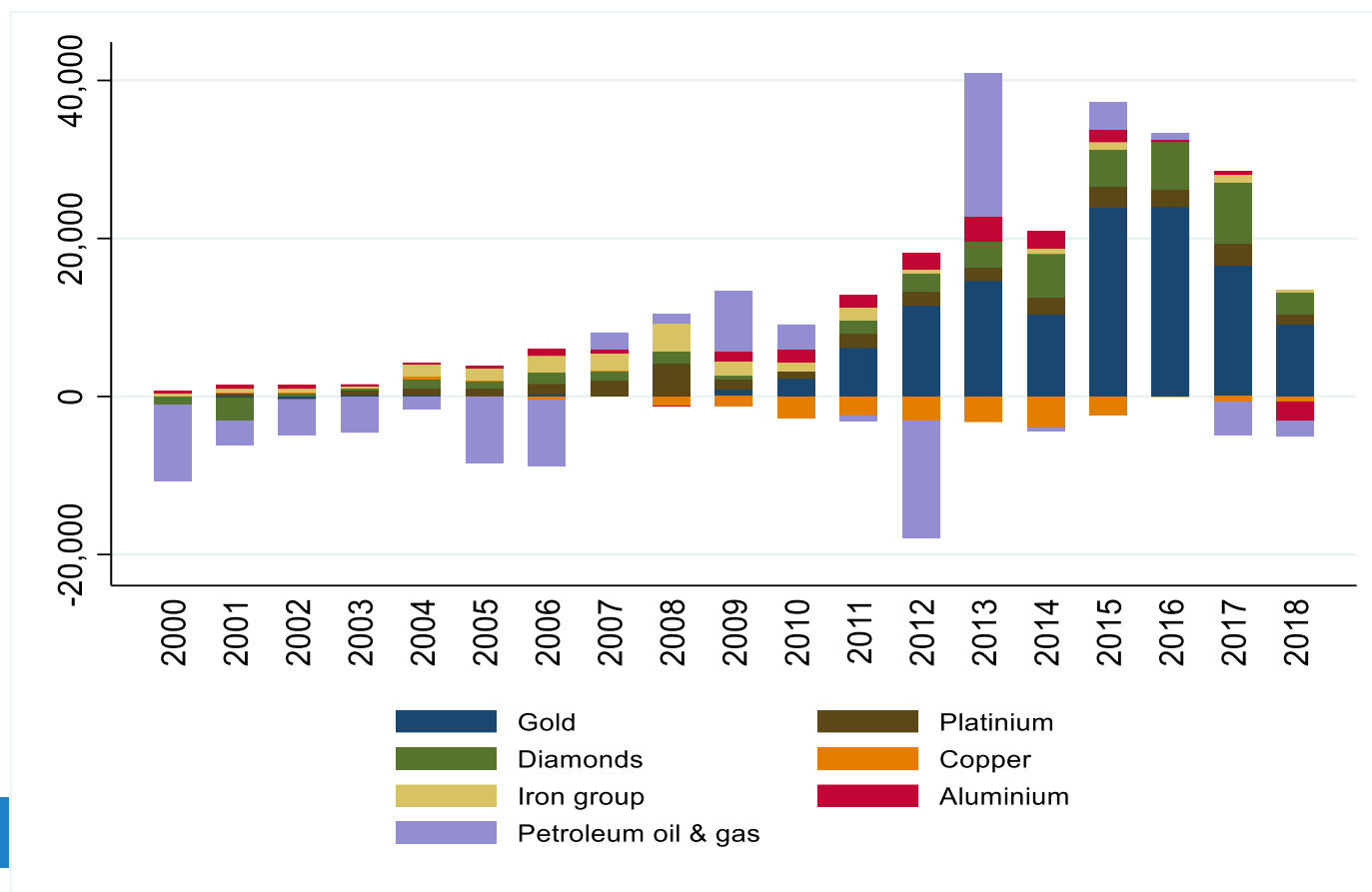
Figure 2 Stylized mechanism of export underinvoicing

	Country A	Country B	Trade gap
1. Documented trade flows	Exports US\$ 5 million in Gold	Imports US\$ 10 million in Gold	Corresponding US\$ 5 million
2. Actual trade flows	Exports US\$ 10 million in Gold		
3. Corresponding financial flows	Receives US\$ 5 million	Pays US\$ 5 million to country A & US\$ 5 million to offshore account	

# 5. RESULTS

- IFFs linked to the export of extractive commodities are large and growing

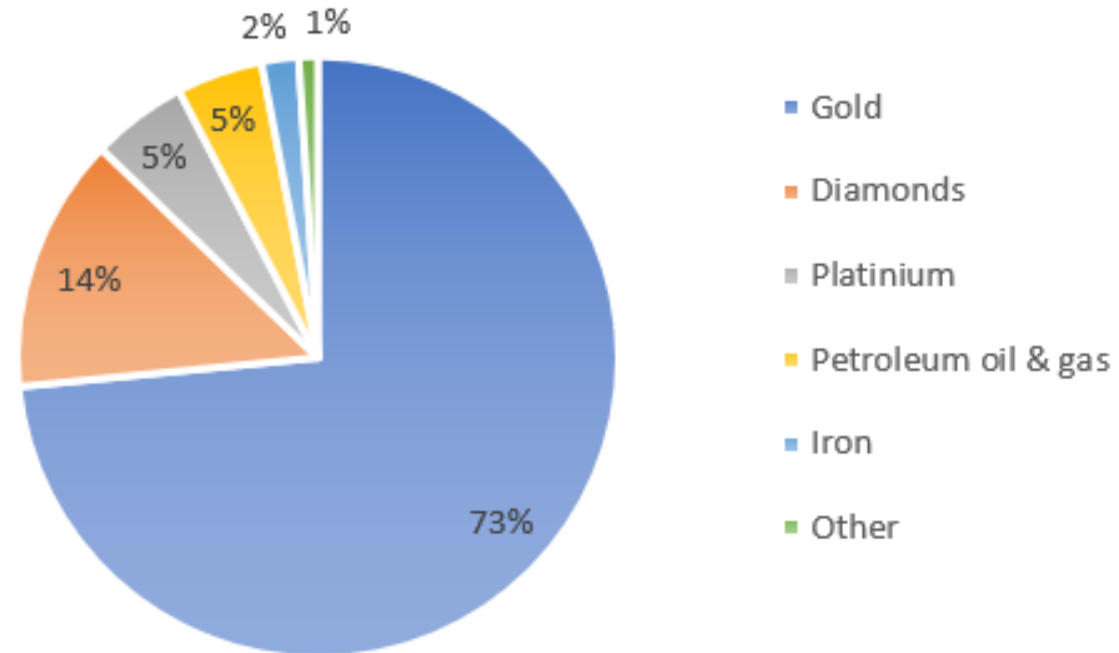
Figure 3 Sum of trade gaps by commodity group (Millions of dollars)



# 5. RESULTS



Figure 4 Mirror trade gap by commodity group (percent of total gap)



Source: UNCTAD calculations based on UN Comtrade

## 6. CONCLUSION & RECOMMENDATIONS

- Even though the mirror trade method has many flaws it can help to identify industries at risk of illicit outflows
- Rare-earth and other key metals needed for low-carbon technologies are already identified at high-risk for IFFs using the mirror trade method (Schuster & Davis 2020)
- The demand for these metals is estimated to rise as much as 1'000 percent by 2050 (World Bank 2017)

# 6. CONCLUSION & RECOMMENDATIONS



- Illicit trade in extractive resources has an unquantifiable multiplier effect because it undermines peace and security
- Cognizant of these interlinkages, IFFs are grouped under SDG 16 on peace, justice and strong institutions.

# 6. CONCLUSION & RECOMMENDATIONS



- Improving institutional capacity and regulatory frameworks to fight IFFs (UNECA 2020 report on IFF governance)
- Improve data on IFFs and reporting of trade data, to use a triangular approach to identify, trace and recover IFFs
- Implement new methodologies for better customs enforcement like price-filter analysis on customs invoices

## 6. CONCLUSION & RECOMMENDATIONS

- Improved resource governance by increasing transparency around resource contracts, i.e. join the Extractive Industries Transparency Initiative
- Comprehensive geological surveys would allow African countries plan and negotiate better
- Revive the African Mining Vision, as a united Africa has significant market power since many of the reserve for metals that will be in high-demand lie on the continent
- ASYCUDAWorld provides a framework for tracking the export of natural resources throughout their value chain (MOSES)



# 7. ALDC INITIATIVES



## Class "Mirror trade analysis based on UN Comtrade data using Stata"

Learning objective:

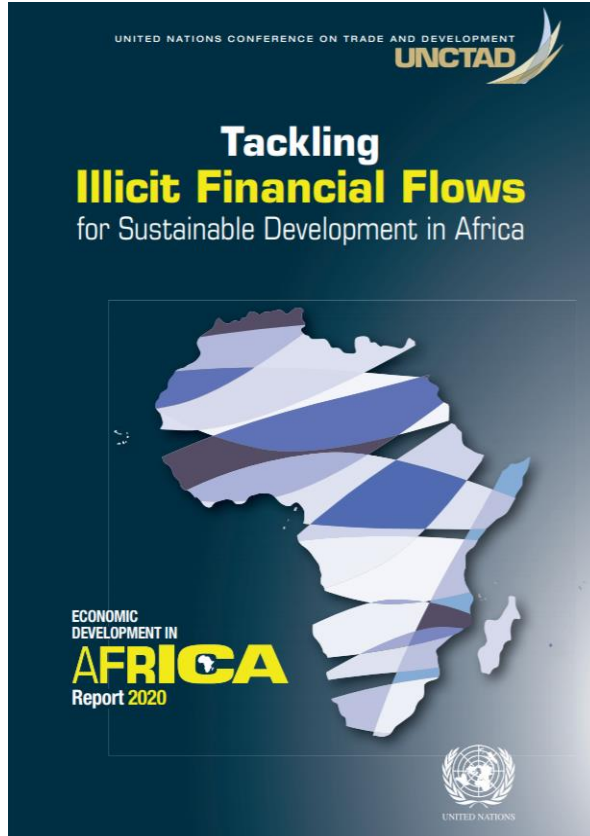
By the end of the class participants will be able to download trade data from UN Comtrade, read it with Stata and create descriptive statistics, understand limitations of trade data in the African context, apply the mirror trade methodology and understand its caveats, interpret the results and use them as basis for risk assessment of different industries in the domestic context.



## 7. ALDC INITIATIVES

### New project on price-filter analysis on customs invoices

- Price-filter analysis on transaction-level allows to detect outliers and abnormal pricing (e.g. Carbonnier and Mehrotra, 2018)
- Looks at distribution of prices over time and its outliers (interquartile range price filter) and the comparison of transaction-level commodity prices to free market prices (“arm’s length price filter”)
- Ahene-Codjoe and Alu (2019) find significant evidence for undervaluation of commodity exports from Ghana. They find that abnormally undervalued export of gold (gold bullion and unwrought gold) equalled \$3.8 billion or 11 per cent of the total export value (\$35.6 billion) of gold between 2011 and 2017.



THANK YOU

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Carlotta Schuster<sup>1</sup> **Old dog, new tricks?**  
The fitness of mirror trade analysis to detect illicit financial outflows from Africa

Junior Davis<sup>2</sup>

Division for Africa, Least Developed Countries and Special Programmes, UNCTAD **Background Paper**  
Economic Development in Africa Report 2020  
Tackling Illicit Financial Flows for Sustainable Development in Africa



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