



# NATURAL RESOURCES, FINANCIAL FLOWS, TAXATION & TRACEABILITY

Presentation by Prof. Gilles Carbonnier  
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# Motivation

*Global Financial Integrity* – latest report (2021)

- 1'600bn USD trade mispricing between 134 developing countries and all their trading partners in 2018 : 1.9% of World's GDP
- 835bn USD trade mispricing with advanced economies : > 5x total ODA

Households' wealth held in tax havens: 10% of the world's GDP in 2017



**SDG 16.4:** Curb illicit financial flows

**SDG 17.1:** Mobilize domestic resources for financing development

At national level: Address IFF risks (legal, political, economic)

# Trade mispricing

**Commodity exports are undervalued to shift profit outside low-income commodity exporting countries and evade / optimize taxes**

Abusive transfer pricing between related entities of a same multinational group

## **Data and methodological issues**

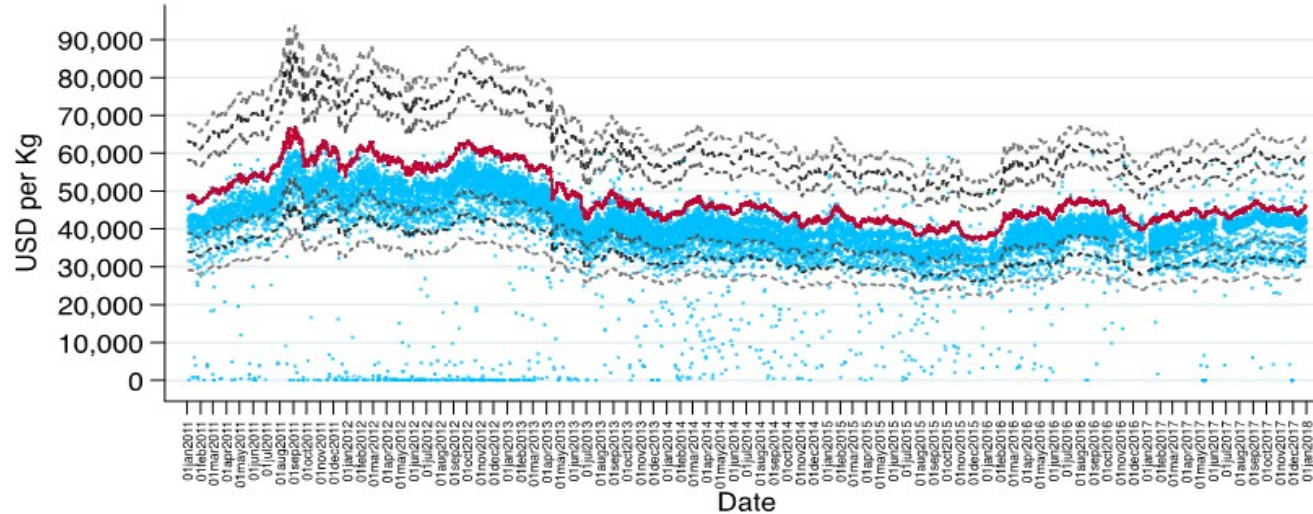
Mirror trade statistics: gaps between commodity exports data vs. data reported by the importing country → poor data, weak method.

Price filter method: use a reference price for each transaction together with a range within which transactions are deemed normally priced: filtering abnormal transactions

# Findings: Ghana Exports (2011-17)

## Unwrought Gold

Transaction Prices vs. Market Referenced Prices



N = 20,933; Data Sources: Thomson Reuters Datastream/LBMA, Ghana Revenue Authority (GRA) - Customs Division

# Metals Focus Mine-Level Gold-Silver Purity

| Mine Name      | Country | State       | Mine Ownership                                  | Refining Country | Refining Company     | Inferred LOM Gold:Silver Split | Inferred LOM % Gold in Doré |
|----------------|---------|-------------|---|------------------|----------------------|--------------------------------|-----------------------------|
| Ahafo          | Ghana   | Brong Ahafo | Newmont Goldcorp Corporation                    | Switzerland      | Valcambi             | 100:0                          | 100%                        |
| Akyem          | Ghana   | Eastern     | Newmont Goldcorp Corporation                    | Switzerland      | Valcambi             | 86:14                          | 86%                         |
| Bibiani        | Ghana   |             | Resolute Mining / Government of Ghana           |                  |                      | 86:14                          | 86%                         |
| Bogoso Prestea | Ghana   | Western     | Golden Star Resources / Government of Ghana     | South Africa     | Rand Refinery        | 100:0                          | 100%                        |
| Chirano        | Ghana   | Western     | Kinross Gold Corporation / Government of Ghana  | South Africa     | Rand Refinery        | 67:33                          | 67%                         |
| Damang         | Ghana   | Western     | Gold Fields / Government of Ghana               | South Africa     | Rand Refinery        | 97:3                           | 97%                         |
| Edikan         | Ghana   | Central     | Perseus Mining / Government of Ghana            | South Africa     | Rand Refinery        | 100:0                          | 100%                        |
| Esaase         | Ghana   |             | Asanko Gold / Government of Ghana               |                  |                      | 100:0                          | 100%                        |
| Iduapriem      | Ghana   | Western     | AngloGold Ashanti                               | South Africa     | Rand Refinery        | 100:0                          | 100%                        |
| Konongo        | Ghana   |             | Signature Metals / Government of Ghana          |                  |                      | 100:0                          | 100%                        |
| Nzema          | Ghana   | Western     | BCM International / Government of Ghana         | Switzerland      | Metalor Technologies | 100:0                          | 100%                        |
| Obotan         | Ghana   |             | Asanko Gold / Gold Fields / Government of Ghana |                  |                      | 81:19                          | 81%                         |
| Obuasi         | Ghana   | Ashanti     | AngloGold Ashanti                               | South Africa     | Rand Refinery        | 100:0                          | 100%                        |
| Tarkwa         | Ghana   | Western     | Gold Fields / Government of Ghana               | South Africa     | Rand Refinery        | 96:4                           | 96%                         |
| Wa             | Ghana   | Upper West  | Azumah Resources                                |                  |                      | 100:0                          | 100%                        |
| Wassa          | Ghana   | Western     | Golden Star Resources / Government of Ghana     | South Africa     | Rand Refinery        | 100:0                          | 100%                        |

# Estimates

| Year         | Abnormal Undervaluation<br>(2011 Constant USD,<br>Million) | Abnormal Overvaluation<br>(2011 Constant USD,<br>Million) | Abnormal Undervaluation<br>(Current USD, Million) | Abnormal Overvaluation (Current<br>USD, Million) | Partner Country Trade<br>Gaps<br>(Current USD, Million) |
|--------------|--|---|---|--|---|
| 2011         | 225.7  | 2.0   | 222.8   | 2.0  | -5,145  |
| 2012         | 662.0  | 17.7  | 544.5   | 14.5   | -4,115  |
| 2013         | 673.4  | 29.9  | 514.7   | 23.1   | -2,010  |
| 2014         | 373.5  | 25.2  | 205.5   | 13.4   | -1,447  |
| 2015         | 192.9  | 17.7  | 78.9  | 7.4  | 142   |
| 2016         | 3,084.9  | 5.0   | 1,195.4   | 1.9  | 909   |
| 2017         | 3,071.1  | 12.0  | 1,067.4   | 4.2  | -1,312  |
| <b>Mean</b>  | <b>1,183.4</b>   | <b>15.6</b>   | <b>547.0</b>                                      | <b>9.5</b>                                       | <b>-1,854</b>   |
| <b>Total</b> | <b>8,283.5</b>   | <b>109.5</b>  | <b>3,829.1</b>                                    | <b>66.6</b>                                      | <b>-12,977</b>  |

# Findings

Abnormally under-valued unwrought **gold** dore imports:  
CHF 21.7bn between 2012-17 (4.5% of imports)

When considering Ghana's gold export: approx. 3.5% of exports to Switzerland are abnormally undervalued, compared with 10% to the UAE and 30% to India

Under-valued **cocoa** imports (CHF 44.7 million or 5% of total value) and **coffee** imports (CHF 128.9 million or 3% of total value)

# Conclusion and recommendations

**Trade mispricing as a channel for illicit financial flows is lower than GFI portrays, but still represents a major source of tax base erosion**

**Broad diversity of policy and technical measures to curb IFFs. Short-term fixes; enhanced administrative capacities; long-term tax reforms**

E.g. in **CH**: establish customs tariff sub-categories for different gold purity levels (product heterogeneity)

Look at tax expenditures: VAT exemption for gold in Switzerland (any allow with >2% of gold content), e.g. Singapore tax exemption for precious metals

E.g. in **Ghana**: new government regulator as assayer for gold exports, new transfer pricing rules and dedicated unit with Revenue Authority

**Need to address push and pull factors**