

ILLICIT FINANCIAL FLOWS

GHANA EXPERIENCE

ACCRA-GHANA

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PROBLEM STATEMENT

- High Levels of trade mis-pricing in Ghana's Trade
- High exposure and vulnerability to IFF in Trade, FDI, Double Tax Treaties, financial secrecy and Corporate Tax Haven activities of partners with adverse implications for:
 - inwards FDI, import/export trade,
 - withholding tax yields for interest payments, royalties, banking claims and divided payments.

WHAT HAS BEEN GHANA'S RESPONSE?

- Two Options:
- **Option 1-Shift Tax Mix** away from profit taxes towards less pricing – manipulation taxes like production-based taxes, i.e. royalties
- **2. Option 2-Introduce or strengthen arms length transfer pricing regulations and implementation capacity**
- Ghana opted for the later with promulgation of Transfer Pricing section 70 of Act 592 in 2012
- **Transfer Pricing Enforcement Not Sufficient for Control**
- Problem involves more than determination whether pricing is “arm’s-length”; many of the transactions involved are inherently artificial and should not be recognized regardless of pricing used
- Even where mispricing is part of the problem, factual inquiries required to enforce arm’s-length pricing unrealistic for even well-resourced tax administrations
- Recent OECD BEPS analysis acknowledges that remedies should extend beyond transfer pricing rules.

OUR SPECIFIC IFF AGENDA-CSOs RESPONSE

- A 3-step approach with Partners support:
 1. improving knowledge and understanding of the scope, drivers and mechanisms of trade-related illicit flows, through *policy research/Analysis*
 2. *workshops/roundtables* to discuss results of the studies and map follow-up strategies
 3. Practical steps forward based on workshop recommendations, and putting in place *mechanisms for real-time monitoring of trade mis-pricing for commodities and Benchmark cost modelling for services public sector capacity building-cost engineering, cost management*

WHAT WE HAVE DONE SO FAR

- 5 papers: Political Economy, Admin/institutional, Ghana IFF and Legal/fiscal regime and Transfer-pricing in services,
- Estimated the scale of trade mispricing in Ghana- EU and US trades during the 2000 – 2012 period:
- **i) Underpriced amount** in the **EU/US import** from Ghana (**Ghana's export** reported in EU/US)
- **ii) Overpriced amount** in the **EU/US export** to Ghana (**Ghana's import** reported in EU/US)
- **iii) Identified commodities** with a significant amount of mispricing
- **iv) Identified sectors** with significant amount of trade mispricing
- **v) Practical testing** of the system using actual Export- example for Gold and Cocoa
- **vi) Analysis** of Jubilee Oil field Cash-flow as example of TP in services
- **vii) trained core staff** of GRA-Customs, MOF, FIC, CSOs, Petroleum/mineral commissions on Price Filter methodology, cost management and cost engineering to minimize transfer-pricing manipulations and thus increase government take in petroleum and mining contracts

LATEST TRANSFER PRICING ANALYSIS IN -2017/18

- Transfer Pricing in the Ghana Gas Pipeline
- Under-invoicing of imports-Trade in commodities
- Gas Pipeline Over-pricing:
- The Ghana Revenue Authority says its audit of the transaction is still ongoing but it has already recovered over US\$10 million in Transfer Pricing-related taxes and penalties for Chinese firm undertaking gas pipeline project.
- Commodity under-invoicing: to illustrate under invoicing in import trade:
- Imported of 53 each of Projectors, HD Video Cameras and HD Microphone/speaker/echo cancellation and cleared through the system
- Our estimate from this case study shows that only 20% tax collected
- Role of clearing agents, customs, Banks and money lenders/changers highlighted as facilitating trade mis-pricing

Analysis of Trade Mispricing of
Ghana's Trade with the
EU countries and the U.S.2000 –
2012(based on Pak, 2014)

SCOPE OF STUDY

- Estimate the scale of trade mispricing in Ghana- EU and US trades during the 2000 – 2012 period:
- **i) Underpriced amount** in the **EU/US import** from Ghana (**Ghana's export** reported in EU/US)
- **ii) Overpriced amount** in the **EU/US export** to Ghana (**Ghana's import** reported in EU/US)
- **iii) Identify commodities** with a significant amount of mispricing
- IV) Drill deeper using transaction level data for Ghana-Gold and cocoa
- V) test Jubilee oil/gas field cash flow as example of TP in services(oil/gas)
- VI) analysis of Ghana's vulnerability to IFF by tax Justice Africa-2019

METHODOLOGY-DATA-Trade Mispricing

- Two sets of databases were used in this study, one from EUROSTAT for the EU member countries and another from the US Census Bureau for the United States. These data sets include the most detailed import and export records available publicly.
- Each record in EUROSTAT is an aggregation of transactions (line items) by declarant country, partner country, product code at 8-digit level (NC8), flow (import/export), statistical procedure, and period.
- Similarly, each record in the US import or export merchandise trade data is an aggregation of transactions (line items) by partner country, product code at 10-digit level (HS10), customs district, and period. Approximately half of the US records contain one line item.

METHODOLOGY-PRICE-FILTER

- Price filter analysis method used in this study to evaluate each import or export record against an arm's length price range, and the deviation from an arm's length price range is treated as the mispriced amount.
- The upper quartile price and the lower quartile price are estimated for every commodity category for the EU-World, the US-World, the EU-Ghana, and the US-Ghana pairs.
- The price range between an upper quartile price and a lower quartile price is assumed to be the arm's length price range. If the declared price of a particular transaction falls within the inter-quartile price range, it is assumed to be an arm's length transaction. So that:
- Undervalued Amount = quantity*MAX(0, PLQ – P) (1)
- Overvalued Amount = quantity*MAX(0, P – PUQ) (2)
- Where:P = declared price (unit value implied in quantity and value in each trade record)
- PLQ = lower quartile price
- PUQ = upper quartile price

How to Detect Abnormal Pricing?

- An Ideal Approach: Arm's length prices
 - But not available for many commodities
- An Alternative Statistical Approach
 - Determine the benchmark upper and lower bounds of prices
 - Based on statistical Analysis of historical prices for each commodity category by country
 - And Or estimates by commodity specialists in Customs
 - Transactions with prices outside a benchmark price range
 - Higher probability of being abnormal than the population
 - These are flagged as suspicious transactions and must be investigate further by customs

Estimating Mispriced Amount

- **Undervalued Amount**

= (Amount deviated **below the Lower-bound Price**)

- **Overvalued Amount**

= (Amount deviated **above the Upper-bound Price**)

The Results - The US Importer case

- Price Filter Methodology has Judicial Precedence:

- IRS vs. the Importer

On the IRS Section 482 violation charge,

The importer paid IRS over \$48 million for tax and penalty (6 Transfer Pricing Report 842, 3/25/98)

- The US vs. the Importer

On the Customs Document Fraud charge,

The importer paid \$4 million fine to US Customs and sentenced to a two-year jail term

EU/US Trade with Ghana

Imports from Ghana, 2000-2012			
	Value	Undervalued amount	Percent undervalued
EU Import	€19,033 m	€ 2,668m	14%
US Import	\$2,985 m	\$ 633m	21%

Exports to Ghana, 2000-2012			
	Value	Overvalued amount	Percent overvalued
EU Export	€21,202 m	€ 2,835m	14%
US Export	\$6,978 m	\$ 573m	8%

- Data Source: Eurostat & US Merchandise trade data (as of May, 2014)
- Methodology:
 - Underpricing relative to lower quartile price
 - Overpricing relative to upper quartile price

Source: Pak(2014)

EU Import from Ghana 2000-2012: Undervalued Items

ALUMINIUM ORES AND CONCENTRATES	€ 436m
KERUING, RAMIN, KAPUR, TEAK, MANSONIA, . . . AND PALISSANDRE DE ROSE, SAWN OR CHIPPED	€ 250m
NON-INDUSTRIAL DIAMONDS UNWORKED OR SIMPLY SAWN, CLEAVED OR BRUTED (EXCL. INDUSTRIAL DIAMONDS)	€ 172m
SHEETS FOR VENEERING, OF A THICKNESS OF ≤ 1 MM	€ 155m
CRUDE FIXED VEGETABLE FATS AND OILS, IN IMMEDIATE PACKINGS OF A CONTENT OF > 1 KG	€ 131m

US Import from Ghana 2000-2012: Undervalued Items

DIAMONDS EXCEPT INDUSTRIAL, UNWORKED OR SIMPLY SAWN, CLEAVED OR BRUTD	\$413m
ANNATO, ARCHIL, COCHINEAL, CUDBEAR, LITMUS, LOGWOOD AND MARIGOLD MEAL	\$31m
NAPHTHAS, EXCEPT MOTOR FUEL OR MOTOR FUEL BLENDING STOCK	\$20m
SOCKS AND OTHER HOSIERY, FOR VARICOSE VEINS, AND FOOTWEAR WITHOUT APPLIED SOLES, KNITTED OR CROCHETED, OF COTTON: NOT CONTAINING LACE OR NET	\$16m
COCOA BEANS, WHOLE OR BROKEN, RAW OR ROASTED	\$13m

>\$300m in 2000 for Diamonds



EU Export to Ghana 2000-2012: Overvalued Items

MEDICAMENTS	€ 210m
AEROPLANES OF AN UNLADEN WEIGHT > 15.000 KG, FOR CIVIL USE	€ 170m
BASE STATIONS OF APPARATUS FOR THE TRANSMISSION OR RECEPTION OF VOICE, IMAGES OR OTHER DATA	€ 142m
PROCESSING UNITS FOR AUTOMATIC DATA-PROCESSING MACHINES	€ 141m
OTHER MEDICAMENTS	€ 137m

US Export to Ghana 2000-2012: Overvalued Items

OIL AND GAS FIELD WIRE LINE AND DOWNHOLE EQUIPMENT	\$30m
WORN CLOTHING AND OTHER WORN ARTICLES	\$22m
ALUMINUM WIRE ALLOY, CROSS-SECTION > 9.5MM	\$14m
WATER FILTERING OR PURIFYING MACHINERY AND APPARATUS	\$11m
BACKHOES, SHOVELS, CLAMSHELLS AND DRAGLINES WITH A 360 DEGREE REVOLVING SUPERSTRUCTURE, USED OR REBUILT	\$11m

Undervaluation of Ghana Export to U.S. and Top 15 EU Countries by Year (EU/US-World price filter)

Undervalued Amount of Ghana Export to Top 15 E.U. Countries and U.S.
(based on **Lower Quartile Prices of US-World & EU-World**)

Country	2010	2011	2012	Total 2000-2012	
				Amount (in 1000)	% underpriced
US Total (USD)	\$16,342	\$23,558	\$12,107	\$633,458	21%
EU Total (EUR)	€ 214,958	€ 227,248	€ 126,322	€ 2,667,823	14%
Spain	€ 23,786	€ 30,747	€ 1,847	€ 629,929	66%
Netherl	€ 26,116	€ 52,283	€ 40,435	€ 454,368	10%
UK	€ 14,308	€ 29,627	€ 8,006	€ 359,445	10%
Germany	€ 60,020	€ 39,086	€ 40,459	€ 311,050	21%
Belgium	€ 7,908	€ 14,349	€ 10,013	€ 273,607	19%
Greece	€ 41,871	€ 30,990	€ 13,119	€ 198,157	145%
France	€ 27,259	€ 4,271	€ 2,513	€ 93,457	3%
CzechRep	€ 218	€ 1,197	€ 988	€ 85,308	373%
Ireland	€ 96	€ 37	€ 51	€ 52,397	24%
Denmark	€ 118	€ 7,291	€ 1,587	€ 45,896	93%
Portugal	€ 1,270	€ 265	€ 432	€ 43,748	60%
Italy	€ 4,101	€ 7,925	€ 4,140	€ 43,061	2%
Sweden	€ 4,010	€ 6,647	€ 200	€ 23,686	40%
Poland	€ 182	€ 1,684	€ 1,755	€ 19,311	12%
Finland	€ 29	€ 4	€ 8	€ 16,953	81%

Export Undervaluation by Commodity (EU, NC8)

Top 20 Product Groups (NC8) in Annual Undervalued Amount of Ghana's Export to the E.U. based on EU-World lower quartile price		Deviations from EU-World Lower Quarter Price Filter (€ millions)			
NC8	Description	2010	2011	2012	2000-2012 Total
	All Items	€ 215	€ 227	€ 126	€ 2,668
	Top 20 Items (EU-Ghana)	€ 160	€ 168	€ 88	€ 2,178
26060000	ALUMINIUM ORES AND CONCENTRATES	€ 96	€ 54	€ 48	€ 436
44072969	KERUING, RAMIN, KAPUR, TEAK, MANSONIA, . . . AND PALISSANDRE DE ROSE, SAWN OR CHIPPED	All from 2000-2006, none afterward -->			€ 217
44072968	KERUING, RAMIN, KAPUR, TEAK, MANSONIA, . . . AND PALISSANDRE DE ROSE, SAWN OR CHIPPED LENGTHWISE, SLIC	€ 3.4	€ 4.9	None before 2007-->	€ 33
71023100	NON-INDUSTRIAL DIAMONDS UNWORKED OR SIMPLY SAWN, CLEAVED OR BRUTED (EXCL. INDUSTRIAL DIAMONDS)	€ 5.6	€ 4.0	€ 5.1	€ 172
44083985	SHEETS FOR VENEERING, OF A THICKNESS OF <= 1 MM	€ 0.0	€ 9.2	€ 0.0	€ 155
15159059	CRUDE FIXED VEGETABLE FATS AND OILS, IN IMMEDIATE PACKINGS OF A CONTENT OF > 1 KG	€ 15.8	€ 36.2	€ 30.8	€ 131

Ref: [F_Exp_TABLE3_Top20.xlsx](#) source: Pak(2014)

Annual Overvaluation of EU/US Export to Ghana

Top 15 EU Countries

Overvalued Amount of Ghana Import from Top 15 E.U. Countries and U.S.
 (based on **Upper Quartile Prices of US-World & EU-World**, € & \$ Thousands)

Country	2010	2011	2012	Total 2000-2012	
				Amount	% overpriced
US Total (USD)	\$78,801	\$89,569	\$103,767	\$573,152	8%
EU Total (EUR)	€ 260,007	€ 345,366	€ 318,555	€ 2,834,904	13%
France	€ 92,495	€ 84,552	€ 76,811	€ 863,866	30%
UK	€ 37,935	€ 57,344	€ 63,336	€ 426,418	11%
Italy	€ 17,641	€ 10,483	€ 13,814	€ 345,764	16%
Germany	€ 35,549	€ 37,580	€ 40,909	€ 331,449	15%
Sweden	€ 20,908	€ 76,734	€ 38,069	€ 295,849	25%
Netherl	€ 14,792	€ 16,819	€ 21,619	€ 189,802	5%
Belgium	€ 7,800	€ 11,505	€ 16,793	€ 100,936	5%
Spain	€ 11,604	€ 21,896	€ 23,030	€ 95,744	8%
Finland	€ 4,237	€ 7,275	€ 3,691	€ 44,639	21%
Hungary	€ 5,422	€ 3,987	€ 6,853	€ 29,071	21%
Ireland	€ 1,377	€ 1,359	€ 2,944	€ 28,455	9%
Austria	€ 4,783	€ 4,785	€ 2,843	€ 25,127	17%
Denmark	€ 2,040	€ 2,567	€ 2,568	€ 24,260	13%
CzechRep	€ 924	€ 5,208	€ 1,890	€ 11,772	12%
Portugal	€ 836	€ 562	€ 548	€ 6,838	6%

Overvaluation of Gold Bullion Exports

Source: Pak(2014)

Gold Bullion Export (2010-2014)		Price +/- 10%					
Destination	FOB_USD	Wgt_KG	Amt_Un	Amt_Ov	No_un	No_ov	No_all
Grand Total	\$3,831,792,420	87,840	\$310,418,941	\$20,756,914	528	443	5917
UNITED ARAB EM	\$3,555,326,173	78,331	\$157,069,776	\$19,358,588	437	404	5406
TURKEY	\$128,112,295	2,825	\$9,592,020	\$526,897	28	15	201
SWITZERLAND	\$71,013,551	2,186	\$27,498,899	\$78,051	20	7	141
INDIA	\$56,649,934	1,361	\$0	\$752,202	0	15	82
SOUTH AFRICA	\$11,401,503	273	\$26,816	\$0	1	0	3
UNITED STATES	\$3,760,724	976	\$37,089,499	\$0	14	0	33
ITALY	\$2,365,128	854	\$34,817,901	\$486	11	1	18
LEBANON	\$864,476	17	\$0	\$0	0	0	1
HONG KONG	\$792,340	17	\$30,807	\$0	1	0	5
UNITED KINGDO	\$389,718	12	\$56,255	\$0	3	0	4

Over-valuation of Cocoa Beans-210 to2014

source: Pak(2014)

Cocoa Beans Export, 2010-2014		Price +/- 10%					
Destination	FOB_USD	Wgt_KG	Amt_Un	Amt_Ov	No_un	No_ov	No_all
Grand Total	\$12,089,871,854	3,020,539,464	\$337,788,872	\$3,902,428,788	3085	4113	10451
IRAN	\$3,063,086,424	24,662,500	\$463,846	\$2,991,458,681	10	21	60
NETHERLANDS	\$2,328,004,794	762,882,002	\$54,481,556	\$202,023,039	411	589	1516
MALAYSIA	\$972,776,536	310,432,100	\$37,370,945	\$145,636,700	498	631	1453
BELGIUM	\$898,304,630	246,896,659	\$19,961,833	\$210,922,237	169	230	646
UNITED STATES	\$696,874,792	236,606,557	\$20,867,683	\$47,481,889	282	476	1027
UNITED KINGDOM	\$647,264,088	215,061,309	\$17,219,280	\$40,417,114	76	138	349
TURKEY	\$458,140,899	159,579,643	\$11,704,232	\$30,689,564	211	229	666
FRANCE	\$455,941,653	146,584,876	\$8,615,544	\$49,862,963	24	123	216
GERMANY	\$419,749,435	140,982,890	\$8,627,449	\$37,967,835	111	241	576

Conclusion on trade mis-pricing

- Trade mispricing in EU-Ghana and US-Ghana trade real
- Undervaluation of Import from Ghana (Ghana's Export): €2.7bn (EU), \$0.63bn (US)
- Overvaluation of Export to Ghana (Ghana's Import): €2.8bn (EU), \$0.57bn (US)

Trade underpricing trend

- EU: Annually between €100m to €300m
- US: \$328m in 2000 is an exception: mostly due to non-industrial diamonds. After 2000: ranges between \$10m and \$62m
- Spain - the largest underpricing partner for the 13-year period
- Netherlands, UK, Germany, Belgium, Greece: Each at least €100m for the 13-year period
- Identified export sectors/commodities with significant underpricing, including wood and wood product, ores, cocoa

Trade overpricing trend

- Annual Import overpricing trends upward (Both US and EU)
- EU: Over €300m in 2012
- US: Over \$100m in 2012
- US, France, and UK among the largest overpricing in 2012, and trending upward
- Identified import sectors/commodities with significant overpricing, including machinery, vehicles, electrical machinery and equipment,
- articles of iron and steel, textile articles, and aluminum articles

How far can we go with this?

- The results of this study
- **The estimated amounts of mispricing:** A preliminary first order approximation at best.
- Identified seemingly mispriced records, but not identities of importers or exporters as this requires transactional level data
- Transaction Level Data collected by **Ghana's Customs will enable:**
- To identify and target importers and exporters with a tendency of frequent mispricing
- Profile countries, commodities and businesses with high risk of mispricing
- To estimate trade mispricing as reported in Ghana
- That is what was done for Gold and cocoa using transaction level data

Recommended Next steps

Next Steps

- I hope Ghana subscribes to participate in this pilot
- Complete the 2000-2012 analysis and extend to 2020
- Use results to shortlist businesses for audit, recovery and or prosecution
- Prepare Audit manual from the above to guide future work and for training new staff
- Build and extend the model for Price Filter analysis to include Partner Dara method and any others as suggested by Tax Justice and UN system
- Consider collaboration with TJN
 - Memorandum of understanding with GRA, customs, FIC for micro-data applications
 - Install real-time model for monitoring underinvoicing and overinvoicing
 - Continue training of core staff of GRA-customes, MOF, FIC and natural resources regulatory agencies

THANK YOU