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Value Addition or Trade Misinvoicing: Coal Trading in the Asia-Pacific

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Statistics on coal trade between India, Singapore and Indonesia suggest that trade misinvoicing is used as a vehicle for illicit financial flows. At present this practice is not well addressed by the Organisation for Economic Co-operation and Development's tax standards. Asia-Pacific countries should intensify cooperation on this issue. Other international organizations with a mandate in this area could also play a role, for instance the World Trade Organization. Ultimately, increased cooperation would help to achieve Sustainable Development Goal 16.4 which inter alia aims, by 2030, to significantly reduce illicit financial flows.

Les statistiques sur le commerce du charbon entre l'Inde, Singapour et l'Indonésie tendent à montrer qu'un système a été mis en place qui permet de générer des flux financiers illicites à partir de facturations erronées. Les normes fiscales établies par l'Organisation de coopération et de développement économiques n'envisagent pas ce type de pratique. C'est pourquoi les pays de la région Asie-Pacifique doivent intensifier leur coopération pour y mettre fin. D'autres organisations internationales dont le mandat couvre ce domaine pourraient également jouer un rôle, par exemple l'Organisation mondiale du commerce. En fin de compte, une coopération accrue contribuerait à la réalisation de l'objectif de développement durable 16.4 qui vise, entre autres, à réduire de manière significative les flux financiers illicites à l'horizon 2030.

Las estadísticas sobre el comercio del carbón entre la India, Singapur e Indonesia indican que la factura comercial falsa se utiliza como un medio para favorecer las corrientes financieras ilícitas. Por el momento, las normas en materia tributaria de la Organización para la Cooperación y el Desarrollo Económicos no abordan debidamente esta práctica. Los países de Asia-Pacífico deberían intensificar la cooperación en este tema. Otras organizaciones internacionales con mandatos en esta esfera, como la Organización Mundial del Comercio, también podrían intervenir. Finalmente, una mayor cooperación contribuiría a lograr el Objetivo de Desarrollo Sostenible 16.4, que, entre otras cuestiones, pretende reducir significativamente las corrientes financieras ilícitas de aquí a 2030.

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Unprocessed coal is generally classified into four categories: anthracite, bituminous, subbituminous, and lignite. These categories reflect the types and amounts of carbon the coal contains and the amount of heat energy the coal can produce.[1] In the Harmonized Commodity Description and Coding System ("HS"), the internationally agreed product coding system maintained by the World Customs Organization (WCO), coal can be found in heading 2701: anthracite is coded under 270111, bituminous coal under 270112 and other non-processed coal (subbituminous and lignite) under 270119. Solid fuels made from coal such as briquettes are under HS code 270120.

Global imports in unprocessed coal (excluding solid fuels) surpassed USD 265 billion in 2022, an increase of 70 per cent compared to 2021, mainly on account of price increases.[2]

Bituminous coal accounts for most unprocessed coal trade (around USD 200 billion) with two countries, namely Australia and Russian Federation, accounting for 60 per cent of global bituminous coal exports. 'Other coals' (which include subbituminous and lignite coals) are ranked second, with USD 52.7 billion in imports.

In the Asia-Pacific region, trade statistics suggest that Singapore is a major (re-)exporter and/or processor - resulting in significant Singapore value addition - from trading in coal. Singapore's vital role in the trading of coal highlights some important trade, tax, and development issues for the economies in the region.

This view is based on an analysis of Singapore's trilateral trade in coal with Indonesia and India. According to Singapore's trade statistics, in 2021, Singapore imported USD 62.5 million unprocessed coal of which most of it (USD 58.4 million) is other coal classified under HS code 270119 (see Table 1). Singapore imported 99.96 per cent of coal classified under HS code 270119 from Indonesia. According to Indonesia's trade data, exports of other coal under HS code 270119 to Singapore amounted to USD 19.5 million in 2021 (see Table 2).

Singapore does not record any exports of unprocessed coal[3]. Yet, according to Indian trade statistics, India imported 'other coal' classified under HS code 270119 to the amount of USD 948 million from Singapore in 2021 (Table 3). Other importers of this type of coal including China, Japan, Philippines, Malaysia do not record any imports from Singapore.

Table 1: Singapore's imports of unprocessed coal from the world and Indonesia (2020-2022)

	Singapore's imports from world (USD Thousands)			Singapore's imports from Indonesia (USD Thousands)			Indonesia's share in Singapore's imports of coal (%, at 1 decimal)		
Type of coal:	2020	2021	2022	2020	2021	2022	2020	2021	2022
Anthracite (270111)	1,569	2,131	5,024	0	0	0	0%	0%	0%
Bituminous coal (270112)	2	0	0	0	0	0	0%	n/a	n/a
Other coal (270119)	32,459	58,352	111,440	32,446	58,329	111,421	100%	100%	100%
Total unprocessed coal	36,050	62,504	118,486	34,466	60,350	113,443	95.6%	96.6%	95.7%

Source: Import data from ITC TradeMap, based on IE Singapore statistics.
Notes: Type of coal as classified under the HS. Unprocessed coal is defined here as coal falling under HS Chapter 2701 excluding 270120 (briquettes, solid fuel made from coal).

[1] "Coal explained", US Energy Information Administration. Available from https://www.eia.gov/energyexplained/coal/.
[2] Based on trade data compiled in TradeMap maintained by the International Trade Centre (ITC, www.trademap.org). Total quantity data is not available in these trade statistics.

[3] More precisely, exports under HS code 270119 in 2010-21 were minimal: USD 39,000 of which USD 34,000 to Malaysia. The authors could not find any other exports under HS 270119 in the publicly available data.

Table 2: Indonesia's exports of 'other coal' under HS Code 270119 (USD Thousands, 2020-2022)

Importers	2020	2021	2022
India	3,295,666	4,026,129	10,409,013
China	1,697,673	6,112,856	5,375,330
Philippines	1,052,531	2,019,687	4,635,966
Malaysia	974,187	1,864,938	3,286,396
Korea	808,714	1,275,741	2,705,150
Singapore	8,317	19,530	40,356
Others	2,791,727	4,028,362	8,622,193
Total exports	10,628,815	19,347,243	35,074,404

Source: Import data from ITC TradeMap, based on BPS-Statistics Indonesia statistics.

The available data indicates that 1) Singapore imports of 'other coal' from Indonesia have a higher declared value than Indonesia's export value; 2) Singapore does not record any exports of unprocessed coal; and 3) the value of coal significantly increases along the chain of transportation. Trade statistics indicate that in 2021, coal exports from Indonesia to Singapore valued at USD 19.5 million had a declared/recorded import value of USD 58 million in Singapore; in the same year, India reported USD 947.6 million from Singapore (more than 16 times the value of imports of coal under same HS code 270119 as reported by Singapore). Based on these numbers, it appears that the Indonesia-Singapore-India trade in coal generated up to USD 900 million in value addition in the entrepôt country in 2021. This figure may be higher in 2022 due to the increased global coal prices.

The pattern of escalating values from the trilateral trade pattern suggests a number of different explanations. Coal is not mined in the island country of Singapore which begs the question of why the value of Indian imports from Singapore exceeds by a magnitude the value of the same type of coal imported by Singapore from Indonesia.

The first, and most straightforward explanation, is that coal undergoes significant value addition or transformation while transshipping through Singapore. For instance, briquettes made from coal have another HS code (270120). However, Singapore's exports of any coal under HS subheading 2701 to any country, including briquettes are close to zero.

The other possible explanation is trade misinvoicing which may happen both on the import side as well as export side. Imports into Singapore may be undervalued, and exports are not recorded at all.

Table 3: India's imports of 'other coal' under HS Code 270119 from Singapore (USD Thousands, 2020 and 2021)

Code	Commodity description	2020	2021
27011910	Coal "ECSC", whether or not pulverized, non-agglomerated (excl. anthracite and bituminous coal): Coking coal	158,099	769,977
27011920	Coal "ECSC", whether or not pulverized, non-agglomerated (excl. anthracite and bituminous coal): Steam coal	142,522	132,020
27011990	Coal "ECSC", whether or not pulverized, non-agglomerated (excl. anthracite and bituminous coal): Other	64,263	43,559
Total under 270119		**366,904**	**947,577**

Source: Import data from ITC TradeMap, based on India's Directorate General of Commercial Intelligence & Statistics. 2021 is the latest year for which data is available.

Note: India makes a subdivision in its national classification system differentiating between coking coal, steam coal and other coal under HS Code 270119.

Perhaps the coal never actually entered the customs territory (only on paper) and transited through Singapore from Indonesia to India. Global Financial Integrity (2021) has long pointed to "value gaps in trade" as evidence of tax evasion through trade channels; the 2021 report (p. 2) indicated a value gap of USD 388.6 billion for developing Asia in 2018. Since falsifying trade invoices is not illegal in many countries, the 2021 report recommends that countries criminalize such actions.

Valuing exports at less than their international market value allows the exporter to limit export tax payments and requires her to remit back home only the foreign exchange she declared as being the value of the exports, keeping the rest in a bank account abroad. This would be facilitated if the importing company in Singapore is also controlled by an Indonesian exporter. This is one possible way to characterize Singapore's importation of coal from Indonesia. Perkumpulan PRAKARSA (2022) presents its analysis of the same mechanism; for the purposes of this paper, the explication of the mechanism involved is our main interest. The results of this study suggest that, for example, Indonesia lost USD 197.99 million in value-added tax revenue in 2021 (3rd column in Table 4.3, p. 64). The estimated losses arise from trade misinvoicing of *all* the categories of Indonesia's coal exports to all the countries, not just to Singapore.

On the other hand, valuing Singapore's coal exports at prices higher than the international price requires the Indian importer to remit to the exporter company based in Singapore more than the going world price of coal. If the Indian importer controls the coal exporter company based in Singapore, the exporting company can buy the coal in Singapore at the world price before exporting it to India. The 'excess' receipts over the world price can be deposited in Singapore.

These pricing maneuvers are in the commercial interest of the transacting parties: the simplest reason – and there could be more complex structures involved - is that the transactions are carried out between corporate entities with the same owner, who finds it congenial to transfer income or assets among tax jurisdictions (Montes, 2018). These maneuvers are supposed to be held in check either by customs authorities and/or through audits of the prices utilized by the transacting parties by tax administrations. Under its transfer pricing guidelines, the Organisation for Economic Co-operation and Development (OECD) has created elaborate audit standards to check these intra-company transfer pricing schemes used by Multinational Enterprises (MNEs). These, however, have been found onerous by developing country authorities (Correa, 2019).Developing countries have proposed simpler methodologies (Valadão, 2015; Grondona, 2019), such as reviewing transaction prices against international prices obtained from public commodity exchanges but the OECD has invariably disregarded these recommendations. In contrast, the United Nations (UN) transfer pricing manual (United Nations, 2021) recognizes the Argentinian audit method called the "Sixth Method".

OECD's activities under the Group of Twenty (G20) Base Erosion and Profit Shifting (BEPS) project are stymied by its continued defense of its transfer pricing methodologies. The BEPS Monitoring Group (2020, p. 3) commented that the project has made transfer pricing rules "more complex and difficult to administer". Introducing simpler tax cooperation rules proposed by developing countries during the BEPS process (G24, 2021) have not prospered.

If the notable size of the value gap in trade between Singapore's imports and exports of coal arise not from valueaddition in Singapore but from mispricing, an additional economic cost that must be recognized is that since coal is used for electric power generation in India, higher-than-competitive cost of imported Singaporean coal becomes part of the rate base, effectively a surcharge on Indian electrical consumers.

Developing countries are disadvantaged by OECD tax standards and practice. In the coal trading case, these standards disadvantage Indonesia from underpricing of its exports and India from the overpricing of its imports. But these standards and rules benefit Singapore. Among tax jurisdictions, Singapore ranks number nine as a tax haven and number five in terms of financial secrecy (Tax Justice Network, 2021). Countries exercise their sovereignty in choosing their tax policies and practices. The OECD-style transfer pricing maneuvers promoted by Singapore would help realize in *purely accounting terms* apparent value addition occurring in Singapore, without any actual physical processing involved. This possible "padding" to Singapore's value-added arises from the profits created purely from transaction price changes, the outcome of "false profits" as characterized in an article in the International Monetary Fund (IMF) publication *Finance and Development* (Keen, 2017).

In the matter of international tax policies, Asia-Pacific countries are best served by the view that the issue is one of tax cooperation, instead of tax competition. This elementary analysis of the coal trade between three jurisdictions in the region indicates the potential benefit that could accrue if the cooperative, instead of the competitive, approach is practiced by authorities. The simple analysis also indicates that the region could benefit immensely from choosing tax standards and practices which inhibit illicit financial flows maneuvers, such as those facilitated by the prevailing standard preferred by OECD countries. Other international organizations with a mandate in this area could also play a role, for instance the World Trade Organization (WTO). Ultimately, increased cooperation could help to achieve Sustainable Development Goal 16.4 which *inter alia* aims, by 2030, to significantly reduce illicit financial flows.

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