EXPLICITING THE ASIAN-FIRM DRIVEN GOVERNANCE OF GLOBAL PALM-OIL CHAINS FLAVIA FABIANO, PAULE MOUSTIER, CIRAD, UMR MOISA

1. Intro

The rise of emerging countries is questioning current approaches of global governance for sustainability in agricultural value chains. Since the 2000s, there has been a proliferation of private governance initiatives aimed at enhancing the sustainability of agricultural transnational value chains, such as public private partnerships, multi-stakeholder alliances and transnational private sustainability standards. Such initiatives have been championed by North American and European NGOs, firms and international aid agencies, but they have been neglected by actors from emerging countries. The increasing relevance of the latter in international agricultural market and chains question the effectiveness of these approaches.

One example of this trend concerns the Round-table for Sustainability of Palm Oil, a multistakeholder initiative, founded in 2004 and issuing a private standard intended at certifying sustainable practices in the value chain. RSPO rapidly gained traction in the EU, the second world importer of palm oil, reaching in 2018 43 % of uptake of RSPO standard and 2629 members of the round table. However, India and China, the first and the third world importers of the commodity, hardly participate in the scheme, with levels of uptake lagging below 2 % and membership of 50 and 88 companies. This lack of engagement hinders the success of the initiative and opens a debate about alternative approaches — for example, state led or national based options.

Global Value Chains (GVC) and Global Production network (GPN) scholarships have largely informed debates concerning transnational sustainability private initiatives. However, they seem to fall short of tools for understanding how they are influenced by the rise of emerging countries. Following Horner and Nadvi (2018), we argue that this drawback is mainly due to GVC and GPN exclusive focus on value chains originated in the Global South and with outlets in the Global North. This paper aims to contribute to go beyond this outdated North-South polarization, thereby shedding light on policy options and leverages for sustainable development, in a polycentric global economy. It does so, through the investigation of the governance of palm-oil value chains, with a focus on the value chain supplying China, a key market for the commodity.

The paper is organized as follows. In the first section, we lay out the theoretical framework and hypotheses, based on a literature review on global commodity chains, global value chains and polycentric trade. A second section presents the methods and data used to address the research

questions and hypotheses. In the third section, we lay out our results and, in the fourth section, we discuss how these results confirm or infirm our hypotheses. Finally, in the fifth section we draw some conclusions for development policies in GVC directed to Southern markets.

2. Review of the literature and hypotheses

2.a Global Value Chains and Polycentric Trade

The Global Value Chain and the Global Production Network frameworks were inspired by the World System Perspective concept of Commodity Chain (CC). The latter was elaborated by Wallerstein and Hopkins in 1986, in order to study the historical evolution of economy globalization, which, according to the authors, is not a new phenomenon but has historical legacies dating back to the 16th century. Through the commodity chain, the two authors proposed to go beyond nation state level macroeconomic analysis and to study transnational inter-firm networks and their evolution in history. These networks were referred to as "chains", linking different processes and actors, embedded in specific geographic configurations, and constituted by "nodes" which hold unequal economic power. The study of economic power configuration among the nodes of the chain and its geographical embeddedness informed larger social and political trends, such as international inequalities of wealth and patterns of inclusion and exclusion in the global economy.

The concept of Commodity Chain was later operationalized by the Global Commodity Chain (GCC) analysis, in a seminal book coordinated by Gereffi and Korzeniewicz in 1994. Here, competition and innovation are highlighted as key concepts for understanding economic power and difference of wealth within commodity chains. According to Gereffi and Korzeniewicz (1994), "the GCC approach explains the distribution of wealth within a chain as an outcome of the relative intensity of competition between different nodes" (ibidem p.4). GCC cases study highlight how competition is low in "core-like" nodes with high innovation and high profitability. Concentrating in these nodes, powerful actors transfer competitive pressure and processes with lower profitability to "peripheral" nodes, where actors are more numerous and dispersed. The different factors that contribute in shaping competition inform the nature of economic power in the commodity chains. They constitute entry barriers in "core-like" nodes, such as high capital requirements, knowledge, access to resources and infrastructure, laws, institutions and public policies. These factors are geographically embedded, as the shape of competition in commodity chains. "Core-like" nodes tend to concentrate and cluster in the core of global economy, while nodes with low profitability are dispersed in the peripheries. Such geographical

configuration of power is dynamic and linked to the rise and falls of political powers and empires (Hopkins and Wallerstein, 1994).

The GVC and GPN frameworks draw from CC and GCC analysis, but largely depart from this historicized and dynamic framework to focus on contemporary globalization (Bair 2005). The latter is described as increasingly corporate centred and geographically distributed between a "North" core area and a "Global South" periphery. According to GVC scholars, since the late '70s, few Transnational Corporations, characterized as global buyers or "lead firms", came to orchestrate a large share of global production and trade, by concentrating in profitable nodes of the chain with high innovation and large value creation, such as product design, branding and retailing. At the same time, these lead firms had outsourced lower value and labour-intensive production processes to other nodes of the chain in the Global South, also transferring competitive pressures. Lead firms held "extreme market power" over their suppliers, by gate-keeping access to profitable Northern markets. In this way, according to GVC and GPN analysis they also gained the larger power to "govern" the value chains, by setting "coordination mechanisms and rules of inclusion or exclusion from the chain", for e.g. production standards.

GVC and GPN frameworks became rapidly popular in policy making circles, because, by elaborating and analyzing different typologies of "governance", related analysis could explain the decline of effectiveness of national policies and inter-government agreements vis-à-vis rising mechanism of private and multi-stakeholders' governance. Also, they could inform how to constrain and leverage on lead firms for development purposes. However, the rise of emerging countries has highlighted how these analytical frameworks, by departing from the initial dynamic lenses of the commodity chain, became static and ahistorical (Bair, 2005).

By the end of the 2000s, several GVC and GPN scholars raised the question of how to update GVC framework, for analyzing changes in economic globalization. In 2008, Kaplinsky and Messner questioned the implications on globalization, development and global governance of the rise of China, India and the East Asian and South East Asian (EA&SEA) trade block, which they called the "Asian Drivers". Then, during the 2010s, similar issues were discussed by several scholars, employing different terms, such as emerging economies, the rise of the South, rising powers, and the rise of China.

This literature has raised heterogeneous questions. Some scholars proposed to focus on Southern countries'- in particular China's- increased production and innovation capacities, which give them: more bargaining power vis-à-vis global buyers (Gereffi and Sturgeon, 2013); way of outcompeting other developing countries (Kaplinsky and Morris, 2008); but also possibility of outsourcing and

exporting capital in other developing countries, thereby creating Southern/ Chinese GVCs (Henderson and Nadvi, 2011). Yamin et al.(2015) proposed to investigate raising powers' lead firms and their characteristics. Then, Kaplinsky and Farooki (2011) made the hypothesis that the rise of Southern markets implies a higher demand for products with low quality and low processing, changing upgrading strategies and lowering standards in GVCs. Finally, in 2018, Horner and Nadvi reviewed previous theoretical propositions and case studies and wrote a comprehensive article questioning how the rise of the Global South and of polycentric trade drive change in Global Value Chains.

A first major insight from Horner and Nadvi's work is the stress on the rise of Southern end markets rather than on Southern producing capacities, i.e. the rise of the share of international trade that is not directed to Northern countries. Secondly, the data they present show that this "rise" is not evenly distributed among the countries of the Global South. It interests, first of all, China and then the EA&SEA trade block and the Asian region. According to the authors' analysis, this block "consistently accounted for approximately 75 per cent of the trade between developing countries over the 1995–2015 period" (ibidem p. 214). Thirdly, the authors discard the idea that the shift of end markets to the South will only lead to a "value chain effect, either governed by Northern lead firms or feeding into Northern end-markets" (ibidem p. 219). On the contrary, they make the hypothesis that this market shift will provoke multiple and significant change in GVCs, that they group under four fields: (i) the multiplications of VCs "with distinct characteristics oriented to different end markets"; (ii) the rise of Southern lead firms with distinct characteristics; (iii) the development of new market requirements, such as Southern standards; (iv)Increased competition and multiplication of upgrading options for producers.

In our paper, we draw some key ideas from Horner and Nadvi's work, in particular for what concerns: their qualification of the "rise of the Global South" and the research hypotheses they elaborate.

2.b Research questions and hypotheses.

Our paper questions how market shifts towards the global south drive change in economic power configurations in GVCs and as a consequence in their governance. It tests Horner and Nadvi's hypotheses by an empirical contribution, i.e., the case study of palm oil global value chain. Private governance tools and mechanisms are especially relevant for this agricultural value chain, which is highly contested for its impacts on deforestation, biodiversity loss and people exploitation. Moreover, this VC is emblematic of different trends that Horner and Nadvi qualify as the rise of the Global South. Firstly, palm oil is mainly traded among Asian countries, with India and China being the 1st and the 3rd larger world importer of palm oil in 2019. Secondly, despite being a commodity, palm oil is largely

imported by Asian countries for domestic consumption and not for transformation in export-oriented industries. Thirdly, palm oil production, trade and transformation see the involvement of some major Asian TNCs and industrial conglomerates, which have risen to compete with Northern "big buyers".

In order to analyze this case study, we propose to take a step back from the GVC and GPN frameworks and draw key tools of analysis from Commodity Chain and Global Commodity Chain scholarship. We argue that analyzing changes in GVCs, by employing the large array of GVC and GPN frameworks concepts and tools of analysis, such as governance typology and lead firms, has the drawback of transposing heuristic categories of one empirical object (global value chains mainly directed to Northern markets) to a different object (global value chains directed to multiple markets), which might require different categories to be analyzed. Instead, Commodity Chain analysis of configuration of economic power among the nodes of a chosen GVC and of its geographical embeddedness has been elaborated to grasp a historicized and dynamic globalization with shifting centers and peripheries. Therefore, related analytical tools are more suited to our aims.

Then, drawing from CC and GCC analysis, we propose to map the configuration of economic power among the nodes of the palm oil value chain. This mapping will be based on the analysis of market power, corporate concentration, degree of competition and barriers to entry in the different nodes of the chain (G and K 1994 and W&H 1994), and the dynamic capabilities at the core of firm competitiveness, i.e., capabilities to adapt and innovate (Teece and Tisiano, 2003). We will pay special attention to whether the shift of market to the Global South has been a key factor shaping power configuration.

Then, we will question: what is the configuration of power in the palm oil GVC? What are the factors that have shaped this configuration? How is this configuration different in value chains supplying different end markets?

Drawing from Horner and Nadvi (2018), we propose to answer by informing three research hypothesis:

- 1. <u>The persistence of a North-South Global Value Chain driven by Northern lead firms</u>. We argue that Horner and Nadvi's paper makes an implicit argument, concerning the persistence of global value chains, with Southern production directed to Northern end markets and governed by Northern TNCs. Then, the authors imply that South-South value chains develop on the side of these North-South value chains, often at a smaller regional and domestic scale (cit? fig 9 pag 230). In this paper we question this statement and consider it as the first hypothesis to be empirically tested.
- The multiplications of VCs "with distinct characteristics oriented to different end markets".
 (Ibidem p. 219) The authors make the hypothesis of the emergence of multiple VCs, with different scale and scope and possibly different lead firms governance.
- 3. <u>The rise of Southern lead firms with distinct characteristics.</u> According to the authors, such lead firms are likely to be Southern suppliers that have upgraded to lead firms, thanks to domestic and regional markets. These lead firms might develop higher vertical integration or

different degrees of informality. Moreover, the rise of China is likely to favor the rise of State Owned (SOE) lead firms, with low preferences for private governance. Such idea is quite diffused in the literature about Rising Power and proposed by several other scholars (Henderson and Nadvi, 2011; Horner, 2016; Kaplinsky and Farooki, 2011; Kaplinsky and Messner, 2008; Yamin et al., 2015).

2.c Methods and data.

The following section are informed by data about the structure of the palm oil GVC - in terms of key actors, geography and industrial sectors involved. Particular attention will be paid to the structure of the market and the concentration of firms in the different nodes of the GVC, measured in terms of palm oil quantities produced, traded and processed by single firms in different nodes. Then, the two following sections draw from information about historical, political, technological and market factors shaping the two previous elements, in terms of investments, innovations and economies of scale that determine the firm capacity to upgrade and adapt to their changing environment, i.e., their dynamic capabilities (Teece and Tyson, 2003; Vagneron et al., 2009).

These data are sourced from a number of secondary sources: international trade databases USAID PSD and UN Comtrade; public information about firms on their websites; business and specialized press; academic literature about palm oil global value chains, South East Asian TNCs and industrial conglomerates, and the state and development of agro-business in China; and reports from sustainability organizations (UNDP, WWF, RSPO, CDP). One key source of information among the latter group is the Round Table for Sustainable Palm Oil Annual Communication of Progress (ACOP) report, a yearly compilation of RSPO members towards the achievement of uptake of 100% RSPO certified. The report contains quantified information about RSPO members palm oil-related activities (e.g. surface planted; palm oil produced; crude palm oil bought and manufactured) thereby constituting a source of information about the overall value chain activities, aside certification.

The information contained in the ACOP reports have limits and cannot be used for making statistics and correlations. Firstly, the reports concern only the members of RSPO. If they include major upstream and North American and European downstream corporations, they leave out most downstream actors of other markets, notably India and China. Secondly, often, industrial conglomerates submit multiple questionnaires, including in each questionnaire multiple subsidiaries, with risks of imprecision and double counting. Thirdly, as WWF 2021 report underlines, declarations about RSPO uptake are hardly verifiable and have to be cross-checked with other information and estimations. Such drawbacks also characterize the other used secondary sources. Reporting on the subject clearly resents from a corporate environment characterized by lack of transparency.

As a consequence, secondary sources are complemented by 38 qualitative interviews with key informants- market experts, supply chain executives and sustainability managers of palm oil trading

groups, palm oil promoting agencies, NGOs and RSPO officers- that have in-depth knowledge of palm oil markets and value chains. The account and analysis of the palm oil value chain sketched in the following sections are derived by crossing these informants' estimations and accounts among one another and with available data. The interviews have been run during a field trip in 2019 and through digital interviews during 2020 and 2021. These are confidential and the respondents have been anonymized. In Annex 1, we group these actors under 4 categories: Value Chains Experts, Value Chains Practitioners, Sustainable Development Practitioners, China international Agricultural Trade Experts. Then we assign a code to each actors through which each interviewee will be quoted in the following sections.

3. Results

In the following two subsections, we will highlight the rising power of South East Asian conglomerates in the palm oil global value chain, first through a historical analysis, then by the presentation of the structure of the market. The last subsection will show the different relevance of these conglomerates in value chains supplying Europe and China and will discuss the political, economic and cultural factors that shape this difference.

3.a. The rising power of South- East Asian refiners and traders.

At its onset, in the 19th century, palm oil cultivation was globalized and developed by European agro—industrial groups, that dominated the upstream and the downstream of the value chain. British and Dutch colonial planters imported palm oil trees from Western Africa, in a similar fashion to rubber, that was brought to SEA from the Amazon (Corley and Tinker, 2008). Palm oil was grown in Indonesia and Malaysia in industrial plantations, aside tobacco and rubber in much larger quantities, and exported unprocessed for manufacturing processes in European countries. Land concessions were mainly allocated by colonial administrators to North American and European planters, with the exception of some agro-business concessions allocated to Chinese ethnic Malaysians firms in British Malaysia. Local populations were largely excluded from agro-business production, as also labour in the plantations was ensured, often in forced conditions, by migrant "coolie" workers (Barral, 2015) (Gomez, 1999).

Palm oil production took off only in the second part of the 20th century, after WWII and the decolonization of the region. Starting from the 60s, palm oil gradually replaced rubber production and then boomed in the '80s and '90s. Indonesia and Malaysia have been since 1965 the first global producers of palm oil, concentrating, in 2020, 85% of global palm oil production, consisting of 61,3 Million Tons of palm oil (USDA PSD). The development of the palm oil sector in the two countries has diverged by large extents. In Malaysia, palm oil was grown since the '60s, in the framework of state led development policies, while in Indonesia, palm oil sector has taken off starting from the '80s, within a much more liberal political context. At the same time, the palm-oil sector was portrayed by both governments in a similar fashion, with the declared role of fighting rural poverty and gaining foreign currency for development investments. Within this framework, both countries' policies have encouraged the marginalization of foreign capital and the affirmation of conglomerates based in the two producing Countries and in Singapore, to whom we refer in this paper as "South East Asian". The support for domestic conglomerates interested both palm oil production and transformation.

In contrast with colonial times, domestic groups have been favored for what concerns land concessions. Firstly, in the aftermath of independence, Malaysia and Indonesia largely nationalized European and North American owned plantation estates. Especially in Malaysia, palm oil was developed by State

Owned corporations, like Sime Derby, and within a large smallholder palm oil scheme, where producers were grouped under the corporate cooperative giant FGV. Then, after the '80s, most Stateowned estates were privatized and palm oil cultivation experienced a very large expansion, in particular in Indonesia. During this period, South East Asian private groups thrived, thanks to positive connections with national governments, that ensured large land concessions for plantation estates, in unexploited territories such as the Island of Borneo (Cramb R. and McCarthy J.F. 2016). Indonesia also promoted large smallholder schemes, often in connection with plantation estates.

Then, first Malaysia and then Indonesia supported domestic refining and transformation of crude palm oil. In Malaysia, this support was part of the broader domestic industrialization effort and included sponsoring high refining capacity as well as domestic oil manufacturing and branding. Moreover, both countries have introduced taxes to the export of Crude Palm Oil (CPO). Then, it has to be underlined that palm oil transforming groups are part of much larger industrial conglomerates that include multiple and diverse sectors – telecommunication, real estates, other agro commodities- and that have been supported by respective governments as national industrial champions.

3.b. The present power of South East Asian conglomerates.

With the support of these policies, South-East Asian conglomerates have consolidated in the upstream of palm oil global value chains, with the marginalization of previously relevant European and North American groups. Then, also for technical and market factors, very few of these groups have highly concentrated in the segment of trading and refining.

It is widely held by experts of the sector that, by the beginning of the 21st century, a handful of firms—of which the most important are Wilmar, Musim Mas, Golden Agri, AAA, Sime Derby and FGV - are in control of the 90% of palm oil's refining and trading activities (Pacheco et al., 2018). As shown in table 1, in the last ACOP available report, the first four groups in the category of "refiners and traders" have declared to process more than 7 million tons of palm oil each.

RSPO Member	Member Country	Total volume of all palm oil consumed:
Wilmar International Limited	Singapore	24 722 394
Golden Agri-Resources Ltd	Singapore	9 482 401
Musim Mas Holdings Pte. Ltd.	Singapore	9 099 906
AAA Oils & Fats Pte. Ltd.	Singapore	7 049 972
FGV HOLDINGS BERHAD	Malaysia	3 670 036
Sime Darby Plantation Berhad	Malaysia	3 412 329
COMMODITIES HOUSE INVESTMENTS LIMITED	Cayman Islands	3 293 195
Louis Dreyfus Company B.V	Netherlands	2 853 573
Cargill Incorporated	United States	2 595 876
IOI Corporation Berhad	Malaysia	2 503 693
PT. Kharisma Pemasaran Bersama Nusantara (PT. KPBN)	Indonesia	2 453 372
Mewah Group	Singapore	2 429 000

Bunge Limited	United States	2 160 862
Permata Hijau Group	Indonesia	2 070 000
VIRGOZ OILS & FATS PTE LTD	Singapore	1 910 000

Table 1: First 15 firms for volumes of palm oil processed in 2019. Source RSPO ACOP 2019, category "Refiners and Traders"

Palm oil refining is highly capital intensive and enjoys large economies of scale. Key traders and refiners have multiple plants, close to producing areas and consumption markets. Processors dispose of a number of bulk refineries, which transform CPO in their most basic derivatives: palm oil olein, mainly used for frying, and palm oil sterin, mainly used for soaps. Such refineries are often located close to palm oil estates, sometimes in remote areas with limited access to infrastructure. Then, processors also dispose of more sophisticated refineries, where CPO and its fractions (olein and sterin) are

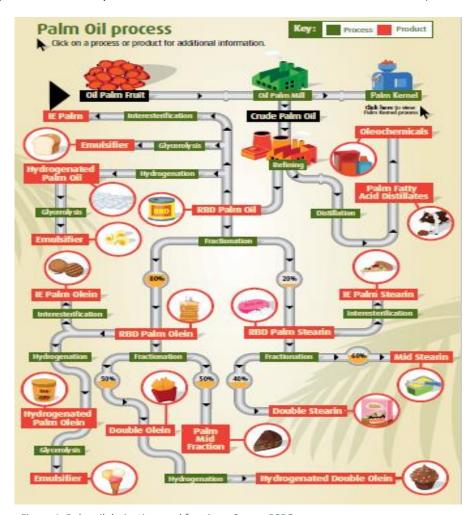


Figure 1: Palm oil derivatives and fractions. Source RSPO

transformed in a large range of palm oil derivatives (see figure 2). These plants are often located close to industrial sites and consuming markets and can process other vegetable oils (such as coconut and soy oils).

Malaysia has the highest world palm oil refining capacity, followed by Indonesia and Singapore (UNDP 2020). In these three countries, major industrial actors have bulk and specialized refineries with very

large capacities, some of around 1 million tons of palm oil per year (www.musimmas.com; www.wilmar-international.com).

At the same time, major SEA traders and refiners, have established an important presence in the main importing countries. In the beginning of the 2000s, industrial groups such as Sime Derby, Wilmar, IOI have built or acquired key palm oil refining plants in Europe, some of which previously belonged to manufacturing groups such as Unilever (The Star, 2004). In 2020, 3 of the 6 vegetable oils and fats refineries located at the port of Rotterdam belonged to, or had major participation of, SEA conglomerates (https://www.portofrotterdam.com/en/setting/industry-port/refining-and-chemicals/vegetable-oil-refining). Moreover, since the '70s, these groups have invested in the edible oil refining and manufacturing sectors of China and India, often in joint ventures with local firms. Here, in particular Wilmar, they have developed or acquired subsidiaries that manufacture key brands of frying vegetable oil.

Then, major palm oil refiners and traders have large industrial operations in all segments of palm oil value chains. They have large plantation estates, they concentrate in refining and they also have subsidiaries in processed food manufacturing sectors, in particular in Asia. This means that they partially vertically integrate the upstream of the VC, and , to a lesser degree, the downstream, up to branding of cooking oil. However, vertical integration is only partial and these groups connect a large pool of producers with a dispersed and large pool of manufacturing firms.

Main processors do not rely only on their own palm oil production. In order to fill their refining capacity, they buy palm oil from other large estates, from medium growers and from small holders. It is estimated that in 2015 the latter constituted the 41% of total production in Indonesia and the 13% in Malaysia (Pacheco et al., 2017).

Then, they sell refined oil and diverse palm oil-derived products to a segmented downstream of the chain. Even if main buyers are large multinational corporations, they are scattered in different countries. Malaysia and Indonesia absorb 25% of global production on domestic markets, consuming respectively 15 and 3 million Tons in 2020 (USDA PSD). Then, as shown in figure 3, international markets are fragmented, with the three biggest importers accounting for less than half of globally traded palm oil. Moreover, downstream manufacturers are scattered in different production sectors — mainly agro-food, oleo-chemical and biodiesel. Even if China and India still import more than 80% of their palm oil for food use , in Europe food usages account only for the 30 %, while energy usage is reported to be over 50% (Oilworld 2019).

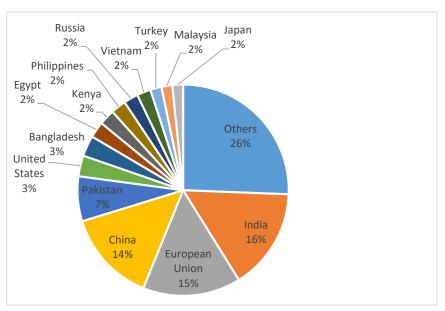


Figure 3: TOP 20 countries importing palm oil in 2020. Source USAD PSD

This double sectoral and geographical dispersion explains that the downstream segment is much less concentrated than the up-middle of the VC. Even if large multinational corporations buy large quantities of palm oil derivative products (like Unilever, Mars, L'Oreal), they acquire a quite low percentage of total traded production. In table 2, there are the volumes of palm oil reported for the first 10 manufacturers that are RSPO members. This table excludes manufacturers that are not members. However, the chart gives an idea of palm oil quantities purchased by "big buyers", which hardly exceeds 1 million tons.

RSPO Member	Member Country	Sector of activity	Volume of palm oil consumed
Neste Oyj (Neste Corporation)	Finland	Biofuels	1 336 756
Adani Wilmar Ltd	India	Food	1 269 071
Unilever	Netherlands Food and oleo-chemicals		876 263
La Lorraine Bakery Group	Belgium	Food	669 856
Fonterra Co-operative Group Ltd	New Zealand	Food ,Ingredients	554 345
Zetar Limited	United Kingdom	Food	490 361
PepsiCo	United States	Food	485 756
NestIV© S.A.	Switzerland	Food	455 071
Kao Corporation	Japan	Oleo-chemical	446 000
Musim Mas Holdings Pte. Ltd.	Singapore	Food and oleo-chemicals	426 037

Table 2: Table 1: First 10 firms for volumes of palm oil consumed in 2019. Source RSPO ACOP 2019, category "Manufacturers"

Figure 4 gives a graphic illustration of the global palm oil value chain with main industrial functions in producing and consuming countries. This illustration pictures configuration of power with a central place for a SEA TNCs, concentrating in the node of refiners and traders, rather than for Northern TNCs of the downstream.

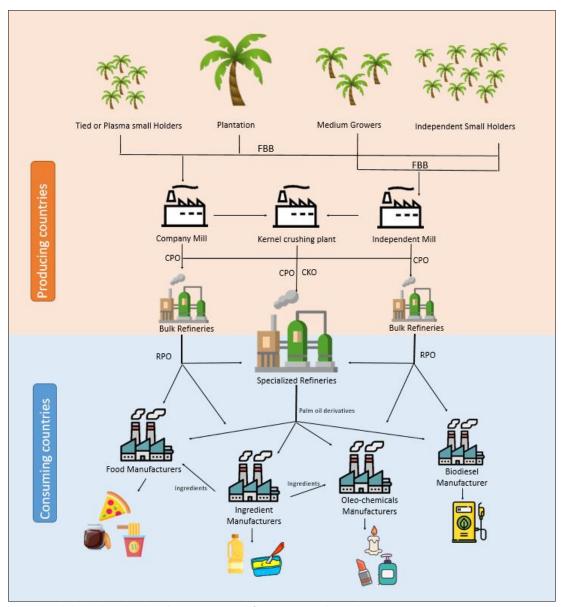


Figure 4: Global Palm oil Value Chain - actors and flows. Source: the author

Firstly, the most concentrated node of the value chain is the up-middle one and not the downstream, that is instead sectorially varied and geographically dispersed. Secondly, SEA TNCs concentrate in this node, with low relevance of European and North American TNCs. Thirdly, the industry of refinery has a high level of innovation and therefore profitability, as refiners continuously propose new molecules and palm oil derivatives to the downstream. Fourth, protective policies and high capital requirements for entering in the node hinder the capacity of the upstream or the downstream to develop refining capacities, thereby making upper-middle firms an obligatory passage in the chain. Fifthly, partial integration of the upstream and the downstream allows the middle of the chain to have relevant supplies and outlets, thereby lowering the bargaining power of the actors of other nodes.

3.c The governance of the Value Chain supplying Chinese end market.

The power configuration mapped in the previous section is more descriptive of the VC supplying Chinese market than that supplying European one. According to specialists and practitioners of palm oil value chains (ML, SB, F), Northern "big buyers" are still relevant in palm oil value chains sourcing Europe. A key reason for this is that Europe has significant refining capacities and most palm oil imported in Europe is refined onshore. On the one side, CPO is targeted by lower customs tariffs than Refined Palm Oil (RPO) (table 3). On the other side, RPO deteriorates in quality the longer it travels, so it needs re-refining after being shipped to Europe. SEA refiners have key refining capacities in Europe, but so do Northern TNCs, such as Bunge and Cargill. The refiners and traders in Europe face stronger competition than in producing countries. Then, another reason, is that palm oil in Europe is mainly used as an ingredient of processed food, oleo-chemicals and biodiesel, after having been broken down into sophisticated molecules. The buyers of these molecules are major industries in the respective sectors, such as Mars, Unilever, L'Oreal and Neste. As a consequence, the downstream is quite concentrated and consolidated. As competition is higher in the refiners and traders node and consolidation is stronger in the downstream nodes, the distribution of power is more even than in the overall global value chain.

On the contrary, the value chain sourcing palm oil to China sees higher concentration in the up-middle node. One key reason concerns the fact that China has hardly developed palm oil refining capacities and imports mainly already refined palm olein (see fig 5). This trend has a political and a technical/market side.

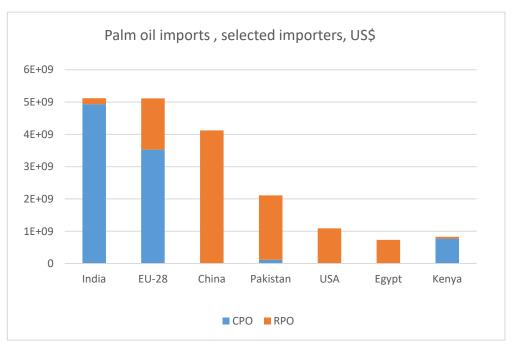


Figure 5: Imports of CPO and RPO in 2020. Source: Comtrade

For what concerns the political side, China has not supported the development of domestic palm oil refining capacities. Chinese import tariffs do not favour the import of CPO, as in other major importing countries, like the EU and India, while CPO is taxed at the export from Indonesia and Malaysia. As a consequence, RPO is cheaper than CPO and more convenient to buy for Chinese firms.

Tariffs	China	EU	India	Indonesia(exp)	Mal (exp)
СРО	9%	1,9%	12,5%	7.5% to 22.5%	8%
RPO	8,5%	9%	20%	0%	0%

Table 2: Sources (Pacheco 2017); the export tax in Indo is a duel regime and varies according to CPO prices. Malaysia taxes only CPO and data is taken from https://www.theedgemarkets.com/article/malaysia-maintains-cpo-export-tax-8-april-2021

According to specialists, this lack of support to domestic refiners, different to other main importing countries, can be explained by palm oil's relation with soybeans. China is the biggest world importer of the latter commodity, with quantities that are estimated to reach 100 million metric tons in 2021 (USDA PSD). After crushing, soymeal is used as feed for the domestic livestock industry, while soy oil is the most available oil on Chinese market. Because of its role in livestock industry, imports of soybeans are considered as highly strategical by Chinese authorities (Gooch and Gale, 2018). Since its liberalization, China has imposed preferential tariffs for uncrushed beans and has invested in domestic crushing capacity and the manufacturing and merchandizing of soybeans coproducts. However, crushing industries have been the object of the "soy wars" in 2004, when major Chinese soy crushing capacities were acquired by large North Atlantic corporations (Schneider, 2017). Since then, Chinese corporations, in particular SOEs like COFCO and SinoGrains, have highly invested in soy seed crushing capacity to regain domestic sovereignty on the sector. Also, in particular COFCO, has conducted internationalization strategies acquiring main soybeans trading and logistic facilities through the acquisition of Noble and Nideira (Gooch and Gale, 2018).

Considering the large availability of soy oil and, at the same time, the geopolitical and industrial tension interesting soybeans, palm oil is considered as a less strategic complement of soy oil (say CTE 6, CTE7, CTE8 and VCP1). Palm oil co-products do not have relevant industrial usages or role in food security. Moreover, the industry is not subject of geopolitical tensions. On the contrary, palm oil trade is part of the good relations between China and Malaysia and Indonesia and sometimes a bargain chip for other agreements (cit.).

Then, political factors intertwine with technological and market reasons. Refined palm oil shipped to China can be used without further processing because, according to specialists (VCE3 and VCE4), the distance between main Northern shipping ports in Indonesia and Malaysia and Southern Ports in China is short enough for RPO to retain most of its quality in the journey. Moreover, in 2013, Chinese authorities have elaborated a stringent quality standard for ensuring the freshness of RPO, that is

specific for Chinese market and is designed for ensuring that palm oil can be used directly after landing (https://www.nationthailand.com/international/30197518). Much of this palm olein (79%) is used as an ingredient in the food sector (CDP 2020), usually blended with other oils and with no or little further processing (WWF 2020). Once landed in China, large quantities are purchased by big corporations, such as Yihai Kerry and Yzhen Fanshun or State Owned Enterprises COFCO and SinoGrains (Proforest 2020). However, also a large pool of small industrial manufacturers can purchase RPO directly after landing. Moreover, once onshore, large quantities of palm oil are exchanged among small traders for

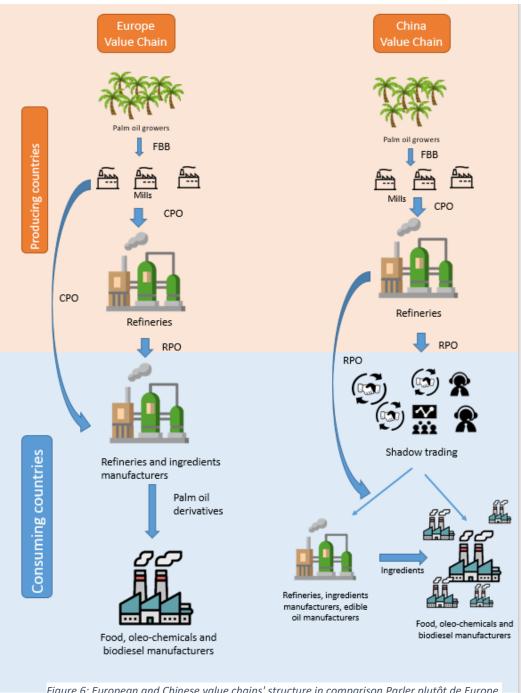


Figure 6: European and Chinese value chains' structure in comparison Parler plutôt de Europe supplying value chain, China supplying value chain

financial speculation, a practice that is referred to in reports as "shadow trading". According to WWF (2020), CNFA reports that the ratio of onshore trading of palm oil is "broadly higher than 60%".

As illustrated in fig. 6, these political, technological and market factors result in a higher corporate concentration in the trading and refining node in palm oil-producing countries. Only few refiners and traders are capable of meeting specifications of Chinese demand, i.e. very large quantities of palm olein and the respect of stringent quality specifications in terms of freshness. This means that most palm olein sold to China comes from few refineries, with very large capacities (say DP8 and VCE4). On the other side, once onshore, palm oil is traded by a large number of small operators and bought by major corporations, but also by a number of small firms.

Then, a final element of interest concerns the fact that the relevance of SEA palm oil traders and refiners in China is also related to their ambiguous "Chinesness". Most of these companies – Wilmar, Golden Agri, Musim Mas, IOI...- are part of larger conglomerates funded and run by entrepreneurs of the Chinese diaspora (Kuok, Lee, Wdjaja, ...), that are referred to as "Chinese Overseas", in literature about Chinese capitalism and SEA TNCs.

According to this literature, Chinese Overseas conglomerates have risen in the second half of the 20th century as key actors of Asian economic development and of its transnational value chains. Often funded by Chinese migrants or refugees with small or no initial capital, by the '90s "companies owned by ethnic Chinese families in Singapore, Malaysia, Thailand, Indonesia, and the Philippines ma(de) up about 70 per cent of the private business sector in those countries" (Weidenbaum and Hughes, 1996) (ibidem p. 8). Such economic success has at times spurred hostility and even violence towards ethnic Chinese minorities in SEA countries and also policies designed to decrease their weight in domestic economy, like the NEP in Malaysia (Gomez, 1999). For this reason, many of these entrepreneurs adopted local names, in particular in Indonesia. Also, several of these groups established their headquarters in politically neutral places, like Singapore or Hong Kong. Finally, and most importantly, discriminatory policies in Malaysia and hostility in other SEA countries coincided with opening policies of attraction of capital in Deng Xiaoping's China (Gomez, 1999; Santasombat, 2017; Weidenbaum and Hughes, 1996). According to different authors, the coincidence of these opposite political lines led these conglomerates to largely invest in the opening Chinese economy, acquiring important business positions and becoming a bridge between South East Asian and Chinese economies.

According to Gomez (1999) (and al cit.) the success of this conglomerates is largely due to their flexibility and capacity to blend and adapt different models and institutional contexts. These capacities are revealed in these firms' multiple inter and intra-ethic alliances, with European, North American and Japanese industrial groups and Chinese firms and businesses, as well as their adaptation to

different institutional contexts and economic policies— e.g. in Malaysia, Singapore and China. Then, according to Weidenbaum and Hughes (96), these groups have also leveraged on their cultural and social resources at the early times of Chinese liberalization, acting as bridges and translators of Western capitalism in China.

An emblematic case of these COS conglomerates is the Kuok Group, whose subsidiaries Wilmar and Yihai Kerry concentrate respectively 45% of the trading of globally traded palm oil and 40% of edible oil's market in China.

Robert Kuok was a pioneer commodity trader and investor in China, through the Kuok Group and Wilmar. These firms invested early in the edible oils industrial complex in China, through joint ventures with the State Owned firm COFCO. They built China's first large-scale modern refinery in Shenzhen in 1988 (https://www.yihaikerry.net/en/GroupIntroduce/history.aspx) and lunched the first packaged oil line in 1991 (Bloomberg 2020). These companies' presence in the country consolidated when, shortly after liberalization of palm oil in China, in 2006, Wilmar merged with Kuok Group, with a participation of Archer Daniels Midland (Financial Times 14/12/2006). The Financial Times reported Wilmar's chairman saying that the "merger is all about China, which is emerging as the world's biggest consumer of edible oils". Kuok Group's Chinese subsidiary Yihai Kerry is estimated in 2020 to have the highest soybeans crushing capacity in the country, together with COFCO, and the highest market share of cooking oil (Alfred Cang, 2020). In 2020, the company launched "the biggest ever initial public offering on the Shenzhen Stock Exchange", becoming the facto a Chinese firm (Bloomberg 2020).

The analysis of Kuok's firms' presence in China, further elaborated in Annex 1, highlights several points. Firstly, China has been more than just an important end market for Kuok Groups' palm oil activities a basis of industrialization that has allowed the group to vertically integrate downstream, but also to acquire financial capital, technological knowledge and political alliances. Then, there is an ambiguity about the Chinesness of palm oil related Kuok's firms. Yihai Kerry is now officially a Chinese firm and ventures with COFCO in Chinese "going out" strategy to other continents. However, Wilmar is headquartered in Singapore and has relevant activities and subsidiaries in numerous other countries. These trends show that the rise of China has not led only to the rise of Chinese SOEs in commodity chains but also to the rise of these SEA TNCs.

4. Discussion

The findings outlined in the previous section allow us to discuss the validity of our three hypotheses.

The persistence of a North-South Global Value Chain driven by Northern lead firms.

The findings illustrated in section 3.b have demonstrated the absence of such GVC power configuration, in the case of palm oil. South East Asian TNCs concentrating in refining and trading node are global actors and the European market is just one among the geographical different profitable markets. These findings do not exclude that downstream Northern firms can lead GVCs in the context of other products. However, our results suggest that the separation between North-South trade and South-South trade is more porous than what conceptualized by Horner and Nadvi and most rising South literature.

Multiplication of Value Chains.

Our findings confirm the multiplication of Value Chains with different geographical end markets, with different configuration of power and key actors. The analysis of standards goes beyond the scope of this paper. However, in section 3.b we have discussed of specific Chinese palm oil quality standards that are different from the European ones. This finding suggests that different end markets might establish different requirements.

However, we want to underline how these different VCs are not independent from one another, as each structure and power configuration is interdependent. For example, the market power of refiners and traders in China confer them higher bargaining power with the downstream in Europe. As a consequence, we still think it makes sense to talk about a global palm oil value chain, which we conceptualize as the one that includes all end markets, with a configuration of power influenced by them according to their weight. We suppose that such global configuration of power would be relevant in the making of global norms, for example those concerning sustainability, that can only be effective if largely adopted.

Rise of Southern lead or platform firms.

Our findings confirm the rise of TNCs that are non-Northern, but South East Asian, as key actors of the value chain. Non-Northern markets have been important for the affirmation of these firms, in particular because, there, SEA TNCs have partially integrated downstream and bypassed Northern lead firms. These findings allow the discussion of three points.

Firstly, even if these firms concentrate in the node with least competition, we cannot qualify them as "lead firms" of the whole GVC. As Sturgeon (2008) points out, the concept of lead firm is used in the GVC to qualify buyers that control their suppliers. However, suppliers that are not captive by their buyers, do not control them in turn. In our case, the refiners and traders are positioned in the middle of the VC. Therefore, they probably have power upon their upstream but limitedly upon their downstream. Sturgeon (2008) refers to this case as "platform producers", i.e. oligopolistic producers that have significant power but do not "lead" the overall chain, because they cannot control their downstream. Sturgeon (2008), then, suggests that not all GVCs should be considered as having a "lead firm". Our findings confirm his suggestion.

Secondly, these firms can hardly be qualified as "Southern" and as representative of the whole Global South. But so, how can they be geographically qualified and distinguished from Northern TNCs? Why

does it make sense to distinguish them? GPN framework proposes to indicate the geographical "embeddedness" of lead firms, in order to explicitate their "institutional baggage" (Henderson et al., 2002). According to (Yeung, 2014), the embeddedness of Asian TNCs referres to their state of origin and it explicitates their link with the "developmental state" that supported their establishment. However, our results have shown that palm oil refining and trading firms' geographical embeddedness is larger than their state of origin and goes beyond "developmental" state support. In accordance with (Yeung and Coe, n.d.), our results indicate that these firms have adapted to different geographical constraints and leverages. So doing, they have developed an embeddedness in the Asian region, because of its markets, industrial basis and political support. Within this region, China plays an important role, even if these firms are not originary from or headquartered in China. As a consequence, we propose to conceptualize these firms as Asian firms.

Finally, our analysis does not confirm the association between the rise of China and the rise of State Owned Enterprises, in transnational commodity chains. This does not exclude that this association exists in other cases. However, our findings point out that the rise of China is also associated with the rise of the above conceptualized Asian TNCs. These firms have established multiple political alliances, with producing Countries and China. However, they are of private nature and they have thrived through a blend of Western and Asian capital and business models. These firms' peculiarity, in comparison with their European and North American counterparts, is not related to their State ownership, but rather to their integration in large multi-sectoral conglomerates, with affinities with their Japanese counterparts (Poupon, 2016). One implication of this peculiarity might be their higher capacity to develop industrial activities other than their core one, thereby integrating parts of the upstream and the downstream of the chain, as shown in the case of palm oil.

5. Conclusion

This paper has aimed to contribute to the research agenda that questions how the rise of polycentric trade change GVC structures and framework of analysis. It has done so, by testing three research hypotheses on the case study of the palm oil GVC.

Through an analysis of the distribution of market power, corporate concentration and competitive pressure among the nodes of the chain, we have sketched the configuration of power of the GVC, with a focus on geographical embeddedness, key actors and the factors that have shaped this configuration. Our analysis shows that palm oil GVC is not driven by "Northern lead firms", neither at a global nor at a regional level. The key corporate actors of this GVC are Asian TNCs, concentrating in the up-middle stream and partially vertically integrating the upstream and the downstream. We show that the shift of end markets to non-Northern countries has played a significant role in the rise of these firms. However, our case study also shows that this market shift is only one dimension of a broader political economic trend that is the rise of East Asia and that has larger historical, political and corporate aspects.

Asian TNCs emerge as key actors in this rise and as bridges between South-East Asian economies and China.

A first conclusion we can draw from this analysis is that, in a context of polycentric trade, the distinction between North and South has lost much of its heuristic value, for elaborating approaches in support of sustainable development. Such division was based on the analysis of a globalization driven by "Northern" actors, that were in the "core" of global economy, as opposed to a "peripheral" Global South. Such configuration of power was heritage or replica of colonial times, but also the mirror of a post-cold war world order, dominated by United States and its allies. As the latter constituted the developed "North", all the other countries were grouped under the developing "Global South". However, our study joins a rising literature arguing that the rise of China, understood within the rise of Asia, reflects a larger shift in world economic history (cit. cit), or also a "retour à la normale", considering the long centuries before colonization, when China was a center of global economy (Pomeraz, Gunter Frank) and trade among Asian nations was significant and dynamic (Carrefour Javainais).

In the case of palm oil, Chinese and South East Asian actors are in the "core" of GVCs, trends related to these actors have global scope and implications and they are not representative of a wider Global South. These findings suggest that sustainable development practitioners should overcome the North/South division of the world and the related Eurocentric approach to the elaboration of environmental governance. They should rather investigate leverages, policies strategies and perspectives relevant for non-Northern "cores" of the global economy, in particular in China.

Then, this study questions another assumption about the GVC framework, i.e. the corporate centric nature of globalization and global value chains. Our analysis indicates that that there might not be a "lead firm" in palm oil GVC, even if there are corporate actors that count more than others and that are influenced by geographically embedded factors and set of actors. Such findings have implications on the study of governance that in GVC had come to largely focus on the way "lead firms" established rules and coordination mechanisms that prevailed in the chain and that allowed or limit membership, such as private standards. Our study suggests that, in the absence of a lead firm, governance could be more a mediated process among different actors, including Asian state and corporate actors.

Further research could deepen such question, through the study of a specific coordination mechanism, for example private and public palm oil sustainability standards. In this way, it would contribute to addressing more deeply the hypotheses formulated in Horner and Nadvi's paper, about standards and about upgrading.

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Annex 1: Kuok Group as an emblematic example of Chinese Overseas South East Asian Conglomerate.

South East Asian transnational corporations that concentrate in refining and trading of palm oil are part of larger industrial conglomerates, that often have a significant role in Chinese economy and that constitute a bridge between China and the South East Asian Country of their origin. A significant example of such conglomerates is the Kuok Group. Its founder and president, Robert Kuok, is himself an emblematic example of Chinese overseas entrepreneur. Born in Malaysia in the '20s, Robert Kuok started his fortune with sugar trading between the '50s and '70s, in South-East Asia and China mainland, since the '60s. Firstly based in Malaysia, In 1975, Kuok moved his headquarters to Hong Kong, from where his group invested in mainland China, in the region and beyond, becoming today one of the biggest industrial conglomerates in the world (https://www.kuokgroup.com/).

During the years, Robert Kuok became a public figure, with important political linkages. Thanks to his pioneer status, gained from his first investments in mainland in the 70s (Santasombat 2017), the entrepreneur became a public figure close with Beijing government, holding political positions in HK and acquiring the main English-speaking media of the city, the SCMP (Gomez 1999). At the same time, Kuok was an advocate for Chinese Overseas transnationalism, close to Singaporean president Lee Kwan Yew, claiming COS role as drivers of Asian development and of mainland China (Kuok and Tanzer, 2018). At the same time, he has kept political influence in Malaysia. When, in 2018, a financial scandal ended 50 years of UMNO party hegemony in the Country, Robert Kuok was part of the 5 people advisory council, called to advise the newly elected government (CK Tan, 2018).

Among the different sectors of the conglomerate, the Kuok Group developed major firms in palm oil and vegetable oil growing, trading, processing and packaging. This business started in Malaysia in the aftermath of the independence through Peril's Plantation , but especially through the packaged cooking oil brand Arawana, which became rapidly popular in all Asia. Robert Kuok's started exporting palm oil to China in the early times of the opening, affirming his patriotic role in bringing to China affordable oil for the "poor man" (Kuok and Tanzer, 2018). Aside these export activities, the entrepreneur invested early in the edible oils industrial complex in China, through a joint venture with the State Owned firm COFCO, building China's first large-scale modern refinery, drum and consumers pack plant in Shenzhen in 1988 (https://www.yihaikerry.net/en/GroupIntroduce/history.aspx) Then, Arawana oil was launched in 1991 in China, being then the mainland's first packed oil production line and today the country's top consumer pack oil brand (Bloomberg 2020). At the same time, Wilmar was funded in 1991 in Singapore and invested in China in 1993, in Joint Venture with ADM (Archer Daniels

Midland) and Top Glory (COFCO), to build major plants of crushing and oil refineries and manufacturing. (https://www.yihaikerry.net/en/GroupIntroduce/history.aspx)

Shortly after liberalization of palm oil in China, in 2006, Wilmar merged with Kuok Group, with ADM participating for 16,2% in the group (Financial Times 14/12/2006). According to the Financial Times, the merger created the largest merchandiser and refiner of palm oil, the largest integrated agri-group in Asia and one of the largest listed oil palm plantation companies. The Financial Times reported Wilmar's chairman saying that the "merger is all about China, which is emerging as the world's biggest consumer of edible oils". Also, in 2007, Kuok Group's and Wilmar's investments in vegetable oils in China were grouped under the company Yihai Kerry. The firm is estimated to have the highest soybeans crushing capacity in the country, together with COFCO, and the highest market share of cooking oil (Alfred Cang, 2020). Yihai Kerry and Wilmar are separated companies, but value chains specialist (VCP3 VCP4 and DP8) argue that there is a fair extent of vertical integration between the two companies. Even if including the participation of COFCO, Yihai Kerry is considered as a foreigner firm. However, in 2020, the company launched "the biggest ever initial public offering on the Shenzhen Stock Exchange", becoming the facto a Chinese firm (Bloomberg 2020).