

GLOBAL DEVELOPMENT AND ENVIRONMENT INSTITUTE

WORKING PAPER NO. 18-03

**Do Trade and Investment (Agreements) Foster
Development or Inequality?**

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October 2018



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Do Trade and Investment (Agreements) Foster Development or Inequality?

New evidence on the impact of Global Value Chains and top 2000 Trans-National Corporations

Pierre Kohler¹ and Francis Cripps²

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Abstract

This paper proposes to revisit the debate on trade and investment agreements (TIAs), development and inequality, looking at the role of Global Value Chains (GVCs) and trans-national corporations (TNCs). It first presents stylized facts about trade and investment (agreements), declining global economic growth and rising inequality under the latest round of globalization. It then provides a long-run perspective on the mixed blessings of external opening, summarizing some key contributions of the mainstream literature, which are converging with long-standing research findings of more heterodox economists, and the eroding consensus today. Based on this stock-taking, it takes a fresh critical look at the TIAs-GVCs-TNCs nexus and their impact. Using data on value-added in trade and new firm-level data from the consolidated financial statements of the top 2000 TNCs going back to 1995, it examines whether the fragmentation of production along GVCs led to positive structural change or rather stimulated unsustainable trends in extractive and FIRE sectors. It then turns to the role of TNC-driven GVCs as a vehicle for economic concentration. Finally, it presents evidence linking TIAs and their correlates to rising inequality. Key findings include the fact that the ratio of top 2000 TNCs profits over revenues increased by 58 percent between 1995 and 2015. Moreover, the rise in top 2000 TNCs profits accounts for 69 percent of the 2.5 percentage points decline in the global labour income share between 1995 and 2015, with the correlation coefficient between annual changes in both variables as high as 0.82. The paper concludes by calling for a less ideological policy debate on TIAs, which acknowledges the mixed blessings of external financial *and* trade opening, especially their negative distributional impact and destabilizing macro-financial feedback effects, which both call for policy intervention. As an alternative to short-sighted protectionism, it further discusses possible options for anticipating undesirable effects arising from TIAs (e.g. rising carbon emissions, economic instability, inequality, etc.) and addressing those in TIAs themselves.

1. INTRODUCTION

Inequality is rising and ranking high on the political agenda in many developed and developing countries. The causes of its rise are intertwined, but international trade and capital flows induced by the latest round of neoliberal globalization (aka. hyper-globalization) increasingly appear to be part of the picture. As a “new world order” emerged to replace the crumbling bipolar one at the turn of the 1990s, developed countries hosting the bulk of transnational corporations (TNCs) started negotiating a growing number of free trade agreements (FTAs) and bilateral investment treaties (BITs) promoting their interests. Even before that, the ambitious agenda of the Uruguay Round, which was kick-started in 1986 and culminated in 1995 with the creation of the World Trade Organization (WTO) and corollary agreements,³ signaled the drive of developed countries to deepen goods trade liberalization and submit new markets and sectors of society to private and/or foreign competition. Other countries worried to be left behind on the road to global value chains (GVCs), which were prophesized to level inequality through shared development (i.e. economic growth *and* structural change),⁴ felt such agreements were in their interest too, warranting fresh concessions to mobile capital. In addition to FTAs and BITs facilitating their cross-border activities, TNCs further lobbied governments to enter other agreements opening up new countries and sectors to business. Such pressures eventually led to more complex agreements mixing tariff cuts, non-trade measures (NTMs) harmonization, intellectual property rights (IPRs), investment provisions, etc., which are often called “new generation” or “mega” trade agreements, such as the Transatlantic Trade and Investment Partnership (TTIP), Trans-Pacific Partnership (TPP) or Comprehensive Economic and Trade Agreement (CETA) between the European Union (EU) and Canada. Obviously, the word “trade” is taking on a much broader meaning in this context, morphing so-called free trade into free capital.⁵

³ The WTO oversees about 60 different agreements, many of which entered into force around 1995, such as the General Agreement on Trade in Services (GATS), the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), the Agreement on Government Procurement (GPA) to cite just a few of them. All these agreements are based on founding principles of the General Tariffs and Trade Agreement (GATT), which was signed by 23 nations in 1947, the most important among them being non-discrimination and reciprocity. By promoting “most favoured nation” (MFN) rule and national treatment, these agreements enhanced cross-border competition and trade, though the level playing field is being seriously eroded by the proliferation of bilateral or plurilateral TIAs (see section 2.A).

⁴ Development is a complex concept. In this paper, it is used in a very narrow way to designate the result of two joint economic processes: economic growth and positive structural change (the reallocation of resources from less productive sectors to more productive ones).

⁵ In this paper, trade in quotation marks (“trade”) is used to emphasize that the word trade is used in this broader sense.

Cumulative changes to the various regimes (e.g. trade in goods, trade in services, investment, IPRs, taxation, etc.) framing international economic relations strengthened two global processes. On the one hand, increased economic interconnectedness encouraged the *fragmentation of production* across countries participating in GVCs. This led to more complex organization and growing cross-border flows of information and knowhow, intermediate inputs and trade, “greenfield” investment, services and employees. On the other hand, hyperglobalization favoured the *concentration* of decision-making and economic gains in the hands of economic elites in TNC-hosting countries. It strengthened the position of mobile capital vis-à-vis governments and labour, creating opportunities for extracting tax concessions, mispricing intra-firm trade, especially services derived from intangible assets with no determined geographical location (such as financial assets or IPRs), exploiting cheaper labour and weaker environmental standards abroad, acquiring existing foreign assets or patents, and maximizing profits and rents on an unprecedented scale.

These global processes only created opportunities for continued employment creation, structural change and growth in very limited parts of the Global South,⁶ with the exception of a handful of East Asian countries pursuing policies at odds with external “laissez faire” (e.g. South Korea, China, etc.). Yet, because such opportunities are inaccessible to or inexistent for most peripheral countries, economic structures and international inequality remained largely unchanged after 1990 in a context of tendentially slower global economic growth. spurts of growth occurred in some countries, but mostly on the back of unsustainable booms in sectors generating negative externalities for the environment, economic stability or equity, such as extractive industries or finance, insurance and real estate (FIRE sectors). In the meantime, as capital progressively acquired a larger share of world income at the expense of labour, within-country wage, income and wealth inequality rose in most countries in a potentially self-reinforcing manner. As observed by Keynes (1936) and Minsky (1963, 1986) and recently re-emphasized by progressive dissenters of the economic mainstream⁷ (e.g. Stiglitz, 2012), rising inequality together with the higher propensity to save of the rich create a bias towards underconsumption or, alternatively, debt-led consumption enabled by financial deregulation. This destabilizing process can be further compounded in presence of global imbalances exacerbated by unfettered external opening (see Cripps et al., 2005, 2011; Stockhammer, 2011; UNCTAD, 2017, Chapter 5).

In the wake of the global financial crisis (GFC), promoters of unfettered external opening were left with no credible argument to claim domestic and external financial deregulation would deliver shared prosperity. This ideological defeat was sanctioned at the highest policy level when the IMF changed its official view to allow capital controls under certain conditions (IMF, 2012). In parallel, theoretical developments by mainstream trade

⁶ Global South designates all non-developed countries, ie. developing and transition economies.

⁷ For a definition of the mainstream, dissenters and heterodoxy, see Lavoie (2015), chapter 1.

economists over the last twenty years, notably on tasks offshoring (Fenstra and Hanson, 1995) and heterogeneous firms (Melitz, 2003), allowed them to imagine a world where trade can promote the rise of TNCs in control of GVCs and thus foster inequality both in developed and in developing countries. Empirical evidence further piled up showing that the greater control of TNCs over production is directly linked to inequality (Autor et al., 2017) and that trade can harm employment in the long run (Autor et al., 2013, 2016). While the former evidence stresses the necessity to consider the distributional impact and the macro-financial feedback of external trade opening when predicting its effects, the latter challenges the full employment assumption that underpins mainstream academic trade literature and faith that more trade *always* improves economic efficiency.

However, unwilling to accommodate these theoretical and empirical findings of the economic mainstream, which partly converge with long-standing research findings by economists critical of the mainstream (e.g. Shaikh, 2003; Taylor and von Amin, 2006), promoters of unfettered external opening in the policy debate keep clinging to dangerously unrealistic neoclassical assumptions and models and can get away with it. Indeed, in recent debates about the expected effects of mega “trade” agreements, such as TTIP (Capaldo, 2015), TPP (Capaldo and Izurieta, 2018) or CETA (Kohler and Storm, 2017), all the impact assessment reports commissioned and endorsed by policy-makers were exclusively based on unrealistic neoclassical models and assumptions (e.g. constant income distribution, full employment), providing them a cover to make repeated claims about the *unconditional* benefits of external liberalization, which are at odds with findings about the mixed blessings of trade.

Drawing on these insights, this paper proposes to re-examine the debate on trade and investment (agreements), development and inequality, looking at the role of GVCs and TNCs through the prism of fragmentation, structural change and concentration. The next section presents stylized facts about trade and investment (agreements), declining global economic growth and rising inequality under the latest round of globalization. Section 3 provides a long-run perspective on the mixed blessings of external opening, summarizing some key contributions of the mainstream literature to the trade-investment-development-inequality debate and the eroding consensus today. Section 4 then takes a critical look at the TIAs-GVCs-TNCs nexus and their impact. Based on value-added data and new firm-level data from the consolidated financial statements of the top 2000 TNCs going back to 1995, it first examines whether GVC-led fragmentation has been a driver of positive structural change or rather stimulated unsustainable trends in extractive and FIRE sectors, before turning to the role of TNC-driven GVCs as a vehicle for economic concentration. Finally, it presents evidence linking trade and investment agreements (TIAs) and their correlates (i.e. GVC-led fragmentation and TNC-driven concentration) to rising inequality. Section 5 concludes by calling for a less ideological policy debate on TIAs, which acknowledges the mixed blessings of external financial *and* “trade” opening, especially

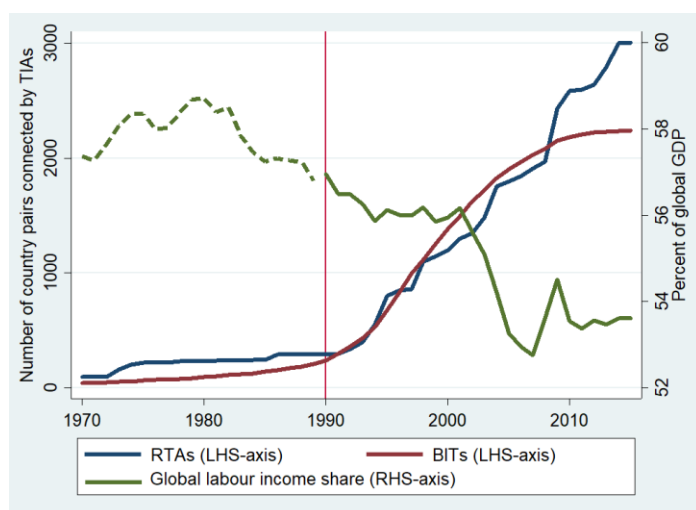
their negative distributional impact and destabilizing macro-financial feedback effects, which both call for policy intervention. As an alternative to short-sighted protectionism, it further discusses possible options for anticipating undesirable effects arising from TIAs (e.g. rising carbon emissions, economic instability, inequality, etc.) and addressing those in TIAs themselves.

2. STYLIZED FACTS IN CONTEXT

A. Trade and investment agreements

For almost 50 years after the end of the Second World War, the number of FTAs and BITs remained limited. Each category of agreements served different purposes and developed in its own way, forming clearly distinct regimes. This changed after 1990, as FTAs and BITs became fashionable and increased tenfold the number of country pairs connected by trade and investment agreements. Between 1990 and 2015, the number of country pairs bound by a FTA in force increased from 289 to 3005. For BITs, it increased from 238 to 2238 (Chart 1). The emergence of “new generation” or “mega” FTAs reaching far beyond trade and including investment provisions, private dispute settlement mechanisms, etc., further contributed blurring the boundary between both categories of agreements (Büthe and Milner, 2014; Milner, 2014), giving credit to the approach equating free trade with free capital.

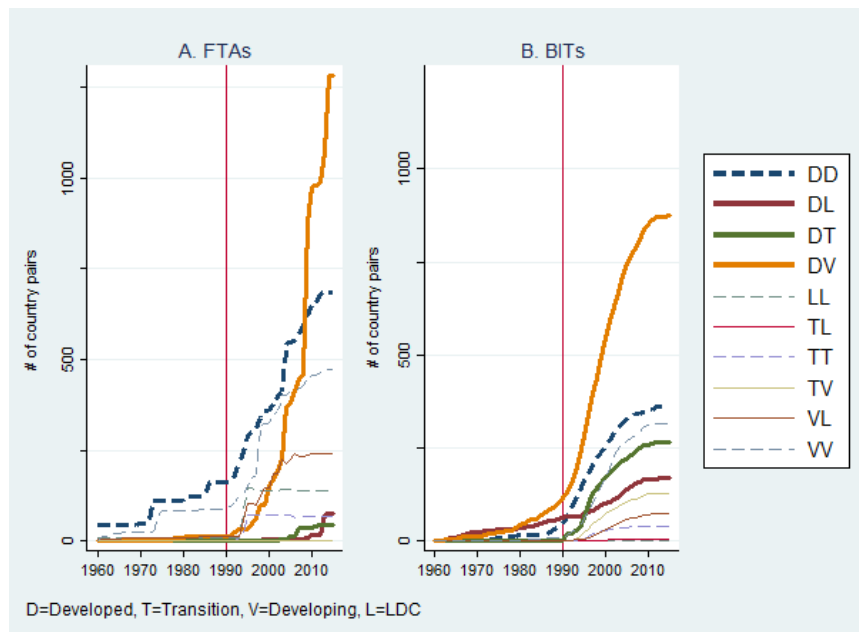
Chart 1: TIAs and inequality (1970-2015)



Source: Based on FTA data from De Souza (2015) and BIT data from UNCTAD (2017); WD (2017) data was used for labour income and GDP. **Note:** Data on the share of labour income prior to 1990 are less reliable. RHS/LHS-axis stand for right/left-hand side axis.

Under the bipolar world order, FTAs were often signed by country groups, mostly among “equals” (e.g. among developed countries or strategic allies), and with a view of promoting regional integration, which is why FTAs were commonly called regional trade agreements (RTAs). After 1990, FTAs were increasingly supported by the drive of TNCs for global expansion (e.g. Rodrik, 2018), which aim at maximizing all-out profit opportunities, irrespective of the regional or strategic coherence of newly signed agreements.⁸ Consequently, the number of connections between “unequals” (e.g. between developed and developing) now by far tops those among “equals”. For instance, while the number of developed-developed country pairs bound by a FTA (DD-line in Chart 2.A) increased from 164 in 1990 to 687 in 2015, the number of developed-developing country pairs (DV line) rose from 14 to 1281.

Chart 2: TIAs – bilateral patterns and diffusion (1960-2015)



Source: Based on FTA data from De Souza (2015) and BIT data from UNCTAD (2017).

As a counterweight to this decentralized process, the creation of the World Trade Organization (WTO) in 1995 promoted a rather consistent set of rules with a single dispute settlement mechanism controlled by states. Yet, as multilateral negotiations have been stalling for almost two decades, the international trade regime is facing fundamental challenges. Part of the problem is that TNCs found it more advantageous to promote their

⁸ Examples of the divergence of interests between governments and TNC include the criminal activities or infractions to sanction regimes that the latter have committed, because of business profitability (eg. industrial money laundering, business with sanctioned countries, such as Iran, etc.). Clearly, when a TNC lobbies for an FTA there’s no reason to assume that the latter reflects the public interest, unless of course one assumes that trade is always good for the economy and the country more generally.

own interests in a context of bilateral or plurilateral country negotiations reaching far beyond goods trade, and even beyond the broadened WTO definition of trade (Chart 3) and hence with more room for exploiting power asymmetries between richer countries hosting TNCs and developing countries worried to be left behind on the road to GVCs.

Indeed, the number and depth of FTAs increased in tandem over time, covering policy areas previously excluded from trade negotiations. Historically, trade agreements focused on issues pertaining mostly to tariffs and quotas. After 1995, so-called “WTO-plus” provisions included in most FTAs (Chart 3.A) also covered intellectual property rights, customs regulations, export taxes, antidumping measures, countervailing duty measures, technical barriers to trade, and sanitary and phytosanitary standards. Other FTAs further committed signatories to enforce provisions liberalizing financial services or public procurement, with much more far-reaching implications for public policy, employment and income distribution. As to “WTO-extra” provisions (Chart 3.B), which are not discussed under the WTO umbrella, they include a wide-ranging and expanding set of policy areas, which often further reduce developing countries’ policy space.

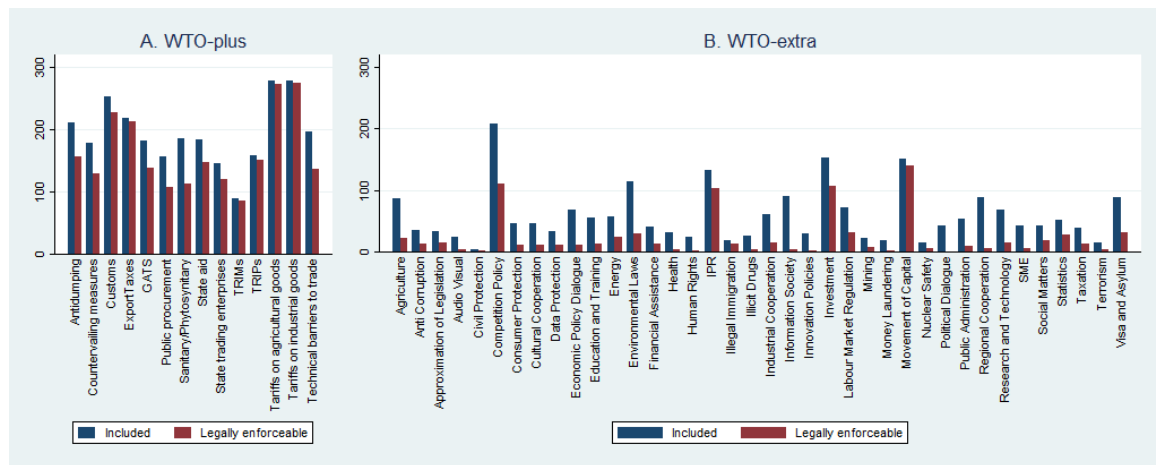
So-called “core” provisions are defined as the set of WTO-plus provisions and four WTO-extra provisions (competition policy, movement of capital, investment and investor rights protection, and intellectual property rights protection), because those are considered most meaningful from the perspective of businesses shaping negotiations. Almost 90 per cent of FTAs include at least one of the core WTO-extra provisions and one third include all of them (Hofmann et al., 2017). By contrast, policy areas of great importance for social actors with much less influence in closed-door trade negotiations, such as the protection of labour rights, consumers and the environment or provisions preventing corporate tax avoidance, are barely included or remain legally unenforceable.

Interestingly, FTAs between developed and developing countries cover on average almost as many policy areas (20) as FTAs among developed countries (22) and thus have equivalent “depth”. This reflects the ability of developed country TNCs to insert provisions dear to their interests in FTAs negotiated by their governments. South-South FTAs (13) are considered relatively more “shallow”.

By contrast, BITs have always been strictly bilateral treaties mostly signed among “unequals”, with poorer countries submitted to competition for attracting foreign capital (Elkins et al., 2006). This pattern became even more visible after 1990, as BITs binding developed and developing countries increased from 87 in 1990 to 669 in 2015 (DV-line in Chart 2.B), while the number of developed-developed country pairs rose from 36 to 225 (DD-line). Devoid of any inspirational political purpose, the investment regime developed largely “under the radar”, with BITs serving as a means to solve the time inconsistency problem facing host government and foreign investors. By entrenching the rights of the latter and delegating legal authority to supranational or private arbitrators (rather than

national courts), governments alleviated the fear of foreign investors to be unfairly expropriated or discriminated after having made irreversible investment in a particular country. The growing number of BITs starting in the 1990s, their asymmetric nature and the decentralized regime of cross-border investment led to the creation of a multitude of dispute settlement mechanisms reflecting the relative bargaining power of the signatories.⁹ In the 2000s, governments were increasingly confronted with (the threat of) litigation by TNCs (Simmons, 2014).¹⁰ Furthermore, following the GFC, evidence emerged that BITs favoured volatile capital flows while tying the hands of public authorities, thus contributing to the diffusion of financial instability (Gallagher, 2010; Gallagher and Stanley, 2013; Gallagher, 2014). Hence, BITs became less popular in policy circles in recent years, with attempts by certain countries (e.g. South Africa, Ecuador) to renegotiate their terms.

Chart 3: Policy areas included in FTAs (2017)



Source: Based on data from Hofmann et al. (2017).

Furthermore, secrecy jurisdictions or offshore financial centers (OFCs) played a key role in the early diffusion of BITs, especially between developed countries and LDCs. In 1980, OFCs were signatory parties to 48 out of 95 BITs in force (51 percent, see Table A.2 in appendix), compared to 562 out of 2238 in 2015 (25 percent). At the time, 20 of them were with LDCs and 15 with developing countries. By acting as first-movers, OFCs contributed

⁹ Allee and Peinhardt (2014) proposes a codification of existing dispute settlement mechanisms in BITs considering three dimensions (i) the number of existing dispute-settlement options that are proposed in a BIT, (ii) the types of arbitration available (eg. ad hoc arbitration using rules devised by the United Nations Commission on International Trade Law, arbitration through standing bodies such as the International Center for the Settlement of Investment Disputes, the Permanent Court of Arbitration, or on of several regional arbitration centers in places such as Cairo, Stockholm, and Singapore, etc.) and (iii) whether signatories consent in advance to have disputes taken to international arbitration.

¹⁰ Four countries (Argentina, Venezuela, Ecuador and Poland) have been the most prominent respondents (23 percent of all cases) and were liable for 80 percent of the total of monetary awards and settlements. Investors from six countries (the USA, Netherlands, UK, Spain, Germany and France) brought 50 percent of all cases and received 65 percent of the total amount of reported monetary awards and settlements (most amounts are not reported though).

creating a trend and template legal language that was later followed by other countries signing asymmetric BITs or investment provisions included in TIAs. As will be briefly discussed in section 4.B, OFCs also impacted other regimes, such as international taxation and IPRs (Palan et al., 2009; Blair-Stanek, 2014), in a significant manner.

B. External openness and economic growth

The entry into force of an exponential number of TIAs after 1990 consecrated the growing political clout of mobile capital and TNCs. At first glance, the new wave of external opening appears to have led to growing trade flows and, to a much lesser extent, “productive” foreign direct investment (FDI),¹¹ superficially fulfilling the promises made by promoters of unfettered external opening (Chart 4.A).

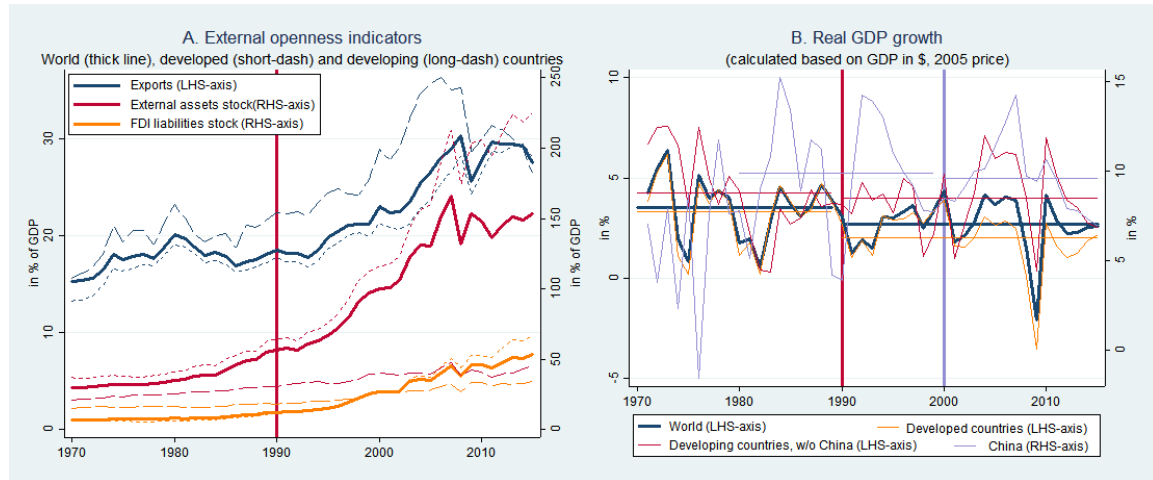
As TNCs progressively organized the fragmentation of production through GVCs, the economic magnitude of trade increased. Representing less than 20 percent of world GDP up to the mid-1990s, global exports rose, reaching almost 30 percent at their peak before the GFC, with developing countries hovering above this average (long-dashed blue line).¹² In parallel, developing countries attracted a growing amount of FDI inflows. In 2015, their stock of FDI liabilities was valued at about \$9 trillion, representing 34 percent of their GDP and 50 percent of their total external liabilities. By comparison, the stock of FDI liabilities in developed countries (short-dashed orange line) has grown at a faster pace since 1990. In 2015, it was valued at about \$30 trillion, representing 67 percent of their GDP, but only 21 percent to their total external financing, the rest coming from external portfolio and other kinds of investment. Accordingly, developed countries remain the biggest international borrowers and creditors. In 2015, their total external assets (liabilities) were valued at \$100 trillion (\$106 trillion), more than in 2008, compared to only \$12 trillion (\$18 trillion) for developing countries.¹³ Unlike for trade, the slowdown of cross-border finance seems to have been short-lived, at least in developed countries (short-dashed red line).¹⁴

¹¹ The distinction between “productive” and “non-productive”, “tax-avoiding” or “speculative” investment is blurry. In general, FDI is considered non-speculative and further implicitly assumed to enhance productive capacity, ie. invested into “greenfield” projects, new factories, etc., while cross-border portfolio investment is acknowledged to be of a potentially more short-term and even speculative nature. Yet, technically, FDI is summarily defined as the acquisition of *at least 10 per cent of equity ownership in enterprises operating outside of the economy of the investor*. This definition is often assumed to warrant that FDI measures investment made to acquire lasting interest in foreign enterprises. A frequent critique to this methodology is that liabilities that are defined and counted as FDI liabilities are not necessarily adding to existing productive capacities and can even be of a speculative nature or driven by tax avoidance motives. The mere fact that OFCs, such as Luxembourg and the Netherlands, were ranked as second and third top recipient countries of FDI in 2015 with a stock of more than \$4 trillion in recorded FDI liabilities each, just behind the United States and ahead of China, according to IMF BOP data, should be enough to raise doubts about the wisdom of blindly using the flawed FDI metric as a synonym for “productive” investment.

¹² The evolution of trade in value added terms (as opposed to gross terms) is discussed in section 4. A.

¹³ WD (2017) data for both external assets and liabilities do not include financial derivatives.

¹⁴ Transition economies and LDCs are not shown in Chart 3 for the sake of simplicity, but trends in the indicators displayed in Chart 3.A are comparable for those country groups, though their ratios of exports to

Chart 4: External openness and declining real GDP growth (1970-2015)

Source: Based on data from WD (2017).

Despite all the merits that are often over-generously attributed to globalization, such as the so-called “rise of the South” (e.g. UNDP, 2014) or the “Great Convergence” (Baldwin, 2017), external openness did not accelerate economic growth in real terms at the aggregate level (Chart 4.B), let alone structural change or sustainable development. As will be discussed below (see section 4) most countries did not manage to leverage greater export-orientation for raising domestic value added in exports and moving up the value chain by leveraging trade to strengthen economy-wide development linkages transforming the structure of their economies. And as the post-crisis global trade slowdown endures (Hoekman, 2015), opportunities for successful export-led strategies look even bleaker.

At the global level, average real GDP growth declined from 3.5 to 2.7 percent after 1990 (thick blue line), driven by a drop from 3.2 to 2 percent in developed countries. Developing countries (without China) similarly experienced lower growth as they integrated GVCs. On average, their aggregate GDP growth slipped from 4.3 percent the 1970-1989 period to 4 percent after 1990. As to China, its integration into global markets only started off after its WTO accession in 2000, and its average GDP growth declined to 9.6 percent after 2000, compared to 9.9 percent over the 1980-1999 period.¹⁵ True, transition economies and LDCs, which are not shown in this figure for the sake of simplicity, both experienced faster economic expansion after 1990. GDP growth increased from 1.2 to 4.7 percent in the former and from 2.1 to 4.4 percent in the latter. Yet, these two groups combined only account for 17 percent of world population and economic growth in these countries after

GDP are slightly more volatile than for developing countries, owing to their higher share of commodity exports. Like in Chart 3.B, these country groups are included in world averages, however.

¹⁵ Before economic reforms started being implemented under Deng Xiaoping at the end of the 1970s, China underwent chaotic economic and political development under Mao Zedong.

1990 has been driven by the expansion of commodity exports (see section 4). Hence, the claim that external opening *always* enhances economic efficiency and development, which is axiomatically made by TIAs-cheerleaders, is misleading at the aggregate level.¹⁶

C. Within-country and international inequality

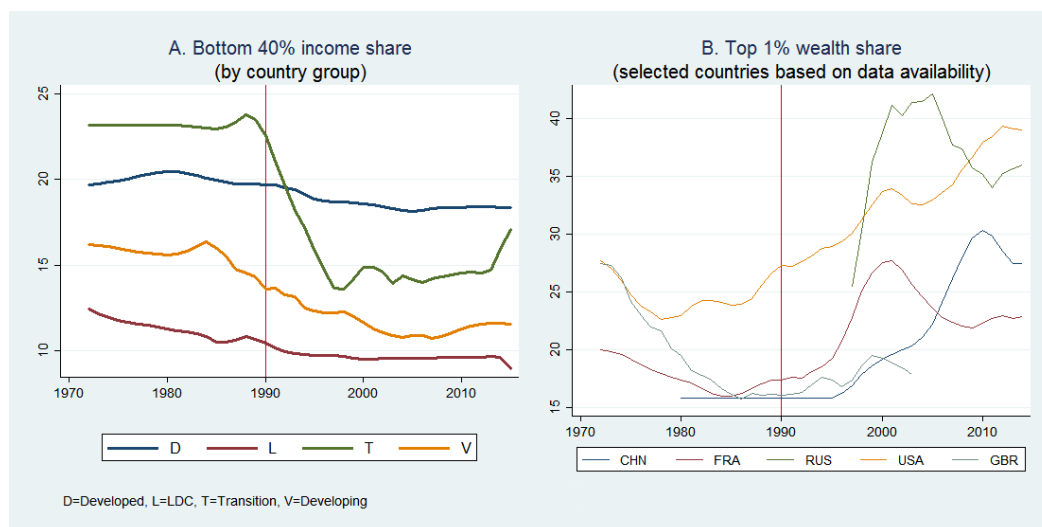
The rise of TIAs and global economic interconnectedness closely coincides with growing functional income distribution inequality. From 56.1 percent of world GDP in 1995, the global labour income share declined to 52.8 per cent in 2007, before rising slightly in the aftermath of the global financial crisis, reaching 53.6 per cent in 2015 (Chart 1). This accompanied a generalized rise in within-country personal income and wealth distribution inequality, as confirmed by various measures (e.g. Galbraith, 2012; Piketty, 2014).¹⁷ For instance, bottom 40 percent income shares declined by almost 10 percentage points in transition economies following the fall of the bipolar world order (Chart 5.A). In other country groups, the decline measured based on consumption and income survey data was around 2 percentage points.

Personal wealth inequality estimates based on fiscal data are not as widely available, and at least a third of wealth belonging to the top 1 percent remains unreported (Alstadsaeter et al., 2017), but existing data strongly stresses the pervasive rise of wealth inequality. In the United States, the wealth share of the top 1 percent rose from 25 percent in 1990 to close to 40 percent in 2015 (Chart 5.B). This tops shares observed in Russia or China. Cross-country estimates based on the combination of survey and financial data depict an even grimmer picture. In 2016, the wealth Gini was as high as 85, 82.9 and 78.9 in North America, Europe and China, respectively. At the world level, the 2016 wealth Gini even peaks at 91.6 (Crédit Suisse, 2017). This is consistent with the bloated list of billionaires established by Forbes and claims that only eight men own as much as the poorer half of world population (Oxfam, 2016). To a large extent, the assets accumulated by billionaires were acquired through the privatization of formerly public assets, depriving governments from utilities (e.g. transport infrastructure), resources (e.g. oil, natural resources) and options for equity-enhancing public policies (see Kohler, 2015, figure 2; Alvaredo et al., 2018). The idea of the business captain that creates wealth and well-being through risky investments is largely a myth.

Chart 5: Measures of within-country inequality (1970-2015)

¹⁶ By bundling China with other developing countries, even though China only integrated in global markets after 2000, and by further including the 1970s into the average of developing countries, even though this period is problematic for a large developing country like China, average developing country annual real GDP growth would appear to have increased from 4.6 to 5.1 percent after 1990. Yet, as illustrated in Chart 3.B (thick blue line), such a questionable rearrangement does not decisively alter evidence showing that real GDP growth declined since the last wave of globalization started in 1990.

¹⁷ For a brief explanation of the personal income and wealth distribution measures along the private income cycle, see Kohler (2015), figure 1.



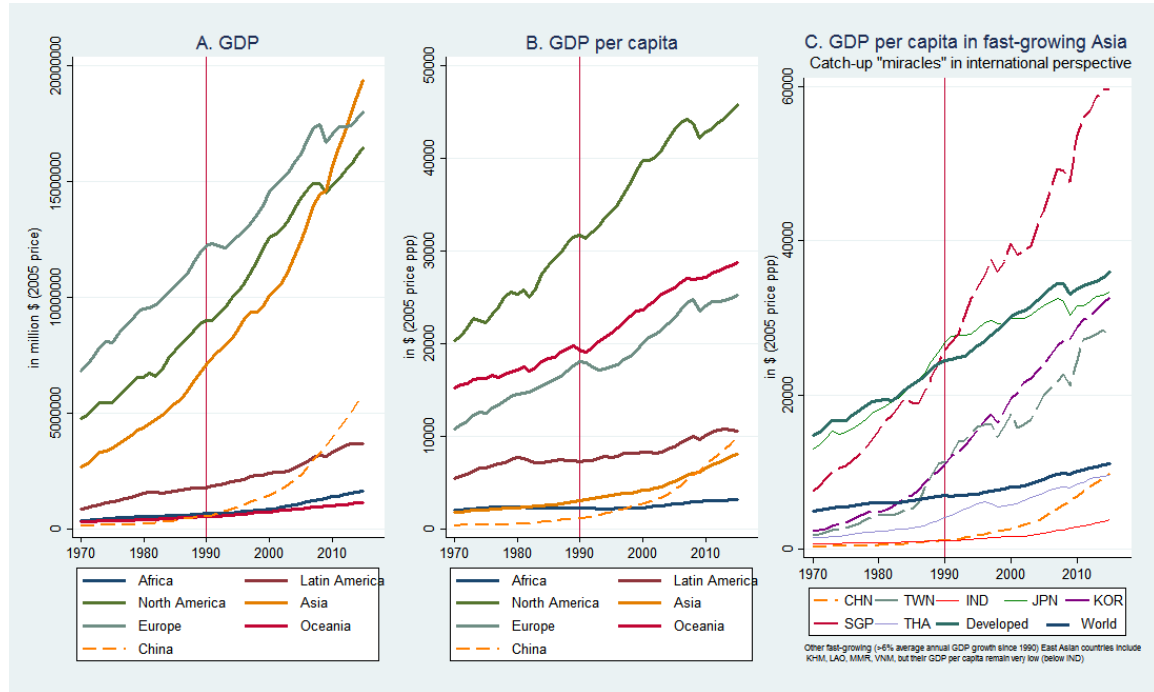
Source: Based on income inequality data from GCID (2016) and wealth inequality data from WID (2017).

These worrying trends are difficult to square with claims of a meritocratic economic order and rather comfort the thesis that existing economic institutions and processes promote inefficient winner-takes-most outcomes and rent-seeking behaviour (Stiglitz, 2012) or, more bluntly, that hyperglobalization accompanies a return of patrimonial capitalism and oligarchic power (Piketty, 2014; Winters, 2011). Consequently, promoters of globalization prefer to emphasize a supposed decline in international inequality. Indeed, Asia recently became the region with the largest GDP (Chart 6.A), owing to its demographic expansion and to China's exceptional economic performance over the last decades, i.e. 9.7 percent annual GDP growth (2005 price) on average since 1980. Zooming in on Asia, it appears several other countries, most of them in East Asia, also contributed to this feat by growing at more than 6 percent per year in real terms since 1990 on average: Myanmar, Cambodia, Laos, Bhutan, Vietnam, Macao, India and Singapore.

In terms of GDP per capita, however, this has not leveled the international economic pyramid, with no significant change perceptible between developed and developing countries or at the regional level. This observation holds even when taking local purchasing power differences (or parities, aka. ppp) into account (Chart 6.B and 5.C), which tends to significantly smoothen international inequality. Admittedly, Macao and Singapore have GDP per capita levels surpassing those of developed countries, but these small jurisdictions are OFCs and further of limited demographic significance. China (\$9,803 in 2015, 2005 price ppp) is rapidly catching up with the world average (\$11,142) thanks to determined policy interventions rather than naïve external laissez-faire (USTR, 2018). Yet, in absolute terms its GDP (2005 price ppp) per capita gains since 1990 (\$8,700) still remain inferior to those of developed countries (\$11,500). Other fast-growing Asian countries mentioned above display levels of GDP per capita similar or inferior to India's (\$3,852 per year),

which is low, especially when considering that this “per capita” income is all but evenly distributed across the population.

Chart 6: Measures of international inequality (1970-2015)



Source: Based on data from WD (2017).

In short, the only demographically significant Asian countries that so far managed to catch up with developed countries in GDP per capita terms are Korea (50 million inhabitants) and Taiwan (23 million inhabitants). But as shown in Chart 6.C these countries started their catch-up long prior to the latest round of globalization. In addition to economic policy interventions by their former military leaders, their success further largely derived from the economic privileges granted to them by their Western military allies owing to their strategic significance. In the ideological battle involving the capitalist West to communist opponents in civil war-torn countries, fast-developing South Korea and Taiwan were used as showcases of capitalist success contrasting with neighboring foe and poorer North Korea and mainland China. But (external) laissez-faire had little to do with it, and non-economic factors go a long way in explaining these exceptional cases. Countries with less interventionist economic policy that were strategically less significant at the time, for instance Thailand, did not experience similar catch-up “miracles” and remained rather stuck in the “middle income trap”.

3. THE TRADE-INVESTMENT-DEVELOPMENT-INEQUALITY DEBATE IN THE LONG-RUN

A. A reminder: historical origins and mixed blessings of trade and investment (agreements)

Throughout history, tribes, merchant cities, empires or nations have used trade to cultivate relations with the external world or enhance their prosperity, as noted by observers such as Adam Smith (1776). Yet, many examples from ancient times to the industrial era unambiguously show trade can also nurture exploitation and misery across large swaths of world population (e.g. Arab and Transatlantic slave trade, opium trade in China, etc.) and destroy entire local industries (e.g. textile industry in South Asia under British rule, grain production in some sub-Saharan countries today).

Unlike trade, cross-border investment is a modern invention, which is linked to the development of well-defined and enforced property rights in emerging capitalist societies dominating the nascent international system. Indeed, the first examples of investment into productive capacities abroad are those made starting in the 16th century by private investors to develop slave-powered sugar plantations in the “New World”, which created social hierarchies and racialized tensions that remain alive up to this day. In other continents as well, exploitative patterns of trade relied on a combination of land expropriation and taxation implemented by corporations, such as the East India Company, the Dutch Vereenigde Oost-Indische Compagnie, the Bristol Society of Merchant Venturers or the Royal Company of the Philippines, with the backing of metropolitan governments (Patnaik and Patnaik, 2016).

From imperial invasions to Gunboat diplomacy forcing external opening, examples abound of how the use of force (and threat thereof) played a role in framing economic transactions among “unequals” as transactions governed by “the rule of law”. Such transactions have been accompanied by specific rituals or treaty provisions stressing the respective symbolic position or rights of the parties. In continuation of this process, FTAs and BITs represent a fully pacific way of regulating cross-border economic transactions, though with significant scope for accommodating power asymmetries between the center and the periphery and between capital and labour, as illustrated by the role of TNCs in inspiring the negotiations of TIAs and shrinking policy space in the neoliberal era (Gallagher, 2005; Shaikh, 2003; Patnaik and Patnaik, 2016). Against this background, there appears to be solid ground neither for claims that external opening *always* worked as an equalizing force in the best interest of all parties nor for expectations that it will *necessarily* do so in the digital era. This reasonable conclusion is has only slowly been gaining ground in some parts of the economic mainstream (e.g. Rodrik 1997, 2018; Eichengreen, 2017)

B. Neoclassical mantras and mainstream consensus around 2000

Putting a veil on historical and social processes at the origin of the current domestic and international economic order, neoclassical economic theory proposes a much more simplistic, but resolutely optimistic interpretation of the causal process at the heart of the trade-investment-development-inequality nexus. Because of ideological presuppositions about the nature of markets, applications of standard neoclassical theory ignores many of their imperfections, positing that there is no unemployment, no speculative bubbles, etc., thus assuming away any risks and costs that may arise from trade or financial opening. Based on these unrealistic priors, it predicts that external opening *always* improves economic efficiency through full and optimal factor reallocation (i.e. no unemployment, no idle capital) into purely productive activities in a general equilibrium context.¹⁸ Increased goods and capital flows may at times not be Pareto-improving as some may lose income in real terms, but governments are assumed to be able to redistribute the gains from openness to compensate losers, provided voters deem it desirable. Resonating with the interests of actors benefiting most from globalization in the neoliberal era (i.e. TNCs, economic elites in developed and developing countries), the neoclassical analytical framework has become the standard toolbox to formulate arguments and propose economic projections in support of unfettered external trade.¹⁹

Yet, core neoclassical assumptions hardly accommodate several inconvenient but obvious truths. Indeed, weakly mobile workers face difficulties adapting to the reallocation of resources commanded by external opening, with the risk for younger workers to lose their skills and for older ones to remain permanently unemployed. Moreover, only a fraction of cross-border capital flows is absorbed by “greenfield” investment, as much foreign capital simply acquires ownership of existing assets or nurtures speculative financial activities.²⁰ And governments, even “representative” ones, generally consider the preferences of economic elites first (Winters, 2011).

The significance of these caveats of neoclassical theory started (re-) appearing more clearly in the 1990s, after OECD countries liberalized short-term capital flows and TNCs increasingly pushed for FTAs among “unequals”.²¹ Indeed, opportunities for more speculative cross-border finance and all-out trade was bound to encourage a drift away from (foreign) greenfield investment and the progressive offshoring of labor-intensive production (including middle class manufacturing jobs) away from developed countries. In a context of crumbling social-democratic ideals, these two developments, which

¹⁸ For a discussion of these theoretical points, see the first section of Kohler and Storm (2017).

¹⁹ For recent examples of the instrumentalization of neoclassical economic theory in support of unfettered external opening and the role of mainstream academic literature and institutional reports, see Capaldo (2014), Capaldo et al. (2016) or Kohler and Storm (2017), which discuss the cases of TTIP, TPP and CETA, respectively.

²⁰ See section 2.B and footnote 6.

²¹ The OECD as an organization started promoting the liberalization of short-term capital flows in 1989 (Gallagher, 2010). For the development of FTAs (as well as BITs) among “un-equals”, see section 2.A and Tables A.1 and 2.

enhanced the bargaining power of mobile capital and TNCs relative to workers (for wages, but also working conditions more generally) and governments (for taxes, etc.), increasingly impacted income and wealth (re-) distribution within countries and fiscal policy, with limited effects on the international economic pyramid (see section 2.C).

Despite continuous critical debate throughout the 1990s (e.g. Rodrik, 1997, 1999), which generally approached trade and investment separately, a consensus was established around 2000. True, the Asian financial crisis had laid bare the risks associated with external financial opening and its negative impact on income distribution and poverty (e.g. Stiglitz, 2003). Yet, the neoclassical take-home lesson endorsed in most policy circles and central banks was that developed countries with more open and deeper financial markets were immune to such risks. Furthermore, as the gradual decline of manufacturing predated the 1990s and the “internet revolution” was underway, mainstream economist narrowly focusing on slowly rising inequality among workers (i.e. wage inequality) and missing the bigger picture (i.e. the rising capital income share and booming wealth inequality) were prone to point at skill-biased technological change to conclude that trade was not a major contributor to rising inequality in developed countries (e.g. Feenstra and Hanson, 2001). Hence, policy-makers should proceed with further external opening.

C. Two shocks, improvements of new trade theory and the eroding academic consensus today

One decade later, this consensus started fragmenting following two distinct shocks to the mainstream analytical framework, which exposed fundamental inconsistencies and eroded the prevailing consensus. The first shock arose from financial openness. In the wake of the GFC, which had its roots in the deepest and most open financial market, mainstream economists were left with no credible arguments to defend the alleged *unconditional* benefits of external financial deregulation. Accordingly, a growing number of concerns were raised in academic circles, which eventually led to a long-overdue break through at the highest policy level, when the IMF changed its official view and published a document recommending that countries adopt capital controls under certain conditions (IMF, 2012). Thus, financial openness and deep financial markets don’t help reducing instability.

This ideological turnaround in breach of neoclassical mantras had potentially far reaching legal and policy consequences. Not only did this contradict legally binding provisions included in many BITs, which commit their government to abstain from constraining capital flows under any condition. It further posed legal challenges for WTO rules and FTAs. Indeed, authorities committing to liberalize trade in financial services cannot do so unless they also commit to lift restrictions on the capital account (Gallagher and Stanley, 2013; Siegel, 2013). Moreover, the fact that the mixed blessings of financial openness had been acknowledged at the highest policy level indirectly affected the debate on inequality. Suddenly, research backed by international institutions started more openly blaming

external financial opening for rising inequality (e.g. Dabla-Norris et al., 2014; Furceri and Lougani, 2016) and, indirectly, slower economic growth (Ostry and Berg, 2011; Ostry et al., 2014).

The second shock arose from the opening of “trade” in a broader sense, which encompasses all the dimensions covered in “new generation” or mega “trade” as discussed above. It is sometimes narrowly conceived as a pure goods trade shock and referred to as the “China shock” because it coincided with China’s entry into the WTO, partly because this facilitates causal analysis (Autor et al., 2016). But goods trade strictly speaking and China only represent the most visible part of a bigger iceberg, which is the use of the reserve army of cheap labour in the periphery to expand TNC-driven global private production networks after 1990.²² Compared to the financial shockwave of 2008, this shift is having more diffuse and slowly materializing effects. As discussed in section 2, it generated jobs and income for workers in parts of the Global South, especially in China and some East Asian countries. Yet, the big winners were the capitalist class in emerging markets, TNCs and foreign investors, who saw the share of capital income in global GDP increase by 2.5 percentage points since 1995 (Chart 1). As a corollary, it further generated significant and lasting negative local effects on employment and income distribution in the United States (Autor et al., 2013, 2016) and Europe, fostering social and international tensions, with populists pitting anxious workers in Western countries against the unemployed, migrants or China. As alluded to in the introduction, this “trade” shock, through its negative effect on income distribution, debt-led consumption and global imbalances, is inherently linked to the “financial” shock of 2008 (see Cripps et al., 2005, 2011; UNCTAD, 2017, Chapter 5).

Evidence of rising inequality and endemic unemployment or underemployment in developing countries that were included in the multilateral trading system in the early 1990s (Goldberg and Pavcnik, 2017; Pavcnik, 2017) had already highlighted the inconsistency of predictions derived from neoclassical versions of workhorse trade models, such as Heckscher-Ohlin,²³ but this was not enough to derail the consensus forming at the time among Western economists. While the “trade” shock continued biting in the 2000s, mainstream academics developed the use of more realistic assumptions wrapped in

²² A hasty reader looking at Chart 1 may observe that the world labour income share only started declining significantly after 2000, and conclude that China’s WTO membership in 2000 was the decisive factor. Yet, not unlike the GFC in 2008, the Asian financial crisis of 1997 and the Dotcom crisis of 2001 both negatively hit global capital income, thus temporarily boosting the world labour income share. Taking this into account, the decline in world labour income share appears to have started in the 1990s already (and the argument framing the trade shock as a mere “China shock” thus appears as too simple).

²³ In relation to this model, the Stolper-Samuelson theorem predicts that inequality will decline in developing countries in the wake of trade liberalization with developed countries (because they are relatively labour-abundant and growing foreign demand for their labour-intensive goods will increase relative demand for and returns to labour). Yet, inequality keeps rising in developing countries, especially in those that are “open for business”.

politically neutralizing labels, such as “tasks offshoring” and “heterogeneous firms” (i.e. TNCs or superfirms),²⁴ converging towards a new consensus able to better accommodate mounting evidence about the mixed blessing of trade today (see Harrison, McLaren and McMillan, 2011). The integration of assumptions about tasks offshoring (Fenster and Hanson, 1995) and heterogeneous firms (Melitz, 2003) in models used by mainstream academia are of significance, because they fit the observation that “trade” liberalization leads to GVC-led fragmentation of production and TNC-driven economic concentration, which can both directly and permanently worsen inequality in developed and developing countries.²⁵

D. Anachronistic trade models for dogmatic trade policy (debates?)

In contrast with the progress observed in some corners of mainstream academia, the mixed blessings of trade opening remain taboo in the policy debate. Even though increased “trade” openness never comes without concessions to mobile capital anymore, and abundant evidence that trade increases inequality, institutional reports claiming to examine this relation keep downplaying it. Subterfuges commonly used in institutional research departments over the last decades to conclude that trade and GVCs do not exacerbate inequality or even tend to reduce it (e.g. OECD, 2005, 2008, Dabla-Norris et al., 2014; Achard et al., 2015) generally start by narrowly focusing on wage inequality (i.e. inequality

²⁴ Beyond the issue of the inadequacy of new trade theory assumption labels lies the more important issue that, even though these assumptions are more compatible with observed outcomes, such as higher inequality, the mechanisms supposed to lead to such outcomes are not realistic. Two examples, which affect most new trade theory models. First, in Melitz’s view (2003), it is the heterogeneity in firm productivity that leads to the rise of super-exporters (aka. superfirms or TNCs) in the wake of trade opening. Yet, such a claim does not square with evidence about exporters in the developing world. For instance, firms in Chinese EPZs blooming after 2001, which happen to be mostly foreign-owned and involved in processing trade, are further characterized by their lower productivity, lower profitability, lower wages, lower capital and skills intensity, and lower research and development expenditure compared to non-processing exporters and non-exporters. This is no minor point as processing trade still accounts for nearly half of China’s exports, exceeding gross exports of most countries, except Germany and the United States (Lu, 2010; Dai et al., 2016; Kee and Tang, 2016). A more realistic approach would be to also attribute the rise of super-exporters to their ability to capture value along GVCs by arbitraging international differences in labour and tax cost, by offshoring jobs to low-wage countries and shifting profit to low-tax jurisdictions (Quentin and Campling, 2018). This leads to the second example, which is about the origin of corporate rents in most new trade theory models. Oddly, such models posit that the origin of monopolistic rents is not rooted in rent-seeking behaviour of firms, but rather in the behaviour of consumers, who are assumed to have a preference for diversity or a “love of variety”, as Krugman’s (1980) followers positively formulated it. Per this approach, provided individual consumers have tastes that differ in a symmetric manner over varieties, aggregate demand exhibits the same preference for diversity, which enables firms selling differentiated or branded products to impose a price mark-up over cost. Anchoring monopolistic rents in the preferences of consumers (rather than in detrimental rent-seeking corporate strategies), as postulated by mainstream trade theory, is key for mechanically associating increased trade in differentiated products with greater levels of consumer utility or welfare.

²⁵ Other assumptions have been mainstreamed into the academic debate on trade, such as information asymmetries or sticky wages. These assumptions may appear more realistic, but their long-run implications are of less significance. Indeed, predictions based on them in a context of general equilibrium tend to converge with those made based on unrealistic neoclassical assumptions, making them less relevant to understand changes brought about by globalization.

among have-nots) and willfully missing the bigger picture (i.e. inequality between haves and have-nots, implications for the macroeconomy and governance).

Besides rising inequality, the “trade” shock also provides evidence that “trade” can exert a lasting negative impact on employment (in the private and public sectors) on a time horizon exceeding 10 years and maybe even 20 years or more.²⁶ Such lasting effects fundamentally challenge the relevance of the neoclassical assumption of full factor (i.e. labour and capital) utilization, which remains embedded in mainstream trade models, irrelevant of whether they assume heterogeneous firms or tasks offshoring.²⁷ This assumption is of utmost importance, because lifting it would jeopardize the politically key prediction that is built in mainstream general equilibrium models, i.e. that trade liberalization *always* enhances economic efficiency. Unsurprisingly, the potential for trade to decrease general welfare by generating more negative externalities (e.g. especially lost jobs and skills and inequality, but also carbon emissions, etc.) than it creates positive ones (e.g. new jobs, technological innovation, etc.) is taboo in institutional research, whose conservative political mission is to preserve the previous consensus from eroding further or being fatally undermined.

Undoubtedly, debate in mainstream academia and policy circles is being affected by political circumstances. A growing share of the population in Western countries now opposes trade agreements for various motives. As alluded to earlier, popular votes in the UK and in the US gave a voice to those identifying as “the losers” of globalization and willing to promote their national interests first, including through protectionism. Others rather consider TNC-driven globalization a “losing game” for populations, the environment, general welfare and democracy, identifying so-called new generation or mega “trade” agreements as Trojan horses of TNCs to promote corporate interests through the rear-door of opaque TIAs (Rodrik, 2018). Accordingly, they aim at reforming the rules of globalization more generally, starting with a more transparent and balanced treaty-making process and the inclusion of binding measures in so-called “trade” treaties to, for instance, exchange banking information, and tax the winners to compensate losers and protecting the environment (e.g. The Namur Declaration, 2016; Piketty, 2016).

Despite the urge to rethink globalization, including “trade”, to prevent the expansion of populism (Piketty, 2016), the ideological turnaround of the IMF regarding financial

²⁶ As formulated by Autor et al. (2016): “Alongside the heralded consumer benefits of expanded trade are substantial adjustment costs and distributional consequences. These impacts are most visible in the local labor markets in which the industries exposed to foreign competition are concentrated. Adjustment in local labor markets is remarkably slow, with wages and labor-force participation rates remaining depressed and unemployment rates remaining elevated for at least a full decade after the China trade shock commences. Exposed workers experience greater job churning and reduced lifetime income. At the national level, employment has fallen in the US industries more exposed to import competition, as expected, but offsetting employment gains in other industries have yet to materialize.”

²⁷ The sticky wages assumption supposed to account for frictional unemployment is far from satisfactory to explain such lasting impact of trade on employment (see previous footnote 29).

openness does not yet have an equivalent response in the WTO regarding “trade” openness. Rather, theoretical innovations and new evidence are more modestly backing up progressive calls in some corners of the academic mainstream for learning from the rich lessons of history, for approaching trade in a macroeconomic perspective, for a more nuanced and context-specific analysis of the impact of trade (e.g. Eichengreen, 2017). As mentioned above, however, such moderate calls have so far had no tangible impact in the policy arena, where proponents of “trade” liberalization still back their claims that “trade” *always* improves welfare with projections fabricated using unrealistic neoclassical assumptions (see Capaldo, 2015; Capaldo and Izurieta, 2018; Kohler and Storm, 2017), calling for more populists to convince the “losers” of globalization that it must be a zero-sum game.

4. THE TIAs-GVCs-TNCs NEXUS: WHO’S DRIVING WHAT AND WHERE TO?

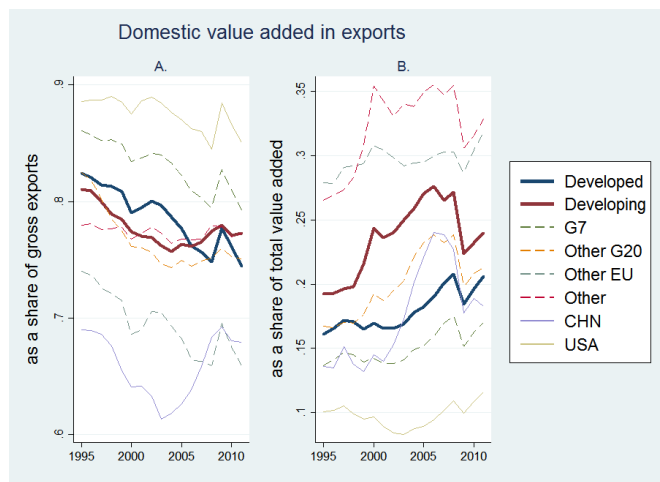
Admittedly, trade flows and FDI relative to GDP increased after 1990, superficially fulfilling the promises of TIAs-cheerleaders. Their most appealing promise, however, was that higher economic interconnectedness enabled by the fragmentation of global production would promote economic efficiency by providing opportunities to smaller exporters and poorer countries in the periphery. Eventually, as their sales pitch continues, participation in TIAs and GVCs would deliver industrial upgrading, i.e. a shift in the composition of production away from commodities and towards higher value added manufacturing activities, which would generate economy-wide development linkages by raising skills requirements, productivity and income of the population, especially in peripheral countries, thus reducing within- and international inequality. The failure of these predictions, most notably the growing importance of commodities in Southern exports, the decline of global economic growth and the ubiquitous rise of inequality, prompts questions about the dynamics at work at the heart of the TIAs-GVCs-TNCs nexus. This section first examines the extent to which production fragmentation along GVCs enabled by TIAs has led to a desirable shift in the composition of production. It then turns to the existence of possibly less desirable consequences, such as TNC-driven economic concentration and inequality.

A. GVC-led fragmentation as a driver of structural change?...

External opening and GVC-oriented production fragmentation commanded a reallocation of productive resources from the non-tradable to the tradable sector. This caused exported value added to increase, though more moderately than gross exports. Between 1995 and 2011, and despite slower trade expansion in the wake of the GFC, value added in exports as a share of total value added increased from 19.2 to 24 percent in developing countries

and from 16.1 to 20.6 percent in developed countries (Chart 7.B). This shift stresses the role of an expanding tradable sector as a growing source of value creation after 1990.

Chart 7: GVCs and fragmentation (1995-2015)



Source: Based on data from TiVA (OECD, 2016).

In parallel, the share of domestic value added in exports declined progressively, from 81 to 77.3 percent in developing countries and from 82.4 to 74.4 percent in developed countries (Chart 7.A). This drop highlights the production fragmentation-induced phenomenon of vertical integration (Hummels et al., 2001), i.e. the reduced influence individual countries exert over segmented supply chains now under the growing control of TNCs.

Importantly, the declining trend in developing countries would have been more marked in absence of the commodity boom and had China not simultaneously raised its share from a trough of 61.3 percent in 2003 to 67.6 percent in 2011 (Chart 7.A), owing to policy interventions aiming at climbing up the development ladder (Poon, 2014). According to the OECD Trade in Value Added (TiVA) database, a small number of other fast-growing Asian countries already mentioned in section 2.C, such as Hong Kong, Singapore or the Philippines also managed to raise their share of domestic value added in gross exports between 1995 and 2011. Most others though, such as India, Malaysia, Thailand or Vietnam experienced a decline in line with the developing country average.

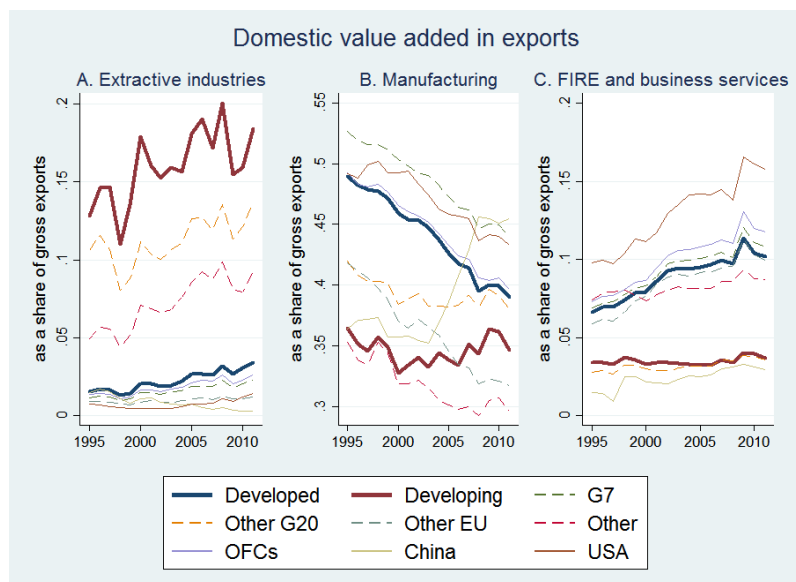
Much like rising gross exports, an increase in the share of domestic value added in gross exports is not necessarily a synonym of desirable structural change, however. In Colombia, for instance, the share of domestic value added in gross exports increased by 2 percentage points between 2000 and 2011, but only because the share of domestic extractive industries value added in gross exports jumped by 16 percentage points (from 29 to 44.9 percent), masking a large decline in the share of value added by other export sectors. Brazil and

Indonesia experienced comparable developments over the same period.²⁸ Out of 26 developing countries represented in TiVA, 20 experienced a rise in the share of extractive industries in their gross exports between 1995 and 2011. More generally, older and recent history is full of examples of commodity-exporters faring well during commodity booms, but later paying the price of underinvestment in other more sustainable sectors with stronger linkages (backward and forward production linkages, income and knowledge linkages, etc.) to the rest of the domestic economy, such as manufacturing

As illustrated in Chart 8, the faster expansion of the tradable sector starting in the 1990s up to the trade slowdown has tended to reallocate resources and boost value creation in activities, whose contribution to structural change (and incidentally sustainable development) are modest or even negative. Besides their limited impact on employment creation or skills upgrading, capital-intensive extractive industries or finance, insurance and real estate (aka. FIRE sectors) tend to generate negative externalities for the environment, economic stability and inequality. As developing countries became increasingly integrated into GVCs between 1995 and 2011, the share of extractive industries value added in their gross exports rose from 12.8 to 18.4 percent (Chart 8.A), while developed countries saw the share of FIRE industries and business services value added in their gross exports rise from 6.6 to 10.2 percent (Chart 8.C).

Chart 8: GVCs and structural change (1995-2015)

²⁸ According to the De Souza (2015) and UNCTAD (2017) databases, Colombia started implementing FTAs in 1995 (totaling 13 trade connections in 2015) and BITs in 2007 only (totaling 6). The entry into force of BITs closely coincides with the rise in the share of extractive industry value added in gross exports, which rose from 26.9 to 44.9 percent between 2007 and 2011. Brazil only let 7 FTAs enter into force since the first one in 1994, and it is one of the only countries that has not let any BIT enter into force, which contributed to the development of Brazilian TNCs in the extractive sector. As to Indonesia, it started implementing FTAs in 1992 (totaling 16). Its first BIT dates from 1972, but their number increased from 4 in 1990 to 46 in 2015. It thus appears that TIAs are linked to structural shifts in production, even though the channels through which global economic interconnectedness shapes export incentives in a country are not limited to the TIAs, which this particular country is implementing. See Table A.1 and A2.



Source: Based on data from TiVA (OECD, 2016).

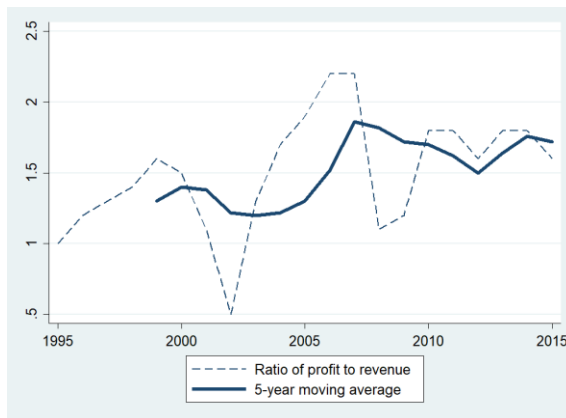
Shifts towards these activities in both groups occurred partly at the expense of manufacturing. Between 1995 and 2011, the relative significance of manufacturing value added in gross exports (Chart 8.B) declined in both developed countries (by 10 percentage points down to 38 percent) and developing countries (by 2 percentage points down to 34 percent), with a handful of exceptions, such as China, the Philippines or Vietnam, counterbalancing the more pronounced decline of manufacturing in other parts of the Global South. Out of 26 developing countries though, 21 experienced a decline in the relative share of manufacturing value added in gross exports. Obviously, the apparent stability of the developing country aggregate share almost only reflects the Chinese manufacturing boom rather than a good performance by developing countries in general. To some extent, declining value added in manufacturing trade is related to TNCs strategies for separating manufactured goods from IP content, which was formerly part of traded goods and is now increasingly protected by IPRs and sold separately as part of growing (intra-firm) trade in services (Lipsey, 2009; Ramondo et al., 2016) and broader profit shifting strategies (see discussion on IPRs in the next section).

In short, summary evidence about deep trends in the reallocation of factors and value creation induced by greater external opening under hyperglobalization seem at odds with claims that GVCs and incentives set by global markets foster positive structural change, not to speak about inclusiveness or environmental sustainability.

B. ... or TNC-driven GVCs as a vehicle for economic concentration?

Turning to less advertised effects of TIAs, a look at the performance of the largest corporate players dominating international trade and finance highlights their rising economic significance and the concentration of economic power in their hands under hyperglobalization. Mimicking the Forbes Global 2000 list with its four key indicators using data from the consolidated financial statements of the largest 2000 TNCs listed in stock markets (hereafter “top TNCs”), stresses the growing economic significance of top TNCs and reveals interesting trends pertaining to the magnitude and source of their rents.

Chart 9: Normalized ratio of profit to revenue of top 2000 TNCs (1995-2015)



Source: Based on UNCTAD database of consolidated financial statements, extracted from the Thomson Reuters Worldscope database (2017). **Note:** See note under Table 1. Ratio equals 1 in 1995.

Table 1 shows top TNCs assets²⁹ grew from 115.8 percent of world GDP in 1996-2000 to 229 percent in 2011-15. Their market capitalization³⁰ and net sales or revenues³¹ also increased, though less sharply than their assets. While the latter rose from 39.6 to 48.8 percent, the former increased from 49.1 percent to 51.1 percent of world GDP in a much more volatile fashion, reaching 56.6 percent in 2015. As to the magnitude of top TNC annual profit,³² it increased, rising from \$0.7 trillion in the late 1990s to \$2.6 trillion in

²⁹ Assets represents cash and other assets that are reasonably expected to be realized in cash, sold or consumed within one year or one operating cycle. Generally, it is the sum of cash and equivalents, receivables, inventories, prepaid expenses and other current assets.

³⁰ Market capitalization represents the total market value of the company based on year end price and number of shares outstanding converted to U.S. dollars using the year end exchange rate. For companies with more than one type of common/ordinary share, market capitalization represents the total market value of the company.

³¹ Net sales or revenues represent gross sales and other operating revenue less discounts, returns and allowances.

³² Profit or net income represents income after all operating and non-operating income and expense, reserves, income taxes, minority interest and extraordinary items, converted to U.S. dollars using the fiscal year end exchange rate.

recent years.³³ As profit grew on average by 8.5 per cent every year, the average annual growth rate of revenue was only of 6.8 per cent. This disparity led the profit to revenue ratio to increase from 5.7 per cent in the late 1990s to 7 per cent in recent years or 23 per cent. Five-year averages shown in Table 1 reduce the magnitude of changes in absolute terms and smooth out volatility, but between 1995 and 2015 this ratio rose more dramatically by 58 per cent (Chart 9).

Table 1: Top 2000 TNCs – key indicators (1996-2015)

	1996-2000	2001-05	2006-10	2011-15
TOTAL				
Assets (in \$, trillion)	37.3	69.1	129.7	172.7
Market capitalization (in \$ trillion)	15.8	20.4	32.0	38.6
Net sales or revenues (in \$, trillion)	12.8	18.7	29.7	36.8
Net income or profits (in \$, trillion)	0.7	1.0	2.0	2.6
AS A SHARE OF GLOBAL GDP				
Assets (in %)	115.8	173.9	216.4	229.0
Market capitalization (in %)	49.1	51.4	53.3	51.1
Net sales or revenues (in %)	39.6	47.0	49.5	48.8
Net income or profits (in %)	2.27	2.55	3.38	3.41
PER CAPITA				
Assets (in \$)	8874	15519	27342	34873
Market capitalization (in \$)	3766	4587	6743	7792
Net sales or revenues (in \$)	3040	4198	6260	7439
Net income or profits (in \$)	174	228	426	519

Source: Based on UNCTAD database of consolidated financial statements, extracted from the Thomson Reuters Worldscope database (2017) and WD (2017). **Note:** The data sample extracted from Thomson Reuters contains information from all the filings made by corporations listed in 56 countries, but headquartered in a total of 121 countries. After ranking them by asset value and selecting the 2000 largest ones, it appears that the top 2000 TNCs were headquartered in a total of only 63 countries.

The sources of the rising profitability of top TNCs are many. Besides growing market power evoked above, deepening financialization played a central role (see TDR 2017, Chapter 5). Indeed, the number of financial TNCs among top TNCs increased significantly over the last 20 years, rising from less than 500 to more than 700 and driving top TNCs assets up even faster (Table 2). Unlike for revenues or profit, financial TNCs account for the majority of top TNCs assets. The reason is that their assets mostly consist of debt-instruments created by themselves, such as corporate loans, securitized household

³³ As a benchmark, in the Forbes Global 2000 list of 2014, totals assets, market capitalization, sales and profit were valued at \$161.0, \$44.4, \$38.4 and \$2.9 trillion, respectively, which is close to the figures in Table 1. The official Forbes Global 2000 ranking is not strictly yet still largely based on asset value (as was done here), hence differences are to be expected.

mortgages, etc., whose value has swollen under hyperglobalization. Accordingly, the share of top TNCs profits accruing to FIRE TNCs increased from 22.9 in the late 1990s to 33.9 percent in recent years, with profits of finance and insurance exceeding those of real estate. The share of profits of extractive TNCs also rose from 9.3 percent to 13.3 percent, after exceeding 20 percent during some years of the commodity boom.

Table 2: Sectoral composition of top 2000 TNCs – selected indicators (1996-2015)

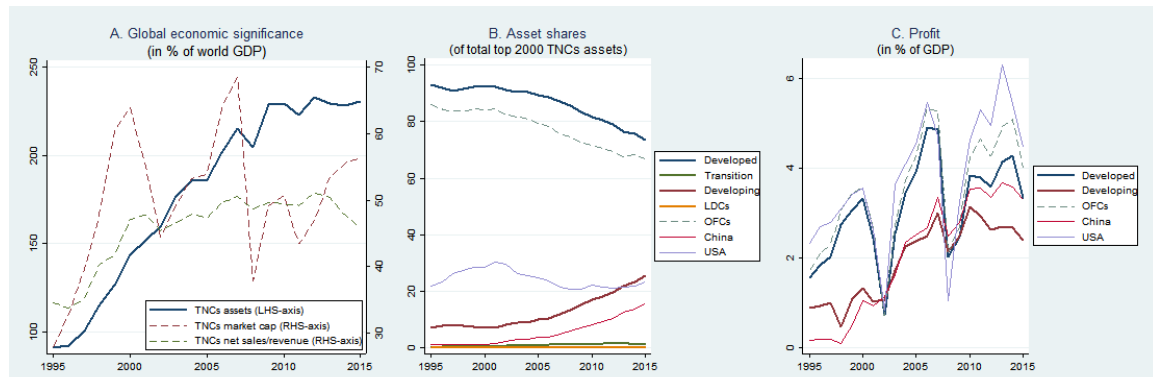
(in percent)	1996-2000	2001-05	2006-10	2011-15
NUMBER OF TNCs				
Extractive TNCs	5.1	5.0	5.6	5.5
FIRE TNCs	29.7	34.9	39.0	41.4
<i>Finance</i>	21.8	26.2	29.0	30.4
<i>Insurance</i>	3.4	4.2	4.7	4.9
<i>Real estate</i>	4.6	4.4	5.2	6.1
Other	65.3	60.1	55.4	53.2
ASSETS				
Extractive TNCs	3.5	3.2	3.7	3.9
FIRE TNCs	62.6	70.3	75.4	75.2
<i>Finance</i>	49.5	56.5	62.7	62.1
<i>Insurance</i>	11.8	12.9	11.6	11.6
<i>Real estate</i>	1.2	0.9	1.0	1.6
Other	34.0	26.4	21.0	20.9
PROFITS				
Extractive TNCs	9.3	19.6	19.8	13.1
FIRE TNCs	22.9	31.2	23.0	33.9
<i>Finance</i>	16.7	24.6	17.6	25.3
<i>Insurance</i>	5.0	5.0	3.4	4.9
<i>Real estate</i>	1.3	1.6	1.9	3.7
Other	67.8	49.1	57.2	52.9

Source: Based on UNCTAD database of consolidated financial statements, extracted from the Thomson Reuters Worldscope database (2017). **Note:** See note under Table 1. The sectors reported in Thomson Reuters are regrouped as follows. (1) Extractive activities include: Aluminum, Coal, Commodity Chemicals, Diamonds & Gemstones, General Mining, Gold Mining, Integrated Oil & Gas, Nonferrous Metals, Plat. & Precious Metal. (2) Finance activities include: Banks, Consumer Finance, Exchange Traded Funds, Financial Admin., Investment Companies, Investment Services, Investment Trusts, Mortgage Finance, Private Equity, Specialty Finance. (3) Insurance activities include: Full Line Insurance, Insurance Brokers, Life Insurance, Reinsurance. (4) Real estate activities include: Diversified Real estate investment trusts (REITs), Hotel & Lodging REITs, Ind. & Office REITs, Mortgage REITs, Real Estate Hold, Dev, Real Estate Services, Residential REITs, Retail REITs, Specialty REITs.

More pervasively, as documented by Baud and Durand (2012) for the retail sector in particular, a growing number of non-financial TNCs increasingly rely on financial operations to generate profit as domestic markets have matured and gains from global expansion are reaching their limits. Even in the supposedly most innovative and booming sectors, such as digital technologies, tech giants are exploiting financial activities to boost their profit (e.g. Bullock et al., 2017).

Shifting the focus from sectoral to geographical composition, it appears that the headquarters of top 2000 TNCs are concentrated in only 63 countries, overwhelmingly located in developed countries and OFCs. Moreover, many valuable related resources (e.g. financial capital, human capital, research and development, intangibles, etc.) are also concentrated in those countries. Since 2000, the share of assets of TNCs headquartered in developing countries started rising, jumping from 6.8 to 25.4 percent in 2015. Yet, more than three quarter of this increase were due to the rise of TNCs in a single developing country, i.e. China, whose share rose from 1.2 to 15.6 percent over that period (Chart 10.B). This stresses the limited leverage of smaller developing countries in shaping GVCs, which are effectively under the control of TNCs located in more powerful countries.

Chart 10: Top 2000 TNCs and economic concentration (1995-2015)



Source: Based on UNCTAD database of consolidated financial statements, extracted from the Thomson Reuters Worldscope database (2017) and WD (2017). **Note:** See note under Table 3.

Admittedly, using consolidated financial statements data in this paper poses several methodological challenges (e.g. Hodge, 2011). First, a large share of TNCs operations can be purely domestic, especially in large countries. This is consistent with the fact that the value of top TNCs revenues exceeds the value of global gross exports. Yet, export markets are highly and increasingly concentrated, and top TNCs all belong to the small club of so-called “export superstars” (Freund and Pierola, 2015). Evidence from aggregated firm-

level goods export data (excluding the oil sector, as well as services)³⁴ indicates that as of 2014 only 0.01 percent of all firms accounted for 57 percent of all exports, and another 0.24 percent of all firms accounted for the rest of exports.³⁵ In other words, 99.75 percent of all firms exported (virtually) nothing.³⁶ Moreover, the 10 largest exporting-firms in each country account, on average, for 42 percent of a country's total exports.³⁷ Hence, it is legitimate to consider that the consolidated financial statements of top TNCs are relevant for analyzing the evolution of international trade and finance, even though some part of their operations occur domestically. Secondly, the geographical networks of TNCs activities and ownership structures are much more complex than as approached through a simple mapping of TNC headquarters. Yet, the geographical location of headquarters remains a key criterion for establishing from where effective control over a corporate entity is exerted and there may be no better guide available.³⁸

One last aspect of “trade” must be mentioned in this brief investigation of TNC-driven GVCs as a vehicle for economic concentration: IPRs. Paradoxically, as tangible barriers to trade imposed by governments, such as tariffs and quotas, have been declining over the last decades, intangible barriers to competition rooted in trade treaties and erected by large firms themselves are surging, as they exploit the increased legal protection of intellectual property (IP) and the broadening scope for intra-firm intangible trade. As the World Trade Organization (WTO, 2012) notes, “many products that used to be traded as low-technology goods or commodities now contain a higher proportion of invention and design in their value”, i.e. protected IP content.

According to some estimates, intangible assets represent up to two thirds of the value of large firms (Menell and Scotchmer, 2007); firms that are often positively coined as “knowledge-intensive”. Yet, knowledge can be valuable for diverse reasons: for its scarcity (e.g. a patent protecting a technological innovation) or precisely because it is widely shared and engrained in the minds of consumers (e.g. brand recognition). In short, knowledge-

³⁴ See Exporter Dynamics Database (EDD) version 2.0 with additional data updates.

³⁵ These estimates are based on the assumption that only 1 percent of all firms export. For instance, in the United States only 1 per cent of firms are involved in exports (Lederer, 2017). This share may be somewhat higher in small export-oriented economies, but given high export market concentration, the number of exporting firms only represents a small fraction of the total number of domestic firms. The EDD only considers exporting firms, hence extrapolating concentration figures the all firms requires making an assumption about the proportion of exporting firms.

³⁶ According to additional data updates of the EDD, the 10 largest exporting-firms in each country account, on average, for 42 per cent of a country's total exports. In the few G20 economies represented in the sample, ie. Brazil, Germany, Mexico, Turkey and South Africa, the 10 largest firms (out of tens or hundreds of thousands of exporting firms) trusted 28, 23, 23, 15 and 34 per cent, respectively, in 2012.

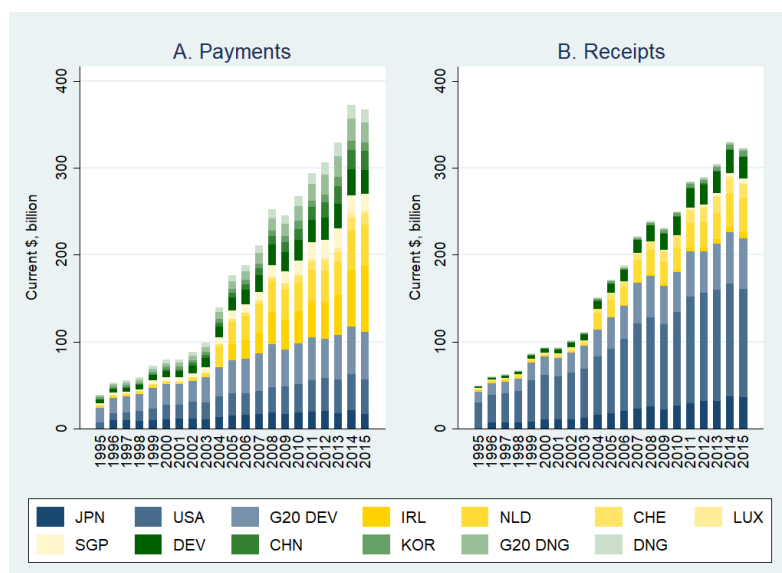
³⁷ See EDD data updates. In the few G20 economies represented in the EDD sample, ie. Brazil, Germany, Mexico, Turkey and South Africa, the 10 largest firms (out of tens or hundreds of thousands of exporting firms) trusted 28, 23, 23, 15 and 34 per cent, respectively, in 2012.

³⁸ To some extent, TNCs headquartered in the North can be in the hands of Southern investors, but the reverse situation remains more likely for historical and sociological reasons going back to the twin development of colonization and capitalism. See section 3.A.

intensive intangible assets are valuable because they ensure a certain degree of market power, not because they represent an inherent and benevolent force for innovation and technological progress.

Unlike returns to intangible financial assets, returns to knowledge-intensive intangible assets proxied by charges for the use of foreign IPRs rose almost unabated throughout the GFC and its aftermath. Between 1995 and 2015, charges for the use of foreign IPRs rose from less than \$50 billion to \$367 billion at the global level.³⁹ Obviously, developing countries remain net payers for the use of foreign IPRs, and they have so far failed to increase their share of receipts, which is close to zero (Figure 11.B). It may thus seem that developed countries are the main beneficiaries of the international IPR regime, but the reality is more twisted, as hinted at by the fact that only five high-income offshore financial centers (OFCs) accounted for 42 per cent to global payments in 2015.

Chart 11: Charges for the use of foreign IPRs (1995-2015)



Source: Data from World Bank WDI (2017).

To the extent that charges for the foreign use of IPRs represent the price of transactions taking place between unaffiliated firms, they genuinely reflect their market or “arm’s length” value and the cost charged to final consumers. Yet, a growing share of these charges represent intra-firm payments and receipts merely intended to shift profit to low-

³⁹ Note that reported payments are higher than reported receipts. Also, the number of reporting countries peaked around the GFC, with a maximum of 154 and 143 countries reporting foreign IPRs-related payments and receipts, respectively, in 2008-9. In 2015, these numbers had declined to 148 and 129, respectively. About one third of the low-tax jurisdictions classified as “non-cooperative” by the OECD in 2009 never reported these charges. Despite a decline in the number of reporting countries, IPRs charges increased after the GFC.

tax jurisdictions. Repeated leaks from fiscal authorities, banks, audit and consulting or lawyer firms' records revealing corporate tax avoidance scandals involving large TNCs recently made clear why small offshore financial centres (OFCs), such as Ireland, the Netherlands, Switzerland, Luxembourg or Singapore, which account for a tiny fraction of global production, have become the largest payers for the use of foreign IPRs (Figure 11.A).

Indeed, in the context of intra-firm profit shifting schemes,⁴⁰ IPR charges are merely an inversed and miniature representation of much larger profit shifting weighing negatively on public finances and collective wage bargaining in many third countries. Hence, the largest recipient country (i.e. the United States) simultaneously is the victim of the most massive IPR-related corporate tax avoidance.⁴¹ Far from promoting innovation or competition, such schemes rather illustrate how corporate cost saving strategies (especially in relation to labour and tax) rely on international arbitrage and free-riding; and while they may be successful for creating monopolistic rents and crushing effectively competition they do so at the cost of public welfare.

In sum, rising (export) market concentration and intangible barriers to competition as well as the growing rents of the largest players in international trade and finance are increasing their weight in rule-making at all levels, even as they tend to become ever less accountable from a social perspective as discussed above (Carroll, 2012; Carroll and Sapinski, 2017; Zingales, 2017), but also environmentally.⁴²

⁴⁰ The IPR regime in tandem with the “broken” international tax regime (IMF, 2013) together provide a legal basis inciting large TNCs to transfer their IPRs to affiliates in jurisdictions with low tax rates or offering special tax deals. For instance, a TNC headquartered in the United States can license its IPRs to an affiliate in Ireland, thus maintaining its IPRs under the stronger protection of the US jurisdiction. The Irish affiliate will pay undervalued charges for this license, but in exchange it will cash in much larger profits generated by those IPRs and pay close to no taxes in Ireland. For a more detailed discussion of IPR-based profit shifting schemes and possible solutions, see Blair-Stanek (2014). For a typology of the different forms of IP trade and value capture, see Fu (2018, Table 1).

⁴¹ According to a widely cited reference focusing on the United States (Grubert, 2003), IPR profit shifting schemes may be the most effective ones, slightly ahead of creative loans. According to US Congressional Research, IPR profit shifting schemes alone may deprive US authorities from between \$57 up to \$90 billion every year (Keightley, 2013), i.e. between 25 and 40 per cent of corporate tax revenue collected by US authorities. Other developed countries are affected as well by such schemes and developing countries may be those most affected in relative terms by profit shifting more generally (Crivelli et al., 2015). Such (tax) cost saving schemes only available to larger firms have been acknowledged to bias competition and threaten the survival of competing SMEs unable or unwilling to engage into systematic tax avoidance.

⁴² As an example of the environmental unaccountability of large players in international trade, the 2015 Paris agreement does not set any emissions reduction targets for maritime transport and civil aviation, which represent key enablers for merchandise and services (notably tourism) trade, even though they together account for 10 per cent of global emissions and their emissions are projected to grow by 250 per cent by 2050. Such an outcome was supported by developed countries governments (EU Trade Policy Committee, 2015) stating that “the EU’s overall objective is to have COP decisions without any explicit mention of trade or IPR issues and to minimize discussion on trade-related outcomes. Any attempt to create any kind of provision/agenda item/work programme/mechanism on trade/IPR at the UNFCCC discussions cannot be accepted.”

C. TIAs, their correlates and inequality

Based on insights from the two previous sections, it follows that TIAs, through their impact on GVCs and fragmentation as well as TNCs and concentration, are contributing to the almost ubiquitous rise in within-country inequality since 1990. Sorting out causality relations determining complex and relatively poorly measured phenomena, such as inequality, is no easy task, however. This subsection proposes a more modest objective and subjects to the reader suggestive evidence of correlations linking changes in indicators of GVC-led fragmentation and then TNC-driven concentration to changes in the labour income share.

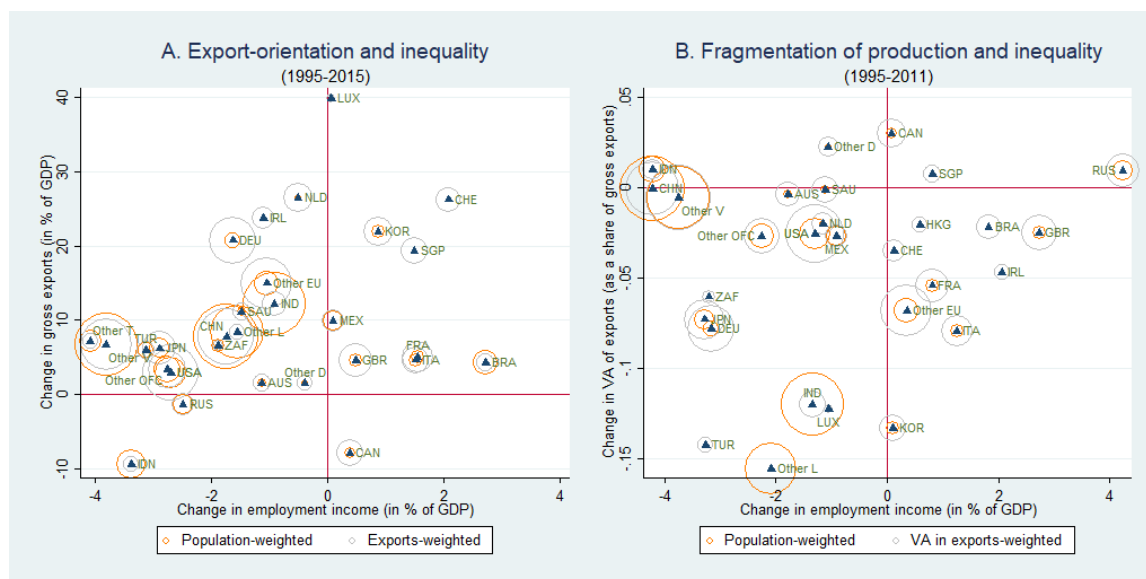
Charts 12 and 13 represent correlations between changes over time of four different indicators and changes in the employment income share across 31 countries or country groups (for country groupings, see methodology in appendix). To smoothen data volatility, indicators are measured as five-year averages. For top TNCs data, changes over time measure the difference between the 2011-15 average and the 1995-99 average. For gross exports data, which is available over a longer period, the same reference years are kept for the sake of simplicity. For TiVA data, which only runs from 1995 to 2011, changes over time measure the difference between the 2007-2011 average and the 1995-99 average. As to changes in the employment income shares from WD, they are tailored to match the period of the correlated indicator.

Starting with indicators of GVC-led fragmentation, the rising ratio of exports to GDP unambiguously increased in almost all countries since 1995 (Chart 12.A), in line with aggregate figures displayed in Chart 4. The clustering in the North-Western quadrant indicates that rising exports to GDP is associated with rising inequality, especially in the most populated countries. Because the compensation of TNC CEOs, corporate lawyers and accountants is being registered as labour income, it is not surprising to observe tiny OFCs that were successful at attracting TNCs headquarters into their jurisdictions (e.g. CHE, SGP, HKG, LUX) to register rising labor income shares. Medium-sized developed countries (some of them classified as OFCs) with rather centralized wage bargaining systems inherited from the past (e.g. FRA, ITA) or countries with somewhat progressive political coalitions in power after the turn of the millennium (e.g. GBR) also experienced a combination of rising exports, but declining inequality. Similarly, developing countries that pursued progressive employment policies, such as Brazil or Argentina (e.g. Kostzer, 2008), also appear in the North-Eastern quadrant.

Chart 12.B shows domestic value added in gross exports declined in most countries, with few maintaining a constant share over time. As discussed above, different factors may lead to a stable or rising share. It can be the result of active development strategies seeking to increase domestic value added creation while increasing participation in and control over GVCs through the promotion of national TNCs, such as in China. Alternatively, it can

reflect the marginalization of developing countries (Other V) that have not integrated into GVCs.⁴³ It can also result from the price effect of the commodity boom of the 2000s, which temporarily brightened the picture in commodity-exporting countries (e.g. AUS, CAN, IDN, RUS, SAU). Yet, populated countries, such as India or other LDCs (Other L) are in the South-Western quadrant, signaling that for large parts of the world population, increased production fragmentation is associated with rising inequality.⁴⁴

Chart 12: GVCs, fragmentation and inequality



Source: Based on data from WD (2017) and TiVA (OECD, 2016). **Note:** Argentina (large X) and Hong Kong (large Y, but only in panel A) are excluded for the sake of readability. Changes are measured as the difference between 2015-2011 and 1999-1995 averages in panel A (2011-2007 and 1999-1995 averages in panel B).

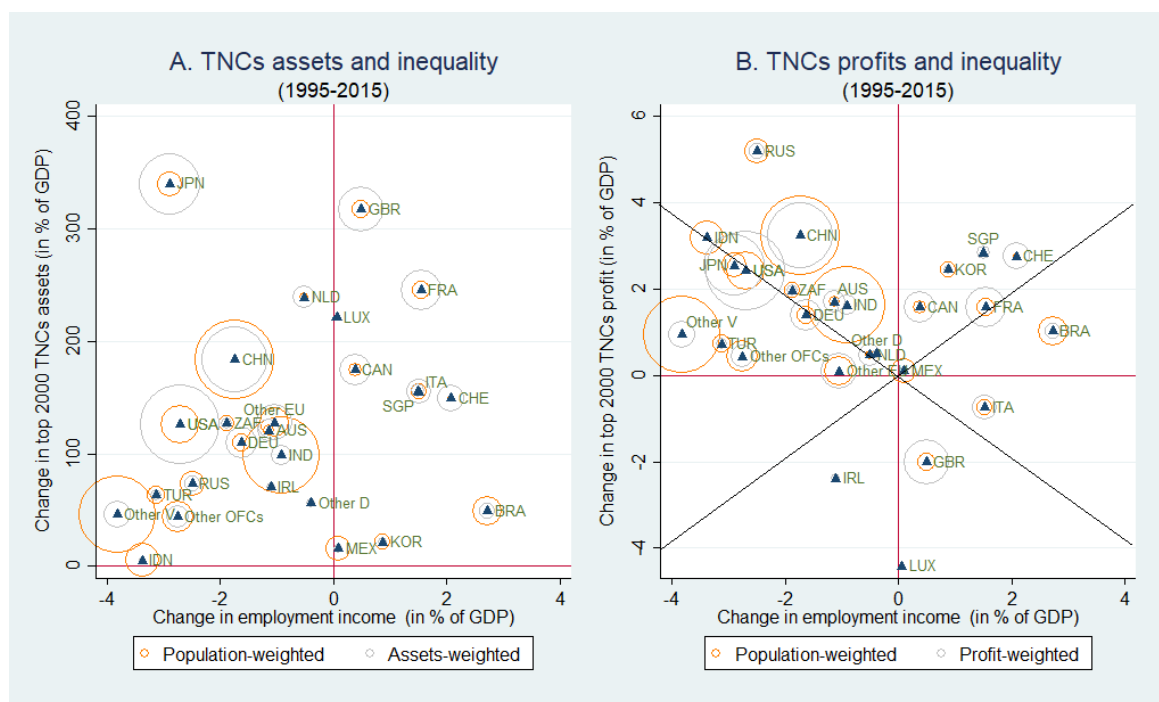
Turning to indicators of TNC-driven concentration, similar patterns emerge. Among the 31 headquarter countries or groups represented in Chart 13.A, none experienced a decline in the assets to GDP ratio of its top TNCs. In many countries, TNC assets increased by more than the value of the headquarter country GDP, including in rather large economies, such as Australia, China, Germany, Japan, the Netherlands, South Africa, the United States and other EU countries (North-Western quadrant), as well as comparatively smaller

⁴³ Note that TiVA only includes data for 63 countries, including the economically most significant ones, many of the developed. Other countries are bundled into a single category labelled “rest of the world” (ROW). Here, it was classified as developing and included in “Other V”. See methodology in appendix.

⁴⁴ For the same reasons evoked in relation to Chart 12.A, the South-Eastern quadrant mostly consists of OFCs and progressive Southern countries. The fact that other EU countries and Russia are also located in the Eastern half of the graph, unlike in Chart 12.A, is because profit was especially hardly hit in those countries following the GFC. While this shock is well captured in the 2007-2011 average, it is already less perceptible in the 2011-2015 average.

economies, such as Italy, and OFCs, such as Canada, France, Great Britain, Hong-Kong, Luxembourg, Singapore and Switzerland (North-Eastern quadrant). The more pronounced clustering in the North-Western quadrant indicates that larger increases of top 2000 TNC assets, which may reflect deepening financialization as discussed above, tend to be associated with rising functional inequality.

Chart 13: TNCs, concentration and inequality



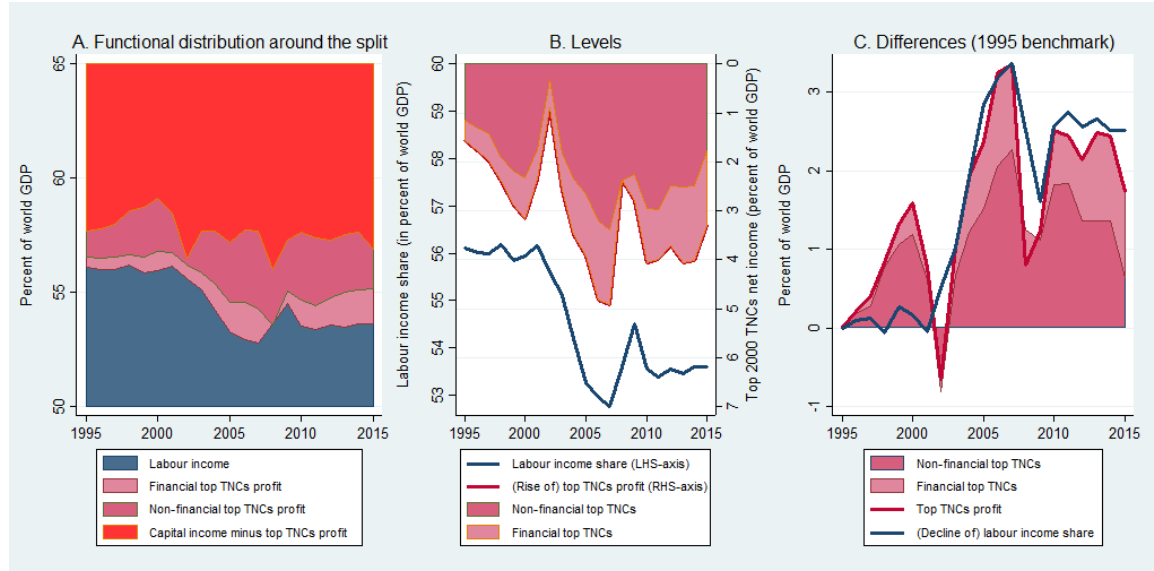
Source: Based on UNCTAD database of consolidated financial statements, extracted from the Thomson Reuters Worldscope database (2017) and WD (2017). **Note:** Argentina (large X) and Hong Kong (large Y) are excluded for the sake of readability. Changes are measured as the difference between 2015-2011 and 1999-1995 averages. As to Chart 13.B, it shows that the declines in the employment income share observed in many countries are to a significant extent reflected in the rising capital income (profit) of top TNCs. Were the decline in the latter be perfectly matched by a rise in the former, observations would be aligned on the downward-sloping diagonal of this “X-chart”. Several countries more or less fit such a scenario, including large commodity and financial services exporters, such as Indonesia, South Africa and the United States, or export-led growth role models, such as Germany and Japan. Yet, because financial statements of TNCs are consolidated on a global basis, while labour income in national accounts strictly reflects domestic value production (Hodge, 2011), the correlation of changes in Chart 13 can only be interpreted as indicative, because most profits of a TNCs may have been realized outside of its headquarter country. To overcome this methodological problem in a next step, both variables will be aggregated at the global level before concluding this section (see below).

Because the number and economic significance of Chinese and Russian top TNCs increased significantly, China or Russia appear above the downward-sloping diagonal in the North-Western quadrant. OFCs in the North-Eastern quadrant, such as Canada, Hong-Kong, Switzerland or Singapore, are also above the upward-sloping diagonal. This indicates that the expansion of their top 2000 TNCs profits outpaced the expansion of the domestic employment income share, even though such headquarter countries host a non-negligible number of well-paid TNCs employees (e.g. CEOs, accountants, corporate lawyers, researchers, etc.). Brazil and Argentina are also in the North-Eastern quadrant, but below the upward-sloping diagonal, signaling that their TNCs profit expanded too, though less rapidly than the share of labour income, likely supporting a lesser intensification of corporate rents than in OFCs appearing above this diagonal.

In Italy and several OFCs, such as Ireland, Luxembourg and Great Britain, top TNCs profits declined for various reasons. While the large banks in Ireland experienced massive losses in recent years, owing to the repeated speculative attacks against banks in peripheral euro countries, the decline in Luxembourg rather stems from exposure to volatile profit of only a few top TNCs, which experienced negative profit during that period. As to Great Britain, it suffered from its over-exposure to financial top TNCs during a time marked by continued financial turmoil in Europe.

Finally, to overcome issues arising from the geographical mismatch between the different approaches for assessing TNCs profit and labour income, both are aggregated at the global level. As shown in Chart 14, the rising share of capital income has been driven by the accelerated expansion of top TNCs profit⁴⁵ since 1995. While the share of capital income *minus* top TNCs profit remained almost stable under hyperglobalization (red area in Figure 14.A), the rapid growth of top TNCs profit (pink areas) has been a major force pushing down the global labour income share (blue area), which dropped from 56.1 per cent in 1995 to 52.8 per cent in 2007, before rising slightly in the aftermath of the global financial crisis, reaching 53.6 per cent in 2015. Reflecting patterns discussed above (Table 2), financial TNCs (light pink area) played a growing role. Although the rising share of top TNCs profit may at times come at the expense of the share of less concentrated forms of capital (red area), it has been strongly correlated with the declining labour income share. Since 1995, the rise in top TNCs profits accounted for 69 percent of the 2.5 percentage points decline in the global labour income share. Over the period running from 1995 and 2015, the correlation coefficient between annual changes in both variables has been as high as 0.82.

⁴⁵ Top TNCs profit can be approximated by the net income reported in their consolidated financial accounts.

Chart 14: Top 2000 TNCs profit and the global labour income share (1995-2015)

Source: Based on UNCTAD database of consolidated financial statements, extracted from the Thomson Reuters Worldscope database (2017) and WD (2017). **Note:** See note under Table 1. In panel A, the focus on the split between the global labour and capital income shares: pink and red areas are all part of the latter, whereas the blue area represents the former. Pink areas represent the net income or profit of top TNCs (measured in corporate accounts) as a share of global GDP (measured in national accounts). They were subtracted from the share of capital income (measured in national accounts) even though methodologies differ in several regards across both sets of accounts.

This finding confirms those of other academic researchers, who found evidence confirming the hypothesis that TNCs are a major driver of rising functional inequality. As explained by Autor et al. (2017), if globalization advantages the most productive firms,⁴⁶ market concentration will rise as industries become increasingly dominated by ‘superstar’ firms with high profits and a low share of labour in firm value-added. As the importance of superstar firms increases, the aggregate labour share will tend to fall. In support of this hypothesis, Autor et al. find evidence for the United States showing that (1) industry sales are increasingly concentrated in a small number of firms; (2) more intense industry concentration is associated with larger declines in industry labour income shares; (3) the fall in the labour share is mostly driven by the falling labour share within large firms, rather than by a fall in the unweighted mean labour share within all firms. They further find suggestive evidence that this pattern also holds for several other developed countries.

⁴⁶ Note that these authors stick to Melitz’s (2003) assumption that successful firms are necessarily productive and do not distinguish between profitability anchored in productive activities vs. unproductive schemes aimed at cutting labour and tax cost and rent-seeking to the detriment of others economic actors.

As discussed by Barkai (2016), a decline in the labour share necessarily involves a rise in the capital income share. Yet, as measured value-added accruing to capital is not net of depreciation, a rise in the capital income share can be caused by two different reasons: by a rise in the cost of capital, which may be compatible with declining and even zero profit; or by a rise in corporate profit. Documenting their evolution in the United States, Barkai found that the cost of capital declined even more rapidly than labour income between 1984 and 2014, as the share of corporate profits in value added increased by 12 points.

In sum, the correlations at the national and global level presented in this section, together with deep trends discussed in earlier sections, suggest that TIAs, by promoting GVC-led fragmentation and TNC-driven concentration are fostering inequality rather than shared development (i.e. growth *and* structural change).

5. DISCUSSION

This paper raised a genuine question: do trade and investment (agreements) foster development or inequality? It started by presenting several stylized facts that are characteristic of hyperglobalization, i.e. the concomitant rise of TIAs, cross-border capital flows, trade and inequality in a context of decelerating and debt-fueled global economic growth. Against this background, it reminded the mixed blessings of external opening throughout history and critically questioned several unrealistic core assumptions of neoclassical and new trade theory models, which are framing the unambiguously positive policy discourse that supported agreements fostering the expansion of cross-border goods and capital flows under neoliberal globalization. It further stressed how the prevailing consensus is eroding in a context where the negative impact of external opening has become more obvious, notably owing to the global financial crisis and the so-called “China shock”, as well as due to the ongoing protectionist political backlash in core (Anglo-Saxon) countries suffering from high levels of inequality and discontent.

Based on this stock-taking, this paper revisited its research question by examining the TIAs-GVCs-TNCs nexus and their impact, in an attempt to bring to light the linkages running from TIAs to GVC-led production fragmentation and TNC-driven concentration and finally to (non-) development and inequality. Using value-added trade data and new firm-level data from the consolidated financial statements of the top 2000 TNCs going back to 1995, it first showed that the fragmentation of production along GVCs failed to lead to positive structural change. Quite the opposite, instead of reallocating resources away from commodities and towards more productive manufacturing activities, which would have raised skills requirements and income, while strengthening development linkages across the economy, external opening rather stimulated unsustainable trends. By raising the profitability of capital-intensive extractive industries in the South and FIRE sectors in the

North, hyperglobalization nurtured unprecedented negative externalities for the environment, economic stability and equity.

Secondly, it presented new evidence about the growing magnitude of top TNCs operations and rents, stressing the rising ratio of top TNCs profits to revenues ratio, which increased by 58 percent between 1995 and 2015. It then interpreted this outcome in light of TNCs strategies to minimize costs (especially in relation to labour and tax) and maximize value capture along GVCs. At their core, these TNCs strategies rely on taking advantage of the increasingly intangible and geographically mobile nature of their assets (i.e. IPRs and financial assets) and on international arbitrage for creating monopolistic rents and crushing competition. This joint process of intensifying cross-border operations and corporate concentration is coming at the cost of fair competition and public welfare though, a fact that hardly squares with mainstream economic theories and assumptions attributing the growing concentration and profit of TNCs to positive factors, such as higher productivity and consumer preferences, rather than to deleterious corporate rent-seeking.

Finally, this paper presented a set of correlations suggesting the existence of a causal link running through the chain going from TIAs to rising inequality. One key finding is that the rise of top TNCs profits accounts for 69 percent of the 2.5 percentage points decline in the global labour income share between 1995 and 2015, with the correlation coefficient between annual changes in both variables as high as 0.82.

The various pieces of evidence examined in this paper call for a more facts-based and less ideological academic and policy debate on TIAs. Crucially, time has come to ditch unrealistic neoclassical assumptions, such as full employment, savings-determined investment or constant income distribution, which plague mainstream computable general equilibrium (CGE) trade models, excluding from the outset any of the major risks of deeper liberalization. As to new trade theory models, which acknowledge the possibility of unequalizing trade, they should trace the causality leading to rising corporate rents and inequality back to more realistic causes than consumers' "love of variety" or the higher productivity of super-exporters, even at the risk of venturing into more political (yet economically very relevant) questions (e.g. Rodrik, 2018).

As real discontent is now hitting back at hyperglobalization through political channels, short-sighted protectionism appears as an uncertain and risky approach for perpetuating the unequal social and economic order it created. Moreover, as the benefits of globalization are increasingly concentrated and the number of "losers of globalization" is rising fast, the mood of populations in many countries is changing, rendering an (undesirable) return to confident neoliberal globalization ever more improbable from a political perspective. Against the background of such foreseeable impasses, new approaches are needed. The exact rules and terms under which international economic integration could be maintained

and globalization endure, though under a more democratic, equitable and sustainable form, will have to be debated and implemented.

Two possible avenues need to be considered here. First, in the context of the laborious top-down push of the European Commission for enabling the provisional entry into force of CETA in 2016 (Kohler and Storm, 2016), several hundreds of economists (e.g. Piketty, 2016) drafted and signed the Namur Declaration (2016). This document outlines key principles for making the negotiations of TIAs more transparent and inclusive, as well as for introducing clauses in TIAs that would potentially transform them from vehicles for business interests into vehicles for sustainable development. Such clauses include setting prerequisites for both parties to enter into TIAs, such as ratifying core ILO conventions, the recommendations of the base erosion and profit shifting (BEPS) project and the Paris climate agreement. These would need to be accompanied by quantified fiscal and climate requirements, such as minimum corporate tax rates and greenhouse gas emissions reduction targets, as well as compulsory exchange of information in the field of taxation of TNCs and offshore structures, such as trusts. The Namur declaration also calls for independent and periodic reviews to assess whether agreements in force make a positive contribution to sustainable development, and for standstill clauses and mechanisms allowing sanctions in case a signatory party were to lower its social, sanitary and environmental norms to promote exports or attract investment. Public services of general interest should be fully excluded from TIAs and the negative list approach banned.⁴⁷ Finally, the declaration defines conditions for guaranteeing public interests in the dispute resolution mechanism of TIAs, such as ensuring judges are fully qualified (i.e. including with regards to human rights, labour and environmental laws) or scrutinizing their remuneration during and after the exercise of their mandate, along with other options as the preferred recourse to national competent courts.

Secondly, as mentioned in the introduction and discussed in relation to the mounting evidence about trade opening resulting in higher inequality and even job losses, external financial *and* trade liberalization both have macroeconomic and, eventually, macro-financial consequences, with potentially self-reinforcing feedback effects. As already noted by Keynes (1936) and Minsky (1963, 1986) and recently re-emphasized by progressive economists, rising inequality together with the higher propensity to save of the rich create a bias towards underconsumption or, alternatively, debt-led consumption enabled by financial deregulation. This destabilizing process can be further compounded in presence of global imbalances exacerbated by unfettered external opening (see Cripps et al., 2005, 2011; Stockhammer, 2011; UNCTAD, 2017, Chapter 5). Hence, instead of coupling external liberalization with budgetary orthodoxy, which is a strategy pursued by

⁴⁷ The negative list approach implies that all sectors/activities that have not been explicitly excluded from liberalization by negotiators are necessarily submitted to it, even new sectors/activities that did not exist when the negotiation took place.

most governments, the most dramatic example being crisis-ridden euro zone economies, countries engaged in external opening simultaneously need to carve out policy space (fiscal, monetary, financial, industrial, etc.) to address the challenges of inequality reduction, employment creation, financial stability and development, which market forces have proven unable to deliver on their own. Moreover, excessive concentration of financial and non-financial corporations also needs to be addressed at the domestic level.

Admittedly, the Namur declaration puts on the table many ideas, and implementing them is an even more challenging task. Yet, the consensus panglossian view on trade is a key pillar of the TINA consensus, and discarding civil society demands for reforming the governance of globalization, as has been done after the 1999 Seattle WTO protests, will not prevent the expansion of corrosive populism and tit-for-tat protectionism, etc. Much like the ideological turnaround of the IMF regarding financial openness after the global financial crisis, an ideological turnaround of the WTO and think tanks framing the discourse on trade is now required.

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7. APPENDIX

Country groupings

The classification of developed, developing, transition and LDCs follows standard UN practice, except for South Korea, which is considered developed. When using the TiVA (OECD, 2016) database, the category rest of the world (ROW) is classified as developing.

The list of OFCs includes countries that were blacklisted by the OECD and G20 after the GFC (see: <http://www.lefigaro.fr/patrimoine/2009/04/02/05001-20090402ARTFIG00612-les-trois-listes-des-paradis-fiscaux-determinees-par-le-g20-.php>). It further includes Macao, Hong Kong as well as OFCs ranked as the 10 most opaque and most influential according to the Tax Justice Network 2015 Financial Secrecy ranking (<http://www.financialsecrecyindex.com>), not considering those already included in the OECD-G20 list. Hence, the OFCs list includes: ATG, AUT, BHR, BLZ, BRB, BRN, CAN, CHE, CHL, CRI, DEU, DMA, FRA, GBR, GRD, GTM, HKG, IRL, JPN, LBR, LUX, MAC, MUS, MYS, NLD, PAN, PHL, SGP, SMR, URY, USA, VCT, ABW, AIA, AND, ANT, BEL, BHS, COK, CYM, KNA, LIE, MHL, NRU, TCA, VGB, VUT, WSM.