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The Global Value Chain Policy Series was launched in 2018 by the World Economic Forum's System Initiative on Shaping the Future of International Trade and Investment. It consists of brief policy papers on various aspects of global value chains (GVCs). The aim of the series is to stimulate cross-policy discussion and thinking about GVCs and collect ideas from researchers and practitioners on how to help GVCs contribute towards development, sustainability and inclusiveness. These ideas can then be examined in more depth in the context of particular value chains, regions or public-private initiatives. The World Economic Forum is working to bring the relevant actors together to facilitate this multistakeholder, cross-policy undertaking, aimed at catalysing partnerships for impact.

Contents

- 4 Background
- 6 Changing patterns of world trade
- 7 Defining and benefiting from GVCs
- 9 The need for a balanced approach
- 9 Consistency, collaboration, transparency and simplicity
- 11 Tax measures to promote more inclusive GVCs

Background

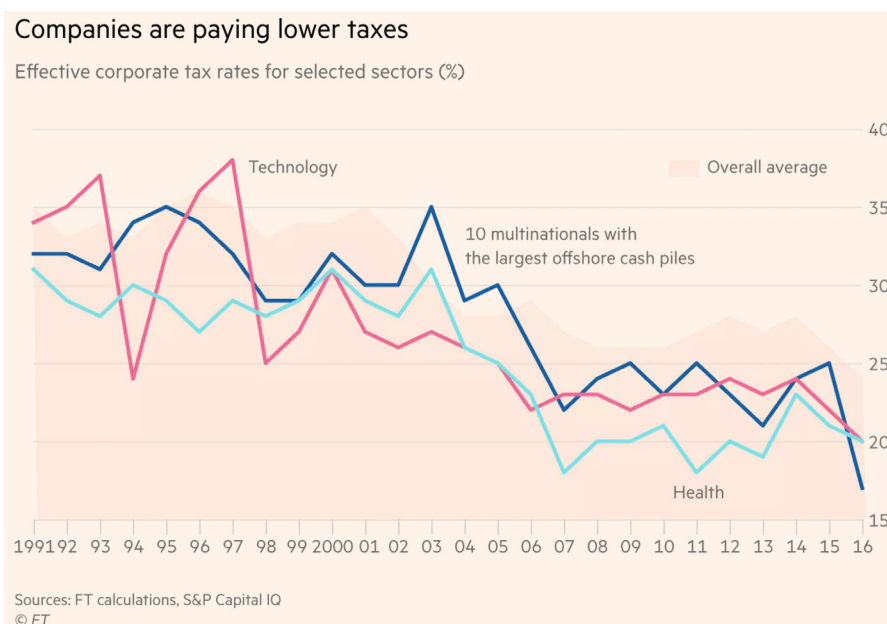
Cross-border trade, investment and global value chains (GVCs)¹ are the engines of growth in a global economy. Governments around the world recognize this and have been extending their networks of bilateral investment agreements and bilateral trade agreements and have pushed for regional networks of free trade agreements, since they believe these are effective in removing barriers to cross-border activities. Countries are also extending their tax treaty networks and identifying potential tax barriers to cross-border trade and investment and to the development of GVCs, whether these barriers take the form of regulations or social standards or tax. At the same time, governments are cracking down on aggressive tax planning and tax evasion, while continuing to engage in fierce tax competition to attract income-producing factors, investment and jobs. It is very much the responsibility of government to set the “rules of the game” in trade, tax and investment, which business must then follow if we are to achieve a level playing field.

The world of international taxation has been in constant turmoil over the past decade. If there has ever been a dividing line between international tax law and international trade policy, such a line has certainly become blurred since the tax reform of 2017 in the United States and in light of the ongoing debate in the European Union on tax avoidance, state aid and digitalization. US congressional inquiries on lawful tax avoidance by US multinationals demonstrated quite publicly in 2012 how multinationals organize their GVCs to avoid residual US tax and to minimize their corporate taxes worldwide, with further evidence produced in similar parliamentary inquiries in the United Kingdom.² A so-called “race to the bottom” had been unfolding for years and was evident in the late 1990s as several countries the world over continued to reduce their corporate tax burden to attract foreign capital, whether explicitly and transparently or cloaked by opaque ring-fenced³ regimes or rulings.

This was not only an issue for tax revenues and tax administrations, as the tax base has eroded over time. Underlying such debates was a concern over unfair trade advantages gained by such multinationals through seemingly aggressive tax planning which not only defeated the US tax system but also exploited weaknesses of international standards embraced by Europe and the Organisation for Economic Co-operation and Development (OECD). In 2010, the OECD had enacted a new chapter of its Transfer Pricing Guidelines⁴ tackling “business restructurings”,⁵ focused on highly integrated and MNE-operated GVCs. Yet the G20 perceived this and other efforts as insufficient to tackle the tax (and trade) problem that became very public thanks to the US and UK parliamentary inquiries. Instead of targeting competing and uncoordinated national policies alone, however, the G20 and the OECD focused on legislative or normative reforms that would curb aggressive tax planning by multinationals.

As such, under a G20 mandate, the OECD addressed tax competition and the infamous race-to-the-bottom practised by countries *indirectly* – by combating global tax planning schemes used by multinationals, labelled as “base erosion and profit shifting”, or BEPS.⁶ Describing such schemes and pointing out “actions” purported to curb abuse were not only the object of a 2013 OECD report to the G20 but also the content of a massive OECD/G20 project started in 2013 to produce “final deliverables” in 2015 – and yet far from over. Creating, enhancing and standardizing “anti-abuse” rules in several areas of international taxation, including by reforming tax treaties and the OECD TPG, were at the core of the BEPS project, exhaustively debated by the international tax community over the past few years. The chart by the *Financial Times* in Figure 1 depicts the continued race to the bottom that persists after BEPS.

Figure 1: Effective Corporate Tax Rates for Selected Sectors⁷



Nonetheless, the international relations dynamics of this anti-tax abuse reform was a fine and still often underappreciated balance between tax cooperation and fierce tax competition. All countries engaged were indeed interested in cooperating to protect their tax base. However, countries took such a cooperative stance while seeking to increase their relative attractiveness to capital and competitiveness. This was achievable through the widespread adoption of new consensus-based anti-abuse standards and “non-harmful” incentives encased by the BEPS project. It is not only the allocation of the corporate tax base but also, and perhaps most importantly, the allocation of valuable links in GVCs (and the corresponding development of human capital that fuels GVCs),⁸ which underlie the global tax debate.

Before the dust settled in the aftermath of BEPS, the US tax reform served to remind the world in general and developing countries in particular that all nations are engaged in tax competition and are interested in attracting MNE-controlled GVCs. Accordingly, the focus of this paper is on designing sensible international tax policies that are fit for purpose and can make GVCs more sustainable and inclusive. BEPS demonstrates that the attraction of GVC-related foreign direct investment (FDI) through harmful tax competition is unsustainable. Meanwhile, coherent investment, tax and education policies not only make GVCs more sustainable over time but can also enable a greater inclusion in GVCs of developing countries and of small and medium-sized enterprises (SMEs). Furthermore, sustainable tax policies, in the spirit of cooperation and transparency that emerges from the BEPS project, facilitate the inclusion in GVCs of all nations (developing, emerging or developed). This includes those that have been less lenient towards foreign capital and GVC links in their international tax and trade policies (e.g., Brazil), thereby leading to gains in global welfare.

Changing patterns of world trade

Few now contest that cross-border trade and investment are engines for growth. In the three decades up to 2008, world trade expanded at twice the rate of world GDP. But since the global financial crisis, the rates of growth in trade and GDP have been aligned and there has been a significant slowdown both in cross-border trade and investment, at least up to the end of 2016.

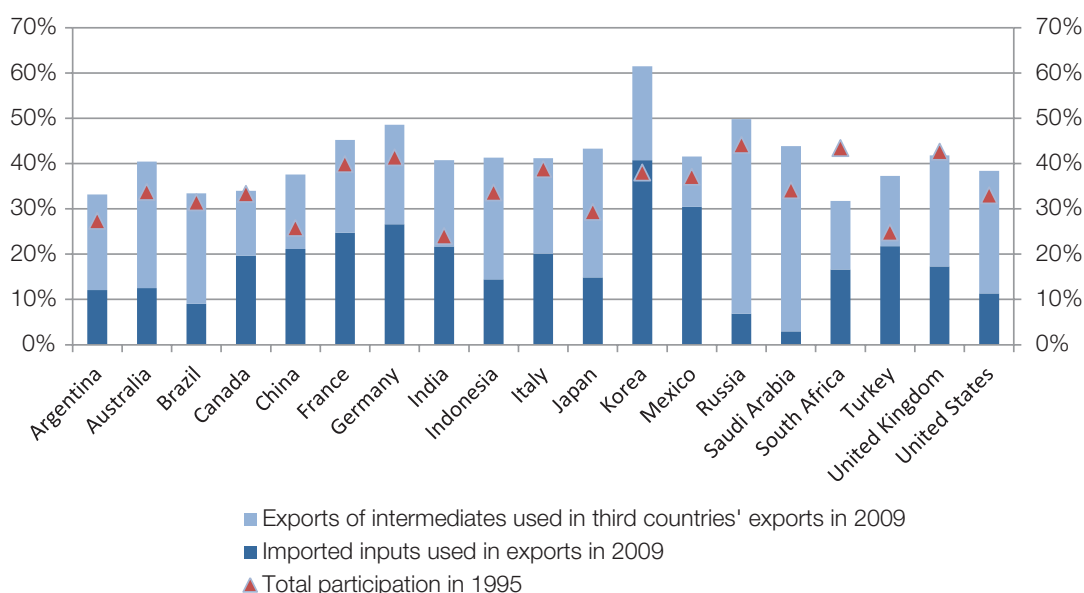
The pattern of trade continues to shift towards emerging economies, and fast growth in trade in services will continue.

Apart from the slowdown in the growth of trade, there have also been changes in trade patterns. The most significant are:

- A shift away from trade in goods to trade in services: Today, 70% of the trade within the OECD area is now in the service sector and increasingly the BRICS (Brazil, Russia, India, China and South Africa) are moving into this sector.
- The increasing importance of new players: In 2014, almost 50% of world trade was between the 34 OECD countries, but recent forecasts by the OECD suggest that by 2060 this will fall by 25% and trade between OECD countries and non-OECD countries, which is currently just under 40%, will increase to 42%. South-South trade will come to dominate trade patterns and, by 2060, India and China combined will account for 23% of world exports (today the figure is 14%).

Participation in GVCs requires open and integrated trade in goods, services and technology and remains uneven across countries as demonstrated in Figure 2.

Figure 2: GVC Participation 1995-2009⁹



Source: OECD (2013). The index is calculated as a percentage of gross exports and has two components: the import content of exports and the exports of intermediate inputs (goods and services) used in third countries' exports.

Defining and benefiting from GVCs

GVCs have stimulated economic growth in many parts of the world in the past two decades. Income from GVC trade flows was found to have doubled between 1995 and 2009 and increased sixfold for China, fivefold for India and threefold for Brazil.¹⁰

Efficiency-seeking FDI is the fuel of GVCs that has fostered not only a higher degree of interdependence between developed economies but also the insertion of non-OECD countries – particularly from Asia – in highly sophisticated MNEs. This interdependence is exemplified by the finding that 30%-60% of exports from G20 economies are made up of imported inputs or are used by trading partners as inputs.¹¹ Further, data from the US Department of Commerce demonstrate that “in 2014, related-party trade accounted for 42.3 percent (\$1,667.3 billion) of total goods trade (\$3,937.4 billion)... about 50.9 percent (\$1,178.7 billion) of consumption imports (\$2,314.0 billion) and about 30.1 percent (\$488.5 billion) of total exports (\$1,623.4 billion)”.¹²

GVCs are often managed and controlled by MNEs headquartered in developed countries (most notably the US and increasingly China) and have placed Asia at the epicentre of a global surge of international trade in goods and services. At the same time, local firms make a significant contribution, to the tune of 40%-50% of export value added.¹³

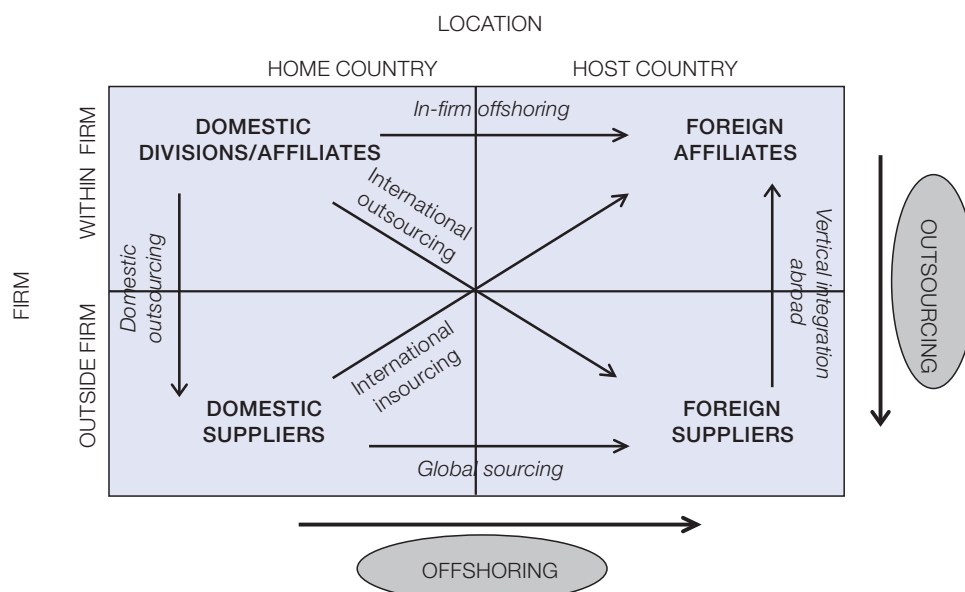
A delicate balance has to be struck between the benefits to developing countries and emerging markets from connecting with the world’s developed economies through MNEs and their GVCs, and the benefits to developed economies from accessing labour and consumer markets in developing and emerging economies.

Welfare benefits arising from increased trade are among the gains to be had from growing participation of all countries in GVCs. The World Customs Organization (WCO) Permanent Technical Committee (PTC)¹⁴ highlights the opportunity GVCs provide developing countries and SMEs:

“The fragmentation of production has created new opportunities for developing economies and for small and medium-sized firms to access global markets as components or services suppliers, without having to build the entire value chain of a product and... SMEs are usually acting as subcontractors providing intermediate input. E-commerce is having an important role in the expansion of GVCs and in integrating SMEs into them. At the same time, GVCs place new demands on firms, in particular as regards the need for strong coordination and efficient links between production stages and across countries.”

MNE-controlled GVCs are the means by which critical “buy versus make” decisions are made within firms. Figure 3 demonstrates the decisions available to MNEs to outsource (buy) or insource (make) inputs and activities, as well as to onshore or offshore fragmented production.¹⁵

Figure 3: Firms’ Strategies of Outsourcing and Offshoring¹⁶



Source: Based on OECD (2006), OECD (2007a) and Miroudot et al (2009).

The fact that MNEs not only fragment value chains when outsourcing and/or offshoring to third-party suppliers of goods and services but also while offshoring to and interconnecting commonly controlled, separate legal entities across countries, poses significant challenges to tax policy design. Coherent tax, customs, investment and trade policies have, therefore, to be designed, considering the challenges but not losing sight of the benefits from fostering inclusive growth through GVCs. An over-aggressive implementation of the BEPS project, or “going beyond the arm’s length principle” in the context of taxing MNE-controlled GVCs, may create tax uncertainty and dampen growth and FDI, particularly in less-developed countries and emerging economies.¹⁷

The operations of MNEs have changed significantly due to the removal of non-tax barriers to trade, the advancement of information and communication technologies (ICT) and the significant expansion of their operations in emerging markets, such as China and India.¹⁸ Growth through GVCs has not been, however, very inclusive given that the international tax framework was established in the last century and does not account for current realities, such as the mobile nature of capital.¹⁹

Aside from lower trade barriers, technological advances and access to new markets, an additional factor has changed the way MNEs operate. Decades of human capital²⁰ development have stimulated the growth of knowledge-based capital (KBC),²¹ which is a great enabler of GVCs. Firms and economies are investing more and more in KBC to increase their gains from GVC participation and upgrade to stages of higher value added in the value chain.²² This environment is characterized by greater information symmetry and mobile and networked knowledge workers whose movement facilitates knowledge flows.²³

Fragmented *supply* chains do rely on people and skills but are primarily about manufacturing and distribution, while fragmented *value* chains can only function through sophisticated people functions, through human capital. The term supply chain here is used to emphasize the manufacturing and distribution-related stages, whereas the term value chain also includes “other activities such as design and branding that add value to a product but do not necessarily reflect a physical transformation”.²⁴

In addition to the tax measures discussed in more detail below, there are key trade policy considerations raised by the growing importance of international production networks. The smooth functioning of supply chains requires the speedy, reliable and efficient administration of customs procedures and logistics as goods cross borders multiple times as inputs, parts and components and final goods at various stages of the value chain. Consequently, trade facilitation measures, including “Single Window, separation of release from final determination, advance rulings, inward/outward processing procedures”, become crucial.²⁵ Given the important role played by KBC, facilitating the movement of knowledge workers is also beneficial.

Second, when trade occurs through GVCs, there is a stronger case for pursuing trade negotiations at the multilateral as opposed to bilateral level. This is because when production processes are fragmented, countries are affected by barriers and policies instituted, not only by direct trading partners but also by third countries located at other stages of the value chain.²⁶ Countries should push ahead with removing non-tariff barriers to cross-border trade and reinvigorate the discussion in the WTO and regional trade negotiations on trade liberalization.

The need for a balanced approach

A number of challenging tax-technical issues arise in the context of MNE-controlled GVCs and human capital deployment within firms. These range from fundamental definitions regarding the subjective scope of tax treaties and the understanding of the “enterprise” under treaty law to the interpretation of permanent establishment rules and transfer pricing.²⁷ MNEs have a greater ability to avoid taxation on their *residual profits* in the context of GVCs, or even to deflate source-country profits while inflating such GVC-produced residual profits (whether or not in compliance with the OECD Transfer Pricing Guidelines).

By focusing exclusively on the potential tax avoidance or abuse that can, in theory, be facilitated in the context of MNE-controlled GVCs, countries may erect tax barriers to international trade and international investment. Anti-BEPS measures can effectively turn into anti-FDI and anti-trade measures. The authors have noted the risks of over-implementation of anti-BEPS measures, particularly in the context of developing countries:²⁸

“Some of the potential pitfalls that can emerge... post-BEPS pertain to the risk of uncoordinated and unilateral over-implementation of what may be interpreted as anti-BEPS measures, particularly in the area of transfer pricing and tax treaty entitlement. The inadvertent enforcement of anti-avoidance or anti-abuse theories, which were experimented with in the discussion drafts (and in academia) leading to the final BEPS reports, may overburden tax administrations... and cause a tsunami of litigation with highly uncertain prospects. This may be a risky venture for tax administrations to embark upon. Going ‘beyond arm’s length’²⁹ and seeking to unilaterally adopt formulary apportionment results through interpretation of anti-BEPS language or policies is a danger that could hurt economies...

The adoption of such unilateral action would not only have highly uncertain revenue results (given the complex nature of the factual and legal problems which would be at stake) but, irrespective of the outcome of the protracted litigation that would ensue, uncoordinated enforcement or unilateral aggressiveness and litigation in the area of transfer pricing would be detrimental to the operation of GVCs... This could trigger potential distortions through disaggregation or fragmentation of such value chains,³⁰ potentially dampening inward FDI and knowledge-based capital (KBC) transfers... Further, such an uncoordinated stance could inspire similarly unilateral and aggressive postures in other developing and emerging nations..., not to mention triggering adverse responses in the developed world.”

Consistency, collaboration, transparency and simplicity

The primary means of international tax policy recommended to promote the growth of GVCs is the enhanced consistency of tax rules, interpretation and enforcement standards across countries. This increases tax certainty, fostering investment and growth. That, and enhanced cooperation between countries and MNEs, can reduce the complexity inherent to transfer-pricing issues and facilitate the operation of GVCs the world over, with proper allocation of profits where value is created and in accordance with the OECD Transfer Pricing Guidelines.

As noted by the authors, “[p]olicymakers should build on the understanding of the functioning and importance of GVCs demonstrated in the 2013 and 2014 joint reports of the OECD, the WTO, UNCTAD and the World Bank, and restrain from raising corporate income tax barriers or distortionary incentives that could adversely affect such value chains post-BEPS.”³¹ MNEs and tax authorities can cooperate multilaterally and include common GVC analyses in bilateral or multilateral “advance pricing agreements” (APAs), thereby reducing uncertainty to all. Tax administrations can always collaborate on monitoring efforts, cooperative compliance (including compliance assurance processes such as the US Compliance Assurance Process programme) and conduct simultaneous examinations and joint audits.

In fact, one of the most important outcomes of the entire BEPS project seems to be the enhanced transparency of taxpayers and the new normal for exchanges of information that arises from BEPS Action 13 taken in the context of the Global Forum on Transparency and Exchange of Information for Tax Purposes (the “Global Forum”).

Indeed, the authors have already noted: “The new impetus to international cooperation achieved through the Global Forum, which crystallized in the accession of 96 countries to the Multilateral Convention on Automatic Exchange of Information (MCAEOI), was a remarkable achievement... A similarly impressive result was the January 2016 accession of no less than 31 countries to the CbC MCAA [Multilateral Competent Authority Agreement on the Exchange of Country-by-Country Reports], which enables the automatic exchange of CbC reports, following Action 13 of the BEPS Project. Unprecedented transparency concerning the footprint of large MNEs and their GVCs, through the exchange of CbC reports (authorized not only by domestic laws but also under the CbC MCAA), is one of the main outcomes of the BEPS Project.”³²

This unprecedented environment of tax transparency should increase certainty and facilitate the operation and the expansion of GVCs in favour of approaches involving unwarranted tax enforcement and protracted litigation.

It is important to note that FDI is less sensitive to tax incentives than it is to certainty. Nonetheless, this sensitivity

analysis is two-pronged, as it is dependent on types of FDI in relation to “peer-country groups”. That is, market-seeking or asset-seeking FDI is not as sensitive to taxation as efficiency-seeking FDI, and yet even efficiency-seeking FDI considers country-peer groups. Location decisions for MNE-controlled efficiency-seeking FDI would group countries according to geographical proximity and/or labour supply, productivity and infrastructure. Comparable countries (considering non-tax features) do compete in respect to taxation; still, FDI tends to be more sensitive to tax certainty, as compared to tax incentives.

Accordingly, each country’s broader institutional framework precedes tax certainty, while national or international instruments are required to support the rule of law. Wider tax treaty networks with effective dispute resolution mechanisms are recommended. Developing countries with tax treaties containing effective dispute resolution mechanisms (such as mutual agreement procedures, or MAP, with mandatory and binding arbitration, learning from trade and investment frameworks and systems) are more attractive to FDI and GVCs than those just lowering tax through tax treaties or through domestic law. Service-oriented tax authorities and “cooperative compliance” programmes also enhance trust and institutional frameworks, and a process of certification of “cooperative authorities” and “compliant taxpayers” could serve as incentives for greater transparency and cooperation.

In addition, not only developing countries but also SMEs would benefit from simpler transfer-pricing rules. National tax systems can develop transfer pricing “safe harbours” that are coherent with the arm’s length principle embraced by the OECD and the UN, and without harm to the OECD Transfer Pricing Guidelines. Such national systems would operate alternative (and optional) rules that would be not only simpler but also “safe enough” for national treasuries. Given the enhanced transparency and cooperation standards and the availability of automatic exchanges of information, coupled with the use of trust-based, multilateral technologies (e.g. distributed ledger technology: blockchain), developing countries are now better able to manage and assess transfer-pricing risks, while operating simpler safe harbour systems.

Tax measures to promote more inclusive GVCs

There are many tax measures governments can take to encourage GVCs which are inclusive (in terms of involving SMEs and developing countries) and sustainable. Box 1 identifies some key actions.

Box 1: What tax measures can promote sustainable and inclusive GVCs?

- Extend the network of tax treaties in regions (e.g. Africa) and covering countries (e.g. Brazil) which have a limited number of treaties, while ensuring that such treaties have strong anti-abuse provisions and effective dispute resolution mechanisms.
- Develop clear tax rules for determining where value arises in GVCs and achieve consistency in applying them. Use multilateral rulings and APAs involving the main countries in a GVC.
- Carry out multi-country audits and controls covering both developed and developing countries within a particular value chain, accompanied by the multilateral monitoring of multi-country APAs.
- Avoid the use of discretionary tax incentives and explore how special economic zones, as well as input incentives fostering human capital, could enable coherent resource mobilization to increase GVC participation. Research, development and innovation (RD&I) programmes, as well as education or training tax credits (fostering public-private partnerships in education and technical training), could be used to facilitate the development of GVCs, drawing on the experience in Asia but at the same time avoiding that these open up new avenues for tax evasion and aggressive tax planning.
- Use new technologies, especially the distributed ledger or blockchain technology, to minimize non-tariff barriers and improve the application of customs treaties and tariff duties as goods and services move between countries in the GVC. The WCO could play a key role here.
- Ensure a more consistent application of the OECD VAT guidelines; refine standards specifically addressing highly integrated GVCs and export-related VAT exemptions and refunds.
- Develop simplified transfer-pricing rules for optional use by SMEs and developing countries engaging in complex GVCs. These could take the form of safe harbours or transaction-based formulae approaches, framed under the arm's length standard.
- Explore the option of cooperative compliance programmes as they could apply to GVCs and to transparent, compliant taxpayers; consider *taxpayer surveys* as instruments to attest service quality by tax administrations (which would enhance institutional reliability and attract FDI).
- Explore the use of multilateral cooperative compliance agreements tailored to the needs of SMEs and LDCs.
- Use new communication techniques that can provide information on the different tax rules that may apply to each part of a GVC and which would facilitate the inclusion of some SMEs and LDCs.
- Develop easily accessible portals that would assist SMEs that are entering GVCs to be compliant with the tax rules of the countries in which they operate.
- Put in place more effective dispute resolution mechanisms to resolve cross-border tax disputes which inevitably arise in GVCs. Develop a tax mediation process covering all of the major countries along a GVC. Move towards mandatory treaty-based dispute settlement procedures, such as MAP arbitration.

Endnotes

1. See OECD, WTO and UNCTAD, *Implications of Global Value Chains for Trade, Investment, Development and Jobs*, 2013; OECD, *Interconnected Economies: Benefiting from Global Value Chains*, 2013.
2. See Tavares, Romero J.S., Bret N. Bogenschneider and Marta Pankiv, “The Intersection of EU State Aid and US Tax Deferral: A Spectacle of Fireworks, Smoke, and Mirrors”, *Florida Tax Review*, vol. 19, no. 3, 2016.
3. Ring-fenced regimes are preferential tax regimes that are isolated from the domestic economy of the country creating the regime. This could be by limiting the benefits of the regime to non-residents or by preventing the entity benefitting from the regime from operating in the domestic market.
4. OECD, *Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations*, 2017.
5. OECD, *Report on the Transfer Pricing Aspects of Business Restructurings: Chapter IX of the Transfer Pricing Guidelines*, 2010.
6. OECD, *Addressing Base Erosion and Profit Shifting*, 2013, <http://www.oecd.org/tax/addressing-base-erosion-and-profit-shifting-9789264192744-en.htm>; OECD, *Action Plan on Base Erosion and Profit Shifting*, 2013, <http://www.oecd.org/tax/action-plan-on-base-erosion-and-profit-shifting-9789264202719-en.htm>.
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8. Tavares, Romero J.S. and Jeffrey Owens, “Human Capital in Value Creation and Post-BEPS Tax Policy: An Outlook”, *Bulletin for International Taxation*, vol. 69, no. 10, 2015, 7 September 2015.
9. OECD, WTO and UNCTAD, 2013, *supra* note 1, p. 7, Figure 1.
10. *Ibid*, p. 12. Here, income from trade flows in GVCs is “measured as the domestic value added embodied in foreign final demand”.
11. *Ibid*, p. 6.
12. US Department of Commerce, “U.S. Goods Trade: Imports & Exports by Related-Parties 2014”, *US Census Bureau News*, 5 May 2015, https://www.census.gov/foreign-trade/Press-Release/2014pr/aip/related_party/rp14.pdf.
13. OECD, WTO and UNCTAD, 2013, *supra* note 1, p. 5.
14. World Customs Organization Permanent Technical Committee, *Future of Customs – Global Value Chains (Item X(a) on the Agenda)*, 213th/214th sessions, Brussels, 2016; De Backer, Koen and Sébastien Miroudot, “Mapping Global Value Chains”, *OECD*, 2013, http://www.oecd-ilibrary.org/trade/mapping-global-value-chains_5k3v1trgnbr4-en; Kowalski, Przemyslaw *et al.*, “Participation of Developing Countries in Global Value Chains: Implications for Trade and Trade-Related Policies”, *OECD*, 2015, <https://www.oecd-ilibrary.org/docserver/5js33lfw0xxn-en.pdf?expires=1524872380&id=id&accname=guest&checksum=90B260B358ADD02C17F0A767DAF499B8>
15. See OECD, 2013, *supra* note 1, p. 18; Tavares, Romero J.S., “Multinational Firm Theory and the International Taxation of Entrepreneurial Risk”, *IBFD*, 2018 (forthcoming).
16. OECD, 2013, *supra* note 1, p. 18.
17. Tavares, Romero J.S. and Jeffrey Owens, “Global Tax Policy Post-BEPS and the Perils of the Silk Road”, *Asia Pacific Tax Bulletin*, vol. 22, no. 6, 2016.
18. Tavares and Owens, 2015, *supra* note 7.
19. Owens, Jeffrey, “Tax Policy in the 21st Century: New Concepts for Old Problems”, *Global Governance Program, Robert Schuman Centre for Advanced Studies, European University Institute*, Issue 2013/05, September 2013, http://cadmus.eui.eu/bitstream/handle/1814/28499/2013-5-Policy%20Brief_RSCAS_GGP.pdf?sequence=1&isAllowed=y.
20. OECD, *Human Capital Investment: An International Comparison*, 1998; OECD, *The Well-Being of Nations: The Role of Human and Social Capital*, 2001; OECD, *Human Capital*, 2007; OECD, *Supporting Investment in Knowledge Capital, Growth and Innovation*, 2013, <http://dx.doi.org/10.1787/9789264193307-en> (the “OECD, KBC Report, 2013”). See also World Economic Forum, *The Human Capital Report*, 2013, which states: “[a] nation’s human capital endowment – the skills and capacities that reside in people that are put to productive use – can be a more important determinant of its long term economic success than virtually any other resource.”

21. OECD, KBC Report, 2013, *supra* note 19, at pp. 21 and 22, respectively, where it is stated that: “KBC is poorly measured and its many policy implications require further assessment.” and “Knowledge-based capital comprises a variety of assets. ... This non-tangible form of capital is, increasingly, the largest form of business investment and a key contributor to growth in advanced economies. One widely accepted classification groups KBC into three types: computerized information (software and databases); innovative property (patents, copyrights, designs, trademarks); and economic competencies (including brand equity, firm-specific human capital, networks of people and institutions, and organisational know-how that increases enterprise efficiency)”.
22. *Ibid*, p. 22.
23. *Ibid*, p. 281.
24. WCO PTC, 2016, *supra* note 13.
25. OECD, WTO and UNCTAD, 2013, *supra* note 1, p.16.
26. *Ibid*, p. 19.
27. Tavares, Romero J.S., “Multinational Firm Theory and International Tax Law: Seeking Coherence”, *World Tax Journal*, vol. 8, no. 2, 2016.
28. Tavares and Owens, 2016, *supra* note 16.
29. Tavares and Owens, 2015, *supra* note 7, p. 592.
30. See Tavares & Owens, 2015, *supra* n. 7, pp. 598-599 on “[t]he GVC Fragmentation Spillover”; Langbein, Stanley I., *US Transfer Pricing and the Outsourcing Problem*, *Tax Notes International*, pp. 1065-1092, 2005.
31. Tavares and Owens, 2015, *supra* note 7.
32. Tavares and Owens, 2016, *supra* note 16.



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