



the dtic
Department:
Trade, Industry and Competition
REPUBLIC OF SOUTH AFRICA



POLICY BRIEF 1: NOTE ON WTO MORATORIUM ON ELECTRONIC TRANSMISSIONS

July 2020

Simon Roberts and Pamela Mondliwa

Industrial Development Think Tank¹

1. Introduction

In 1998, on the basis of a proposal submitted by the United States, WTO members adopted a Declaration on global electronic commerce which included a two-year moratorium stating that “Members will continue their current practice of not imposing customs duties on electronic transmissions”. Since 1998, this Moratorium has been renewed every two years (except for 2003-2005 when the members failed to reach a decision in Cancun). However, the debate on whether this Moratorium on custom duties on electronic transmissions (ET) should be removed or made permanent has remained inconclusive even after twenty years of discussions in the WTO.

The current two-year extension to the Moratorium on ET expires in December 2019 and a decision on whether to continue the Moratorium, suspend it or make it permanent has to be taken by the member states. South Africa together with India have argued in favour of suspension of the Moratorium, however, many developed countries want to extend the Moratorium and some are insisting on making the Moratorium permanent. The debates on whether or not the Moratorium should be extended have focused on the loss of tariff revenue due to rapidly increasing product digitalization.² In addition, other important considerations include the definition of electronic transmissions and the development implications of the Moratorium in the digital era.

Arguments for a permanent Moratorium on electronic transmissions are part of a package being promoted by some countries and business lobbies which includes free flow of data, refraining from taxing electronic transactions, not imposing localization requirements, and refraining from demanding access to source codes.³ The free and open commerce without borders that this seeks to create risks entrenching early mover advantages (in developed economies) and renouncing potentially important policy tools in the development of a digital industrial policy in developing economies.

The example of China, which has risen as a strong competitor to the West when it comes to the digital economy, demonstrates the importance of digital industrial strategies to support domestic capability development. The Moratorium undermines the effectiveness of industrial

¹ The note is prepared by Pamela Mondliwa and Simon Roberts. It draws substantially on research conducted by Rashmi Banga of UNCTAD.

² UNCTAD Research Paper No. 29, UNCTAD/SER.RP/2019/1, February 2019, https://unctad.org/en/PublicationsLibrary/ser-rp-2019d1_en.pdf.

³ This is commonly referred to as the “Digital Two Dozen” and was part of the Trans-Pacific Partnership platform.

strategies to do this in developing countries. It also conflicts with the regulation of digital platforms, notwithstanding that this is now being widely recommended in OECD economies.⁴

In this note we evaluate the arguments for and against the renewal of the Moratorium focusing on the implications for a developing country like South Africa. The note provides a critical review of the main studies estimating the impact of customs revenue losses, in Section 2. In section 3, there is a discussion of the implications of the scope creep that has resulted from the changes in the definitions of electronic transmissions. Section 4 assesses the likely implications of the Moratorium in the context of the requirements of a digital industrial policy. Section 5 draws conclusions and makes recommendations on a position for South Africa.

2. Moratorium and Tariff Revenue Loss

The ET moratorium means countries forego tariffs. The main studies quantifying the tariff losses differ on whether the losses are significant. The quantification depends on estimates of the size of the trade in electronic transmissions (which are now defined as *digitizable products and services* – see below) and the tariffs which would be applied. The WTO (2016) estimated that the revenues foregone are very small at US\$756mn of which 92% is lost by developing countries.⁵ This loss is a minor share (0.26%) of custom revenues from all imports, and even lower if taken as a share in total government revenues.

A quite different order of magnitude is calculated by UNCTAD (2019) based on estimates of the size of trade in digitizable products in 2017.⁶ The estimate is based on the recorded growth in imports of the 49 categories of digitizable products from 1998-2010 and using this to project growth through to 2017, compared to the physical imports recorded of these products in that year. The difference is the estimated imports of electronic transmissions of the digitizable products, as these are not being properly picked up in the trade data. The 'online' global imports of ET is estimated to be US\$139bn, which is larger than the physical global imports of the 49 digitizable products recorded at US\$116bn in 2017. The potential tariff revenue losses for developing countries using bound duties is estimated at US\$10bn per annum (UNCTAD, 2019) with tariff revenue losses to African countries being around US\$2.6bn of this total in 2017.

South Africa's losses are estimated at US\$37mn using bounded or most favoured nation (MFN) duties and US\$25mn when using effectively applied duties (UNCTAD, 2019). The bounded duties amount to R542mn or 1% of South Africa's tax revenue in 2017. Though this may not seem like a large sum, as the digital economy grows so too will the proportion of electronic transmissions in trade, including through the servicification of manufacturing. A permanent moratorium on customs duties implies an increasing loss of customs revenue for developing countries, as large and growing net importers of ETs.

⁴ See, most recently, the Report by the Commission 'Competition Law 4.0' for the German government on 'A New Competition Framework for the Digital Economy', September 2019.

⁵ WTO 2016-JOB/GC/114. ECIPE (2019) reaches a similar conclusion regarding minimal tariff revenue losses for developing countries. These studies follow similar approaches in Pérez-Esteve, R. and L. Schuknecht (1999) "A Quantitative Assessment of Electronic Commerce", WTO Staff Working Paper ERAD-99-01; Mattoo, A., R. Pérez-Esteve, and L. Schuknecht (2001) "Electronic Commerce, Trade and Tariff Revenue: A Quantitative Assessment", *The World Economy*, Volume 24, Issue 7, pp. 955–970.

⁶ UNCTAD Research Paper No.29, UNCTAD/SER.RP/2019/1, February 2019.

There are further issues of taxation relating to the levying of VAT, dealt with in South Africa in 2019,⁷ and about determination of the country of origin and measurement of value. It has been argued that the nature of electronic transmissions, which often consist of data packets transiting multiple servers in multiple jurisdictions, makes country of origin determinations difficult.⁸ However, blockchain technologies could be used to record and track the country of origin. The point is that the legal powers of countries to monitor and regulate international commerce need to be protected.

Debates on the future of work suggest that as AI becomes more prominent, consideration needs to be given to transferring some of the revenues generated by AI to displaced jobs.⁹ Currently, most of the firms in this space are either in the US or in China and, as the value is in the algorithms which are electronically transmitted without duties and application of domestic tax, other countries will not be able to facilitate this transfer without the ability to impose duties.

3. Changing definition of Electronic Transmissions and implications for South Africa

A key impediment to a constructive debate regarding the WTO Electronic Transmissions Moratorium is that the scope and treatment of ET is unclear. Although the term “electronic transmissions” is widely used in the ongoing debate on the moratorium, no WTO agreement or decision has ever clearly defined it. In order to have a meaningful debate about the WTO moratorium on customs duties on “electronic transmissions”, it is imperative to clarify the exact meaning and scope of this term. The different classifications and interpretations have differing implications for countries, making it difficult to take decisions without this clarity. There have been two main debates around the scope of electronic transmissions.

First, there is no consensus on whether ET should be treated as ‘goods’ and be exposed to custom duties as defined under Article II of GATT 1994, or as services where GATS schedules apply.

Second, the scope of ET has shifted. In 1998, when the decision on Moratorium on ET was taken, the scope of ET was identified as ‘digitized products’ (WTO, 2003).¹⁰ Accordingly, five categories of digitized products were identified, namely, sound recordings, audio-visual works, video games, computer software and literary works. However, with the digital revolution, the scope of ET widened and the WTO Note (2016)¹¹ identified ET as ‘digitizable products.’ Digitizable products were identified as those products which are traded both in the physical form as well as ‘online’ that is, downloaded from the internet. The scope of ET, it was argued, included: cinematograph film; books, pamphlets, maps; newspapers, journals and periodicals;

⁷ There have also been issues of imported electronic goods and services not being charged with VAT, placing domestic firms at a disadvantage and incentivizing the offshoring of digital firms. This unfair competition has been recognised in 40 countries that have started charging VAT on digital products including South Africa in 2019 when the Value Added Tax Act was amended to clarify that electronic services/goods supplied by foreigners to South African consumers are liable for VAT (GOVERNMENT GAZETTE No. 42316, 18 MARCH 2019). This is in line with other jurisdictions including the EU, Japan, New Zealand, South Korea, Russia, Saudi Arabia and Turkey. See Cheng, Wallace; Brandi, Clara (2019) Governing digital trade – a new role for the WTO, Briefing Paper, No. 6/2019, Deutsches Institut für Entwicklungspolitik (DIE), Bonn, <http://dx.doi.org/10.23661/bp6.2019>

⁸ <https://www.bsa.org/files/policy-filings/08272019wtocustomsduties.pdf>

⁹ James, D., 2019. Anti-development Impacts of Tax-Related Provisions in Proposed Rules on Digital Trade in the WTO. *Development*, 62(1-4), pp.58-65.

¹⁰ IP/C/W/128/Add.1, 15 May 2003, WTO (2003)

¹¹ WTO,2016-JOB/GC/114

postcards, personal greeting message or announcement cards; other printed matter; video games; computer software; musical records, tapes and other sound or similar recordings; and other recorded media. In 2017, using this description Indonesia made a statement which included a footnote ‘- it is understood that such moratorium shall not apply to electronically transmitted goods’.¹² Accordingly, Indonesia added a new HS Chapter 99 for electronically transmitted goods like e-books.

This identified and commonly understood scope of ET has then been further extended by ECIPE (2019)¹³, which identified ET as ‘digitizable products and services’. This includes four broad categories of services as ET: wholesale and retail trading services; recreational and other services; communications including post and telecommunications services; business services not elsewhere classified, which includes real estate, renting and other business activities.¹⁴

In November 2019, the OECD¹⁵ further extended the scope, identifying ET as ‘digital deliveries’ which includes not only digitizable products, but also digitally delivered business services. This broader interpretation of electronic transmissions has grave implications in the age of “servicification of manufacturing” including through increased use of software. Servicification also allows opportunities for exporters to sell the physical equipment at lower prices while maximizing the revenues from post-sale services on which tariffs are not levied. It further reduces the extent of products and services on which countries can apply customs duties. As we now discuss, local capabilities require data access, funding and interoperability, while the scope of ETs substantially restricts the policy space to achieve this.

4. Implications of the Moratorium for digital industrialization

The digitalization of economy activity means a fundamental change in the control over value creation and the division of returns, with major implications for industrial policy.¹⁶ ‘Smart factories’ and ‘precision farming’ are made possible by a combination of technologies including sensors, machine learning and the ‘Industrial Internet of Things’ (IIoT), with coordination within and across businesses. This is associated with the development of new “platform” business models and modes of value creation.¹⁷ The generation of ‘big data’ is a characteristic feature of digitalisation. Data can be collected through sensors in production, from users of the product or service, as well as from the online search and purchasing activities of buyers. It heightens the potential for centralised control across dispersed production sites and along logistics chains, enabling a further transnationalisation of production.

Value increasingly resides with those who control the data related to the activities in question. This is part of the digitalization of industry from design, through production, monitoring of

¹² Indonesia- WT/MIN (17)/68.

¹³ Hosuk-Lee Makiyama and Badri Narayanan (2019), The Economic Losses from Ending the WTO Moratorium on Electronic Transmissions, No 3/Policy Brief, ECIPE.

¹⁴ The scope of these categories is extremely broad

<https://www.gtap.agecon.purdue.edu/databases/contribute/detailedsector57.asp>

¹⁵ TAD/TC/WP (2019)19/FINAL

¹⁶ See Industrial Development Think Tank, UJ (2019) *Digital Industrial Policy Issues Paper*.

¹⁷ Sturgeon, T. (2017) The ‘New’ Digital Economy and Development, *UNCTAD Technical Notes on ICT for Development No.8*. Geneva: United Nations Conference on Trade and Development; UNCTAD (2018) *Trade and Development Report*. Geneva: United Nations Conference on Trade and Development.

performance and ongoing upgrading. The data is collated by the lead firms which govern value chains. It is also reflected in the most valuable global companies now being digital platforms in search, social media and e-commerce. The governance of value chains and production networks, as well as the very determination of what constitutes the value (including for tax purposes) is controlled by the aggregator of the core data in the form of the online platforms. The growth and competitiveness of local businesses depends on the terms on which they can insert themselves into, and/or interface with, the dominant international platforms.

The development of local productive capabilities depends on being able to regulate control over data in the interest of local businesses. The Moratorium potentially impedes countries from designing rules for the access to data and appropriate incentives for transnational corporations to invest in local capabilities. There are substantial emerging regulatory challenges associated with the ownership and control of data which provide major platforms with their power and associated commercial value.¹⁸

Digital tools can improve design, prototyping and customization processes, reducing scale economies and opening opportunities for businesses in developing countries, however, advanced economies have tended to retain control of higher value-added activities. Additive manufacturing and 3D printing mean the export of designs (along with the value attributed to brands) replaces the value in the export of physical products.¹⁹ Digital technologies need data and software which are electronically transmitted. While levying custom duties on electronic transmissions would increase the cost of accessing technologies and the data that is critical for innovation in developing economies, building local clusters in software and design requires the appropriate support measures for local businesses not to be disadvantaged relatively to international ones. Successful catching-up by middle-income countries requires the development of local production systems drawing on international technologies and value chains while building backward local linkages.²⁰

The economics of digital platforms imply they are likely to 'tip' to a 'winner-takes-most' quasi-monopoly.²¹ There are major barriers to smaller competitors attempting to enter the market and the dominant platforms can exert substantial market power, requiring a rethink of the appropriate regulatory and policy framework, as is currently underway around the world.

To ensure that there is consistency of regulation and competition enforcement, expert reviews in a number of countries have proposed establishing a regulatory 'Data Unit' (UK) or a 'Digital Markets Board' (German review) with powers to obtain information, and timeously make and enforce orders. This recognizes the central role that control over, and access to, data has for

¹⁸ UNCTAD, 2018; Polson, N. and J. Scott (2018). *AIQ: How artificial intelligence works and how we can harness its power for a better world*, Bantam Press, London; McAfee, A. and E. Brynjolfsson (2017) *Machine, Platform, Crowd*, W.W. Norton & Company, New York.

¹⁹ See Rehnberg, M. and S. Ponte (2017) 'From smiling to smirking? 3D printing, upgrading and the restructuring of global value chains', *Global Networks*, doi.org/10.1111/glob.12166.

²⁰ Lee, K., M. Szapiro, Z. Mao (2018) 'From Global Value Chains (GVC) to Innovation Systems for Local Value Chains and Knowledge Creation', *European Journal of Development Research*, 30(3), 424-441.

²¹ See Furman, J., D. Coyle, A. Fletcher, D. McAuley, P. Marsden (2019) *Unlocking Digital Competition*, Report of the Digital Competition Expert Panel for UK Government, March 2019; Cremer, J., Y-A. de Montjoye, H. Schweitzer (2019) *Competition Policy for the Digital Era*, European Commission; Committee for the Study of Digital Platforms (2019) 'Report of the Market Structure and Antitrust Subcommittee', Stigler Centre Committee for the Study of Digital Platforms Market Structure and Antitrust Subcommittee, chaired by Fiona Scott Morton); Report by the Commission 'Competition Law 4.0' for the German government on 'A New Competition Framework for the Digital Economy', September 2019.

economic participation. Standards are required to support the interconnection and integration of components and subsystems into larger systems. In supply chains, standards and protocols allow for complex information about products, production and logistics to be exchanged across organizational and geographic boundaries.²² Access to data also enables open innovation and “vertically specialization”, that is, a strategic focus on a specific bundle of competencies.²³ Platform owners benefit from aggregating user data, governing value chains feeding into the platforms. This has led to recommendations for data portability and interoperability.²⁴

The implementation of a digital industrial policy requires the establishment of high-level coordination capacity, institutionalized private sector inputs and appropriate monitoring and evaluation systems. Policies require being able to record flows of services and revenues from them and setting appropriate incentives to localise key activities.

Trade agreements have increasingly sought to remove the scope for domestic rules and regulations. Agreements have been shaped largely by rent-seeking, self-interested behaviour on the export side.²⁵ Rather than reining in protectionists, trade agreements empower another set of special interests and politically well-connected firms, such as pharmaceutical companies. The agreements include so-called “investor-state dispute settlement” (ISDS) procedures which enable foreign investors to sue host governments in special arbitration tribunals and to seek monetary damages for regulatory, tax, and other policy changes that reduce their profits. Instead, there is an urgent need for the international rules for the world trading system to be reworked to ensure effective regulation and taxation. Companies need to be subject to rules of reporting, disclosure and enforcement. The ongoing Moratorium is a step in the wrong direction contributing to tax avoidance, undermining scope for regulation, and removing tools for appropriate digital industrial policies.

5. Conclusions

The digitalization of economic activity means that the Moratorium on customs duties on electronic transmissions rules out an important policy instrument for a substantial part of economic activity. This is especially the case given the widening definitions of electronic transmissions and the ways in which companies can ascribe value to electronic relative to physical dimensions of value created and traded.

Our review of the literature and key issues points to the importance of: a digital industrial strategy to support the investments in capabilities required to respond to the digital transformation of economic activity underway; and, an appropriate regulatory and competition regime to address the market power of dominant platforms. The Moratorium narrows the policy space for each of these.

As South Africa is still in the process of developing its digital industrial and competition policies, it would be premature to commit to making the Moratorium permanent. The debates over the various quantification methodologies in terms of revenue foregone divert attention from the

²² The standards and protocols supporting value chain modularity are often embedded in digital ICT systems such as CAD/CAM and ERP.

²³ Sturgeon (2017).

²⁴ See Furman, et al (2019); Cremer et al (2019).

²⁵ Rodrik, D., 2018. What do trade agreements really do? *Journal of economic perspectives*, 32(2), pp.73-90

future implications of the Moratorium on developing countries in the context of a digital divide and lower future tax revenues.

The Moratorium is not justified when considered in light of the revenue raising role of duties and the role of tariffs in influencing the relative prices of imports and local production, and thus incentivizing investment in local economic activity. If the Moratorium is to be renewed then it is imperative that there is clarification on the scope of 'electronic transmissions', and that it be defined very narrowly.

There is growing recognition that the mismanagement of globalization and international competition underlies the rise of populism around the world.²⁶ Sustainable internationalization requires effective multilateral regulation of digital transmissions to support local production of content and applications and an enabling environment for accelerating the growth of local digital businesses in developing countries.²⁷

²⁶ Jenny, F. (2019) 'Populism, fairness and competition: should we care and what could we do?', *The Japanese Economic Review*, 70(3), 280-297.

²⁷ This objective is also recognized in the first principle of the recently agreed Contract for the Web www.contractfortheweb.org