

World Trade and Development Report 2021

Trade, Technology and Institutions
WTO @25: The Way Forward



RIS

Research and Information System
for Developing Countries

विकासशील देशों की अनुसंधान एवं सूचना प्रणाली

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Foreword

Ambassador Dr Mohan Kumar

Chairman, RIS

The multilateral trading system in the form of GATT and WTO has been a key pillar of the post-war international order and has contributed substantially to global economic stability and prosperity. However, for the first time in its history, all the three functions of the WTO appear to be in a stalemate: the negotiating function, the dispute settlement function and the trade monitoring function. There are substantive reasons why this is so: absence of consensus on the scope and mandate, the proliferation of pluri-lateral agreements/mega-FTAs, emergence of new technologies embodied by digital trade and the power shift from the North to the South in the WTO. It is fair to say that the WTO faces an existential crisis.

Against this backdrop, the forthcoming 12th WTO Ministerial Conference (MC12) scheduled to take place in Geneva from 30 November to 3 December 2021 is crucial. Nearly two decades after the launch of the Doha Round in 2001, there is virtually no chance of it succeeding. If the WTO is to be properly revived and restored, it is vitally important to understand why the Doha Round has failed. Some of the pressing issues on the agenda of the 12th Ministerial Conference in any case include the unfinished task of the Doha Development Round around issues that the developing countries are not ready to forego even as a very new set of rules are being proposed in the name of WTO reforms. Whether the WTO can survive both the external shock and internal friction remains to be seen. Nevertheless, it is in India's interest to continue to champion the case of developing countries at the WTO.

RIS has been engaged in research on issues of trade and development for over three decades now. So far, RIS has published three editions of its flagship World Trade and Development Reports, beginning from 2003. They have been well received across developing countries by trade negotiators and scholars. Launching of this Report is particularly useful on the eve of the MC 12. The theme "Trade and Technology" for this particular Report could not be more timely. Issues for the MC 12 at the WTO are obviously dealt with from a developing country perspective. Some of these are: implications of technology for the future of trade, fishery subsidies, institutional reforms and the issues confronting WTO itself.

I compliment the Director General for his leadership on the Report and the entire research team at RIS that has made this possible. I have no doubt that the Report will be found useful by policymakers and scholars alike.

Mohan Kumar

Preface

Professor Sachin Chaturvedi

Director General, RIS

The Twelfth WTO Ministerial Conference (MC 12) is taking place at a time when there are high expectations that the event would make the WTO far more responsible for ensuring global development for collective protection and prosperity. At this moment of unprecedented health and socio-economic crisis, the WTO should rise to the occasion and deliver for the benefit of the entire global community. From this perspective, there is an urgent need for streamlining trade policy for overcoming supply chain disruption to ensure uninterrupted supply of vaccines, diagnostics and PPE kits, essential medicines, etc. According to UNCTAD, the worst hit on account of the lack of unhindered supply of these were the Small Island Developing States (SIDS). The difficulties, according to the UNCTAD, are largely because of supply chain disruptions. Therefore, it is a matter of grave concern, and the onus is on the WTO MC-12 to move in the direction for ensuring easy access to trade, finance, vaccine and other essential medical requirements for the benefit of the Lower Income Countries and SIDS in particular.

Beyond the immediate crisis, the world is also at the cusp of a paradigm shift in technological advancements, which has the potential to fundamentally alter trading relations forever. Developing countries are entering unknown trajectories that enables them to leapfrog by leveraging new technologies. This report brings out the complex interlinkages between trade and technology by assessing the extent of such transformations already underway and examines associated institutional changes at the global and national levels.

International trade, finance, investment and technology have been the main planks of the RIS research programme. The institute has been coming out with its flagship publication, the *'World Trade and Development Report'*, since 2003, for providing analytical support to developing countries on the eve of every WTO Ministerial Conference. The present Report is a valuable addition to the series. It is being launched when the world is grappling with the post-pandemic challenges on healthcare and ways to restore economic growth. The focus of the Report is on various dimensions of issues related to 'technology and future of trade'; 'trade in goods and services'; 'special and differential treatment'; 'fisheries subsidies'; and 'WTO reforms: drivers and contestations'. The thrust of the Report is on completion of the Doha Development Round from the perspective of developing countries on Access, Equity and Inclusion (AEI), strengthening multilateralism and ensuring rule-based global trade governance for the well-being of all.

I compliment the RIS research team for bringing out this important document. I am sure it would serve as a useful reference for policymakers, academicians, practitioners and other stakeholders. In future our endeavour would be to dynamically track national and regional trends in trade and technology and explore associated governance mechanisms and institutional frameworks to make relevant policy recommendations.

Sachin Chaturvedi

Key Messages

Emerging Trends

- In the pre-COVID year of 2019, the average trade openness index of the world was 55.45 per cent which declined to 44.86 per cent in 2020 and the index for developed countries declined from 53.38 per cent in 2019 to 39.28 per cent in 2020, much faster than in the developing world.
- Trade openness index of emerging countries declined from 55.2 per cent in 2019 to 52.3 per cent in 2020. The level of decline in the index of emerging countries was similar with or without China.
- Total technology intensive trade of the world was USD 6.8 trillion in 2002 which increased to USD 17.4 trillion in 2020, showing its critical importance in the global market, particularly in the merchandise trade. It covered more than half of the global trade during 2002-20.
- In 2020, exports and imports of developed and developing countries in high technology intensive trade converged for the first time. In the technology intensive trade sector, COVID-19 brought complete equalization between developed and developing countries in exports and imports. The process of 'catching up' was much faster in case of exports than imports.
- The country experiences of the global economy indicate that more than 50 per cent of the global trade is covered by the GVC and by the technology intensive trade separately, but they are not mutually exclusive. Therefore, it is important to note that certain products are common in these two lists.
- Several GVC products are technology intensive in nature. In 2002, developing world was just at 48 per cent of industrialized countries in technology intensive exports but this situation reversed in 2020 when the group of developing countries was 42 per cent higher than that of developed countries.
- The share of developing countries in the global exports of ICT products has increased from 48.36 per cent in 2002 to almost 80 per cent in 2020, whereas in the case of imports, the share has increased to 64 per cent in 2020 from 43 per cent in 2002.
- Within the developing world, emerging countries attain the maximum share in the ICT traded products, accounting for 91.3 per cent and 87.7 per cent of ICT exports and imports, respectively, of the developing world in 2020.
- Global semiconductors trade has shown an increasing trend over the years. It has increased from USD 850 billion in 2007 to USD 1.75 trillion in 2020 with an annual growth of 4.4 per cent per annum. Emerging countries contributed around 60 per cent of global exports of semi-conductors in 2007 which increased to 78 per cent in 2020.

- There is a perceptible shift in composition of services exports from Europe to Asia. The share of Western Europe in global service's exports has come down from 25.2 per cent in 2008 to 23.3 per cent in 2019.
- The share of Asia on the other hand has gone up from 22.8 per cent to 26.2 per cent during the same period indicating the growing share of emerging markets and developing countries global services trade. Global South represented in the form of RTAs from Asia and Africa have demonstrated significant rise in their global share in services trade especially ASEAN.
- Digital technologies have brought to the fore serious concerns surrounding incompatible licensing and taxation requirements. The extant taxation frameworks are inadequate to govern the digital flows in goods and services and there is a need for greater standardisation in taxation frameworks. A major concern involves data flows.
- The diverse approaches to data flow and privacy protection in major economies like the U.S., China, and the EU can have implications beyond their national boundaries. Amidst the absence of any agreed framework specific to Digital Trade/ E-Commerce under WTO Agreements, the Regional Trade Agreements (RTAs) have come to adopt certain provisions on e-commerce and digital trade issues. Such efforts lack uniformity and leave regulatory space wide-open.
- The fragmented approach to data governance prevents new technologies from unleashing their positive potential and mitigation of potential harms.
- The potential opportunities and risks posed by various digital and emerging technologies require developing countries to better manage the structural change, than in the past, through domestic policy regimes that are supportive of their overall technological and trade growth.

Key Issues & Way Forward

Digital Trade

- The global regulations for governing trade are evolving rather slowly especially on issues like digital trade and e-commerce. With a mesh of plurilaterals that sidesteps the consensus principle including on e-commerce at the WTO, developing countries need a more nuanced understanding of the trade impacts of technology-driven sectors.
- The lack of common understanding among WTO members on a set of shared norms and definitions constitutes a major barrier to governing digital trade flows. Also, the lack of binding commitments on capacity building in developing countries for managing digital transitions, the emerging digital governance framework threatens to impose high compliance costs and could adversely impact the trade competitiveness of developing countries in the digital economy sphere.
- Although the issue of the 'digital divide' has been widely recognized as the key bottleneck for leveraging the benefits of e-commerce in developing countries, the technology and innovation divides have not

been addressed. Eliminating or narrowing such divides is critical for developing production capacities for digital technology products to avoid import dependence of overwhelming magnitude.

- Digital technologies have brought to the fore serious concerns surrounding incompatible licensing and taxation requirements. The extant taxation frameworks are inadequate to govern the digital flows in goods and services and there is a need for greater standardisation in taxation frameworks. A major concern involves data flows.
- The diverse approaches to data flow and privacy protection in major economies like the U.S., China, and the EU can have implications beyond their national boundaries. Amidst the absence of any agreed framework specific to Digital Trade/ E-Commerce under WTO Agreements, the Regional Trade Agreements (RTAs) have come to adopt certain provisions on e-commerce and digital trade issues. Such efforts lack uniformity and leave regulatory space wide-open.
- The fragmented approach to data governance prevents new technologies from unleashing their positive potential and mitigation of potential harms.
- The potential opportunities and risks posed by various digital and emerging technologies require developing countries to better manage the structural change, than in the past, through domestic policy regimes that are supportive of their overall technological and trade growth.

Trade in Services

- Trade in services is growing worldwide especially with greater participation of emerging markets, developing economies and LDCs. The participation of the South (e.g. countries and RTAs from Asia, Africa, etc) has been consistently rising in terms of

increasing share and growth in exports of various services.

- Digital technologies is enabling emergence of new sectors of trade in services such as Fintech, e-commerce and women-centric jobs. Recognising the need for building consensus and frameworks on Mode 4, Mode 5, Mutual Recognition Agreements, local content requirements, etc, the WTO should pay attention to the following areas so as to enable the South represented by the developing countries and the LDCs contribute to the global trade in services vigorously and efficiently.
- Deepening ecosystem for services trade globally supported enabling regulations with respect to market access and national treatment is necessary. Rules on local content requirements and e-commerce need to be commensurate with the level of development in the member states and not be manipulated as sources of impediments for enhancing exports.
- Developing country concerns need to be properly addressed in global trade which is apparently not the case. India as a leading exporter of services had tabled several market-promoting measures for opening up services sectors in RCEP; but those were not considered properly in the negotiations. On the other hand, ASEAN has a full-fledged services agreement that would enable the East Asian and Southeast Asian countries to harness the untapped potential in services.
- During COVID-19 several new sectors of services have demonstrated tremendous potential. Those include digital financial services, digital health, and digital education, among others. It is time for MC12 to consider trade in these services with enabling reforms on various Modes of Supply than mere Mode 1 and Mode 3.
- Regional platforms like ASEAN trade agreement could be effective modes

of enhancing trade in services besides complementing WTO reforms in services trade.

Special and Differential Treatment

- The current set of proposals for reform of the WTO coming from the US and the EU has a strong emphasis on the widespread repeal of S&DT provisions and re-categorisation of countries. The US has set ostentatious criteria to drop large developing countries from the S&DT bracket linking their participation in prominent global governance groups like the G20 as a yardstick.
- The developing country's proposal highlighted that attempts by some Members to selectively employ certain economic and trade data to deny the persistence of the divide between developing and developed Members, and to demand the former to abide by absolute reciprocity in the interest of fairness are profoundly disingenuous.
- The challenges specific to 'catching-up'; empowering citizens and improving livelihoods; going up the technology ladder or accessing technologies and resources for sustainable transitions have not been considered by developed countries while suggesting changes in the S&DT norms in the WTO. The agenda therefore remains open in all its earnestness and, much stronger, coordinated and unified developing country response on the potentially adverse moves of the developed countries is essential.

Fisheries Subsidy

- The concerns of the developing countries on fisheries subsidy remain unaddressed in the last three Draft Texts (i.e., 11 May, 30 June, and 8 November, 2021), as well as in the explanatory note. To avoid the possibility of good subsidies falling into bad hands, subsidies in all formats should be capped permanently (i.e., good, bad, or ugly fisheries subsidies) after the transitional

period is over which should be meant for both resource-rich and resource-poor fishermen.

- The latest draft (November 8, 2021) was more tilted towards the resource-rich countries by advancing a clean mandate in the form of reverse SDT and thereby, squeezing the manoeuvring space of resource-poor countries in the negotiation, thus, casting doubts about the neutrality of the Chair in resolving the outstanding issues.
- As a compromising solution, respecting the agenda of the resource-rich countries, reverse SDT under Articles 4.3 and 5.1.1 should be accommodated in the Agreement for a temporary period before ending it permanently. Similarly, taking cognizance of the spirit of the SDG-14.6 and declarations of the past two MCs of the WTO, provisions of SDT, for a longer period, with fishing activities extended up to EEZ may be carved out to avoid the present stalemate.

Agreement on Agriculture (AoA)

- Agriculture negotiations at the WTO have failed to bring in any convergence on the issue of domestic support with strong resistance from the leading Agriculture exporters. The proposals on domestic support emerging before the MC12 reaffirm positions of that of Cairns group. The stubborn posture in agriculture by developed countries is a negative match with their enthusiasm for WTO plus issues and plurilateral negotiations.
- India along with several other developing countries have made it clear that any meaningful reform process of the WTO should entail removing existing imbalances in the AoA and ensuring a level playing field, particularly for developing economies.
- MC12 should take note of lessons learnt from the COVID-19 crisis on food security front. According to a World Bank study,

72 countries show a significant number of people running out of food. Nearly 811 million people in the world went hungry in 2020. Local availability and supplies are important – a point that India has been pressing at various WTO meetings.

- A permanent solution to the issue of public stockholding for food security purposes is an urgent priority and potential solutions on these issues have to be fair with adequate lessons from the past.
- Moreover, the Agreement on Agriculture (AoA) has to be made compatible with the climate challenges. The AoA would have to be reformed to discourage 20th Century production structure and create new incentives for accessing modern, cost-effective technologies for greener and sustainable agriculture.

Trade Related Intellectual Property Rights (TRIPs)

- In the run-up to the MC12, access to vaccines has emerged as the most contentious issue. The role of associated intellectual property, in the context of the pandemic, is being discussed since India and South Africa placed their joint proposal at the WTO in October 2020 and a revised proposal in May 2021. Though the TRIPs limitation for latecomers to the technology race was always described by developing countries as a historical injustice, the recent Covid-19 pandemic is being seen as the final wake-up call for doing away with the historical wrongs in global norm-setting multilateral institutions.
- A feature of the TRIPs-related proposals on COVID-19 is that they signal a shift from the bipolarity of the North versus South, and are reflective of the new global realities. The proposals on TRIPs waiver particularly highlight the urgency of mounting healthcare challenges being faced in the Global South. The MC12 in all

its earnestness should approve the TRIPS waiver proposal for immediate crisis management and preparedness for future pandemics.

- There is a need for developed countries to be more accommodative of their counterparts in the developing world in light of the challenges posed to the environment and human health, and the commitment of countries to achieving sustainable development goals (SDGs). The COVID-19 pandemic has also created new hurdles for development. In such a situation, the TRIPS regime may require a relook to adapt it to current realities.

WTO Reforms

- In the current format the WTO has also been found inadequate by several countries especially leading exporting nations who have not been able to introduce WTO plus issues that they think are associated with their trade interests as well as technology dominance. The dual processes on arriving at new age trade deals as well as pushing for plurilateral agreements mostly as part of the WTO may be seen in that light.
- However, the approach of having plurilaterals alone also brings in fissures. What will help are agreements where countries can commit to reforms depending on their capacity, bring in Special and Differential Treatment, the use of “the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances”, and the required flexibility to comply with agreements.
- It is vital to help developing countries build their capacity to understand Joint Statement Initiative (JSI) issues in detail as well as to do a cost-benefit analysis on participating in the JSIs (or being out of the JSIs) to enable them to actively take part in the WTO-level discussions.
- Given the globalisation backlash and protectionism, it is now tough to obtain new and greater market access through trade pacts. This is leading to a focus on trade facilitation. The challenge is to see if and how Facilitation 2.0 incorporates the best elements of the JSIs and ensure ‘inclusive facilitation’.
- While consensus has not emerged on inclusion of new issues in the multilateral framework, any future framework on e-commerce, in particular, should have explicit competition policy provisions to ensure that e-commerce firms do not gain and/or perpetuate market power through unfair means and exploit such advantage in trade relations.

1

Implications of Technology for Future of Trade

1.1 Rise of Digital Trade

The world is in the midst of intense technological change with profound implications on international trade flows. The 2021 Technology and Innovation report has identified eleven frontier technologies such as artificial intelligence (AI), the Internet of things (IoT), big data, blockchain, 5G, 3D-printing, robotics, drones, gene editing, nanotechnology, and solar photovoltaic (Solar PV) that are rapidly disrupting global markets. These technologies already account for a USD 350-billion market with the potential to grow over USD 3.2 trillion by 2025 (UNCTAD, 2021a). The recent statistics from institutions like United Nations Industrial Development Organization (UNIDO) suggest that medium and high-tech exports contributed to over 55 per cent of manufacturing exports and are a marker of the rising technological capabilities of countries around the world (UNIDO, 2016; 2020). Similarly, the value of global e-commerce crossed over USD 25.6 trillion in 2018, and that there is much room for growth in the sector with an ever-widening reach of digitalisation in different corners of the world (UNCTAD, 2021b).

There is no doubt that in the last thirty years, technological advancements in information and communications technology (ICT) have significantly impacted how goods, services, and information are bought, sold and exchanged, by supporting the development of digital markets and platforms (WTO, 2021). More and more cross-border trade is now digital and it seems like this trend is likely to continue more aggressively in the future. The ongoing COVID-19 pandemic has further accentuated the shift towards automation and electronic commerce as people and businesses have gone online. The latest data from the International Federation of Robotics (IFR) shows that despite the pandemic situation in 2020, the operational stock of industrial robots increased by about 10 per cent globally with sectors like electronics surpassing the traditional leaders like automotive in using industrial robots (IFR, 2021). Some of the recent studies have also projected an overall boost in trade by about 6 to 11 per cent by the year 2030 compared to the baseline due to emerging technologies (Lund et al., 2019). The crisis has also shed light on the significant digital divides that characterise the world, both between and within countries, raising concerns that the digital shift will result in widening divides and inequalities.

The impact of digital technologies on services has particularly become a subject of intense discussion. With an array of new services enabled by digital technologies, the services sector continues to witness rapid growth in global trade. The growing digital intensity of services is also affecting traditional manufacturing activities. Traditionally, technological advances in areas like mechanization, mass production, mobility, and information communication technologies (ICT) have immensely contributed to enhancing international trade. Vice versa, the rapid increase in trade has also impacted innovation and technology flows between developed and developing countries and compelled governments and businesses to invest in R&D and innovation towards bolstering their national and enterprise-level competitive advantages. The ICT revolution of the 1990s and early 2000s enabled firms to transact with overseas suppliers and choose from the most competitive suppliers (Baldwin, 2016). By revolutionising communication, the ICT technologies helped to increase commerce while advances in transport and mobility enabled large firms to create new markets and to diffuse production and R&D centers around the world. The ICT technologies further enabled the fragmentation and off-shoring of production by improving coordination and communication costs.

The ongoing fourth industrial revolution is also expected to deepen digitalization, but its impacts are likely to be far more complex. Although the rise of digital technologies has served to boost trade, the technological change occurring under the so-called “fourth industrial revolution” is increasingly “blurring the lines between physical, digital, and biological spheres”, and, in turn, placing the linkage between trade and technology at a critical juncture (Schwab, 2016). Digital technologies are promising to further improve logistics and facilitate trade faster than ever. Technologies like semiconductors are at the core of almost

all modern-day electronic products. From the internet of things (IoT) to digital mapping of goods to tracking transport routes, the internet and AI-based solutions are bringing revolutionary changes in the areas of transit, transport, and payments. The gradual scaling-up of technologies across transit ports, logistic hubs, etc. has enabled swift movements of goods and induced a drastic reduction in shipping and customs charges. The rapid adoption and penetration of ICTs in developing countries like Bangladesh, India, and Indonesia are proving to be beneficial in terms of trade facilitation and promotion.

1.2 E-commerce Negotiations and Digital Economy

The discussions on digital trade or e-commerce led to the adoption of the Ministerial Declaration on Global Electronic Commerce in 1998 ministerial wherein members of the World Trade Organisation (WTO) agreed to “continue their practice of not imposing customs duties on electronic transmissions”. After the moratorium was affirmed, a ‘Work Programme on E-commerce’ was established which cuts across four WTO Councils, namely goods, services, intellectual property, and development. However, apart from the periodic renewal of the e-commerce moratorium, there has been little progress as e-commerce issues were largely excluded from the negotiating agenda of the Doha round. As the new technologies are rapidly creating new markets through sustained innovation, there has been a marked change in trade patterns in different categories of goods and services. Digital platforms like Amazon, Alibaba, Flipkart have served to bridge the gap between consumers and producers and enabled unprecedented ease in transactions through digital coordination (McAfee and Brynjolfsson, 2017). The creation of seamless digital markets enabled by e-commerce platforms, digital payments, education, media, and labour services has brought phenomenal growth in the platform economy sector.

As e-commerce and the digital economy rapidly expanded, calls for developing new common rules to govern cross-border e-commerce or digital trade in goods and services also grew. At the eleventh Ministerial Conference (MC11) of the WTO held in Buenos Aires, Argentina in 2017, a group of 71 WTO members announced a Joint Statement Initiative (JSI) on electronic commerce (e-commerce) and also proposed an “exploratory” work together toward future WTO negotiations on trade-related aspects of electronic commerce. Issues such as mandatory legal frameworks for electronic transactions, free flow of cross-border data, restrictions on data localization, no source code disclosure, no customs duties on electronic transmissions, mandatory membership of Information Technology Agreement (ITA) and ITA Expansion and mandatory commitments of national treatment and market access in Mode 1, Mode 2 and Mode 3 in the identified services in GATS schedules are being negotiated under the aegis of JSI (See, Box 1 for details on ITA).

However, it is noteworthy that the current negotiations on JSI are led by only 86 countries (EU27 and 59 countries) and about 78 members of the WTO are not part of these negotiations on setting digital rules (Banga, 2021). It should also be noted that 60 members of JSI are engaged in these negotiations, the proposals which are shaping the digital rules are received mainly by the developed countries like Canada, EU, US, UK, Japan, and New Zealand. Out of 43 developing countries that are members of the JSI, not a single proposal on any of the negotiating issues has been received from 30 such countries (Ibid). Thus, no consensus has been achieved on these issues so far. India and South Africa in their written submission to the WTO have questioned the legality of JSI and argued that “any attempt to introduce new rules resulting from the JSI negotiations into the WTO without fulfilling the requirements of Articles IX and X of the Marrakesh Agreement, will be detrimental to the functioning of rule-based

multilateral trading system” (WTO, 2021). Together with other developing countries, they have called for pursuing negotiations through a proper legal channel as provided by the WTO’s Work Programme on e-commerce and not through the non-WTO route (Basu, 2021).

The negotiations under the auspices of WTO are perceived to be all-encompassing and help to forge consensus on issues like bridging the digital divide, facilitating digital technology transfers, developing digital infrastructure, building digital skills, etc. Moreover, concerns are also being expressed about possible efforts to superimpose the outcome of “outside” JSI negotiations on the upcoming 12th WTO Ministerial Conference (MC12) at Geneva, which would not bode well for the interests of the developing countries. The absence of robust commitments on Mode-4 is also an area of concern for developing countries (*Mode 4 refers to services traded by individuals of one WTO member through their presence in the territory of another. It covers employees of services firms and self-employed service suppliers*) (Banga, 2021). With a lack of binding commitments on capacity building in developing countries for managing digital transitions, the emerging digital governance framework threatens to impose high compliance costs and could adversely impact the trade competitiveness of developing countries in the digital economy sphere (Banga, 2021; UNCTAD, 2021c). The regulatory efforts currently underway through JSI negotiations could therefore potentially widen the existing digital divide and global inequalities. As also observed by the UNCTAD (2021c), topics included in the JSI negotiating agenda are reflective of the interests of the major digital powers and their “superstar” firms which are already reaping the first-mover advantages. Therefore, if rules are warranted, they should be designed in such a way that allows individual countries to meet their development needs, and contribute to levelling the playing field for less technologically advanced countries.

The emerging trends in the digital trade and technology sphere are of far-reaching significance globally. The growing use of robots, interactive machines together with the rise of e-commerce platforms like Alibaba and Amazon are fast changing the dominant modes of consumer purchase (WTO, 2018). For instance, the digitalisation of commodities like compact discs, printed materials, books, newspapers, etc. has added a new dimension to trade. Also, the greater integration of software, machine learning, and artificial intelligence in modern-day machines is blurring the distinction between manufacturing and services sector firms. The rise of the so-called “Mode 5 services” embedded in products is giving rise to a new paradigm that poses a challenge for trade classification (Antimiani & Cernat, 2018). The growing applicability of services and digital solutions has reportedly pushed the traditional manufacturing giants to develop in-house capabilities in digital and software services (ibid). The sustained innovation in products and services enabled by digital technologies is also creating new comparative advantages.

This has noticeably increased the share of services vis-a-vis the share of goods in global trade. The fourth industrial revolution technologies have accelerated the trend of industrial automation at a pace much faster than anticipated a few years ago. The ongoing COVID-19 pandemic has been famously described as an ‘automation forcing event’ that saw firms in both developed and developing economies rapidly embracing digital solutions to enhance industrial productivity and foster the competitiveness of firms (Autor 2020). In addition to affecting the trade in manufactured goods, automation is also expected to influence trade in services. Several firms are reportedly automating a host of back and front office services including customer support and help-desk works through the use of virtual tools (ILO, 2020). The automation of calls centers in places like India and South East Asia has reportedly raised the fears of job losses and the

result in the shrinking of the global business outsourcing markets.

It has been argued in a new report by the Commission ‘Competition Law 4.0’ of the German Federal Ministry of Economic Affairs and Energy: “The new data economy, the rise of platform-based business models and the growing importance of digital ecosystems spanning what had previously been several separate markets are the game changers in the digital economy. One of the characteristics of the digital economy is that it combines these different aspects into a single process which puts certain companies in new positions of great and ever-increasing power, allowing them to extend their market power beyond the traditional market boundaries” (BMW, 2019). Firms in the digital economy also employ various bundling strategies to extract maximum consumer surplus (Choi, 2012; Adams and Yellen, 1976). Laws and regulations offer little respite in such cases. Like in energy, transport, and telecom, digital industries are also carrying similar features of network industries. This creates natural monopolies, market power, and political intervention.

1.3 Technology ‘Wars’ in Trade

The possibility of tariff and technology war between major powers threatens the positive impacts of technological change by impeding trade flows and value chains in critical technologies. Although the supply-chain disruptions posed by the COVID-19 pandemic including port blockages, etc. are likely to be streamlined in the future, the tariff and technology controls are likely to have complex effects on international trade and the welfare of the consumers. Studies by Fetzer and Schwarz (2020) have shown that the tariff measures not only impact the resilience of value chain networks but also threaten to increase the production costs and tariffs are likely to be assimilated at different nodes of the chain (See also, SIA and BCG, 2021). Such measures only

Box 1 : Information Technology Agreement (ITA)

The original Information Technology Agreement (ITA) was reached on 13 December 1996, through a “Ministerial Declaration on Trade in Information Technology Products”, at the first WTO Ministerial Conference, held in Singapore. At the Nairobi Ministerial Conference in December 2015, over 50 members concluded the expansion of the Agreement, which now covers an additional 201 products valued at over USD 1.3 trillion per year.

The ITA covers many high technology products, including computers, telecommunication equipment, semiconductors, semiconductor manufacturing and testing equipment, software, scientific instruments, as well as most of the parts and accessories of these products. The new accord covers new generation semi-conductors, semiconductor manufacturing equipment, optical lenses, GPS navigation equipment, and medical equipment such as magnetic resonance imaging products and ultra-sonic scanning apparatus.

India is a signatory to the Information Technology Agreement (ITA) (now also known as ITA-1), a plurilateral agreement of WTO. India’s experience with the ITA has been most discouraging, which almost wiped out the IT industry from India. Considering recent measures taken by the Government to build a sound manufacturing environment in the field of Electronics and Information Technology, this is the time for us to incubate our industry rather than expose it to undue pressures of competition. Accordingly and keeping in view opinion of domestic IT industry, it has been decided not to participate in the ITA expansion negotiations for the time being.

Source: WTO and Ministry of Commerce and Industry, Government of India.

increase the net worth of a given product as they reach the end consumers. Over the past 40 years, the nature of global commerce has significantly changed with a phenomenal increase in global value chain (GVC) trade.

The blending of information and communication revolution together with mass production techniques afforded enhanced trade efficiencies and enabled the creation of production processes that are distributed in different countries and undergo value addition at different stages of the value chain. Consequently, products are being produced in different parts of the world with firms sourcing key raw materials, inputs, labour, and ideas from suppliers and innovators from around the world. These networks and value addition also significantly contributed to the diffusion of technological know-how resulting in a cumulative increase in technology-based trade from both developed as well as developing countries. The rapid growth in international trade under the value chain framework currently accounts for about two-thirds of the total trade contributing to significant welfare gains for countries in the value chain network (World Bank, 2020).

The disruptions in the ever-deepening paradigm of GVCs have, therefore, emerged as a matter of grave concern for international trade. The semiconductor industry, in particular, has become a case study for the changing political economy of international trade and global value chains (GVCs). Some of the policy actions by major powers in recent years mark illuminating examples in this regard. In 2017, the US government self-initiated an investigation into China’s unfair trade practices under Section 301 and highlighted policy concerns of relevance for the semiconductor sector (USTR, 2018). The U.S. Trade Representative (USTR) in its report on China’s WTO Compliance alleged that Chinese authorities were resorting to the subsidisation of Chinese-owned companies and the acquisition of foreign semiconductor companies and assets throughout the supply chain to increase Chinese industry’s competitiveness and control over key technologies related to semiconductors (USTR, 2019). Other allegations included that despite repeated commitments to refrain from forcible technology transfer from U.S. companies, China continued to do so through market access restrictions, the abuse of administrative processes, licensing regulations, asset purchases,

and cyber and physical theft (*Ibid.*) As a result of the investigation under Section 301, the U.S. imposed 25 per cent tariffs on semiconductor imports from China in June 2018.

China retaliated by imposing tariffs of nearly USD 100 billion of US exports in 2018 and 2019, though it deliberately refrained from targeting integrated circuits or semiconductor manufacturing equipment (Bown, 2020). Thus, notwithstanding the trade war, China continued to increase its imports of these products from the United States throughout the year 2020. According to some reports, close to a third of the Section 301 tariffs affect the US semiconductor industry (CRS, 2020). In February 2020, the U.S. and China reached the Phase One agreement. The deal was seen as a temporary truce as it did not roll back newly imposed tariffs by both sides, covering USD 450 billion of bilateral trade. China committed to purchasing an additional USD 200 billion of US goods and services over 2020 and 2021, and semiconductors, as well as semiconductor manufacturing equipment, were included on the list of products covered by the deal (Bown, 2020).

Such higher tariffs have often compelled firms to shorten or otherwise reshape their global supply chains. As explained by Blanchard (2010, 2015), the burden of tariffs falls differently among consumers, workers, and firms involved throughout the value chain, and that some of the costs of trade protection may ultimately be borne by upstream producers in the country imposing the tariff, while some of the producer-side benefits from trade protection enjoyed by local import-competing firms may be passed along to foreign interests (also, see Blanchard, 2019). Consequently, the impact of higher tariffs may get extended beyond the target country and affect a range of upstream and downstream players in the supply chain network. Any resultant loss of production efficiency due to higher tariffs thus fundamentally disrupts the cost-benefit logic of GVC trade and threatens to undo the accrued through technology transfer,

job creation, and most importantly, the years of progress achieved under the “Washington Consensus” towards liberalising global trade markets (Mattoo and Staiger, 2020).

1.4 Technology Controls and far-reaching Consequences on Trade

The U.S. announced its first export controls in May and August 2019, when the Department of Commerce added Huawei and its affiliates to the Entity List (BIS, 2019). In May 2020, additional controls were imposed which were designed to coerce companies in foreign countries to stop selling semiconductors to Huawei. To do so, the U.S. expanded the jurisdictional reach of its export controls through the foreign direct product rule (FDPR). Through the FDPR, the Department of Commerce would limit access of foreign chipmakers to the manufacturing equipment provided by U.S. companies operating in a different part of the semiconductor supply chain. In December 2020, it placed SMIC on the Entity List too. China’s apparent approach to the looming export controls was to stockpile imports of semiconductors and equipment in 2020. China’s 2020 purchases of semiconductors and equipment outperformed other goods covered in the Phase One agreement (Bown, 2020).

Furthering the control measures, in March 2021, under section 2(a) of the Secure and Trusted Communications Networks Act of 2019 (Secure Networks Act), the US’s Federal Communications Commission’s (FCC) Public Safety and Homeland Security Bureau announced the publication of a list of communications equipment and services (Covered List) that were deemed to pose an unacceptable risk to the national security of the United States or the security and safety of United States persons. This list included many Chinese companies, viz. Huawei, ZTE Corporation, Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, and Dahua Technology

Company. The inclusion of these entities on the Covered List extended both to subsidiaries and affiliates of these entities, as well as to *“telecommunications or video surveillance services provided by such entities or using such equipment”* (FCC, 2021)

The Committee on Foreign Investment in the United States (CFIUS), an interagency committee of the U.S. government, has the legal authority to prevent foreign entities that pose a threat to national security from buying American companies (Alonso, 2021). Potential Chinese acquisitions of companies in the semiconductor industry have been subject to CFIUS review, or the threat thereof, since long before the recent escalation of U.S.-China tensions. In 2018, the Foreign Investment Risk Review Modernization Act (FIRRMA) strengthened CFIUS’s legal authorities. At times, Chinese antitrust authorities have also refused to allow foreign semiconductor firms to reorganize through mergers or acquisitions. In 2018, for example, China refused to approve

U.S.-based Qualcomm’s potential acquisition of NXP, a semiconductor firm domiciled in the Netherlands but having operations in China (Mitchell, Bradshaw and Weinland, 2018). In July 2021, CFIUS halted a USD 1.4 billion acquisition of a South Korean semiconductor company, Magnachip Semiconductor Corp. by a Chinese private equity firm, Wise Road Capital, on the ground of potential security threats (Daly, Brooks, and Devamithran, 2021).

The U.S. government is also increasing coordination with its Allies to restrict Chinese acquisition of strategic technologies. In February 2021, the US National Security Advisor Jake Sullivan and his Dutch counterparts met to discuss China’s technological rise, signaling that the ASML (Netherlands) is ready to withhold an export license on EUV (Extreme Ultraviolet) lithography machines, a technology central to the production of the most sophisticated chips and thus highly coveted by China (Woo and Jie, 2021). The U.S. has prioritised multilateral partnerships with East Asian

Box 2: Recent Policy Developments in the US w.r.t. Semiconductors

In January 2021, the US House and Senate Armed Services Committee released the “National Defense Authorisation Act for Fiscal Year 2021” to establish programmes to help the domestic semiconductor industry counter China by creating a multilateral fund to back a secure semiconductor supply chain with allies and provide more federal funding to match domestic investments. According to the Act, participation in the “Multilateral Semiconductors Security Fund” would be restricted to countries with export controls on semiconductor trade with China. The Act also directed the Secretary of Defense to submit an annual report describing strategic and critical materials such as Rare Earth Elements (REE), including the gaps and vulnerabilities in supply chains of such materials.

In February 2021, while stating that the United States needs resilient, diverse, and secure supply chains to ensure its economic prosperity and national security, the US President issued an “Executive Order on America’s Supply Chains”, wherein among other things, directed the Secretary of Commerce to submit a report identifying risks in the semiconductor manufacturing supply chains and policy recommendations to address these risks.

In June 2021, the US Senate passed the “United States Innovation and Competition Act” of 2021 to establish a new Directorate for Technology and Innovation in the National Science Foundation (NSF), to establish a regional technology hub programme, to establish a critical supply chain resiliency programme, and for other purposes. This Act has included semiconductor and high-performance computing among its set of key technology focus areas. The Act established a fund to be known as the “Creating Helpful Incentives to Produce Semiconductors (CHIPS) for America Fund” for the Secretary of Commerce with the budgetary support of USD 50.2 bn, earmarked for a period of five years (2021-2026).

Source: US Congress.Govt.

nations, members of the Quadrilateral Security Dialogue (QUAD), and Group of Seven (G7) countries. In 2021 itself, there have been many key policy developments in the US to strengthen its domestic semiconductor manufacturing capacities as well as security arrangements to thwart China's rise in the semiconductor sector. Box 2 provides a snapshot of the recent policies/regulations in the US.

The U.S. decision to impose restrictions on Chinese firms, namely SMIC, Huawei, ZTE, etc., represents a complex case of technology weaponisation arising from politico-strategic considerations. The design of high-end semiconductor chips is currently dominated by a handful of industrialised nations such as Japan, the United States, South Korea, Netherlands, Taipei, etc. and China remains critically dependent on these countries for sourcing semiconductors. Since China undertakes only the production, assembly, and testing of semiconductor-based products, the Trump administration's decision to ban the export of advanced semiconductor chips to China has reportedly affected automobile, electronics, and ICT-related hardware industries in China significantly. This, in turn, is also impacting the GVCs across Asia, Europe, and Northern America.

1.5 Technology and Global Supply Chains: Emerging Challenges

With two-thirds of global trade is currently linked to the GVC-related production framework, these supply chain networks constitute the backbone of contemporary economic globalization. Notwithstanding the series of structural shocks in recent decades induced by developments such as financial disruptions in the Euro-Atlantic region and the ongoing COVID-19 outbreak, the trade in GVCs continue to show an upward trend with technological advances creating newer competitive advantages. With their endowed labour costs advantages, developing countries

like China have significantly benefitted from participating in GVCs and undertook production and assembly activities which contributed to a phenomenal increase in trade. Over time, the deepening of internet and communication technologies has significantly improved trade facilitation and production efficiencies. In recent times, three important trends are profoundly impacting the GVC paradigm and would influence how value will be created and distributed throughout the networks. The ongoing digital transformation, green transitions tariff measures are bringing continuous changes in the supply-chain networks as is evident in backshoring, reshoring, and near-shoring of supply chains (De Backer, 2016).

Undoubtedly the digital transformation is significantly augmenting the trade in GVCs through reduced transaction costs and streamlining transport, supply, and communication networks. Digital technologies are enhancing the quality of services apart from increasing the production and supply-chain efficiencies of networks. The use of technologies like robots and 3D printing, etc., however, could also induce firms to re-shore production and enable new production patterns. The technological and cost maturities in 3D printing technologies can have major impacts on product development, and customization (Freund *et al.*, 2020). This phenomenon, if realised on a large scale, would erode the labour-cost advantages of developing countries and force large firms to shift to locations offering better digital and infrastructure ecosystems through limited empirical evidence exists on digital-led re-shoring in GVCs (*ibid*). The maturation of 3D printing is projected to structurally change the manufacturing, distribution, and consumption paradigm globally while boosting trade in data, services, designs, materials, etc. The 4th industrial revolution technologies are therefore likely to continue reshaping trade flows with a significant increase in trade for data and services as compared to trade in goods

(World Bank, 2020). The rise of digitalisation is therefore likely to impact GVCs in a complex manner and call for close monitoring of the impact of these new generation technologies.

The trends from ongoing digital transformation are driving governments' world over to rapidly augment digital infrastructure and to foster innovation, technological capabilities, and skill-development for sustaining their trade advantages. For developing countries, the digital wave poses greater urgency to build domestic capacities and to facilitate the creation of a digital ecosystem with supportive innovation, and skill development measures. The skill-intensive nature of digital and various fourth industrial revolution technologies require firms in developing countries to rapidly catch up in the digital domain and contribute to improving their terms of trade and development (UNCTAD, 2021a). While the rise of GVC-based trade reshaped the economic output, it also enabled new forms of trade protection by allowing dominant players in the supply chain to weaponise their technological and resource endowments.

The U.S. is blocking the supply of semiconductors to China and, in return, Beijing is contemplating restrictions on the supply of rare earth materials to the U.S and its allies. Triggered by the wave of nationalistic sentiments, the ongoing technology and tariff wars are not only disrupting global trade but also proving to be expensive for firms and affecting the economic efficiency of the GVC based production system. The recent wave of shortages in the supply of semiconductors in the global markets has been an outcome of many unforeseen developments including the pandemic-induced demand slowdown in the vehicle sales in 2020 followed by the sudden spurt in demand, to stockpiling of chips by Chinese firms blacklisted by the Trump administration, to a fire at a Japanese factory which cut off supplies of special fiberglass used for printed circuit boards, to constraints

in the global transportation system, etc. (Vakil and Linton, 2021). These developments have collectively exacerbated the supply-chain scenario and led to the clarion call for building more resilient supply chains (ADB, 2021). The growing political friction between U.S. and China, however, would continue to ill-serve the cause of enhancing supply-chain resilience.

1.6 The Regulatory Response

The rise of digital technologies has triggered an intense debate on the extent to which domestic policies constitute a legitimate regulation or barriers to trade (Aaronson, 2019). The existing gap between various trade rules enshrined under the framework of GATT, GATS, or TRIPS has serious implications for shaping trade policy rules amidst the new technological wave. The advances in digital technologies and their impact on e-commerce need expeditious redressal by WTO members. However, the global regulations for governing trade are evolving rather slowly. Also, the recurrent deadlocks and the current approach of "plurilateral" that sidesteps the "consensus" principle are feared to be unsuitable for addressing complex issues arising from rapid technological advances (Pandit, 2021). The global trade regime on digital trade at the current juncture faces similar challenges with a lack of common understanding among WTO members on a set of shared norms and definitions to govern the digital trade flows.

The interface between trade, technology, and norms is becoming increasingly complex with a range of convergences and divergences on the governance of the digital space. The WTO members, for instance, agree upon certain sub-themes such as outlawing unsolicited commercial electronic messages, protection from fraudulent or deceptive commercial practices for online consumers, and governing competition in e-commerce. Among the key issues concerning digital technology includes equitable access to markets, cybersecurity, data

privacy, handling of personal and business data, enforcements of digital contracts, authentication and related regulation, e-enabled services, and facilitation and IP and competition policies. On many of these issues, there are no global standards or norms of governance agreed upon by the WTO members.

On issues ranging from cross-border data flows, data localization, addressing privacy concerns, transfer of source code and imposition of taxes and duties such as internet taxes and customs duties, etc., however, the three major economies, the US, China, and EU differ significantly. While the United States remains a strong votary of open internet and data flows, the European Union has adopted regulations like the General Data Protection Regulation (GDPR) in the European Union (EU) that advocates strategic regulation of the digital space (Abendin and Duan, 2021). Such diversified approaches can have implications beyond Europe the national boundaries of the US and EU. The national policies related to data protection have become important in the context of industrialization as manufacturing under GVCs depends critically on data access and services. From design, testing, raw materials procurement, assembly services, the role of data flows have become instrumental in driving GVC operations. Activities ranging from production control, coordination, re-production, supply chain management, post-sales, etc. are depended on data access and policies determining cross-border data flows are important. The fragmentation of the approaches governing data flows however do not bode well in terms of offering any stability and predictability and such diversified frameworks prevent new technologies from realizing their true market potential (Couldry and Mejias, 2018).

While the use of data must be fair, localization has also come to be linked with national sovereignty. In this context, it is worthwhile to monitor the extent to which data free flow can help to address the trust

deficit between trade partners and there is a need to create separate standards to monitor trust. Such standards might take a long to develop; however, commitments by WTO members in this area would prove valuable in the long run. While the e-commerce trade would help create volume and enhance sectoral contribution to the GDP, climbing up the value ladder requires harnessing effective digital innovations. The benefits of technological change, therefore, cannot be taken for granted and that policy measures are necessary to harness the technology and innovations for the benefit of all stakeholders and to promote inclusive development (WEF, 2020). Digital technologies have forced policymakers in both developed and developing countries to bridge the digital divides and to build equitable regimes that minimise the negative social externalities of trade and digital technologies. Lastly, the exploitation of vulnerabilities in the digital sphere has reportedly caused global MNCs to lose revenue due to IPR theft, loss of trade secrets, etc. The concerns surrounding data privacy; internet security, etc. are increasingly driving governments to forge effective global regulations for IPR protection and to ensure open trade and data flows.

1.7 Trade and Technological Capability: Issues for Developing Countries

The WTO and other bilateral and regional economic cooperation and trading arrangements have often been driven by notions of static comparative advantages, where product lines being liberalized were selected in terms of their share and volume in current trade flows. While enhanced levels of liberalized trade have led to faster convergence and 'catching-up across developing countries through specialization, the wider divergences in trading capacities, and widely varying rates of national income growth among countries created a limited number of real winners. The present difficulties

in pursuing any robust architecture of trade governance are rooted in such trading divides.

With the underlying technology being valued much higher than production costs, and with automation and 3D printing cost structures themselves getting hugely altered, the flow of investments is likely to be directed towards low-risk destinations and to some extent destinations with a 'skill base'. However, the resultant experience has not been uniformly encouraging as skill concentration in a few countries and that too in select sectors have added to the level of divergences. Hence, liberalization of trade as a singular policy tool has failed to achieve the larger development aspirations in developing countries, particularly in sectors where technology content shapes value creation in trade. Developing countries failing to have a clear industrial policy plan are expected to sub-optimally gain from trade under such a scenario.

The contemporary international trade and technology context also represents widespread innovation gaps that go beyond the traditional North-South divide on trade regulation issues. Historically, the advanced industrialised countries of the global north led the efforts at technological advancements by leveraging scientific discoveries to create new technologies and artifacts. The translation of novel scientific discoveries into commercial products and machines for mass manufacturing involved considerable technological efforts via mission-oriented R&D and technology commercialization programs. The global south, on the other hand, remained a recipient rather than the creator of new technologies and technology flows from the North constituted an important factor in shaping industrial dynamics globally. The dynamics of technological change and industrial processes in developing countries have been a subject of much academic scrutiny. While it is often argued that firms in Global South need not reinvent the innovation wheel and that they can effortlessly and costlessly

borrow technologies from the intentional "technology-shelf", the industrialization experiences in many developing and catching-up economies reveal the fallacies surrounding the existence of technology-shelf (Lall, 1982; 1992).

Firms in latecomer industrializing countries need to overcome a range of constraints surrounding technology controls and to work around the problems of tacit knowledge for assimilating foreign technologies. Technological learning has therefore been regarded as critical for fostering industrialization and adapting the technologies developed elsewhere as per their domestic needs and specificities. Furthermore, the works of Acemoglu (2001) have demonstrated that skills play a prominent role in balancing and sequencing technological efforts and carry strong links with industrialisation patterns. However, the varying pace of technological efforts in developing countries coupled with the transfer of outdated technologies, to limited technology transfer or prior understanding surrounding technological know-how led to only a handful of new countries developing technological capabilities and skills to pursue comprehensive industrialization and to foster the transition from agrarian to industrial labour-markets.

With scant regard by developed countries to promote technological learning, capability building, and institutional change, widespread innovation gaps continue to hamper the cause of building equitable innovation and trade regimes. The recent scholarly works on Foreign Direct Investment (FDI) and Value Chains as the source of technology transfer too have pointed to limitations of such strategies for bridging innovation gaps and to build industries capable of absorbing both low and medium and skilled workers in developing countries. Works by Fagerberg *et al.* (2018) and Rodrik (2021) underlined that the positive impacts of policies surrounding FDI and value chain participation for developing countries cannot be taken

for granted and that these measures mostly benefit the MNCs that lead these chains. Since technological flows through such networks are shown to be small, the developing countries are better off developing robust national innovation systems towards realising their developmental goals. Rodrik (2021) further suggests that developing countries face peculiar challenges vis-a-vis the new technological wave led by fourth industrial revolution technologies.

Being inherently skill-biased, these technologies particularly threaten the low and semi-skilled workforce that operates in the informal sector with limited policy support for skill-upgradation or rehabilitation due to the impending automation onslaught. The insights from innovation economics literature and, especially in the heterodox tradition which examined industrial transformation in the East, South-East Asian, and the Latin American region offer useful guidance for other developing countries. The conscious technological change promoted by these countries with complementary macroeconomic, trade, skill-development, R&D, and sectoral development framework helped to bring about systemic transformation and industrialisation.

The technological efforts also enabled these countries to attain some levels of technological maturity as evident in the growth of certain industrial sectors in countries like China. Combined with falling productivity gains in developed countries from the earlier industrial waves, these newly industrialised countries also improved their terms of trade through improved technological capabilities as well as by building appropriate creating human capital for managing such change. In addition, the development of modern infrastructure and early adoption of ICT technologies significantly helped to increase industrial productivity in these nations. For instance, the advancements in material and energy-efficient technologies played a critical role in shaping structural transformation in the emerging economies

and, in turn, improving the intrinsic quality of factors of production. Furthermore, the greater academia-industry connect, and the formation of appropriate human capital formation has served to drive productivity gains. Consequently, managing structural transformation with a wide range of macro-economic, industrial, innovation, and skill development policies has come to be regarded as the holy grail of a holistic industrialisation strategy that balances growth with equity and well-being (UNCTAD, 2021d).

1.8 Trade and Technology: Development and Sustainability Priorities

The developmental impacts of international trade and technological progress have increasingly come under the scanner with widespread within and between-country disparities and existing in the world. While the trade and technological progress has contributed to shaping the competitive advantages and economic well-being of national states, the developmental inequities and, more importantly, the adverse impact on the environment have led to a strong emphasis on embedding sustainability across global trade flows. The worsening climate impacts have brought new urgency to internalise the environmental impacts and to align industrial productivity with the nature-positive paradigm. The extreme weather and climatic conditions also pose risks to longer-supply chains and firms are forced to adopt multi-sourcing strategies. The new environmental regulations such as the European Union's Carbon Border Adjustment Mechanism (CBAM) though novel in their conceptualisation, pose a serious challenge for developing countries by constraining their market access. The CBAM has drawn sharp criticism in overlooking the historic responsibility of the advanced countries in carbon emissions and transferring inefficient technologies to the developing countries.

The current transition towards sustainability places additional resources burden on developing countries in resource allocation and to pursue trade in a climate-constrained world. There is an urgent need to enhance climate finance and enable the developing countries to enable the green transition. The need to align climate goals with trade and technology regimes is critical for the decarbonising global economy. As the changing regulatory environment imposes significant costs on long-distance GVCs, there is pressure on firms to internalise environmental impacts. With climate change weighing high policy priority, there is a strong preference towards creating new value chains with greener production and sustainable consumption patterns. Sustainability in global value chains (GVCs) has become an established research field across multiple management-related disciplines. In the current literature, the conventional linear economy model of “take, make, and dispose of” prevails, leaving the questions of sustainability and environmental conservation out of consideration. Research has shown that production fragmentation and trade integration in long linear chains of independent yet interconnected firms pose key challenges to the realization of the circular economy goals, which are aimed at closing the loops throughout all production steps.

Such challenges are related to the need to coordinate the activities of a range of actors and manage material flows within the GVC that spans different geographical areas. Countries involved in the same GVC are often characterized by different practices and standards and experience environmental effects differently. Although these effects are often felt at the local level where production takes place (mostly in the South), decisions on what to produce and how to produce it are made at the global level. According to (Hofstetter, 2021), a multilevel perspective is needed to ensure the greening of GVCs, especially to achieve circular economy outcomes. Notwithstanding the urgent need to facilitate the transfer of green

technologies and climate finance to developing countries, the trade regime only exerts a force in opposite direction and limits the ability of developing countries to chart green transition. The burden of indigenous “green innovations” is likely to be high for developing countries and would also impinge on their ability to make progress under Agenda 2030.

In the current context, climate change poses an additional constraint for catching-up economies to pursue resource-intensive industrialization strategies as evidenced under the great east-Asian miracle. The ever-greater pressure to factor in climate impacts in industrial production and consumption policies may have an impact on emerging trade and resource flows. With climate change and sustainability becoming key drivers of technological change are likely to further reduce the policy choices of catching-up economies in pursuing industrialisation and as such factor prices alone will not determine the choices of production and technology development (Acemoglu, 2001). The sustainability agenda, on the other hand, does offer an opportunity for catching-up economies to leapfrog and focus on sustainability-centric technological learning. Being in the early life-cycle stage, these technologies offer greater opportunities for innovation compared to mature technologies existing in the market, and sustained innovation in such technologies supported by digital services could help to improve the overall trade competitiveness of catching-up countries thereby paving the way for building an equitable trade order.

Besides climate change, equitable access to vaccine and healthcare technologies has emerged as the most pressing developmental challenge with strong implications for trade and innovation policy. Having equitable access to vaccines and essential drugs marks an urgent priority to forge a resilient trade framework. Close cooperation between World Trade Organisation (WTO) and World Health

Organization (WHO) is crucial to ensure timely and equitable delivery of healthcare public goods. This would require, among other things, addressing intellectual property constraints in mass production and roll-out of vaccines and the cross-border trade in health services. Since vaccine rollout is essential to foster a recovery in the post-Pandemic phase, the global trade regime must facilitate greater innovation and capacity building in this area by easing monopoly controls. The trade policy paradigm needs closer alignment and restructuring to deliver global public goods. ‘Taming the rentiers’ has therefore become a more pressing policy concern both at the national and multilateral levels and to pursue more equitable pathways (UNCTAD, 2021d).

Promoting a labour-intensive, trade-led growth paradigm calls new thinking and reorienting technological change to meet those objectives. The world is currently witnessing a transition to the ‘fourth industrial revolution’ led by advances in frontier technologies like artificial intelligence, robotics, energy storage systems, the internet of things (IoT), additive manufacturing, etc. that promises to enhance productivity, trade, and economic development.

However, the fact is that only a handful of countries like the United States and China produce most of these technology products and technological change yet again threatens to outpace the ability of many low and middle-income countries (LMICs) which operate far away from the technological frontier. The lack of access and adoption to new-generation digital technologies would severely affect the ability of under-developed countries to catch up to new technology frontier and address their developmental needs. An equitable international economic order thus involves all countries preparing simultaneously to adopt and produce these technologies. Since the progress of developing countries in the new technological revolution is going to be shaped by their national policies and by their involvement

in international trade, there is a need to achieve a fine balance between pursuing labor-intensive manufacturing as well as promoting technology upgradation through participation in supply and value chain networks. Such fine-balancing is also vital to achieving progress on sustainable development goals (SDGs) in developing countries which reveals widespread market and systemic failures in the supply of affordable social-use technologies.

1.9 Way Forward

Besides unilateral liberalisation, bilateral cooperation is also significantly improving various bilateral and regional free trade arrangements. With the recent developments via trade regimes like RCEP and CTPP, there is also a growing desire to standardise the rules of trade in technology goods and services. It is expected that bilateral and regional groups will pave the way for greater multilateral and global consensus on contentious barriers and enable greater trade facilitation.

Ironically though, in the current format, the WTO has allegedly been found inadequate by several countries especially technology leaders who have not been able to introduce WTO plus issues that they think are associated with their trade interests. The dual processes on arriving at new age trade deals as well as pushing for plurilateral agreements mostly as part of the WTO may be seen in that light. For several years now, and with the close interconnections between trade and technology becoming increasingly unavoidable, new kinds of mega-regional trade agreements are being pushed beyond the WTO to bring in convergence in technical standards and deescalate trade (and often technology) conflicts that may be imminent in case there are grey areas in trade negotiations.

Digital technology has taken center stage in the global trade discourse. However, the application of trade policies towards trade promotion as well as preserving the space for

‘free trade’ has been severely reduced due to outstanding issues such as the proposal on a permanent moratorium on electronic transmission and constitution of the plurilateral group on e-commerce in the WTO Ministerial Meeting at Buenos Aires and the exclusive discussions on ITA 2. It is often seen that much of the negotiations around market access are driven by domestic interests of technologically advanced countries that have also been the ones that were industrialized early with significant wealth accumulation. The residual manufacturing in other countries is often volume-oriented rather than value-oriented. Nevertheless, in several cases even it has been difficult to arrive at an implementable framework in these new trade discussions. In the recent past, therefore there is a rising tendency towards ‘minilaterals’ among sizeable trading partners where sectoral cooperation and resilience of supply chains under post-pandemic realities are being talked about.

Similarly, the diverse approaches to data flows and privacy protection in major economies like the U.S., China, and the EU can have implications beyond their national boundaries. Amidst the absence of any agreed framework specific to Digital Trade/E-Commerce under WTO Agreements, the Regional Trade Agreements (RTAs) have come to adopt certain provisions on e-commerce and digital trade issues. Such efforts however lack uniformity and leave regulatory space wide-open.

The potential opportunities and risks posed by various digital and emerging technologies thus call for a more nuanced scholarly understanding of the changing trade and technology nexus and what it holds for the future of global trade (Kruse, *et al.*, 2021; World Bank. 2020). Moreover, the digital wave requires developing countries to better manage the structural change than in the past through domestic policy regimes that are supportive of their overall technological and trade growth.

With a mesh of plurilateral agreements ranging from ITA to e-commerce, to Trade Facilitation, countries need to be careful about the implications for technology-driven sectors, building domestic capacities, promoting global trade and logistics. While the issue of the ‘digital divide’ has been widely recognised as the key bottleneck for leveraging the benefits of e-commerce in developing countries the technology and innovation divides have not been addressed. Such divides are critical for developing production capacities for digital technology products mentioned earlier to avoid import dependence of overwhelming magnitude.

Notwithstanding two decades of sustained discussions, the challenge before WTO members on technology issues remains far from sight. A strong political commitment and fuller engagement by developed countries have been often found wanting towards addressing issues and challenges faced by developing and least developing countries. The plurilateral negotiations, although considered premature are making headway. Concerns expressed by developing and least developing countries have not received the attention they deserve. Irrespective of what happens in MC 12 the road ahead is uncertain as WTO itself is facing many crises, and, the proliferation of RTA/ FTAs outside the WTO framework has created spaces to address issues that remain unresolved in WTO.

The trade policy paradigm needs closer alignment and restructuring to deliver global public goods. Since the progress of developing countries in the new technological revolution is going to be shaped by their national and international trade policy framework, there is a need to achieve a fine balance between pursuing labor-intensive manufacturing as well as promoting technology upgradation through participation in supply and value chain networks.

Such fine-balancing is also vital to achieving progress on sustainable development goals (SDGs) in developing countries which reveals widespread market and systemic failures in the supply of affordable social-use technologies.

The huge divergences in trading capacities were not only reflected in terms of volume but also value. The concept of 'value' has gained attention because, while the volume of trade has expanded for many countries in recent decades, the distribution of value has been skewed. Product development and process innovations have been remained confined to a few visible hands. As explained earlier, the services sector is playing a critical role and with unleashing of

the fourth industrial revolution the technology content of products being traded is effectively determining the value. However, there are concerns about welfare gains in terms of consumer or producer surpluses for developing country markets that are not at the forefront of technology development and have much lower purchasing power. The impact on welfare emanating from trade in technology across goods and services has not been quantified to suggest clear policy directions. At the same time, productivity gains have lost the appeal in the face of increasing costs to sustainability and inclusivity. Technology's role as a productivity tool is also under question unless it caters to the needs of sustainability and inclusivity.

2

Gains from Technology-Intensive Trade

2.1 Introduction

At the beginning of 2000s, buoyancy returned to the world economy after a long spell of economic debacle following the 'Asian Crisis' in the mid-1990s. Even the formation of WTO in 1995, could not do much in reversing the process in arresting the adverse impact of the global recession on the world economy. For a period of over half a decade of global boom, the buoyant world economy maintained high growth since 2002 and these growth impulses spread across different parts of the world. Trade was the most important channel during the period to spread growth induced signals to different parts of the world. Though spread of growth was across the world, it was rather, uneven among developing countries as well as world economy during 2002-17. During the phase of the global buoyancy, high growth was noticed everywhere but developing countries grew faster than that of the world economy, demonstrating resilience of the world economy (Mohanty, Frandssen and Saha 2019). While real GDP of the world economy was expanding at the CAGR of 4.5 per cent, corresponding growth rate for the developing countries stood at 7.5 per cent during the period 2002-19.

The rapid growth of developing countries has brought in reduction of the output gap between industrialised and developing countries in recent years. The high growth profile of the world economy was adversely constrained with the advent of the global recession following sub-prime crises in the US, leading to spread of recession since 2008. Though the brunt of the recessionary pressure was adversely felt on the growth prospects of developed countries, developing countries were somewhat insulated from recession and remained partially buoyant.

In relative terms high growth in developing countries was stemming from its high trade linkages, and this has brought in macroeconomic stability to the world economy. Second phase of recession during 2013-21 was a difficult phase for both developing and developed countries in their growth and trade performance, however, resilience in developing countries could avoid a major growth catastrophic in the world economy. The globalisation along with trade liberalisation could induce developing countries to go for specialisation on technology intensive sectors, bring in innovation and technological change in the trade sector (Srholec 2007). Adoption of technology intensive trade in developing countries was primarily due to structural

transformation taking place in developing economies (Samen 2010) and shifting of trade was taking place from low-end primary to resource base and further to different levels of technology intensive sectors (Nayak, Aggarwal, & Mann, 2013).

Several empirical studies are of the view that there is a causal link between trade and economic growth and this observation is equally applicable to both developed and developing countries (Marjit & Ray, 2017). Examining the experiences of 71 countries, Lee (2011) found that nature of technology intensive exports had a positive bearing on economic growth, as a country graduate from 'traditional' to deeper 'technology' intensive trade. Among many countries, China has also followed the similar pattern in recent years. During last two decades, several countries have acquired the distinction of being middle-income countries and the global population under middle income class has been compounding over years. In this context, production and export of quality products are important for raising and maintaining high economic growth through competitiveness and technology plays an important role in this regard (Papageorgious *et al.*, 2019, Hausmann *et al.*, 2007). India's growth story is also linked to switch over to new pattern of production and trade, particularly by conferring emphasis on skill intensive manufacturing like pharmaceuticals, auto components, and services sector (Lal, Chauhan & Agarwal 2008).

Technology and technological capabilities are the prime mover of the trade sector by infusing competitiveness in the sector and many emerging countries have been adopting this strategy to leverage on their trade. Srholec (2007) has observed that trade in technology intensive sector has been the fastest growing segment in the global trade and developing countries are very actively participating in the sector. Close to one-fifth of global trade was in the domain of the technology intensive

trade in 2018 (World Bank, 2020) and the trade segment was no longer within the exclusive dominance of industrialised countries such as EU, the US and Japan. (Pasierbiak, 2013). In this regard, Newly Industrialised Countries (NICs) have achieved major strides in dealing with production and trade in technology-intensive trade and are instrumental in changing the pattern of the global trade (Widodo, 2010). This global transitional process started in the world economy since the 1980s and 1990s and several countries from the developing world created massive production facility in these sectors like electronic and electrical equipments. The consequence of this transition was felt in terms of rise in their share of developing countries in technology intensive trade, and it expanded sharply between 1980 and 1998, from 5.5 to 22 percent. (TDR 2002).

Structural transformation in the global trade is observed in two areas: a) broad structural changes and, b) Global Value Chain (GVC). While the global structural changes was mostly triggered by trade liberalization, regional integration agreements (RIAs), agglomeration of economies, declining transaction costs and technological advances, mostly in ICT sector, GVC induces fragmentation in intermediate goods to promote global trade (Hernández, Martínez Piva & Mulder, 2014). GVC presents a new approach to industrialisation where certain firms from developed countries with high technology firm-specific branding, managerial, technical, and marketing proficiency, having access to low-cost manufacturing facilities including labour cost in developing nations to optimise global trade (Rigo, 2021). With the advancement of the information technologies and declining barriers on trade both TBs and NTBs, MNCs are able to undertake production activities from diverse locations with minimised factor costs (Grossman & Rossi-Hansberg, 2008).

Developing countries and economies in various constituencies have learned to benefit

from specialisation in the international trade. The trade margins seem to be lucrative in technology intensive trade, particularly in GVC and technology intensive trade. The global experiences show that global trade in high-technology goods and GVC, represented by Parts and Components (P&C), are the sectors where trade concentration is very high. As share of technology intensive trade in the overall global trade of developing countries is growing, it is important to observe that the manner in which the share of developing countries and LDCs can be increased further to consolidate their position in the global trade.

2.2 Trade as Driver of Growth

Trade openness of the global economy started rising persistently with the onset of the global buoyancy in 2002 as shown in Figure 2.1. In a gradual manner, the index of openness for the world economy increased rapidly from 45.6 per cent in 2002 to 60.7 per cent in 2008. At the beginning of the year of the global recession in 2008, the robustness of the world economy was

reflected in its high openness index which was at 60.7 per cent. However, there was a sudden decline in the level of openness in 2009 before it started resurging again in the subsequent years. In the first phase of the recession (2008-12), the global economy began to revive quickly and also succeeded partially during the period 2009-11. Stagnancy in the index of openness crept into the world economy before recession returned in its second phase. The level of openness was unhindered during 2011-14, and further sliding of the indicator was noticed in the subsequent two years. During the second phase of recession, particularly starting with 2013, the trade-GDP ratio moved erratically, putting unwarranted pressure on the global economy with far reaching consequences on various group of countries.

The world economy experienced a unique relationship between real GDP growth and openness during the period of the global pandemic. The impact of pandemic on various broad regions and the world is shown in Figure 2.2, particularly in the area of real

Figure 2.1: Global Economy showing High Trade Openness



Source: RIS estimates based on World Development Indicators, World Bank, 2021

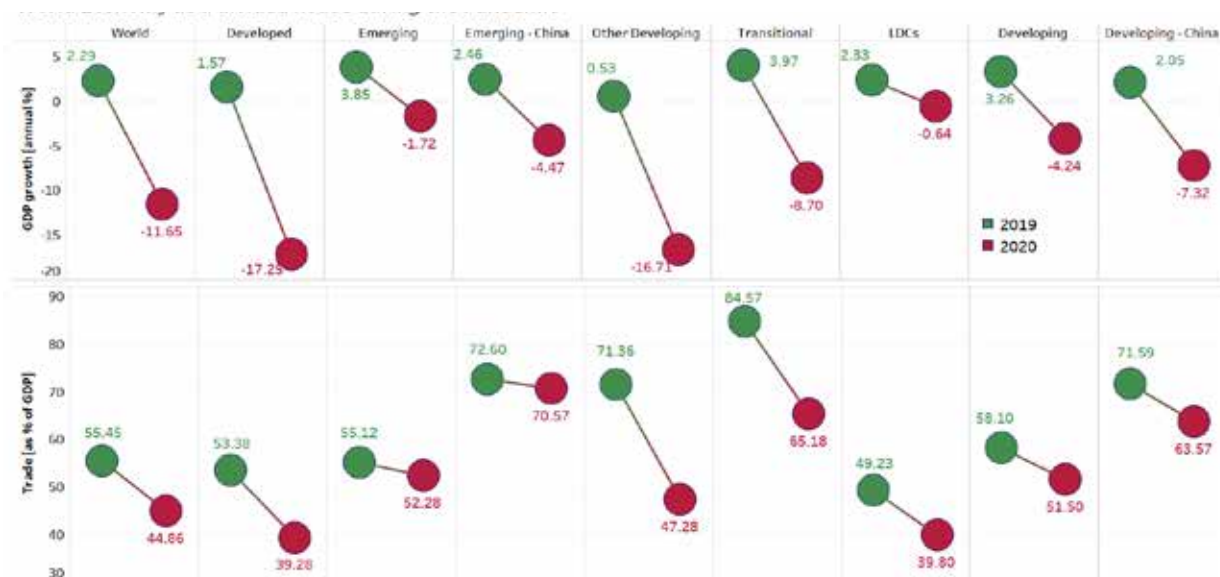
output growth and openness. Emergence of the pandemic was a setback for the global GDP and trade but decline in the growth rate of Gross World Product (GWP) was much sharper than that of the trade openness index. The overall growth rate of the world economy was sluggish and reported at 2.3 per cent in 2019 but declined sharply to -11.65 per cent in 2020 which was unparalleled in the annals of economic history of the world. Among other geographic regions, developed countries were affected much more than developing countries and GDP growth rate of industrialised economies declined from 1.57 per cent in 2019 to -17.25 per cent in 2020.

The situation was similar in other broad geographical groupings, but they differed in terms of severity of the problem. Among developing countries, emerging economies were less affected with respect to several other groupings within the developing world during the global downturn. Average growth rate of emerging economies was estimated at 3.85 per cent 2019 but declined to -1.72 per cent in 2020. The growth performance of emerging countries without China was not very different

from emerging countries with China in 2019 and 2020. Steep decline in the GDP growth rate was the sharpest for the geographical grouping 'other developing countries'. The LDCs were least affected in 2019 & 2020 compared to other geographical regions. Average growth rate of LDCs was reported at 2.33 per cent in 2019 which declined to -0.64 per cent in 2020, showing resilience of these economies during the period of crisis.

Like growth performances of various geographical regions, the trade openness index for these geographical regions demonstrates declining trends during the period of pandemic. In comparison with the real GDP growth, trade openness was much better for the world and the industrialized economies, as presented in Figure 2.3. In the pre-COVID year of 2019, the average trade openness of the world was 55.45 per cent which declined to 44.66 per cent in 2020 and the index for developed countries declined from 53.38 per cent in 2019 to 39.28 per cent in 2020. Developing countries were affected by the pandemic but to a lesser extent. The level of decline in the index of trade openness of

Figure 2.2: World Economy as a divided house during the Pandemic



Source: RIS estimates based on World Development Indicators, World Bank, 2021.

emerging countries, was similar with or without China. The group of 'other developing countries' was affected the most because of the pandemic. Transitional economies were affected but not to the extent of 'other developing countries'. LDCs were the least affected by the pandemic in terms of their level of trade openness.

Rebound of the global economy from the last year's pressure of pandemic is clearly visible from the record performance of economies in 2021. As no further shocks in sight, various projections for the global real GDP are available in the literature. UNCTAD (2021) has predicted that the Gross World Product (GWP) is projected to touch 5.3 per cent in 2021 and is expected to decelerate to 3.6 per cent in 2022. In the global recovery, industrialised countries have played a key role in fostering growth through demand stimulus, but complete revival of the productive capacity is not fully rejuvenated and excess capacity is persisting in these economies. Growth outlook for different regions seems to be uneven.

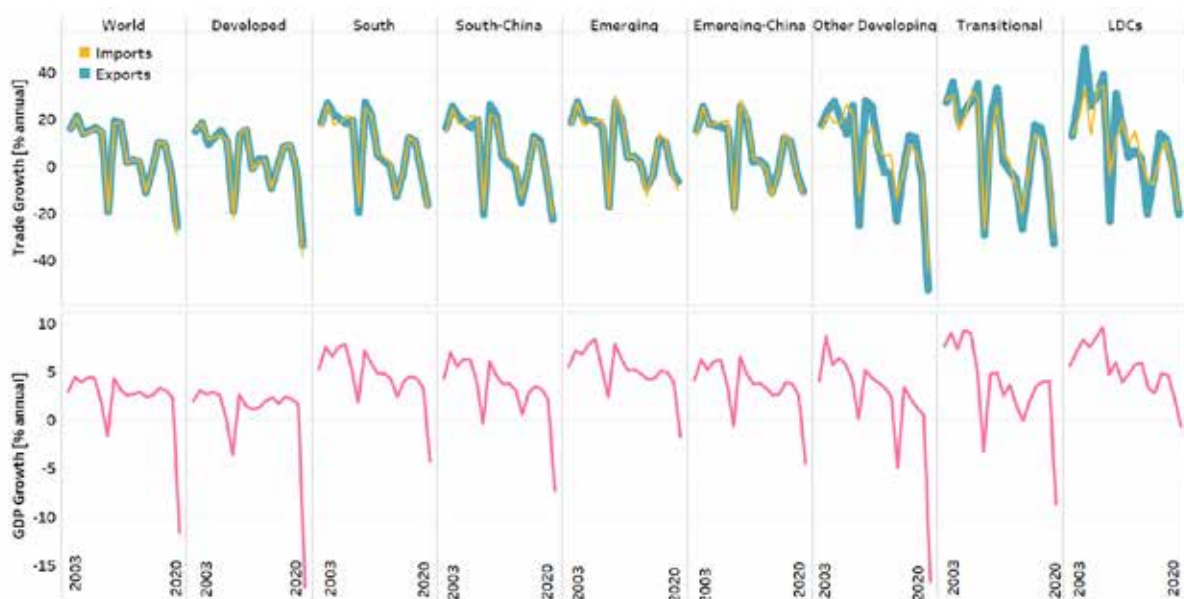
The global economy has resumed partial recovery in 2021 and is likely to touch 5.9 per

cent growth in the current year and 4.9 per cent in 2022. The growth rate projection was downgrade by IMF (2021) by 0.1 per cent due to disruption in the supply chains affecting production process in industrialised countries and large impact of the pandemic in developing countries. The persistence of lockdown, labour migration, shortage of medical facilities, declining of prices for the primary commodities, several commodity exporting countries suffered in terms of revenue constraints, trade deficit and piling of external debt. However, shrinking of primary commodity prices reduces the growth prospects of several developing countries.

2.3 Technology intensive trade and overall growth performances

Growing literature on the impact of technology intensive trade on the overall trade of the world and various other regions have shown that the present trend will continue for several decades from now. Total technology intensive trade of the world was USD 6.8 trillion in 2002 and increased to USD 17.4 trillion in 2020, showing the critical importance of the technology

Figure 2.3: Trade and GDP growth Patterns in different regions



Source: RIS estimates based on World Development Indicators, World Bank, 2021.

intensive trade sector in the global market, particularly in the merchandise trade sector. Technology intensive trade covers more than half of the total trade of the world during 2002-20, as shown in Figure 2.4. Trade in the sector surged persistently during 2015-20 but declined in 2002 until 2014.

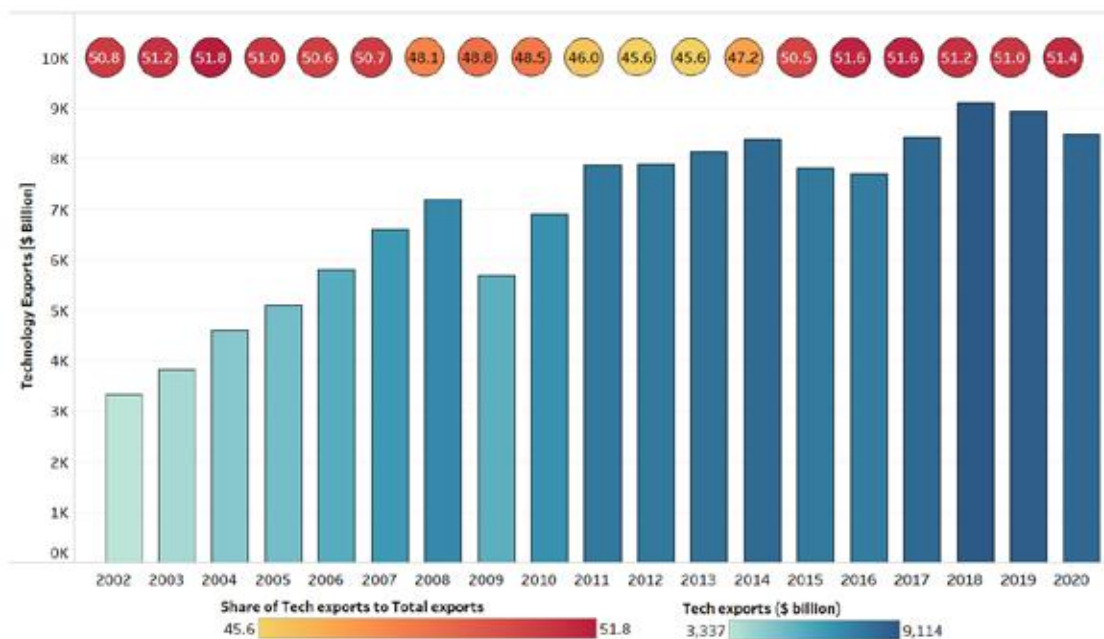
Second phase of the global recession was turbulent and the global sectoral trade experienced high degree of fluctuations during 2016-20. Despite ups and downs in the overall trade, the technology intensive trade covered several high-tech sectors which were not affected by global trade regimes including the spread of pandemic triggered by COVID-19. It is strongly felt that technology intensive sector would be the prime mover for both developed and developing countries. Participation of emerging, transitional, LDCs, and other developing countries is important for global trade and has engaged in more technology intensive sectors such as semiconductor, information, communication

technology (ICT) and environmental sensitive technology, among others.

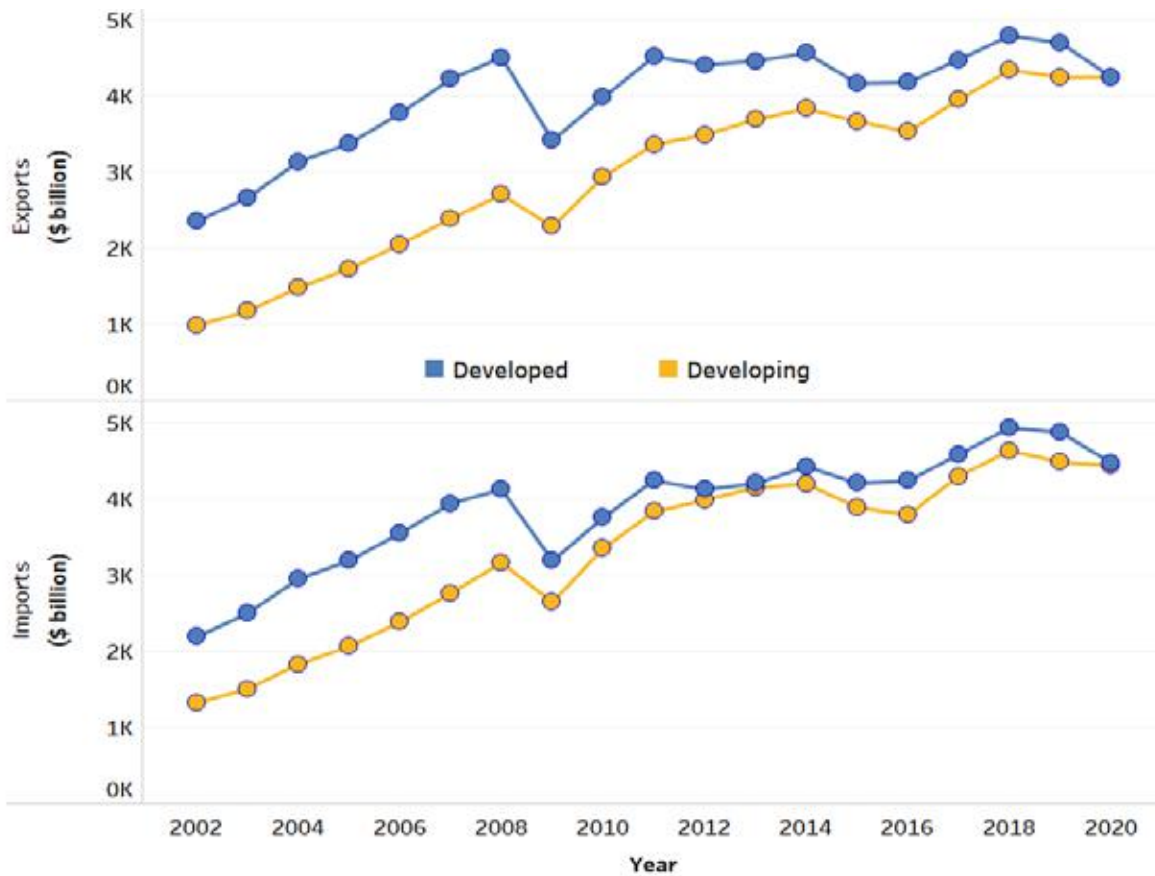
In the technology intensive trade sector, developing countries are 'Catching-up' with industrialized countries, as presented in Figure 2.5. Recession played a very important role in reducing gap between developed and developing countries in technology-intensive trade. COVID-19 brought complete equalization between developed and developing countries in exports and imports. Export gap was much wider in case of exports than imports but narrowed down during the subsequent periods. In 2020, exports and imports of developed and developing countries in high technology intensive trade converged for the first time. The process of 'catching up' was much faster in case of exports than imports.

The country experiences of the global economy indicate that more than 50 per cent of the global trade is covered by the GVC and by the technology intensive trade separately,

Figure 2.4: Technology Trade as a Driver of Trade



Source: RIS estimates based on Un ComTrade, WITS, 2021.

Figure 2.5: Southern Countries Catching-up in Technology Trade

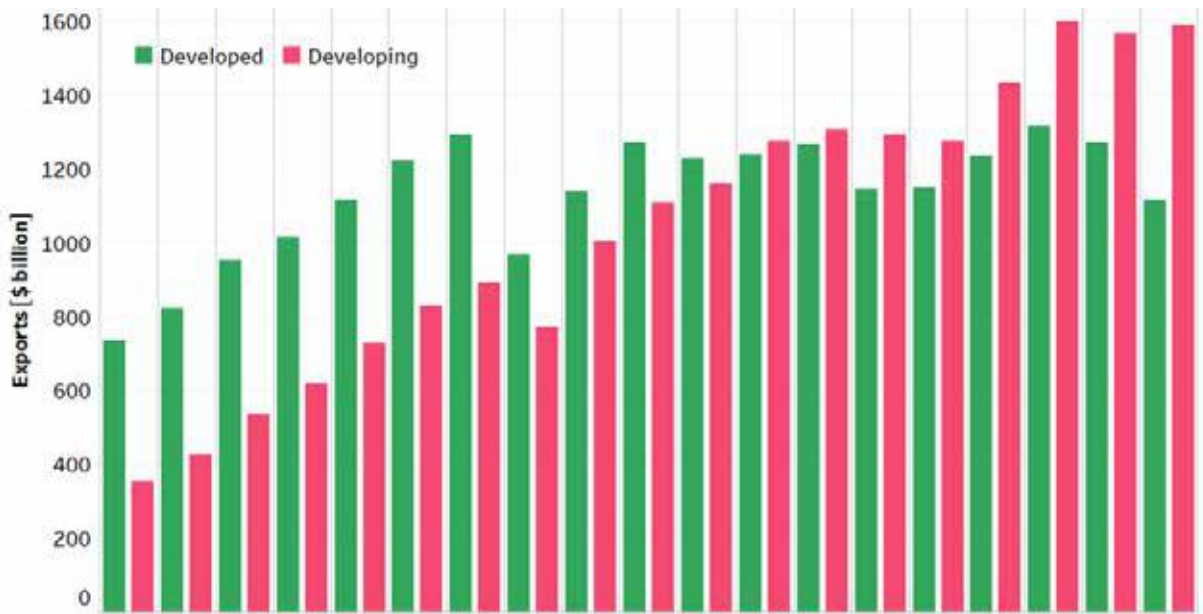
Source: RIS estimates based on Un ComTrade, WITS, 2021.

but they are not mutually exclusive, as shown in Figure 2.6. Therefore, it is important to note that certain products are common in these two lists. In other words, several GVC products are technology intensive in nature. Various studies indicate that rise of GVC trade globally means that they are inputs for some of the critical sectors related to base metals, electric machinery and electric appliances, automobiles, precision instruments, etc. These GVC products are falling into various technology intensive product categories. It is observed that several technology-intensive GVC products are growing fast since the commencement of the global buoyancy.

In 2002, developing countries was just at 48 per cent of industrialized countries but this

situation reversed in 2020 when the group of developing countries was 42 per cent higher than that of developed countries. The pattern of trade in this sector was different for developed and developing countries. In certain technology-intensive sectors, developed countries dominate whereas in others developing countries dominate. These products started expanding during the period of boom, remained almost flat during the initial phase of recession, and started declining towards later part of the global recession for developed countries. However, the situation was different for developing countries in the sector where export was growing almost consistently between 2002 and 2020. With the intervention of developing countries in the exports of technology intensive GVC products,

Figure 2.6: Rising Technology-intensive exports of Developing Countries in Value Chains



Source: RIS estimates based on Un ComTrade, WITS, 2021.

share of the sector started growing consistently since mid-2010s.

2.4: Sectoral Performance of Technology Sectors

Information and Communication Technology (ICT)¹

The relevance and importance of the ICT sector have grown over the years and is expected to increase further with Industry 4.0 and Society 5.0. ICT products, as defined by OECD (2011), “must be intended to fulfil the function of information processing and communication by electronic means, including transmission and display”. ICT sector buttressed the global digital economy by providing a great range of products like communication equipments, electronic parts and components, computers, semiconductors, medical devices, which are dynamic in nature and supported by developments and innovation in technologies (Ezell and Dascoli 2021). Technologies such as

automation, artificial intelligence, 3-D printing, big data, etc. would require manufacturers and consumers to attain ICT products, which would increase production and trade of the sector. Liberalised movement of ICT products would not only reduce transaction costs but would also induce competitiveness in the sector where ICT products are being used as an intermediate (UNCTAD 2015).

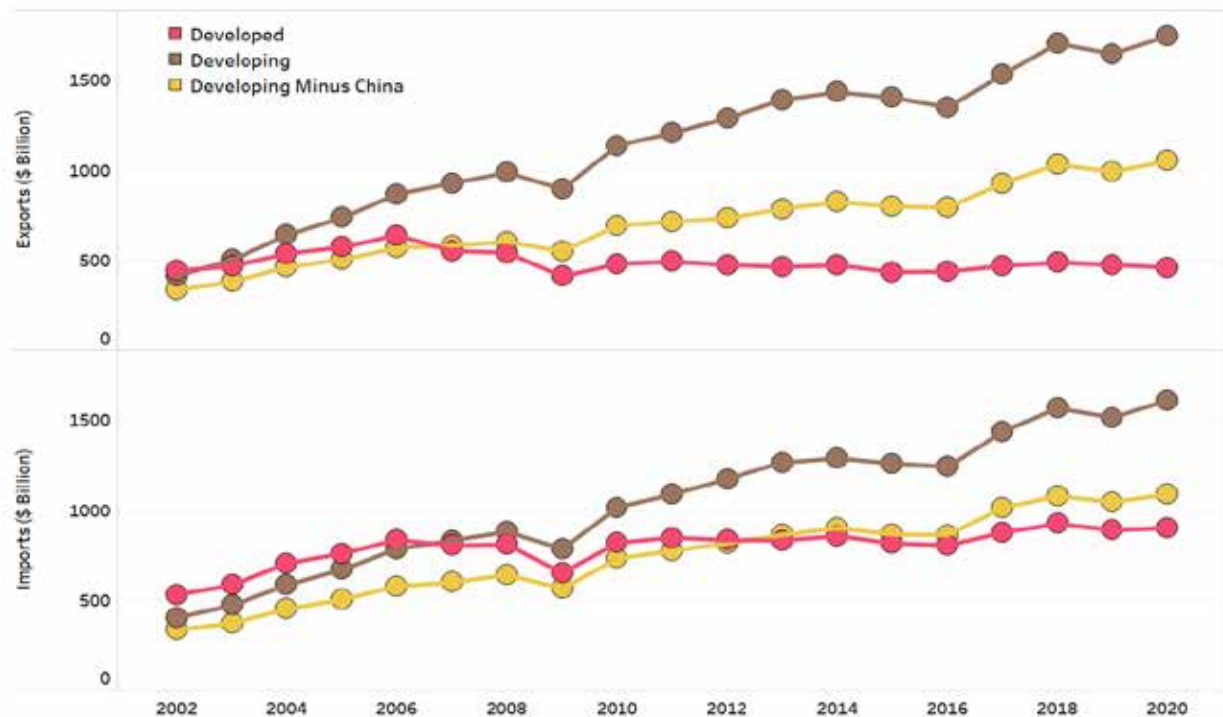
The global trends in ICT products have shown an upward trend where the exports doubled in the period 1996-2005 with a slight downfall in 2001 as an aftermath of the IT bubble (Dreyer & Hindley 2008, Kiriyaama 2011). The trend continued where the trade recorded a jump from USD 1.7 trillion in 2002 to USD 4.7 trillion in 2020, more than 2.5 times. The sector grew at 11.4 per cent, compounded annually, during the buoyancy where growth in exports and imports were almost similar. Though the sector was affected by the global recession in 2008, it has recorded a sharp recovery and the exports started to grow at the end of 2009

(OECD 2010). The growth rates of, both, exports and imports remained positive where growth in imports (3.4 per cent per annum) was a tad bit faster than exports (3.1 per cent per annum) for the entire recessionary period from 2008 to 2020. The second phase of recession, 2013-20, affected the exports and imports of ICT products more as compared to the first phase of recession, where the export growth rate declined from 3.6 per cent per annum for 2008-12 to 2.5 per cent, annually, in the 2nd recessionary phase and the same for imports declined from 4.4 per cent per annum in the first phase of recession to 2.6 per cent per annum for 2013-20. Interestingly, ICT trade grew faster than global trade, where export and imports, both experienced de-growth in the latter phase of recession. However, this setup in the developed and the developing world was different, as seen in Figure 2.7.

With the growth of exports (4.3 per cent per annum) and imports (8.3 per cent yearly) in the buoyancy, the developed nations experienced

a sharp fall in exports during the 1st phase of recession with a de-growth of -3.3 per cent per annum. Though the situation improved during the latter half of the recessionary period, the compound annual growth rate (CAGR) remained negative at -0.1 per cent. Developing countries recorded 16.6 per cent growth in ICT exports in the buoyant global market with a reduction in the first phase of recession at 6.9 per cent per annum and 3.3 per cent in the second phase of the recessionary period. A similar trend was observed in ICT imports as well. Over the years, the developing countries have drawn significant ICT trade to themselves (Kiriyama 2011). As shown in Figure 2.7, the gap between the exports and imports of the developed and the developing world have been increasing, with a high divergence in the case of exports. The share of developing countries in the global exports of ICT products has increased from 48.36 per cent in 2002 to almost 80 per cent in 2020, whereas in the case of imports, the share

Figure 2.7: Contribution of the Developing World Rising in the ICT Sector



Source: RIS estimated² based on UN ComTrade, WITS Database, 2021.

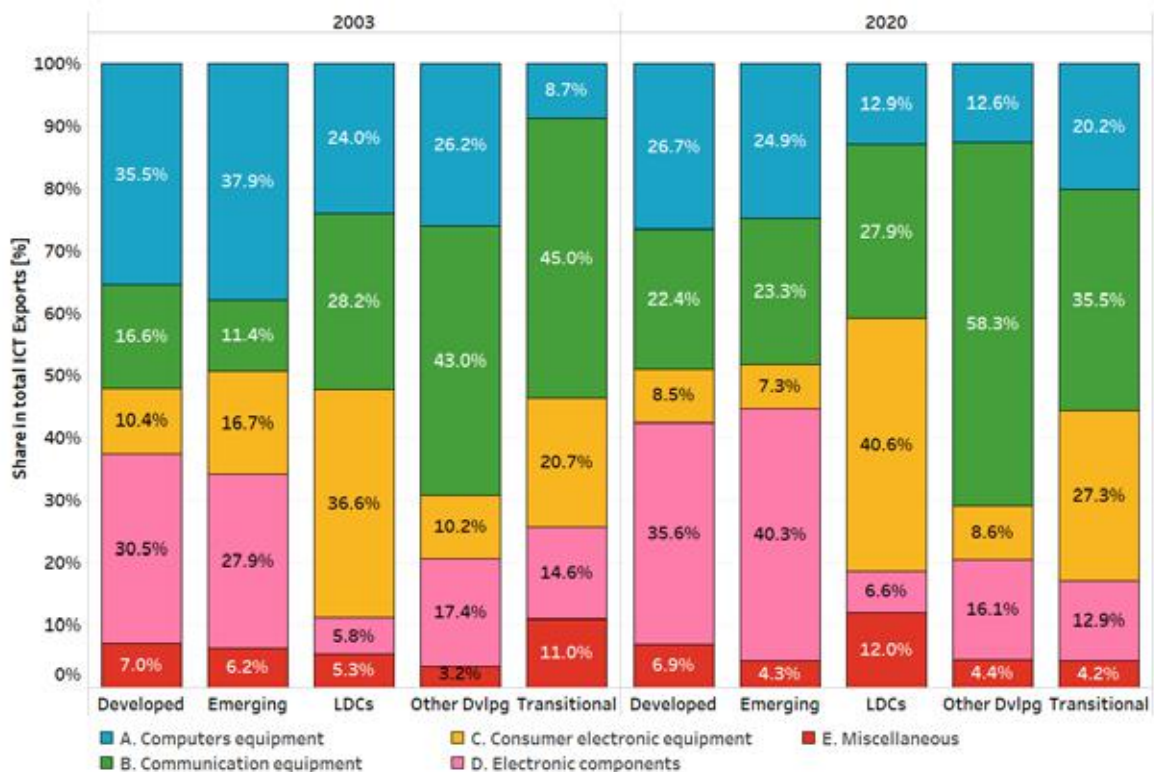
has increased to 64 per cent in 2020 from 43 per cent in 2002.

Within the developing world, emerging countries attain the maximum share in the ICT traded products, accounting for 91.3 per cent and 87.7 per cent of ICT exports and imports of the developing countries in 2020. Two of the largest economies of Asia—India and China—are key players in the ICT sector (OECD 2006). Growth of exports in the emerging countries (excluding China) has been faster during the second phase of recession where Chinese export grew at 1.9 per cent per annum and exports of emerging countries without China grew at 3.6 per cent per annum. Nevertheless, China was the largest exporter and importer in the sector in 2019, followed by Hong Kong, the United States, South Korea, and Singapore in exports and the United States, Hong Kong, Germany, and Singapore in imports. Developing countries like

Mexico, Vietnam and Malaysia are also among the top 10 trading players in the ICT sector.

The ICT products are further classified into five categories: a) computer and peripheral equipment, b) communication equipment, c) consumer electronic equipment, d) electronic components, and e) miscellaneous. Trade in ICT products within these five groups have seen changes over time, where the global exports within ICT products constituted 36.6 per cent of computer equipment, followed by 29 per cent of electronic components in 2003, the composition has reversed with global ICT exports constituting 37.6 per cent of electronic components and 25.5 per cent of communication equipment followed by computer equipment (24.4 per cent). Similar is the case of ICT imports. Within developing countries, the major sector of ICT exports in the LDCs has been consumer electronic equipment with a share of 40.6 per

Figure 2.8: Composition of ICT Sectors in Different Sets of Economies



Source: RIS estimated³ based on UN ComTrade, WITS Database, 2021

cent in 2020, as shown in Figure 2.8. Other developing countries and transitional countries are skewed towards exporting communication equipments within their total exports of ICT products in 2020. The composition basket of exports in all these three sets of countries have remained the same over time. However, in the case of developed and emerging countries, electronic components cover their major share of ICT exports in 2020.

Developed countries were major importers of computer, communication, consumer electronic equipments in 2003. Their share in the world imports has been reduced, though dominant, in 2020 and shifted to developing countries. In the case of exports, the developing countries were leading players in all ICT sub-sectors, except communication equipment in 2003. Their share in the global exports of these products has increased to more than 70 per cent in each sub-sector in 2020. China, the largest trading country in the overall ICT sector, was also the largest exporter in computers, communication, and consumer electronic equipment in 2019 and the second largest in the remaining two sub-sectors. Similarly, the United States is the largest importer in computers, communication, and consumer electronic equipment, followed by the European Union, whereas China is the largest importer in electronic equipment and miscellaneous sectors of ICT. Other major countries from the developing world include Hong Kong, Mexico, Thailand Vietnam, United Arab Emirates, the Philippines, Malaysia, Singapore, Korea, and India.

A high volume of ICT trade and the already existing trade among several countries in the ICT sector has made it possible for many economies to survive in national lockdowns due to COVID-19 in 2020. Digital trade has supported the economic activities in the economies of the world during the pandemic. It would further play an important role in stimulating economic recovery and growth, given the challenges pertaining to the industry,

as a multilateral framework for e-commerce and digital trade, participation and encouragement of small and medium enterprises in the sector, are well taken care of (Hoekman *et al.*, 2021). Delays in multilateral conclusion related to ICT trade would lead to complete failure of the negotiations with the dynamic nature of the sector and change in technologies (Brockman *et al.*, 2021). However, this does not mean that the agreement reaches a plurilateral solution without including countries, especially developing and LDCs, which are key players in the sector.

Semiconductors

The importance of semiconductor industry is not only limited to the digital trade sector but is spread across many manufacturing and services sectors. It is one of the most globalised industries with high strategic significance to many countries of the world (Grimes and Du 2020). As termed by the WTO (2017), semi-conductors are the “brain of modern technologies” which are characterised by complex production networks and ecosystems, including several developed and developing nations. The report further highlights that semi-conductors, accounting for 32 per cent, are the largest product category under the Information Technology Agreement (ITA). With a high quotient of innovation, the developments in the semiconductor industry have been measured by “Moore’s Law” where it is estimated that the processing power of the chip would double every two years or less (SIA 2019). They are termed “foundational technologies” which is essential for the development of new and emerging technologies in Industry 4.0 like artificial intelligence, automation, etc. (Kleinhans and Baisakova 2020). The significance of the industry has increased far more in the times of the pandemic, where it was needed for the manufacturing industries experiencing high demand like data servers, laptops, smartphones, medical devices.

Global semiconductor trade has shown an increasing trend over the years. It has increased from USD 850 billion in 2007 to USD 1.75 trillion in 2020 with an annual growth of 5.7 per cent per annum. There has been a steady increase in the gap of imports and exports in the semi-conductors in the global market. The import growth of the sector was more than export growth during the recession. During the first phase of the recession, i.e. 2008-12, the global exports of semi-conductors grew at 4.3 per cent per annum, whereas global imports grew at 5.2 per cent per annum. During the second phase of the recession (2013-20), both exports and imports grew more than the first phase of recession with 5.3 per cent and 6.5 per cent, simultaneously. Interestingly, during the pandemic year, 2020, global semiconductor exports grew at 8.2 per cent and imports grew at 7.9 per cent, showing the resilience of the sector despite lockdowns and trade restrictions. The curvature of trends in total world trade in semiconductors is highly influenced by the trends in emerging countries.

Emerging countries contributed around 60 per cent of global exports of semi-conductors in 2007 which increased to 78 per cent in 2020. Similarly, imports of the emerging economies contributed approximately 79 per cent of the world's import of semi-conductors in 2007 increasing to 82.2 per cent in 2020. As in the case of global trade, the share of trade of the developing countries is highly concentrated with the emerging countries. The exports of emerging countries have increased from USD 238.1 billion in 2007, accounting for 98.9 per cent share in the developing countries' exports, to USD 602 billion in 2020 as shown in Figure 2.9. However, the share of emerging countries in Southern exports of semi-conductors have been declining and have reached 96.9 per cent in 2020, though constituting a major part in the developing world.

The same is the case with imports of emerging countries which are reducing from

98.8 per cent in 2007 to 95 per cent of the total Southern imports. The reduction in the share of emerging countries is due to a reduction in Chinese trade, export and import both, in the second half of the recessionary period, i.e., 2013-20. Relative to the first phase of recession where Chinese export of semiconductors grew at 18.1 per cent per annum, their exports grew at a lower rate of 4 per cent per annum in the second half of the recession. Similar was the case with imports where the CAGR reduced from 10.5 per cent in the first phase of recession to 5.4 per cent in the latter phase, as in the case of China's total exports and imports due to sluggish external demand in the second phase of recession. Interestingly, as also mentioned in Bown (2020), despite the bilateral trade wars with the United States, China's trade in semi-conductors increased in 2018-20.

It has also been argued in the literature that semi-conductor industries are highly concentrated in a few countries, as it requires huge R&D investment by the suppliers (Leering, Spakman and Konings, 2020). Yet, there has been evidence, as shown in Figure 2.9, the number of countries exporting semiconductor products within the developing nations is more than 100. The set of such countries is quite diverse over the years, more than 20 LDCs have been seen participating in semiconductor exports in the entire period, though accounting for a small value of exports in the world. However, LDCs and other developing nations have recorded tremendous growth in exports as well imports of semiconductors, despite the global recession. Though in value terms, LDCs and other developing countries stand nowhere near to that of the emerging countries, their growth in exports accounted for 16.8 per cent (other developing countries) and 23.5 per cent (LDCs) per annum in the entire recessionary period, i.e., 2008-20.

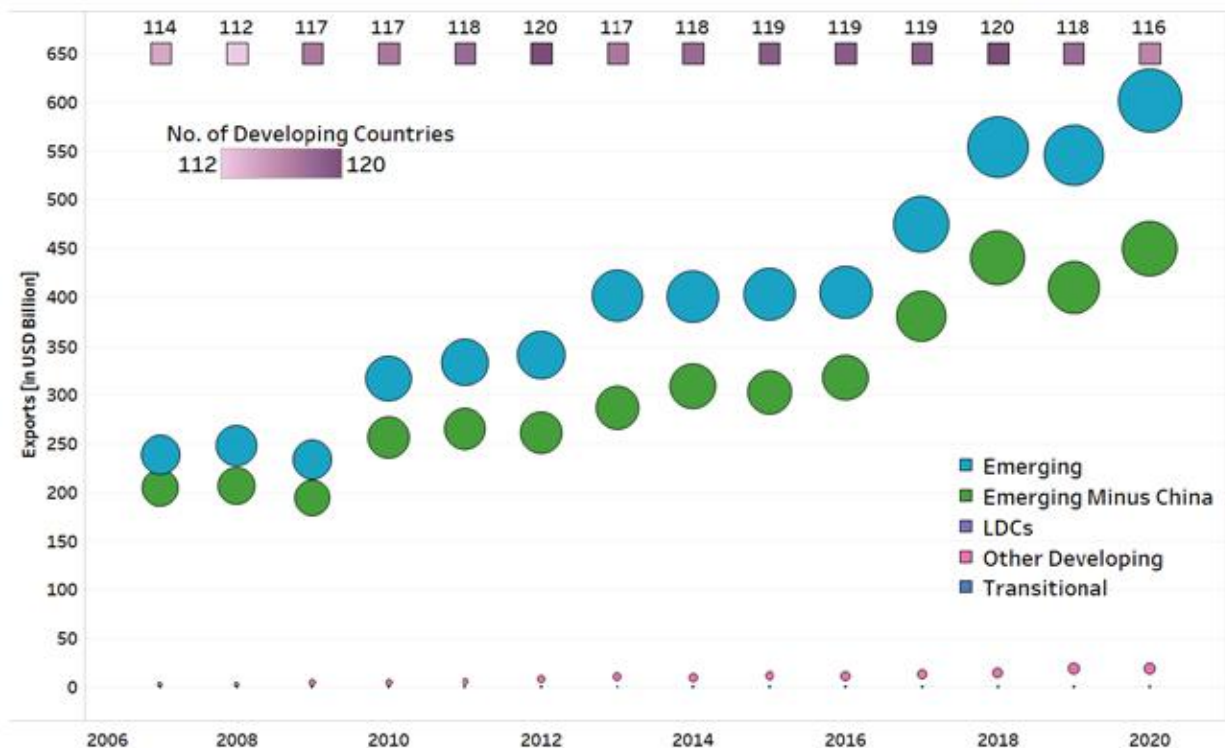
More than 70 per cent of exports in 2019 were concentrated in the top five countries, viz. Hong Kong, China, Korea, Singapore, and

Malaysia. The United States is the 6th largest exporter followed by Japan and the EU in 2019. In the case of imports, more than 60 per cent are concentrated in three countries—China, Hong Kong, and Singapore followed by the EU and the United States accounting for less than 10 per cent of the global imports in 2019. The share of the United States in global imports of semiconductors have reduced from 27 per cent in 1995 to 5 per cent in 2019, the same for the EU reduced from 15 per cent to 6 per cent and Japan from 8 per cent to 3 per cent (Bown 2020). The shift of semi-conductor manufacturing towards China has raised many conflicts between the United States and China for attaining the dominance in the sector, leading to the imposition of 25 per cent tariffs on semiconductors from China in 2018 and a series of export controls targeting value chains in the sector in 2019 (Soliman *et al.*, 2020).

China's own ambition of indigenous

technology development and criticality of the sector to the United States⁵ has raised possibilities of “de-coupling” of semiconductor technology and supply chains between the two countries (Grimes and Du 2020). However, Lee, Gao and Li (2017) articulates that the possibility of China dominating the entire value manufacturing process of semiconductors is highly questionable as, unlike wireless telecommunication, there is no segregation of low-end semiconductor market and high-end semiconductor market. The paper further argues that the Chinese government intervention in semiconductors has also not been as efficient as in the case of mobile phones. Moreover, it has been contended that the substantial amount of value addition in the production network of the semiconductors is contributed by companies that have headquarters outside China (Kaza *et al.*, 2011, Grimes and Du 2020). Chinese companies are present in back-

Figure 2.9: Dominance of the Emerging Countries in Semiconductor Exports



Source: RIS estimated⁴ based on UN ComTrade, WITS Database, 2021.

end manufacturing and assembly of semi-conductors whereas countries like the United States, some European countries, Korea, and Taiwan are dominating in designing front-end manufacturing in the designing process with the intellectual property controlled by companies in the developed nations.

Shortage of semi-conductors due to COVID-19 has put a halt on production for industries like automobiles and smartphones (King, Wu and Pogkas 2021, WTO 2021). Given the complexities of value chains, short production life cycle and high capital cost in the industry, free and efficient flow of trade across the borders is important to promote production and trade of semiconductors in the global market. To this end, WTO agreements like ITA and ITA Expansion (or ITA2), Trade-Related Aspects of Intellectual Property Rights (TRIPS) and Trade Facilitation Agreement (TFA) have helped in increasing the flow of semiconductors in the production networks, through a reduction in the cost of trade, lower consumer prices which have further provided stimulus to research and development and innovation (SIA 2020). Yet, growing geopolitical tensions between the major players in the sector and complex and interdependent value chains have raised uncertainty in the sector which would also have an impact on the other industries, using semiconductors as an input, and hence need a multilateral solution.

Environmentally Sound Technologies (ESTs)

The Agenda 21 of the UN Conference on Environment and Development, or the Earth Summit in 1992, defines ESTs in Chapter 34 as the technologies that protect environment, minimize pollution, sustainably use energy and resources with reduction in environmental risks by recycling their waste and products in a more efficient manner (Halls 2003). These include technologies for a) renewable energy, b) air pollution control, c) solid and hazardous waste

management, d) wastewater management and water treatment, and e) environmentally preferable products (EPPs) (UNEP 2018a). These environmental-friendly products provide solution to the problem of climate change by encouraging use of renewable energy for energy supply and create climate-resilience through technologies like early-warning system and solid, liquid, and hazardous waste management, especially for Small Island and Developing States (SIDS) (UNEP and CEHI 2004).

ESTs are linked, directly and indirectly to many Sustainable Development Goals (SDGs). Though these clean technologies are directly linked to SDG 7 aimed at ensuring “access to affordable, reliable, sustainable and modern energy for all” and SDG 13 (climate action) as they include renewable energy, ESTs are also linked to SDG 3 on good health and well-being, by reducing air pollution, SDG 6 (clean water and sanitation) and SDG 11 (sustainable cities and communities) through wastewater management and water treatment and solid and hazardous waste management and SDG 17 (partnership for the goals) for promoting development, transfer and dissemination of ESTs.

Global trade in ESTs have shown an increasing trend over the years, from USD 0.9 trillion in 2006 to USD 1.4 trillion in 2016 (UNEP 2018a). It has further increased from USD 1.7 trillion in 2017 to USD 1.8 trillion in 2020, accounting for recession in the world economy due to pandemic. For the entire period 2017-20, while the exports of ESTs grew at 1.4 per cent per annum, the imports experienced a fall with de-growth of -0.2 per cent per annum. ESTs sector has been a trade surplus sector for the world economy and the developed world. The developing countries experienced a negative trade balance in 2017, followed by trade surplus increasing to USD 39 billion in 2020.

Studies have also shown that the share of developing countries in the total ESTs trade has

been increasing and that of developed nations has been falling during 2006-16. As shown in Figure 2.10, value of EST exports in the Southern countries have been increasing steadily in 2017-20, whereas the developed nation's export of ESTs has experienced a fall since 2018. Export share of EST in developed nations has also been reducing from 53.4 per cent in 2017 to 50.7 per cent in 2020, the same for Southern countries has been increasing from 46.6 per cent in 2017 to 49.3 per cent in 2020. On the other hand, import share of the developed nations is increasing, while the same for the South is decreasing for

2017-20.

One of the major issues with ESTs trade is its concentration to a small number of countries. Within the South, emerging countries without China, LDCs, transitional countries and other developing countries, together accounts for only 22 per cent and 34.6 per cent of world exports and imports in ESTs, respectively. The low contribution of these economies is often due to lack of export opportunities, skill and knowledge gaps, weak regulatory mechanism, and limited competitiveness of domestic industries in the international market, especially

Figure 2.10: ESTs Exports in Various Categories in Developed and Developing Countries



Source: RIS estimated⁶ based on UN ComTrade, WITS Database, 2021.

in East African region (UNEP 2018c). Within the developing world, countries like China, Korea, Malaysia, the Philippines and Thailand in Asia, Mexico and Brazil in Latin America have shown growing importance of emerging countries in EST trade during 2006-16 (UNEP 2018a). The intra-regional trade of ESTs in ASEAN is dominated by countries like Malaysia and Singapore (UNEP 2018b). However, in 2019, the EST market has been dominated by developed countries with major exporters like China, Germany, the United States, Japan, and Italy and importers—the United States, China, Germany, Japan, and France.

A major contribution comes from China where export share in the world accounts for 27 per cent in 2020 and import share accounts for 13 per cent. China's trade balance has also been increasing from USD 65.7 billion in 2017 to USD 113.8 billion in 2020, growing at a rate of 7.6 per cent per annum. However, in LDCs, though the quantum of ESTs exports is low, the growth of EST exports for 2017-20 has been more than China, accounting to 8.9 per cent per annum. Next to China is transitional economies group where EST exports grew at 4.3 per cent per annum for the same period. In the case of imports, the growth in the developed nations, for 2017-20, was recorded at 1.8 per cent per annum which has been surpassed by import growth in LDCs (4.3 per cent) and transitional economies (10.7 per cent) in the same period.

Distribution of ESTs in global exports and imports are concentrated in renewable energy sector accounting almost 35 per cent of the total trade. However, as represented in the Figure 2.10, the distribution of renewable sector in the developed nations is less than the world's average, accounting to less than 30 per cent of their total exports of ESTs throughout 2017-20, whereas the same for Southern countries has been more than 40 per cent. Next to renewable energy, solid and hazardous waste management and wastewater management and water treatment share almost equal proportion

of exports in the developed nations. However, in the Southern countries, the latter accounts for more than 20 per cent of the total EST exports and the solid and hazardous waste management accounts for around 15 per cent. A sharp difference within the developed and Southern EST exports can be seen in the EPPs, where developed nations accounts for around 5 per cent of their total EST exports and the same for the developing nations is around 12 per cent.

Within the set of ESTs, global exports for wastewater management and water treatment products have observed highest growth (3.7 per cent per annum) as compared to other EST products. This was followed by EPPs (2.2 per cent), air pollution control (1.9 per cent) and solid and hazardous waste management (1.5 per cent) for 2017-20, compounded annually. Except in the case of LDCs, wastewater management and water treatment products within the ESTs exports experienced the largest growth, for 2017-20, within the different set of countries in developed and Southern world. LDCs, particularly, have shown a tremendous growth in various sectors in ESTs. The export growth in sectors like air pollution control, wastewater management and water treatment, renewable energy has been remarkable with compound annual growth rates of 31.3 per cent, 22.2 per cent and 21.3 per cent, respectively, for 2017-20. The same for imports have been relatively slower, but positive ranging from 9.6 per cent for air pollution control sector to 4.6 per cent in renewable energy sector.

EST trade provides opportunities for all economies, especially for the Southern countries which would provide transition to such countries to a greener economy in a more efficient manner. However, limited and concentrated trade among a small set of developing countries is a cause of concern. Therefore, promotion of EST trade in other economies needs initiatives like reduction in tariffs and non-tariff barriers, that would also reduce the cost to access and deployment

of technology and reduce environmental compliance. Reduction in trade barriers would help increase trade of ESTs through value chains which would help in scaling up the economies and induce more investment to the sector. The South and developed nations would have to work in a cordial environment to promote ESTs for mitigating climate change (Xiliang 2000). A partnership among the developed and developing nations, with partnership with private and public sector and central and state government of an economy, is very much required for creation of a successful and effective environment for transfer of ESTs.

Solar Photovoltaic (PV)

The significance of solar photovoltaic sector has increased over the last two decades and has been recognised as the most vibrant sector in the green energy industry. Global solar PV generation capacity installed has surpassed many of its contemporary energy production technologies in 2017, making it the year of solar PV sector (Chowdhury *et al.*, 2020). The sector has presented an impressive growth in installation in the last decade of more than 50 per cent per annum with financial incentives and government policy support (Gan and Li 2015). International Energy Agency (2015) estimates that the sector has the potential to attract USD 2 trillion investment between 2015 and 2040 to produce clean energy globally. The large market and growing demand have resulted in emergence of value chain sector in solar PV where the sectoral industries are specialising in the different stages of production to increase the scale of manufacturing and hence the global production capacity of solar PV (Nahm and Steinfeld 2014). Trade through value chains in the sector has enabled the reduction of cost in solar PV and dissemination of production technologies (Carvalho, Dechezleprêtre and Glachant 2017).

The overall trade of the sector has shown an increasing trend in the last two decade, where the exports have increased from USD 47.7

billion in 2002 to USD 228.6 billion in 2020 and imports have increased from USD 54.6 billion to USD 250.2 billion in the same period. The world has experienced trade deficit in solar PV sector in the entire period except for 2011-16 where the exports grew more than imports resulting in positive trade balance. The growth momentum of solar PV exports and imports have been tremendous in the buoyant world economy growing at 27.8 per cent per annum and 25.4 per cent per annum, respectively, for 2003-07. The trade intensity in the solar industry ranged from 60 to 90 per cent in 2006-08 which was very high as compared to 10 per cent in the case of wind industry (Kirkegaard *et al.*, 2010). However, the sector was affected due to recession where exports grew at 1.5 per cent per annum and imports at 1.4 per cent per annum for 2008-20.

The solar PV exports showed resilience during the first phase of global recession as it grew at 8.2 per cent in the period 2008-12, however, the imports grew at a lower rate at 3.1 per cent per annum. The situation got worsened in the second phase of recession (2013-20) where the imports grew at only 0.8 per cent per annum and exports experienced a decline at a rate of -1.6 per cent per annum. However, different country groupings had different experiences in the solar PV industry during the second phase of recession. For instance, in the case of LDCs and other developing countries, the exports during the same period grew at 32 per cent per annum and 19.2 per cent per annum, respectively, whereas the developed countries, emerging countries, and transitional economies experienced a de-growth.

The overall trend of the sector shows that developing countries are capturing the sector with increasing exports and imports of solar PV, as represented in the Figure 2.11. The share of the South has increased from 36.6 per cent in 2002 to 66.2 per cent in 2020 in global solar PV exports and whereas the same for developed countries has fallen from 63.6 per cent in 2002

Figure 2.11: Dominance of Developing Countries in Solar PV Exports



Source: RIS estimated⁷ based on UN ComTrade, WITS Database, 2021.

Note: The donut chart on the right of the figure represents values for 2020.

to 33.8 per cent in 2020. The donut chart, on the upper right corner of Figure 2.11 represents the distribution of solar PV exports within the developing countries and the lower right one shows the distribution of imports within the developing countries. Most exports (93.13 per cent) and imports (77.89 per cent) are constituted by the emerging countries in the South in 2020. However, share of China alone in the world has increased from 9.6 per cent in 2002 to 37.3 per cent in 2020 in exports accounting for 56.4 per cent of share in the South in 2020. The share of China in total South exports has increased from 26 per cent in 2002 to 56.4 per cent in 2020, where in the case of emerging countries (excluding China), their share has reduced from 68.5 per cent in 2002 to 36.71 per cent in 2020.

Shuai *et al.*, (2018) estimates dominance in solar PV panels and optical instruments and components in China's total exports in solar PV sector, covering 60 per cent. China's output of cells and modules component of the solar PV supply chain is more than half of the global output in 2017 (Fang 2020). Interestingly, China trade in the solar PV products were concentrated (27.4 per cent) to the countries member to Belt and Road Initiatives in 2016 (Shuai *et al.*, 2018). Major factors in China's growth story are the government support provided to the sector, in forms of subsidies, state incentives for research and development, and commercialisation (Hajdukiewicz & Pera 2020, Fang 2020). Solar market incentives and policy support in form of feed-in-tariff in the European market provided Chinese manufacturers huge overseas market with high demand (Yu, Popiolek, Geoffron 2016, Fang 2020). Countries like the United States, Japan and Europe are facing import competition from Chinese manufacturers which became competitive with huge domestic support, especially in modules which are an essential component of solar panels (Meckling and Hughes 2017).

Following China, the other major exporters of solar PV products are Germany, Korea, the

United States, and Hong Kong in 2019. Like in case of exports, imports in solar PV are dominated by China, followed by the United States, Germany, Hong Kong, and Japan in 2019. Bilateral trade of the United States and China in solar PV grew at high rate of 9.09 per cent annually between 2007-16 (Wang *et al.*, 2020). Both, the United States and China, are major players in the global market, yet this sector faces bilateral trade frictions with the high trade imbalance favouring China. Against this backdrop, the United States has raised dispute⁸ in the WTO and imposed safeguards measures, like countervailing and antidumping tariffs, on solar imports, including solar cells and solar modules to the country (Hajdukiewicz & Pera 2020, Fang 2020).

The dominance of China in the global market with reduced prices has raised difficulties for many developed nations, leading to countries like the United States, Mexico, Japan, and the EU to issue joint statement at the WTO claiming Chinese export as trade distortion and affecting the growth of the solar sector in many countries (Fang 2020). Many manufacturers in the sector have also lobbied for financial support and imposition of barriers on solar product to reduce the effect of Chinese solar product to their market (Hajdukiewicz & Pera 2020). Countries like Japan had imposed stronger standards, like minimum performance and certification requirement, to comply with for solar modules and system to curb imports. However, it had a reversed effect on the Japanese modules leading to a higher price than that in Germany and China (Yu, Popiolok and Geoffron 2016). Dechezleprêtre, Glachant and Ménière (2013) also points out that such distortions in trade and restrictions on trade and investment would have an impact on environment-friendly technologies.

Endnotes

¹ For this section, we have only considered trade in goods of the ICT products.

² List of ICT products are taken from OECD (2011).

³ List of ICT products are taken from OECD (2011).

⁴ List of Semi-Conductors are taken from SIA (2019).

⁵ The United States imposed trade restrictions in the sector motivated by national security concerns.

⁶ For EST classification, see UNEP (2018)

⁷ For Solar PV HS classification, see Shuai *et al* (2018)

⁸ From 2007-18, the United States, Japan, India, Korea, each, have raised complaints in PV sector and China has raised four complaints.

3

Trade in Services

3.1 Introduction

In the past 20 years, global economy has undergone radical shifts manifested in significant changes in the relative contribution of agriculture, industry and services. Enabled by international competition, technological advancements especially digital technologies, and cultural and societal changes international trade and investment have registered phenomenal growth over the past few decades. In this wave of structural transformation of economies, the remarkable rise in global services sectors activity needs worth mention. Moreover, trade in services is rising fast across the world; hence attracting greater policy attention. With gradual reduction of trade barriers, liberalisation of visa norms & ease of mobility, and investment in digital technologies, services trade is likely to grow at a greater speed than experienced in case of trade in goods. Services sector is also unique with respect to its direct impact on GDP, employment generation and trade along with indirect linkages to other sectors in the economy (Hoekman and Velde, 2017).

Services sectors have experienced rapid growth in the last decade; but substantive untapped potential exist in different sectors.

Trade and investment in services can support inclusive growth and job creation. Services trade has grown 5.4 per cent per year since 2005 in comparison to 4.6 per cent per year for goods (WTO, 2019). As per OECD, there has been a sustained rise in the share of services since 2005 and this sector began to account for more than 50 per cent in total employment and value added in GDP for all categories of countries including high-income, middle-income and low-income (OECD, 2005). Share of services exports in total goods and services exports has increased from around 3 per cent in 1970 to around 23 per cent in 2014 (Loungani et al., 2017). Interestingly, developing countries are emerging as leading suppliers and consumers of services. Using IMF data, we observed that compound annual growth rate estimated every 10 years during 1965-2015 suggest steady growth in services trade.

G20, being a vibrant country grouping in the world, could unleash tremendous potential as a market for global services trade. Lack of quality data often acts as hindrance to policy-making in the area of services. Moreover, the importance of services especially health and ICT services was realised never before than during the COVID-19 pandemic.

As studies show, the share of working age population and productivity in the sector still remains low due to constant waves of globalisation and technological changes. Therefore, there is a broad consensus that internationalisation of services through trade and investment is of utmost importance to be able to get the appropriate value out of this sector (OECD, 2005). However, the (WTO, 2019) attempts to clarify various issues surrounding trade in services and points out how the rise in digital technologies and per capita incomes as well as changes in demography and climate, lead to the creation of new markets and new channels, which require strategic trade agreements and quality institutions, to be profitable.

Digitalisation is of particular importance as it reduces the need for face to face interaction and consequently there is a reduction in trade costs in the services sector. It also makes the difference between goods and services less concrete and lastly, helps in outsourcing of services. As a result of this, it is obvious that a boost to digital infrastructure and data flows will give a further impetus to service sub-sectors such as telecommunications (5G) and financial technology (fin-tech) which aim to capitalise on latest technology to improve cellular networks and provision of financial services respectively, across the world.

Trade agreements in the services sector started gaining recognition since GATS (General Agreement on Trade in Services) came into existence as a result of the Uruguay Round of negotiations and entered into force on 1 January 1995. It is the only set of multilateral rules governing international trade in services. In 2001, the negotiations became part of the Doha Development Round, which aimed to lower trade barriers around the world and facilitate increased global trade (WTO, Annex 1-B: GATS, 1995). However, negotiations in this sector have never been easy due to multiple issues related to data access, non-tariff barriers and various modes under which trade takes place.

With the help of an interaction model, Beverellia, Fiorinib, & Hoekman, (2017). That economic governance and structure of institutions such as rule of law, regulation, control of corruption, etc. matter a lot when we analyse the role of policy in the context of trade in services on economic growth. This is because services are an extremely important input in manufacturing and the productivity of firms is a function of the quality and variety of services available to them. Therefore, appropriate policy making that connects upstream services to downstream manufacturing is essential for economic growth. There is a stronger role of this result in emerging economies, in particular through commercial presence/ FDI.

The WTO report also focuses on trade in services as an opportunity to reduce unemployment, provide support to MSMEs and lead to women's economic empowerment, which shows that the welfare gains associated with liberalization in this sector benefits the developing countries more in comparison to developed countries. This is visible as the BRICS countries – Brazil, the Russian Federation, India, China and South Africa – emerge as important players in global services trade (Shepherd, 2017). These benefits can be quantified by showing how a reduction in trade barriers such as high entry-sunk costs can lead to higher productivity in services and consequently increase efficiency in the goods sector, leading to overall higher economic growth (Jouinia & Rebei, 2014).

3.2 Major Trends in Services Trade

Globally, services sectors have registered phenomenal growth in the 1990s and 2000s. This is manifested in the rising contribution of services to national income. For instance, services value added as proportion of GDP has gone up steadily from 50.9 per cent in 1994, to 58.6 per cent in 2000, to 62.3 per cent in 2009 and to 64.3 per cent in 2019. Greater servicification of economies has corroborated

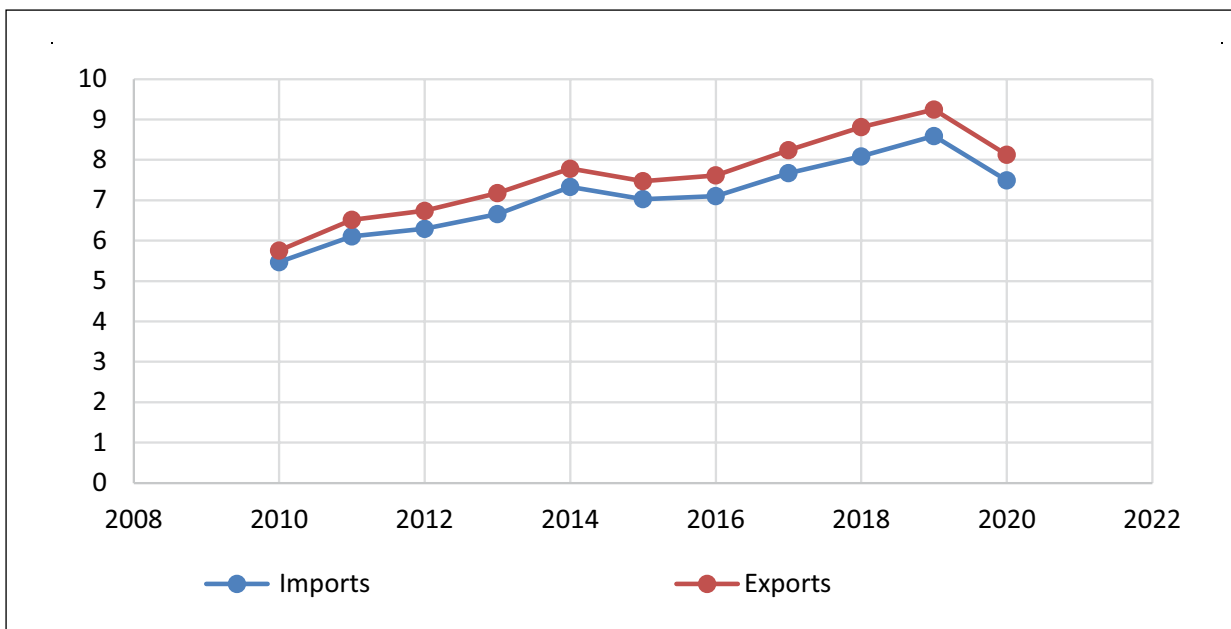
well with the patterns observed in exports and imports in services during the same period. A few startling findings of WTO (2019) prompts further research and undertaking policy measures on promoting trade in services. These include relatively faster growth in trade in services than trade in goods during 2005-2017, higher participation of developing countries (10 percent growth during 2005-2017), dominance of commercial presence (Mode 3) as the Mode of supply, faster catching up of services MSMEs in exporting than manufacturing firms, and under-representation of women in services exports.

In absolute terms, global exports of services were USD 9.2 trillion and USD 8.1 trillion in 2019 and 2020 respectively. Over a decade, it has increased from USD 5.8 trillion in 2010 to USD 8.1 trillion in 2020. Imports followed the similar path during this period. The level of imports touched USD 8.1 billion in 2020 from USD 5.5 trillion in 2010 (Figure 3.1). The contraction in 2020 could be attributed to disruptions in supply chains due to long and frequent COVID-19 related lock-downs. The

adverse impact of the pandemic was felt severe and disproportionate for certain countries and sectors. While all services sector faced drastic contraction in activity, some important services sectors such as healthcare, hospitality, travel, tourism and education were affected disproportionately. In particular, LDCs highly dependent on tourism and travel faced 39 per cent fall in exports in 2020 (WTO, 2021).

While a linear pattern of growth is observed in global exports and imports, the performance of different regions and sub-regions differs. It appears that the composition of services exports has undergone a dramatic shift from Europe to Asia. The share of Asia in total world exports moved up steadily from 22.8 per cent in 2008 to 26.2 per cent in 2019 (Figure 3.1). Similarly, the share of North America has remained constraints and for western europe declined from 25.2 per cent in 2008 to 23.3 per cent in 2019. It is basically a shift in exporting pattern from advanced economies to emerging markets and developing economies in Asia. The composition of imports broadly mimics the

Figure 3.1: Global Exports and Imports of Services (USD Trillion)



Source: RIS based on data from IMF-BOPS.

Table 3.1: Services Trade by Major Regions of World

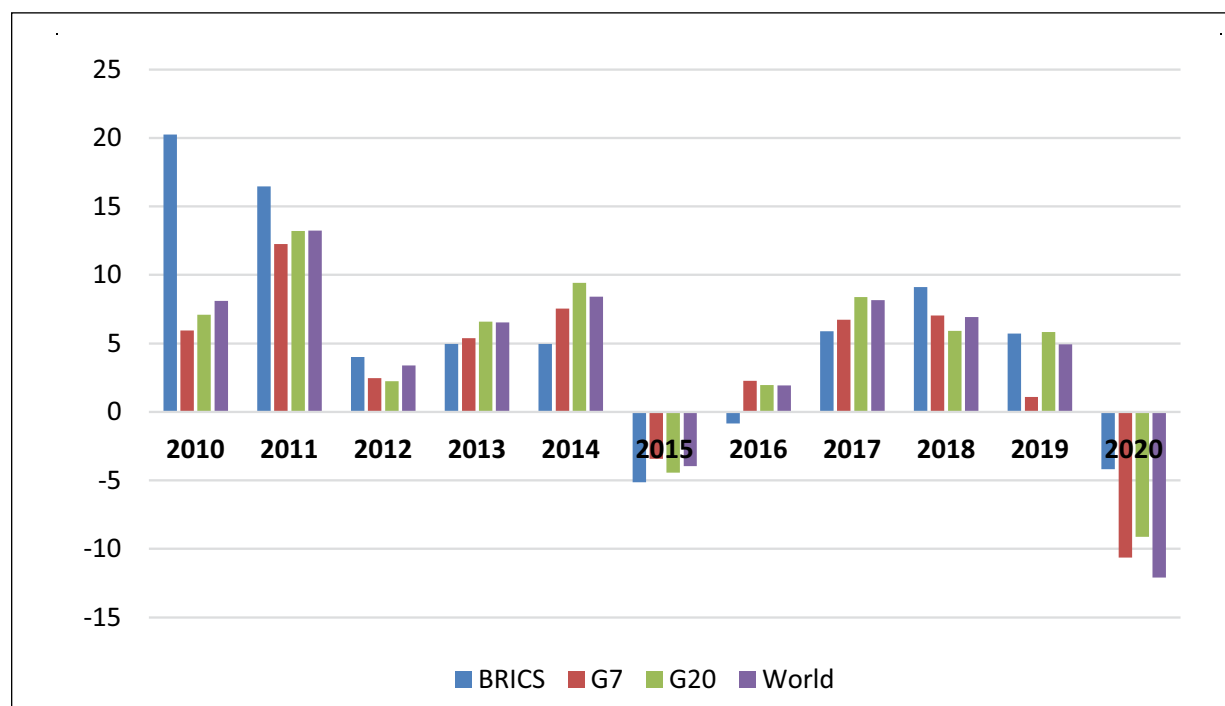
Region/ Sub-Region	Exports				Imports			
	CAGR (%)		Share (%)		CAGR (%)		Share (%)	
	2000-08	2008-19	2008	2019	2000-08	2008-19	2008	2019
Asia	13.5	30.0	22.8	26.2	11.5	32.0	26.0	30.1
Africa	14.6	3.1	2.0	1.7	19.8	1.2	3.9	2.9
Eastern Europe	21.2	3.3	4.7	4.3	21.1	2.6	5.3	4.4
Western Europe	14.8	3.6	25.2	23.3	14.0	3.4	24.7	23.4
Other Europe	13.5	3.9	25.2	24.2	14.1	4.1	21.6	22.4
Latin America and Caribbean	9.2	4.1	2.8	2.7	9.7	3.4	3.9	3.8
North America	7.9	4.3	17.3	17.5	8.9	3.0	14.6	13.11
Total	12.8	16.5	100	100	12.7	18.8	100	100

Source: RIS based on data from IMF-BOPS.

trends registered in exports. In terms of growth, Asia has outperformed other regions during 2008-2019 than during 2000-08. During 2000-08, most of the region including Europe, Africa and Latin America has witnessed reasonable growth in exports and imports of services.

The distribution of services trade by group of economies by income suggests that developing

countries have gained significantly in the recent years. The share of developing economies in world exports and imports has increased from 14.7 per cent in 2015 to 25.2 per cent in 2017. In case of imports, it has moved up from 23.0 per cent to 34.4 per cent during the same period (WTO, 2019). The share of LDCs in world services exports and imports were 0.6

Figure 3.2: Growth in Services Exports of Major Economic Groupings (%)

Source: RIS based on data from IMF-BOPS.

per cent and 1.3 per cent in 2020. Although the share of LDCs in world trade in services has not drastically changed during 2006-2020, growth in exports and imports of commercial services in this period has not been completely uncertain. Interestingly, exports from LDCs grew in double-digits during 2010-13. It fell in subsequent years with visible recovery in 2018 (Figure 3.2). It indicates that the potential of LDCs scaling up their exports of services is quite possible. In fact, 15.1 per cent growth in 2018 followed by 9.5 per cent growth in 2019 showed the catching up before the collapse of economic activity in 2020 due to COVID-19 pandemic.

In order to decipher a clear pattern of services trade, it would also be useful to examine the patterns in trade in services by RTAs/RECs. In terms of 2020 figures Euro Area (32.8 per cent) accounts for the bulk of world exports of services followed by NAFTA (16.0 per cent) in 2020. More or less the share varied around that level in the last decade. In terms of the RTAs from the South (Asia and Africa), the shares of ASEAN and SAARC have elevated over time. Three RTAs from Africa such as SADC,

COMESA and ECOWAS have not witnessed any radical change in footprint in world services exports. On the other hand, the global export share of GCC is growing over the years (Table 3.2).

Imports by RTAs are not very different from the trends observed for exports. Euro Area and NAFTA continue to be the largest importers of services whereas ASEAN, SAARC ECOWAS are the promising economic groupings from the South (Table 3.3).

Besides RTA/RECs, the other groupings than matter for global services trade are BRICS, G20 and G7. As G20 accounts for 80 per cent of world output and trade, the performance and measures by G20 would have significant implications for the global economy. While all the three grouping have faced sharp contractions in 2020, the shares of the three have improved after modest decline during 2015-2016 (Figure 3.3).

All services sectors have registered growth over the years with relative strong performance in certain sectors. In 2019, the top exporting

Table 3.2: Commercial Services Exports by RTAs/RECs

(USD Billion)

Year	ASEAN	COMESA	EuroArea	GCC	NAFTA	SAARC	SADC	ECOWAS
2005	112.4 (4.3)	25.5 (1.0)	904.5 (34.4)	26.0 (1.0)	438.7 (16.7)	56.8 (2.2)	18.1 (0.7)	5.3 (0.2)
2010	213.5 (5.5)	41.5 (1.1)	1224.6 (31.4)	38.7 (1.0)	655.3 (16.8)	127.8 (3.3)	25.6 (0.7)	8.1 (0.2)
2016	334.3 (6.7)	34.0 (0.7)	1523.1 (30.4)	115.3 (2.3)	872.4 (17.4)	178.6 (3.6)	26.5 (0.5)	14.1 (0.3)
2017	368.1 (6.7)	40.9 (0.7)	1695.3 (31.1)	124.7 (2.3)	934.6 (17.1)	204.0 (3.7)	29.4 (0.5)	15.9 (0.3)
2018	428.3 (7.1)	48.4 (0.8)	1904.5 (31.7)	132.9 (2.2)	970.4 (16.1)	225.8 (3.8)	30.1 (0.5)	17.7 (0.3)
2019	452.2 (7.4)	50.4 (0.8)	1940.7 (31.6)	155.4 (2.5)	988.9 (16.1)	235.0 (3.8)	29.0 (0.5)	20.3 (0.3)
2020	311.6 (6.3)	31.2 (0.6)	1612.5 (32.8)	109.3 (2.2)	785.2 (16.0)	216.5 (4.4)	14.9 (0.3)	15.9 (0.3)

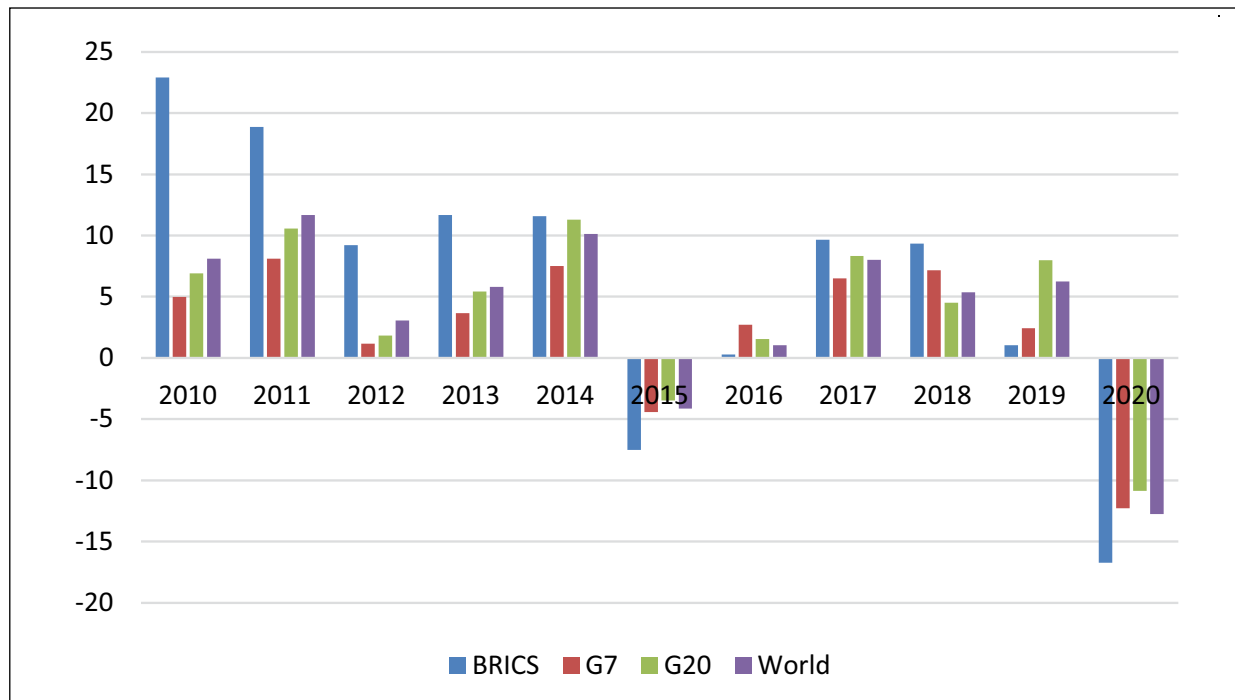
Source: RIS based on data from WTO.

Table 3.3: Commercial Services Exports by RECs

(\$ billion)

Year	ASEAN	COMESA	Euro Area	GCC	NAFTA	SAARC	SADC	ECOWAS
2005	138.2 (5.4)	23.1 (0.9)	844.7 (33.1)	54.6 (2.1)	372.3 (14.6)	73.8 (2.9)	25.6 (1.0)	12.9 (0.5)
2010	224.3 (6.0)	39.6 (1.1)	1130.8 (30.0)	122.6 (3.3)	530.1 (14.1)	131.7 (3.5)	49.0 (1.3)	31.1 (0.8)
2016	319.6 (6.6)	44.0 (0.9)	1446.2 (29.9)	192.1 (4.0)	627.6 (13.0)	159.5 (3.3)	42.2 (0.9)	28.8 (0.6)
2017	352.7 (6.7)	45.9 (0.9)	1582.9 (30.3)	200.4 (3.8)	673.3 (12.9)	184.1 (3.5)	44.1 (0.8)	37.9 (0.7)
2018	389.8 (6.9)	51.8 (0.9)	1755.0 (30.9)	212.0 (3.7)	698.0 (12.3)	206.7 (3.6)	44.0 (0.8)	51.8 (0.9)
2019	403.2 (6.9)	55.6 (1.0)	1855.3 (31.7)	224.6 (3.8)	724.2 (12.4)	208.3 (3.6)	38.5 (0.7)	61.9 (1.1)
2020	318.3 (6.9)	46.4 (1.0)	1530.1 (33.3)	161.5 (3.5)	551.0 (12.0)	175.2 (3.8)	27.1 (0.6)	42.6 (0.9)

Source: RIS based on data from WTO.

Figure 3.3: Growth in Services Imports of Major Economic Groupings (%)

Source: RIS based on data from IMF-BOPS.

Table 3.4: Sector-Wise Exports and Imports of Services

Sector	Exports					Imports				
	Actual (2019) (\$ Bn)	CAGR (%)		Share (%)		Actual (2019) (\$ Bn)	CAGR (%)		Share (%)	
		2000-08	2008-19	2008	2019		2000-08	2008-19	2008	2019
Construction	92.5	19.5	0.2	1.5	1.0	81.8	22.4	0.1	1.5	0.9
Charges for the use of intellectual property rights	398.2	13.7	5.3	3.9	4.3	443.5	16.3	5.3	4.6	5.2
Financial Services	518.9	15.8	3.1	6.3	5.6	263.8	15.3	4.0	3.1	3.1
Government Goods and Services	73.4	4.5	1.2	1.1	0.8	92.7	9.0	-0.8	1.8	1.1
Insurance and Pension	134.8	20.1	2.9	1.7	1.5	182.7	19.8	1.4	2.8	2.1
Maintenance and Repair	106.1	16.5	8.9	0.7	1.1	74.3	13.5	13.1	0.3	0.9
Manufacturing	105.2	1.1	2.6	1.4	1.1	76.4	11.2	0.8	1.3	0.9
Other Business Services	1342.9	13.2	5.1	13.2	14.5	1452.5	13.8	5.4	14.9	16.9
Personal, cultural and recreational services	85.9	8.2	6.6	0.7	0.9	83.9	10.4	6.9	0.7	1.0
Telecommunications, Computer, and Information Services	687.2	19.3	7.6	5.2	7.4	393.2	13.7	7.2	3.3	4.6
Transport	982.5	13.5	1.2	14.6	10.6	1128.2	12.6	1.4	17.6	13.1
Travel	1386.7	9.7	3.7	15.9	15.0	1324.1	9.4	4.2	15.3	15.4
Other Services	3333.8	14.8	4.9	33.6	36.0	2994.1	14.5	4.7	32.7	34.8
Total										

Source: RIS based on data from IMF-BOPS.

sectors were Other Services (36 per cent), Travel (15 per cent), Other Business Services (14.5 per cent) and Transport (10.6 per cent). Likewise, for imports, the key sectors in order of their share in total services imports were Other Services (34.8 per cent), Other Business Services (16.9 per cent), Travel (15.4 per cent) and Transport (13.1 per cent) (Table 3.4). In terms of growth by and large, the same sectors dominate the services trade landscape.

Export and import dynamics are captured well from Mode -wise flows in different sectors. As observed in WTO (2019), Mode 3 comprised of more than 50 per cent of services exports and imports in 2017. The dominance of Mode 3 i.e. commercial presence has been the convenient Mode as it required foreign direct investment in the host countries. Insurance and financial services, trade-related services (distribution), other business services and telecommunications, computer, information

and audio-visual services are the top performing sector in Mode 3. These are the top sectors for imports as well (Table 3.5).

3.3 Trade Policy Issues

Mode 4

The trend in global services trade flows by modes implies that the principal means of supplying services is through Mode 3 (commercial presence abroad). Mode 3 accounts for about 60 per cent of total trade in services contrast to 26 per cent for Mode 1 (cross-border supply), 10 per cent for Mode 2 (consumption abroad), and only 4 per cent for Mode 4 (movement of persons) (Jha, 2019). As per GATS, Mode 4 covers only temporary entry and stay in a

member's territory to supply services. As long as the movement is primarily for the purpose of providing a service and does not concern the access to employment market in the host country, citizenship, permanent residence, etc, Mode 4 does not really involve any contentious issue as such (WTO Website). Despite this clear provision, low trade volumes via Mode 4 could be attributed to several political reasons having implications for the labour market. These political constraints probably are the reasons behind Mode 4 to be the most restrictive among the four modes and least liberalized in terms of policy making compared to other modes.

As stated by (Chanda) 2018, Mode 4 is shaped by various factors. The major ones

Table 3.5: Mode-Wise Global Exports and Imports of Services (2017)

(USD Billion)

Sector	Exports				Imports			
	M1	M2	M3	M4	M1	M2	M3	M4
Manufacturing Services	-	99.9	-	-	-	70.8	-	-
Maintenance and Repair	-	82.7	-	-	-	55.7	-	5.2
Transport	705.8	241.7	555.2	-	852.8	261.8	555.2	-
Tourism and Business Travel	-	865.2	178.0	-	-	837.2	178.0	-
Health Services	2.5	12.4	38.4	0.8	3.0	11.6	38.4	1.1
Education Services	5.1	98.3	9.9	2.7	3.7	90.6	9.9	2.1
Construction	-	-	462.4	42.4	-	-	353.9	30.4
Insurance and Financial Services	595.1	-	1940.7	-	449.5	-	1940.7	-
Charges for Intellectual Property	381.2	-	-	-	410.2	-	-	-
Telecommunications, Computer, Information & audiovisual services	447.7	2.2	1301.5	100.2	286.1	2.6	1301.4	70.3
Other Business Services	836.5	12.1	1424.1	259.4	786.7	10.4	1424.1	248.8
Heritage and recreation	5.5	-	47.2	1.8	5.4	-	47.2	1.8
Other personal services	8.8	-	56.5	2.9	6.3	-	56.5	2.5
Trade-related Services (Distribution)	736.4	-	1851.6		828.7	-	1851.6	-
Total	3724.5	1413.6	7865.4	416.6	3632.4	1340.9	7757.0	362.2

Source: RIS based on data from WTO-TISMOS database.

Notes: M1 = Mode 1, M2= Mode 2, M3= Mode 3 and M4= Mode 4

include inter-sectoral and inter-modal linkages, demographics and labour markets. Since Mode 4 supports other modes, particularly Mode 1 and also plays an important role in the intertwining of services and manufacturing, facilitation of this Mode requires urgent attention. Moreover, due to demographic changes such as ageing populations and declining fertility rates, the labour markets have been distorted. This implies labour shortages in the developed countries and a projected surplus of a few million workers in developing countries, specifically in sectors such as healthcare, IT, engineering, construction and catering. Apparently, many countries of the world allow the entry of highly skilled labour while limit the entry of lower-skilled labour which is detrimental to the interests of developing countries and the LDCs as the extent of access to technology and technical skills is relatively high in advanced economies. Therefore, we can say that the inherent skill and functional bias in Mode 4 regulations is not conducive to entry of low and semi-skilled activities such as construction, nursing, home care and hospitality. Even the Mode 4 commitments in the Doha Round negotiations lacked quality and quantity as those were viewed inadequate to efficiently regulate the movement of natural persons across all skill levels.

In order to provide enhanced and effective market access for services supplied through Mode 4, some policy measures that may be considered include increasing labour quotas, removing economic means tests, and setting clear criteria for such tests. Other measures that can help us reduce the workforce shortages require increased investment in education and training, outsourcing, selective immigration policies, bilateral labour agreements and absorption of foreign students into the labour markets. With growing cases of international migration mostly due to lack of opportunities in the origin countries liberalizing trade by Mode 4 could be a win-win situation for both

the developed and developing countries. While on one hand addressing workforce deficits leads to increase in economic growth and a reduction in labour costs, the supplier country can gain with respect to increase in employment, exchange of knowledge, technology transfer and enhanced remittances. Estimates show that by opening the OECD labour markets by three per cent developing countries could gain to the magnitude of over USD 150 billion. Therefore, Mode 4 has in store potential spill-over benefits for all income-category countries including developed, developing and LDCs.

Looking at Mode 4 from Indian perspectives, Indian IT industry, particularly the computer and information services (CIS), is already experiencing significant uncertainty in view of policy announcements in US. Citing the findings of WTO Secretariat background paper of 2009, India said “the degree of Mode 4 access that has been committed in current GATS schedules of WTO Members [commitments] is rather shallow”. This is because a substantially large number of Indian software engineers travel to US and other countries for providing services various IT and IT-enabled services are affected by frequent changes in visa norms, notably the H1 visa-related development in US (Mani, 2014). Temporary schemes like H1B visa allow service suppliers to switch employers and also get access to permanent residence and citizenship. In this context, it is imperative to delve into the significant debate around the distinguishing criteria between labour mobility and trade in services through Mode 4. As such, GATS offers no guidance on how to differentiate between an employee and a service supplier. According to Jacobsson (2015), employment market access in principle always leads to wage parity while temporary service contracts can sometimes be used to benefit from differences in wages and other conditions of work. In another view, this distinction is drawn under national laws, as a way to determine a person’s entitlement to employment rights, social security and

other benefits and fiscal treatment. Maurer and Magdeleine (2005) suggest to base this difference on the type of contracts underpinning the transactions. This is helpful as employment contracts are related to labour mobility and Mode 4 is characterized through service contracts, which are agreed upon between the supplier and the consumer of a service. Also suggests that GATS visa discussions must be reinvigorated such that multilaterally accepted guidelines can be formulated, making the entire process more convenient for the service providers. It is also important to note that there remains significant scope for the liberalisation of movement of natural persons in GATS in terms of transparency and coverage of issues. And since developing countries have a comparative advantage in exporting labour-intensive services, the overall value of the GATS remains limited and must be deliberated upon in the forthcoming round of WTO negotiations on services (Chanda, 1999). The Manual on Statistics of International Trade in Services (MSITS) 2010 identifies four main groups of persons under Mode 4, provided the service suppliers and service consumers are located in different countries: (1) Contractual service suppliers - self-employed, (2) Contractual service suppliers as employees of a juridical person, (3) Intra-corporate transferees and foreign employees directly recruited by foreign established companies, and (4) Services sellers who are attempting to establish contractual relationships for a service contract. Irrespective of the criteria used for distinction, there should be robust instruments to appropriately measure the respective trade in services flows due to the movement of persons and determine the relative importance of Mode 4 vis-à-vis other modes of supply. This can be achieved through an adequate translation of GATS Mode 4 legal texts into statistical concepts. While the commonly used indicators to estimate the size of GATS Mode 4 trade include balance of payments items such as compensation of employees and workers'

remittances/personal transfers, these are not appropriate for the purpose and alternatives need to be looked at.

Value of trade in services refers to international transactions between residents and non-residents with an underlying contract as the basis for this transaction. Information on the number of persons (flows and stocks) would be of interest for all categories of natural persons. Although these type of data are not easily accessible, MSITS 2010 recommends the usage of statistical frameworks based on tourism or migration, with minor adjustments. For example, data from the World Tourism Organization (2010) maps the destinations for arrivals of international visitors (in thousands), travelling for business and professional purposes. However, there is significant scope to revise statistical guidelines around Mode 4, that are measurable in concrete terms and consequently action-oriented policy making can move beyond the political barriers.

Mode 5

Mode 5 refers to the servicification of manufacturing in sectors such as financial, transport and logistics, software, research and development (R&D), and environmental services. In other words, it includes services which are incorporated into goods and then traded across international borders. For instance, Bolt, an Indian start up is an example where shoes and bands are connected to sleep, nutrition and fitness activity via artificial intelligence (AI) (Cernat, 2019). Data from various countries in the European Union shows us that in spite of the rising share of trade in services, export of manufacturing goods is still dominant and this in turn supports many services jobs via Mode 5. This leads us to see how this Mode can play a role in improving country-wise employment rates as it is more employable than either goods or services alone (Rueda-Cantuche, Cernat, & Sousa, 2019). Moreover, liberalisation of Mode 5 would be in the best interest of international trade as it would measure the value-added

contribution of services to manufacturing and lead to efficient gross value chains (GVCs). Antimani and Cernat evaluate the possible impact of a multilateral agreement on Mode 5 liberalization, using a Computable General Equilibrium (CGE) model. The model builds on general equilibrium theory and is based on fundamental microeconomic foundations which focus on intersectoral linkages, resource constraints and policy distortions.

(JWT) Estimates show us that the global GDP gains from liberalizing Mode 5 services at multilateral level could reach up to EUR 300 billion by 2025 and world trade could increase by over EUR 500 billion. Several Mode 5 services are intrinsically linked to technology and are consequently high value added in nature. As digital content of goods is bound to increase in the future, it implies that this Mode could be a pioneer in trade-led technological progress. Therefore, its perceived benefits in helping the manufacturing sector to gain competitive advantage at a time when global production networks are becoming increasingly complex, are indisputable. However, this interplay between Mode 5 services trade and the growing importance of future technological developments including software development, digitalization, the Internet of Things, raises important policy questions that need to be addressed. It is also essential to highlight that Mode 5 holds a significant position not just for advanced manufacturing sectors but also for more traditional sectors, including sectors like agriculture or mining and processed food. For instance, a new 'smart viticulture' project in Galicia, Spain uses sensors to measure temperature, humidity, soil moisture and leaf wetness, in real time.

Therefore, the significant rise of services inputs in manufacturing goods emphasizes the fact that a large amount of services trade takes place outside the current Mode-based GATS framework that involves the 4 modes. This has led to an intense discussion and

debate around the issue of Mode 5 services. Despite the increasing value of these Mode 5 services in both exports and imports, there is still considerable ambiguity in its definition and regulations around it. It must be noted that in many respects, Mode 5 services are treated as goods. This implies that unlike GATS services, most Mode 5 services pay duties when crossing borders. On the other hand, the same service could be delivered separately via Mode 1 and aided the development of the final product. The reason for this is a general principle of the Customs Valuation Agreement (CVA) on Implementation of Article VII of the GATT that states as follows:

"The customs value of imported goods shall be the transaction value, that is the price actually paid or payable for the goods when sold for export to the country of importation" – Article 1(1). This implies that the customs value has to include all purchased inputs and this includes services as well. In principle, there are three kinds of Mode 5 services that are fully or partially subject to existing WTO customs regulation rules. These include intellectual assists, intellectual property right services and software. However, a small subset of Mode 5 services is already covered by specific WTO rules, particularly Article 8 of the WTO Customs Valuation Agreement, which allow for a duty-free preferential treatment of own Mode 5 exports under certain conditions, such as when they are re-imported as part of foreign goods. But that article dates back to the GATT era of 1994 and does not adequately reflect the technological advancements since then. For example, design and engineering services are covered but there is no mention of software services. Overall, the example of customs valuation provides us adequate reason to further reflect on the ways in which GATT and GATS rules operate and how to regulate the area at the interface between the two (Cernat, & Dimitrova, 2014).

As a result, it becomes imperative to discuss and design possible options for Mode 5-friendly rules in international trade agreements. In order to pursue a multilateral policy design via the WTO, it is important to identify in advance the possible gains from Mode 5-friendly provisions for the entire WTO membership. This shall require an accommodation of the prevailing diversity among the members, particularly developing vs developed. This is because while the options may intend to enhance welfare for all, in real, the policies may seem to be skewed in favour of developed countries. Therefore, such an initiative would involve an in-depth analysis of the issue and particular efforts in the direction of raising resource and awareness among developing countries. In this regard, an UNCTAD project in Brazil that examines best practices on services value added data collection among developing countries is a good example. Similar initiatives can be taken by the G20 member countries such that no one is left behind on the road ahead.

On the other hand, the alternative includes prospects for Mode 5-friendly rules being included in existing and future free trade agreements (FTAs). This implies that some specific options such as an expansion of the CVA services list in the FTA context only or consideration of a Mode 5-friendly rule of origin, may be explored. While this may incur additional costs and face technical feasibility issues, it can also prove to be a starting point for constructive debate and discussion among the WTO members and in fact aid decision making at the multilateral level (EP, 2018). In conclusion, the issue around Mode 5 services is a complex one and important policy issues continue to remain unsettled. These include custom valuation rules, trade facilitation rules, future plurilateral negotiations and comprehensive FTAs. However, the important point to keep in mind is that discussions and decisions should not be representative of any particular vested group, so that there is no divergence in the rules of the game.

3.4 Fintech

Fintech, widely regarded as a ‘disruptive’ industry, can produce significant outcomes for the growth and investment prospects of an economy. Uptake in fintech services increased in the 21st century due to both supply-side and demand-side impetus, catalysed by the collapse of the international banking industry in 2008. This ceded ground for innovative platforms to undertake delivery of financial services, thereby allowing fintech activities to scale up. There was also a concomitant decline of consumer trust in the ‘traditional’ banking sector, which substituted demand towards new players. As a result, fintech has snowballed into an industry that has carved a niche for itself. Rising investments are testimony to the perceived and actual potential of the global fintech industry. As per estimates by KPMG Global (2021), USD 98 billion worth of investments has been recorded in fintech during the first half of 2021, over a 12.6 per cent increase from investment levels in second half of 2020. Out of this, the venture capital invested in fintech amounts to USD 52 billion. The US accounts for the largest share of fintech investments, worth over USD 42 billion. More importantly, fintech investments across borders have increased markedly, indicating the sound potential for cross-border investments in the future.

Other than their investment potential, fintech platforms have also become central to the retail payments domain. Take, for instance, the percentage of people aged 15 years and above who used a mobile service or the internet to access funds deposited with a financial institution account. Many high-income countries, especially those in the Nordic region such as Norway (85 per cent), Denmark (83 per cent) Finland (80 per cent), and Sweden (79 per cent) boast of high market penetration of such fintech services. Among the low-income countries, Zimbabwe and Mozambique report 11 per cent and 10 per cent coverage respectively. Middle-income countries also account for a

sizeable fintech sector. Interestingly, many middle-income countries that feature among the topmost users of fintech services are situated in the East Asian and Pacific region. For example, China (40 per cent), Mongolia (38 per cent), and Malaysia (32 per cent). While this indicates a higher prevalence of fintech usage in countries that lie ahead in terms of economic progress, it is also to be noted that African countries such as Kenya have spearheaded a transition from traditional financial services to fintech services and have set a precedent for countries through their M-Pesa initiative.

Regional disparities in the global expansion of fintech are best captured by Fintech 3.5 (Arner et al., 2015). Owing to the unique developmental trajectories of economies in the Asian and African regions, the deferred adoption of fintech here warrants special focus. Frost (2020) investigates this uneven adoption of fintech services. For the Asian and African economies, deficient in resources such as technology and skilled professionals, fintech uptake is accelerated primarily by unfulfilled demand for fintech services. This pattern differs from advanced economies which are characterized by presence of sound regulatory environment and high unit costs of traditional financial services (Philippon, 2016). Developing nations of the Asian region also enjoy a demographic advantage. Large young populations enable faster transition to fintech as they are more receptive towards fintech innovations and services. Even for countries within the same region such as the Asia-Pacific (APAC), diverse patterns of fintech adoption might result due to socio-cultural and legal differences. In Australia, for instance, competitive pricing is the dealbreaker for consumers who must choose between fintech services and traditional services. This factor is also dominant in driving the uptake of fintech in the USA and Europe. Among the Asian countries, South Korea, Hong Kong, Japan and Singapore exhibit similar preferences.

Yet, the behavioral inertia of traditional run-of-the-mill digital financial services might be hard to overcome (Chen, 2021). The Global Fintech Adoption Index released by Ernst and Young (2019) similarly reports very high rates of adoption among APAC countries. India (87 per cent) ties with China (87 per cent) in the list of countries leading fintech adoption, measured as a percentage of digitally active population in each market.

3.5 E-Commerce and Developing Countries

E-commerce is transforming the nature of business and ease of doing business in conjunction with other technologies like AI, blockchain technologies. This has resulted in reduction in barriers to trade, expansion of global supply chains and opening up the possibility of better access to MSMEs who can also be part of GVCs and more importantly development of new services. To state that these developments have created challenges for governments calling for a rethink on policies and regulations and integrate the policies on these with the traditional industrial and commerce policies. Globally there is a digital divide regarding digitizable products. UNCTAD has pointed out developed countries account for 76 per cent of global exports of digitizable product, share of developing countries is just 5 per cent and China accounts for 18 per cent.

Although the terms digital trade and e-commerce are often used interchangeably, and often as synonyms they are not the same. Digital trade is broader and includes data flows, exchange of goods and services and obviously digital here is inextricably linked with internet. There is no universally acceptable definition for e-commerce, and, for instance, the OECD defines e-commerce as the “sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders”. The WTO, in its Work Programme on Electronic Commerce,

observes “electronic commerce is understood to mean the production, distribution, marketing, sale or delivery of goods and services by electronic means. Obviously this is broader than the OECD one and ‘electronic means’ is not the same as ‘computer networks’”. But whether Digital Trade or E-Commerce countries cannot harness them well without digital strategies.

The common elements of digital strategies are 1) Human Resource Development, 2, Infrastructure and enabling environment 3) IP regulation 3) Policies on digital/ICT based services 4) policies on trade in digital technologies and online platforms and 5) digitization for development and use in specific sectors. Closely linked to these are the following issues: 1) Market access, 2) Cybersecurity 3) data privacy & handling of personal and business data 4) Digital contracts, authentication and related regulation 5) E-enabled services and facilitations and 6), IP and competition policies.

Given the technology dynamics and changes in global trade trends and other factors the need for an agile policy & strategies are obvious. But on many of these there are no global standards or agreed upon values/norms or principles to govern. The interface between trade, technology and values/norms is becoming too complex. But when a major economic actors like EU adopts a norm or a set of regulations like GDPR, it has impacts beyond Europe in more than one way. First it indicates to those in EU and else on the underpinnings of the regulation based on the ideas/norms that Europe wants to adopt, two it also becomes a model to emulate, if not to adopt fully, by other countries.

As of now there is no framework specific to Digital Trade/E-Commerce under WTO Agreements. But many RTAs have provisions covering these, even if not all RTAs deal with all the above mentioned issues in an uniform way. While there is no WTO framework on ecommerce or digital trade it is becoming part of many RTAs. Hence for how long WTO can remain with the moratorium is an issue. Covid

Pandemic saw both increased use and concerns over ecommerce, particularly the transborder ones. ¹A key lesson from the Pandemic is digital services like teleworking and video conferencing services are here to stay, so is the boom in transmission of entertainment over internet through OTT etc. So for a country to have a competitive advantage in digital services, it has to have the requisite infrastructure and a favorable policy framework. But digital world does not exist in a vacuum, nor the infrastructure can be built in a short time. Universal access to internet is not a reality in most countries, particularly the developing countries and LDCs. Universal access to internet is a reality. For example according to the 2021 SDG Progress Report even as of 2019, just 20 per cent of the population in LDCs has had access to internet. So the disparities among WTO member states in this is acute. So if WTO were to negotiate and conclude an Agreement on E-commerce how to ensure that while all countries are Parties to it, many are not placed at a very disadvantageous position right from the beginning is a question. Since an Agreement will be binding, perhaps with something similar to S&D for many countries and may be with transition periods made available having an Agreement will be better than having no Agreement or extend the moratorium further. But there is no guarantee that even with an Agreement in place countries will be able to adhere to it or implement it. This is not a new phenomenon, given the experience with earlier Agreements of WTO. The only difference is perhaps this will be the only Agreement that couples trade and technology together in a manner not envisaged in earlier/ other Agreements.

The discussions on ecommerce started in WO in 1998 after the adoption of the Ministerial Declaration on Global ElectronicCommerce wherein WTO members agreed to “continue their ... practice of not imposing customs duties onelectronic transmissions”. The important outcome of this was the decision, with the

objective to “‘establish a comprehensive work programme” taking into “account the economic, financial, and development needs of developing countries”. To what extent the last aspect i.e. development needs of developing countries’ will be met by negotiations under WTO is a big issue. Among the issues in the negotiating table are issues related to liberalization of goods and service trade, and, free flow of data across national boundaries, and the idea is to enable expansion of ecommerce in global market.. The moratorium on imposition of import duties was agreed in 1998 and should it be continued or not is a major question. When Parties negotiate for a comprehensive trade liberalization, obviously the rationale for moratorium would be questioned.

But whether the negotiations will result in outcome that will tilt the balance in comprehensive liberalization towards some countries at the cost of many others and whether this will directly or indirectly benefit major players in ecommerce and platforms is not clear now. This is all the more important when even developed countries’ governments are moving towards more regulation on platforms and major players such as Google. Obviously this outcomes would lead to broadly regulation and governance of almost all aspects of digital trade resulting in a Baseline for States. However till there is such an outcome the digital trade or ecommerce will be governed by unilateral measures taken by Parties to WTO, many of whom are also Parties to RTAs/FTAs with provisions on digital trade. The moratorium has been extended since the December 2007 Ministerial. In the recent (December 2019) meeting of the WTO General Council, members agreed to continue the moratorium (of not imposing customs duties on electronic transmissions) until the Twelfth Ministerial Conference, (WTO, 2019b). ²This MC 12 which could not be held in 2020 on account of inter alia, Covid is to be held in December 2021 and this could result in furthering the negotiations under WTO.

Moratorium has been a matter of much debate with members taking differing positions such as to end the renewal in total or make the moratorium a permanent one or continue the practice of renewal or end it once and for all. A major concern of developing countries has been on the impact of moratorium on revenues from tariff. This is understandable as developing digital products as substitute for physical goods per se is one rise. ³. Similar concerns have been expressed in the recent papers by India and South Africa submitted to WTO. A matter of concern for developing countries is the proliferation of 3D printing which enables production of artifacts and goods by using a software, in combination with a 3D printer and materials. Although a good is physically produced it is a digital product than a manufactured product. The intangible component i.e. software and data can move across national borders for the purpose of trade. There is a clear lack of clarity on scope and approach of addressing e-commerce trade-related aspects, nor there is a consensus on this. In terms of approach the discussions have been on two options, create a new set of rules, specific to ecommerce and related aspects, components and facilitators or review and revision of current WTO rules. Given the dynamics in trade and technology understanding their impacts has been difficult and the literature does not give any specific clear cut conclusion that can be the basis for understanding. Thus while studies project different rates of adoption of 3D printing and corresponding consequences countries are baffled. The wider definition of ecommerce under WTO has made it difficult to demarcate the scope of the discussions. Then there are too many cross cutting issues, and, variance in definitions used by countries and in different contexts besides that constrain identifying the exact scope of discussions. So, despite six rounds of negotiations and discussions, there is no clarity as well as consensus or a common understanding on breadth and scope of subject matter and the rules that are

to govern them. Although this may appear to be an insurmountable issue, it need not be so, as differences can be narrowed on and Parties can strive for a consensus. They can take the broad definition as a guidance and work towards developing a working definition and delineation of scope for the negotiations.

Understanding Issues in Negotiations

- Digital Divide among the Member countries has become a matter for concern. Many developing countries and LDCs do not have national policies and strategies on this matter. The discussions require a good understanding of technology and its regulation on one hand, and, familiarity with the practices adopted by developed countries and their experiences with them. Digital Divide is not unique to developing countries and LDCs and it persists in developed countries too. Many developing countries like India, Kenya and China have in fact have been faster in adoption of digital technologies and have developed innovative products and services around digitization. Globally policies are evolving and there is no framework that can be simply adopted or adapted. But developing countries and LDCs need technical assistance and capacity building in this.
- Factoring that into negotiations is an issue as they are not sure of what they need in this and to what exact negotiations can help in resulting a framework on this is another issue. Although they are trade related, digital trade and services are better to be considered as hybrids of digitization and trade than trade per se. So policy making for this is complex. The development dimension obviously cannot be ignored but so far this has received less attention that it deserves.
- Among the issues, 'data' issues have become prominent and the divergence in this is too wide to be bridged easily. There is in principle consensus among Members on some sub-themes (e.g. outlawing unsolicited commercial electronic messages, protection from fraudulent or deceptive commercial practices for online consumers and governing competition in ecommerce) but among the three major economies (China, EU and USA) as well as among developing countries on matters pertaining to data flows (including cross-border ones), data localization, addressing concerns over privacy, transfer of source code and imposition of taxes and duties such as internet taxes and customs duties.⁴
- Data localization is controversial as it is coupled with ideas like 'data sovereignty' while in case of privacy, fundamental norms are at variance. Similarly customs duties and internet taxes are controversial. Can they be substitutes for tariffs or should they be totally made non-applicable in e-commerce. In case of source code, it is considered akin to technology and hence any regulation on source code that mandates sharing is considered as similar to forced transfer of technology. Obviously data flows are the most controversial because while free data flows with appropriate exceptions is advocated by USA and EU, there is no consensus among those who take such a position on grounds for exception as well as norms for facilitating free data flows. Data flows if unregulated could result in data colonization, is one line of argument which finds echoes among developing nations as well as a section of academics⁵. But data localization is also perceived as a barrier and constraint for industries and commerce and will restrain an open, rules-based and innovation oriented digital economy.⁶ However the authors note that instances of data localization norms put in place have increased significantly in the recent years.
- The Work Programme at WTO covers themes that are related work of four WTO Councils on goods, services, intellectual property and development. So the linkages and cross-

cutting themes are important. More than that this brings in a new dimension to issues that are being discussed in the respective councils. The development implications are obvious and how to make digital trade/e-commerce work for the development of the global South is a real challenge. But to what extent Doha Development Agenda has made progress and whether developing countries and LDCs have gained substantially from WTO Agreements and regulations, in return for the commitments they made and fulfilled. Bringing development dimension in ecommerce and digital trade should benefit the South.

- The issues related to E-commerce cannot be viewed in isolation of issues that are being debated regarding WTO's role and functioning particularly the ones related to Dispute Settlement Mechanism (DSM). For the developing countries a significant issue is the approach on Special and Differential Treatment (SDT). This assumes importance as in 2019, USA proposed that four types of Members would not be eligible for using SDT in the future commitments. How an agreement on ecommerce would include SDT and which countries will be eligible to access them if this is accepted is a key issue.

The General Council of WTO in 1998 allocated to the Committee on Trade and Development (CTD) the task of examining "development implications of e-commerce, taking into account the economic, financial and development needs of developing countries." . Besides this a series of discussions to examine cross-cutting issues in ecommerce resulting in identifying seven cross-cutting issues that deserved extensive analysis. The major challenges faced by DCs and LDCs in ecommerce were identified as :

- Impacts of ecommerce and trade and economic development of developing countries
- Access to technology and infrastructure
- Challenges faced by developing countries

(DCs) and least developing countries (LDCs) (LDCs) in participation in ecommerce

Between 1998 and 2003 discussions were held under CTD and General Council but nothing much happened. While there was little progress , lack of consensus on other cross-cutting issues resulted in a deadlock. But things took a different turn in 2017. At the MC11 held at Buenos Aires a group of developing countries submitted a paper , proposing discussions under a work program on DCs and LDCs and digital aspects in trade and identified four key issues , trade facilitation, access to payment solutions, issues in infrastructure including gaps, and, consumer protection and online security. It was obvious that ecommerce related issues were the focus. But questions as to whether ecommerce was conducted in a way that was favorable to DCs and LDCs, particularly MSMEs was inevitable as it could not be assumed that issues like trade facilitation were the only issues and otherwise all was well with global ecommerce. India raised the issue of impacts of ecommerce on MSMEs , and the dominance of bigger players (from developed countries) in global ecommerce. While in ecommerce related discussions, a clear North-South divide was visible, nor there was a consensus among the countries in the North and in the South on major issues.

But at MC11 USA, Australia, EU, Singapore, and, a few others proposed that exploratory talks for potential ecommerce agreement was to be started. But India, South Africa, African Group and many LDCs were not convinced of this, argued that this was premature, given the unresolved issues. But through a Joint Statement, 71 countries announced that they had initiated 'exploratorywork towards future negotiations on e-commerce'. This proposal was not supported by many DCs and LDCs. Still 29 DCs and 3 LDCs joined. The needs of DCs and LDCs, addressing the challenges faced and how to enhance their participation was discussed in the proposals submitted by the members of

this group. DCs and LDCs in the group were more concerned on this, as evident from their proposals. In 2019 83 Members following the second Joint Statement at World Economic Forum, started the plurilateral negotiations. India and South Africa and many DCs and LDCs did not join this. In the discussions again, the issues faced by DCs and LDCs were brought forth and as this is a plurilateral discussion, it is not an exact official discussion under the auspices of WTO. But as it is estimated that the share of those who are involved in this negotiation in global trade is 90 per cent, the negotiations cannot be ignored as a minor phenomenon.

South Africa and India have been steadfastly opposing this and recently they issued a statement and submitted to WTO Council⁷. In that they have questioned as to whether the moratorium should continue. The statement concludes by stating “

It is important for member states to review the decision taken in 1998 to have a moratorium on customs duties on electronic transmissions. This decision was taken with no consensus on the scope of the moratorium and no notion on how the digital revolution will unfold.

In December 2019, members had agreed to extend the moratorium for six months up to June 2020 and re-invigorate the work under the Work Program on Electronic Commerce which requires structured discussion on trade related issues related to global e-commerce, taking into account the economic, financial and development needs of the developing countries.

In order to enable the WTO Membership to take an informed decision in MC12 on whether or not to extend the moratorium on customs duties, it is necessary to have complete clarity on the definition of electronic transmissions, consensus on the scope of the moratorium and a comprehensive understanding of the impact of the moratorium “

This call for clarity emanates from the issues identified in the paper. In that paper both the countries representing the views of many DCs and LDCs. They have argued, referring to their earlier paper “ In this submission, WT/GC/W/798, it was stressed that reconsideration of the moratorium is critical for developing countries to preserve policy space to regulate imports, generate revenue through a simple and direct instrument such as customs duties and achieve digital industrialization. “.

Mentioning Tariff Revenue Loss, Impact on SMEs and Digital Industrialization, Methodological concerns, Impact on Policy Space, Application of Internal Non-Discriminatory Taxes as an alternative to Tariffs as issues that merit attention, they have questioned the claims made by some other members on digital economy and on moratorium.

Further they have pointed out that Digital Divide is too real to be ignored, nor can anti-competitive practices be. Cautioning against loss of policy space, reduction in or non-availability option to levy tariffs/taxes and expressing that impacts of ecommerce and digital commerce and the continuation of moratorium , they conclude “

it is necessary to have complete clarity on the definition of electronic transmissions, consensus on the scope of the moratorium and a comprehensive understanding of the impact of the moratorium”

This position runs to the stand of the countries who are into plurilateral negotiations and India and South Africa do not buy the arguments that expansion of ecommerce will benefit all, nor want to underestimate the impacts of developments like 3D Printing. The divide is now between those who want to exercise caution on negotiating without understanding the impacts and the question of policy space and those who are rushing into negotiations in a plurilateral format.

Thus after two decades of discussions, the way forward is not clear. The political will to address issues and challenges faced by DCs and LDCs and fuller engagement are found wanted among the developed countries. The plurilateral negotiations although considered premature are making headway although concerns expressed by DCs and LDCs have not received the attention they deserve. Will MC 12 result in a break through or will the difference in position will also be narrowed and there by paving the way for further discussions. Irrespective of what happens in MC 12 the road ahead is uncertain as WTO itself is facing many crises on one hand, and, proliferation of RTA/ FTAs outside WTO framework on the other hand has created spaces to address issues that remain unresolved in WTO.

- Developing a coherent policy on ecommerce that balances interests of stakeholders and is based on coherent principles and is compatible with commitments made under different treaties etc.
- Assessing national needs and priorities and developing policy and strategy to promote requisite infrastructure
- Capacity to use a spectrum of options available in different laws and regulatory frameworks , e.g. Competition Policy
- Taking a careful position in international negotiations thinking twice before making commitments that are binding
- Protecting core aspects in policy space

DCs and LDCs should work together and arrive at common positions and even when they differ in some issues, the scope for working together should be explored. For example regarding data, particularly cross-border data flows, countries have concerns on data sovereignty and concentration of servers or cloud platforms in the developed countries. Countries which have similar concerns and apprehensions should examine how they can work together besides learning from others. As Mira Burri points out regulatory co-operation is the way forward since the position 'lower

tariffs, more commitments' is not sufficient to address issues raised by data and to reconcile different interests and the need for regulatory oversight. Although multilateral forum is a preferred and ideal one, there can be governance laboratories such preferential trade venues.⁸ In this regard it is worth noting that Preferential/ Regional Trade Agreements have addressed various aspects of data issues and there are important lessons for negotiators from them in understanding and dealing with data issues in trade and trade agreements.⁹ However this is applicable to countries which are also parties to various FTAs/RTAs but as almost all countries are parties to one RTA or another, there is enough scope to understand how RTAs have dealt with issues. It is worth pointing out that in RTAs there seem to be much flexibility available to countries on important issues.

For example USMCA and DEPA although refer to the APEC Privacy Framework and the OECD Recommendation of the Council concerning Guidelines governing the Protection of Privacy and Transborder Flows of Personal Data (2013) this does not result in a binding obligation. When translated in terms of policy the following options are available for countries : 1) Comprehensive privacy law 2, Limiting privacy laws to specific sectors, and, 3) enable voluntary commitments by companies on privacy. As data in some sectors are sensitive and valuable, data protection laws can differentiate among sectors and limit it to some sectors, and, differentiate the level of protection across sectors and categories of data. Such a flexible approach if compatible with RTAs will enable countries to have some policy space and give flexibility in digital strategies. But a comprehensive approach as taken in GDPR comes with much regulatory cost and issues in implementation. For example it has special protection for some categories of health data but in case of many developing countries infrastructure related to health data is in progress while policies may not be that comprehensive or privacy law and health data

governance may have incompatibility issues. The United States is averse to having many restrictions on cross-border data flow and that is understandable in light of the norms adopted by USA and the interests of high-technology companies like Google, Amazon. But a developing country cannot afford such a position as it may come at the cost of data sovereignty with little control on use of data by entities outside the country. The differences in approaches towards privacy and data governance among USA, China and EU is driven by their values and interests. DCs and LDCs on the other hand can calibrate *suigeneris* models in these instead of taking one of them as a leader to be followed.

The core argument here is learn from other countries experiences, engage in regulatory co-operation, and use flexibilities available in RTAs creatively. But the most important point is do not adopt any framework without fully understanding the implications.

A study of leading countries in E-Commerce negotiations reveals that countries hold diverging positions in overall despite some countries holding common position in some issues. Countries (e.g. China) are reluctant to make commitments on sensitive issues like data localization and free data flow. So the outlook for concluding an ecommerce agreement under WTO is not positive.¹⁰

So for DCs and LDCs the way forward could be from the position taken by India and South Africa. They have asked for a cautious approach rejecting the plurilateral negotiations that are in progress. Similarly they have questioned as to whether the moratorium should continue or be extended for another two years. In practical terms this amounts to Look before You Leap. This is a necessary position but not sufficient. Because we do not see much South-South Co-operation in issues relating to digital trade and ecommerce beyond positions in WTO. So both countries can take a lead in developing a program on DCs and LDCs in Ecommerce focussing on capacity building, understanding

the implications, safeguarding policy space and infrastructure development to bridge inter alia, Digital Divide. Facing challenges together within WTO and collaboration outside WTO on ecommerce issues is an option that is worth considering.

But as the consensus is not likely to emerge in MC 12 and in many other issues, the outlook for completing an ecommerce agreement is not bright. While this gives space for further negotiations issues like Moratorium, that should also result in clarity on many aspects like definition of electronic transmissions. The tasks and challenges before Work Program on Electronic Commerce are daunting. So if the progress in WTO falls short of expectations or stalemates are prolonged despite moratorium being lifted partially or fully, countries are likely to choose RTAs/FTAs to experiment with regulating ecommerce and issues in it, resulting in diversity in approaches and also providing flexibilities. If WTO is unable to find a solution, this may emerge as a pragmatic option for many countries. But whether this is the ideal solution is a different issue.

As the saying goes ‘Time and tide wait for none’, in case of ecommerce regulation under WTO, neither technological advancement nor the Parties are likely to wait for the best solution under WTO, if stalemate continues, preferring other options. This obviously comes with a cost for DCs and LDCs particularly in SDT issues.

3.6 Gender and Trade in Services

Creation of women-centric jobs especially in the services sectors would uplift the socio-economic status of women in the society. The expansion of services sector, global value chains (GVCs) and emergence of digital economies all over the world are some of the emerging areas for opening new economic opportunities for women (World Bank & WTO, 2020). Increase in employment opportunities facilitates greater participation of women in several services sectors.

Table 3.6 gives the overview of the male and female employment rate in the services sector worldwide during 2000 and 2019. In almost all the countries in the world, female participation rate in the services sector are higher than the male counterparts during the same period. However, situation in South Asia is somewhat precarious as it registers the lowest female participation rate in services against the rest of the countries in 2000 as well as in 2019 also.

Interestingly, female employment rate in the services sector globally has improved significantly in 2019 as against male's participation. Further, it also reveals that since 2000 onwards there has been increase of women in the services sector in almost all the countries. Apart from this, all the exporting and importing countries the world over, have been also hiring more women to participate in the trade-related activities. According to the World Bank and WTO's Report, 2020, developing countries have 33.2 per cent of women workforce engaged in firms that trade globally as against the 24.3 per cent and 28.1 per cent of non-trading firms (non-exporting and non-importing).

Further, it has also been observed that in GVCs, particularly foreign owned, 37.8 per cent

constitute women workforce, as they provide more opportunities for women in terms of proper training and adequate skills that leads to job security for them. Women's employment in GVCs have a direct socio-economic impact on women's lives in terms of better life, secured livelihood, basic amenities like food, shelter, clothing, healthcare, and education for their respective families. Accordingly, the GVCs should continue to facilitate better access to essential technical training and upskilling for women's active participation in all types of high skilled jobs in their set up.

The emerging services sector call for formal education and training, and women from educated urban background have benefitted more from the expansion of services sector compared to the women from semi-urban areas. If the women are equipped with skills and proper education, they can find suitable jobs in the services sector, as education plays a critical role for women in determining nature of employment and income generating opportunities. In the countries, where the presence of employment opportunities for women are more in the services sector, there is higher female labour force participation rate (Lipowiecka and Tabitha, 2016).

Table 3.6 : Employment in Services Sector, Female (% of female Employment) modeled ILO estimates

Region/Sub-Region	Male		Female	
	% of Male Employment		% of Female Employment	
	2000	2019	2000	2019
East Asia and Pacific	29.9	43.6	36.4	57.5
Europe and Central Asia	49.5	57.4	68.3	79.9
Latin America and Caribbean	49.7	55.7	74.9	81.3
Middle East and North Africa	50.4	55.6	51.8	70.1
North America	63.5	68.8	86.5	90.4
South Asia	28.7	36	14.2	26
Sub-Saharan Africa	27.5	33.6	28.1	39.7
World	36.2	45.1	44.3	59.3

Source: World Development Indicators.

As exhibited in Table 3.7, indicated that there has been marked shift of women from agriculture sector and manufacturing sectors to services sectors in some countries. The proportion of women in the services sector in lower and middle income countries increased to 38 per cent in 2017 from 25 per cent in 1991, and in upper middle and higher income countries share of women employment reached to 68 per cent in 2017 from 45 per cent in 1991, as against male employment that reached to 64 per cent in 2017. Likewise, in high-income countries, with the spurt in the skilled services, around 40 per cent of women were engaged as the high skilled services workers as against mere 3 per cent in low-income countries.

In most of the Sub-Saharan Africa, East Asia and Pacific countries, women constitute majority of agricultural labour work force. However, gradually they are moving from agricultural sector to the manufacturing and services sectors. Further, in low and lower middle-income countries, the share of female employment in manufacturing sector was only 9.5 per cent in 1991 that increased to 11.0 per cent in 2017. Similarly, during the same period, the share of female employment in the services sector reached to around as much as 38 per cent from 25 per cent in 1991 respectively.

On the contrary, during the same period between 1991 and 2017 in upper middle- and high-income countries, the share of female

participation rate in manufacturing and agricultural sector declined significantly. Unexpectedly, in these countries, female employment in the services sector reached to a level of 68 per cent in 2017 from 45 per cent in 1991. (Table 3.7)

This shows that during the period 1991-2017, there has been perceptible increase in the work opportunities in services sector in all the countries for both men and women. However, despite the significant increase of female employment in services sector globally, i.e. in both low and lower middle and upper middle- and high-income countries, women still occupy medium and low skilled jobs. Further, the high female labour force participation rate in exporting firms both in developed and developing countries, there are evidences of gender wage gaps also. Though, these gender wage gaps are somewhat lower for the educated and skilled personnel as compared to the workforce with less or no education. As has been stated earlier, the exporting, importing firms and GVCs tend to have lower wage gaps as against the non-trading firms.

If we compare the women's participation rate in low income and high income countries, we find that in high income countries, the skilled female employees occupy around 40 per cent of high skilled jobs as against very few women i.e. 3 per cent in low income countries, where majority of the women employed in the semi-skilled jobs.

Table 3.7 : Status of Women's Employment in different Sectors, 1991, 2017

	Low and lower middle income countries				Upper middle and high income countries			
	Women		Men		Women		Men	
	1991	2017	1991	2017	1991	2017	1991	2017
Agriculture	65.4	61.7	56.5	41.6	33.7	13.7	35.9	17.7
Manufacturing	9.5	11	10.5	10.6	20.5	17.6	18.5	16.9
Mining	0.3	0.3	0.9	1	0.2	0.2	0.9	1
Services	24.6	37.8	31.8	46.6	45.3	68.3	44.5	64.2

Source: World Bank & WTO, 2020

In services sector, female entrepreneurs face difficulties in obtaining finance for funding their economic activities. Gendered roles in household chores like cooking, cleaning and child rearing activities prohibits women to perform in economic activities to their level best. Sometimes, both adverse domestic and foreign trade policies restrict women's access to foreign markets and imported materials due to higher tariffs and low productivity due to lack of competition from foreign markets. Under representation of women in the STEM subjects (science, technology, engineering, and mathematics) is another factor for women to have low participation in the trade and services related activities. Further, services sectors like, health, education, medical tourism and others which have undergone major expansion due to exponential growth in ICTs, women are in a disadvantaged position due to limited access to digital technologies as compared to men.

Furthermore, there are evidences that the presence of women owned firms are much less in global markets than their male counterparts because they generally specialize in more traditional and localized manufacturing sectors, like textiles, apparels, food products and beverages etc. Likewise, in services, presence of women is found to be more in retail and hospitality which have medium and high trade costs.

Impact of COVID-19 on Women

The gruesome effects of COVID-19 pandemic have affected all the countries world over. Men, women, elderly and even children are not untouched by the serious implications of this pandemic. Lakhs of people across the world have lost their lives due to corona virus because of the non-availability of any authentic medicine, timely medication, or vaccine. Under these unprecedented circumstances, women have been more affected in bearing the brunt of COVID-19 sharing dual responsibilities, especially working women, of managing work at home and work from home. In view of the

above facts, COVID-19 pandemic has resulted in double whammy for the working women of increased work pressure of domestic chores along with the pressures of organizational responsibilities.

During pandemic, various services sectors like travel and tourism, retail, and hospitality etc. have been hardest hit and have impacted women in a big way given their high employment in these sectors. Large scale disruption in the services sector have negative impacts on the women owned SMEs as majority of them are service providers. Nationwide lockdown, problem of unemployment, norms of social distancing and travel bans have further posed number of challenges for the women work force to survive in the services sector.

Policy Intervention

The role of trade and services in promoting gender equality aims to enhance the understanding about the relationship between trade and gender equality and also to identify the areas which trade, and services can have a positive impact on the lives of women. There is an urgent need that the governments, international organizations, and the private sectors take collective and complementary initiatives that encourages the overall situation to increase the women's participation in trade and services. These mainly relate to following:

Policy initiatives and its implementation to substantially increase investment in woman capital particularly in the areas of women's health and education, This has become all the more important, particularly in the context of ongoing COVID 19 scenario which would enable women with increased participation and reap the benefits of advancement in the information and communication technologies.

Policies should also be initiated for improved availability of the finances including trade finance and substantial reduction/elimination of the legal constraints that women continue to face in many countries.

Countries will have to create an enabling environment where more and more women come forward for increased participation which would lead to increased skilled workforce that substantially enhances productivity and incomes.

More initiatives should be taken for opening of trade and services which offers massive opportunities for women to gain from the benefits from trade and services.

All these initiatives will go a long way in providing women to have increased share in the labour force both skilled and semi-skilled, enhance their skills and competencies which will have a direct bearing on increased wages thereby achieving better quality of life and also in fulfilling SDG goal 5 respectively.

3.7 Way Forward

Trade in services is growing worldwide especially with greater participation of emerging markets, developing economies and LDCs. As demonstrated above, the participation of the South (e.g. countries and RTAs from Asia, Africa, etc) has been consistently rising in terms of increasing share and growth in exports of various services. Digital technologies is enabling emergence of new sectors of trade in services such as Fintech, e-commerce and women-centric jobs. Recognising the need for building consensus and frameworks on Mode 4, Mode 5, Mutual Recognition Agreements, local content requirements, etc, the WTO should pay attention to the following areas so as to enable the South represented by the developing countries and the LDCs contribute to the global trade in services vigorously and efficiently.

Firstly, deepening ecosystem for services trade globally supported enabling regulations with respect to market access and national treatment. Rules on local content requirements and e-commerce need to be commensurate with the level of development in the member states and not be manipulated as sources of impediments for enhancing exports.

Second, developing country concerns are properly addressed in global trade which is apparently not the case. India as a leading exporter of services had tabled several market-promoting measures for opening up services sectors in RCEP; but those were not considered properly in the negotiations. On the other hand, ASEAN has a full-fledged services agreement that would enable the East Asian and Southeast Asian countries to harness the untapped potential in services.

Third, during COVID-19 several new sectors of services have demonstrated tremendous potential. Those include digital financial services, digital health, and digital education, among others. It is time for MC12 to consider trade in these services with enabling reforms on various Modes of Supply than mere Mode 1 and Mode 3.

Finally, regional platforms like ASEAN trade agreement could be effective modes of enhancing trade in services besides complementing WTO reforms in services trade.

Endnotes

- ¹ See generally WTO (2021) The World Trade Report 2021
- ² World Trade Organization. (2019b). *Work programme on electronic commerce*. Draft General Council Decision. WT/GC/W/794, 9 December, 2019. Retrieved from <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/GC/W794.pdf>
- ³ Banga, R. (2019). Growing trade in electronic transmissions: Implications for the South (UNCTAD Research Paper No. 29). https://unctad.org/en/PublicationsLibrary/ser-rp-2019d1_en.pdf
- ⁴ Hufbauer, G. & Zhiyao, L. (2019). Global e-commerce talks stumble on data issues, privacy, and more (PIIE Policy Brief 19-14). Peterson Institute for International Economics. Retrieved from <https://www.piie.com/sites/default/files/documents/pb19-14.pdf>
- ⁵ See: Pallavi Arora and Sukanya Thapliyal (2019) Digital Colonialism and the World Trade Organization Third World Approaches to International Law Review <https://twailr.com/digital-colonialism-and-the-world-trade->

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- 6 Nigel Cory, Luke Dascoli (2021) How Barriers to Cross-Border Data Flows Are Spreading Globally, What They Cost, and How to Address Them July 19, 2021 <https://itif.org/publications/2021/07/19/how-barriers-cross-border-data-flows-are-spreading-globally-what-they-cost>
- 7 India and South Africa WORK PROGRAMME ON ELECTRONIC COMMERCE THE MORATORIUM ON CUSTOMS DUTIES ON ELECTRONIC TRANSMISSIONS: NEED FOR CLARITY ON ITS SCOPE AND IMPACT **WT/GC/W/833** 8 November 2021 Geneva: WTO
- 8 (Data Flows and Global Trade Law Mira Burri in Big Data and Global Trade Law Edited by MIRA BURRI, Cambridge: CUP, 2021 Pp 11-41 at P41).
- 9 United Nations : Handbook on Provisions and Options for Trade in Times of Crisis and Pandemic Prepared by Katrin Kuhlmann New York: United Nations 2021
- 10 (Abendin, S., & Duan, P. (2021). Global E-Commerce Talks at the WTO: Positions on Selected Issues of the United States, European Union, China, and Japan. *World Trade Review*, 1-18. doi:10.1017/S1474745621000094)

4

Special and Differential Treatment: Contestations, Responses and the Question of Global Equity

4.1 Introduction

Special and Differential Treatment (S&DT) at the WTO gave a small hope, sense of equality and confidence to a large constituency of developing countries (to participate in global governance under the multilateral framework). Quite understandably and, as in recorded evidence, these were reluctantly agreed to by larger trading countries at that point in history. With the enabling framework helping a few developing countries to increase their share of global trade and rising per capita incomes thereafter, meant fast turning of the tables. A new development round in Doha in 2001 was specifically launched to protect the space for S&DT. It may be noted that Special Session of the Committee on Trade and Development (CTD-SS) was established by the Trade Negotiations Committee in 2002 to review all S&DT provisions and suggest ways to make them more robust. However, the holistic framework of S&DT across sectors and agreements under the WTO became a major heartburn for developed countries which led to inconclusive discussions and stalemates.

The repeated attempts at the revival of the WTO have failed principally because

issues around S&DT could not be addressed. Differences among developing countries also surfaced over the years. However, the biggest blow came with the change in the administration in the US between 2017 and 2021, and the US effectively disengaging from the WTO. However, it would be naive to blame a particular administration in the US as domestic interests dictated by farm and industry lobbies across high income countries shall continue to influence official positions. With deflection of attention towards unfolding of 'trade wars', the agenda of S&DT remained a negotiating battleground threatening the relevance and future purpose of the WTO. In its report to the G20 Development Working Group in 2016, UNIDO captures aspects of Industrialisation in Africa and LDCs and highlighted three critical challenges: 1) that these countries are behind the manufacturing curve; 2) they account for tiny share of global exports; and 3) they have shallow participation in global value chains.

This Report highlights “the important benefits of inclusive and sustainable structural transformation and industrialization – for diversifying the economy, creating jobs and building equitable societies. It also focuses on the benefits to Africa and LDCs of leveraging trade

in intermediate goods, investment, and regional and global value chains. Such chains can be served by micro, small and medium-sized enterprises, using their relative advantages in flexibility, innovativeness, personalized contacts, quality of products and creating new opportunities for the international sourcing of scarce specialized skills.” The path towards comprehensive integration of developing countries with the multilateral trading system and at the same time securing their fair share of gains and resources is often a difficult one. The S&DT provisions and promise remains the only avenue for meaningful engagement.

The ongoing efforts at putting WTO back on track in some form rests on some key commitments from major players. The discussion has moved much beyond the considerations of free, fair and rule based trade with WTO as the dominant gateway; and has got increasingly concentrated on ‘outcomes’ between negotiating parties on issues that promote or hinder flow of goods and services for major exporters. These are issues that go beyond tariff barriers and are focused on non-tariff barriers of evolving and complex nature. The weaker parties, those who are not major exporters of industrialised or value added products, are being sidelined for lack of capacities on issues of concern, delayed arrival on the table and low levels of value added trade in any case. The terms of trade driven centre-periphery division seems redundant framework with new actors emerging strongly in the trade scenario. Hence for obvious reasons, the arguments on S&DT have to be compelling and sophisticated bearing direct relevance for technological capacities and not mere trading capacities and market access.

The limited success achieved by multilateral governance of trade can be attributed to S&DT provisions. Implementation of S&DT made multilateralism meaningful beyond big power politics that recurs is different shapes and manifestations every few years.

After all, global institutions are meant to take care of the interests of the weaker players. However, the failure of multilateralism is solely driven by the discriminatory approaches. The charter of agreements and inter-governmental organisations has never been able to do the uniform justice that is expected from them. Transition to WTO was never expected to be good all, but political push created a momentum and illusion of ‘level’ playing field at multiple levels. With some predictability and consistent lowering of tariffs and with S&DT and GSP, and thereafter engagements through RTAs and FTAs created some fast growth centres. Other important issues around domestic reforms as originally pledged remained scantily attended. With increasing hardline stands the limited gains were being depleted and undone soon.

Although international trade serves as an engine of growth and enhances production through specialisation, it has been acknowledged through theory and evidence that with difference in size of economies and with distortions in the input and the output markets trade is not meant to benefit equally (neither countries nor sectors). The developed countries needed to compensate the developing ones and help them protect key sectors and build capacities to benefit from trade; without having to compromise on the livelihoods of large sections of their populations both in the tradable and the non tradable sectors. Such policies were clubbed as GSP on tariffs which later evolved into S&DT provisions across pillars of trade and negotiations.

Despite robust institutional framework and adequate resources, the accumulated grievances and hesitant commitments led to major crisis in the functioning of the WTO in the last two decades. In view of the challenges faced by developed world, post-financial crisis and thereafter confusion over new issues like technology and climate change have created altogether new perceptions about trade. Despite the fact that trade remains as

one of the key drivers of global growth and recovery, it lost relevance as the centre piece of international engagements. Nevertheless economic interests prevailed which led to proliferation of trade agreements, where-in despite some accommodation of interests of participating countries, issues remained contentious. The promise of S&DT was worn out, and was limited to adhoc outcomes in bilateral arrangements. There is urgent need that discussion of S&DT is taken beyond trade agreements to core development issues connected with the SDGs, and specifically SDG 17 which remains an urgent and global commitment.

While preferential trade agreements of the bilateral and regional nature have been a reality throughout, the multilateral process has its own importance in terms of being the most robust institutional architecture of international governance of trade and related issues. GATT rules allowed for bilateral and regional preferential agreements within member states. The smaller agreements, it was thought, would complement the multilateral process through group consensus. On the other hand, the benefit of having selective arrangements bilaterally or regionally was meant to encourage preferential trade, reap economies of scale, exploit complementarities, and at times foster investments. The trade creation and trade diversion effects of such arrangements have been a matter of debate.

However, faced with prospects of slower delivery in the multilateral system (with mandated equal say of largest possible number of participating countries) the developed countries are desperate to work out consensus outside the system on issues of their interests mainly to protect market access and technological dominance of their own producers. This has led to newer arrangements in the form of plurilateral agreements (and mega regional trade and investment treaties) mainly between developed and co-opted developing country

partners. The worry, not only is in terms of irrelevance of the multilateral system with rules on trade primarily being drafted out of its purview but also in terms of the future of the special provisions that were meant to safeguard the interest of developing countries and LDCs. There is a strong apprehension that the scope of S&DT would get further reduced in such arrangements; and ultimately shrinking the relevance and diminishing the objective such provisions.

4.2 Genesis and Evolution of S&DT in GATT-WTO

Around the middle of the last century as the world recovered from the crises of economic turmoil and unprecedented military destruction, leaders from the industrialised world sought disciplined international engagement and stable economic relations. International trade was indispensable on both counts. Regulating trade practices and predictability of trade rules was a big challenge in this regard. In this pursuit, General Agreement on Tariffs and Trade (GATT) was signed in 1947 as a multilateral agreement for regulating trade. This became a successful endeavour and a sustainable process surviving post war atmosphere of cynicism and mistrust. The process continued over the next forty years and had eight rounds of negotiations. It covered trade in goods and negotiations on tariff liberalization.

However, towards the last leg of the GATT negotiation, there was growing recognition that international trade was more than trade in goods – it included considerations of technology transfer and use, services and trade rules that went beyond tariffs and quotas. The developing countries were apprehensive about expanding the negotiations under all these categories. The Uruguay Round of the GATT led to the establishment of the World Trade Organisation (WTO) which took shape as a multilateral trade institution towards the end of the last century with wider reach and mandate and supposedly

with greater conviction of free and fair trade. Subsequently the failure of the global North to accommodate the concerns of the global south in trade negotiations ended up in a compromise on the progress of the multilateral process in the later years.

The GATT system included special provisions based on the concept of non-reciprocal preferential treatment (commonly known as less than full reciprocity provisions) for developing countries and least developed countries in order to enhance their participation in international trade. The logic was to address underlying inequality and development concerns. Developing countries are at different stages of development in the economic, finance and technology realm and they are behind the developed countries. Hence, in order to catch up they require special treatment and flexibilities. These provisions, better known as Special and Differential Treatment (S&DT) have been an integral part of multilateral trade rules since the Havana charter (1947).

Another problem faced by developing countries is the secular decline in the term of trade as analysed in the Prebisch-Singer hypothesis. The price of primary commodities declines relative to the price of manufactured goods over the long term, which causes the terms of trade of primary-product-based economies to deteriorate. This highlights the need for industrialisation and role of external factors in the development process. The role of S&DT provisions could also be seen in this context. The 1958 Haberler report confirmed that export earnings of developing country are insignificant to meet their development needs. The report highlighted trade barriers in developed countries to exports from developing countries as the main cause. By 1963, a committee which was formed in response to Haberler report, advocated removal of all trade barriers on products of interest to developing countries. In 1965, during the Kennedy Round, Part IV on trade and development was added to GATT.

This new part IV covered three new articles XXXVI to XXXVIII which envisaged provision of favourable market access conditions to developing countries notably in primary & manufactured products. However, as Keck and Low(2004) have noted “while designed to promote development and developing country interests in the trading system, Part IV was never more than a set of best endeavour undertakings with no legal force”.

The 1979 decision on Differential and More Favourable Treatment (at the close of the Tokyo Round), reciprocity and fuller participation of developing countries, also known as the enabling clause, provided permanent legal cover for the generalised system of preferences, for S&DT provisions under GATT agreements, for certain aspects of regional and global preferential agreements among developing countries, and for special treatment for least developed countries. S&DT in preferential tariff elimination has been recognised within the principle of less than full reciprocity in Part IV of GATT, the enabling clause, for situations that warrant relaxation of the Most Favoured Nation (MFN) principle of GATT Article 1.1.

However, during the Uruguay round, there was a shift in expectations about responsibilities to be expected from developing world due to the high growth rate experienced by some developing countries and realignment in economic thinking with more emphasis on the role of the market, including for development. The Leutwiler Report (1984) argued that S&DT was of limited value and advocated that developing countries should rather take advantage of their comparative strength (see Box 1).

Subsequently, Uruguay round negotiations diluted S&DT treatment provisions to best endeavour clauses. Nevertheless, WTO recognized the “need for positive efforts designed to ensure that developing countries and especially among them least developed countries secure a share in the growth in

international trade commensurate with the need of their economic development”. But the thrust shifted from enhanced market opportunities for developing countries to transition periods and technical assistance. Both these provisions, however, have been inadequately provided.

S&DT provisions under the WTO with respect to key areas and agreements are summarised in Box 2. Lack of proper mechanism to ensure effective implementation of S&DT provisions in the WTO has been a major area of concern for developing countries. This, as noted in earlier RIS publication (*World Trade and Development Report, 2003*), “undermines basic objective of S&DT provisions, which is to create a level playing field for unequal players in the Multilateral Trading System”. Ahead of the Doha Ministerial, twelve developing countries addressed a joint submission to the General Council in September, 2001 to seek a mandate for negotiation of a framework agreement on S&DT which would make them mandatory and legally binding through the dispute settlement system of WTO. Consequently, the Doha ministerial conference recognised the issue and agreed for review of S&DT in order to strengthen it and make it precise, effective and operational (Para 44). However, there has been no progress on this issue after that.

Nonetheless, there has been some development under the Doha development agenda so far. For instance, duty free quota free

(DFQF) market access for products of LDC, to actively consider waiver application by LDCs and allow grace period for implementation of WTO agreements. However, robust legal infrastructure and granting of substantial S&DT is still far from being realized (Yanai, 2013). The Bali Ministerial Conference in December 2013 established a mechanism to review the implementation of S&DT provisions. The mechanism should have empowered the members to analyse and review all aspects of the implementation of S&DT provisions contained in multilateral WTO agreements, Ministerial and General Council Decisions. The objective was to improve the implementation of reviewed provisions or re-negotiation of reviewed provisions. The progress on S&DT negotiations post Doha till recent years is captured in Box 3 drawn from the 2021 Trade Policy Agenda and 2020 Annual Report of the President of the United States.

The Ninth WTO Ministerial Conference (MC9) in Bali, Indonesia concluded an agreement on Trade Facilitation which contains new binding rules and disciplines to facilitate the flow of goods across borders. There are special provisions, within the S&DT contours, that allow developing and least developed countries to implement the Agreement at their own pace. Each country will determine, based on category A, B & C classification, when it will implement each of the technical provisions, and,

Box 1: Leutwiler Report

One of the major critiques of S&DT came up in form of the Leutwiler Report (GATT 1985), which was commissioned in November 1983 by the then Director-General of the GATT, Arthur Dunkel. In order to meet the ‘present crisis in the trading system’, the Report recommended 15 specific, immediate actions, one of which addressed the problem of trade and development. This recommendation reads:

‘Developing countries receive special treatment in the GATT rules. But such special treatment is of limited value. Far greater emphasis should be placed on permitting and encouraging developing countries to take advantage of their competitive strengths and on integrating them more fully into the trading system, with all the appropriate rights and responsibilities that this entails’ (The Leutwiler Report, GATT 1984:44).

Source: World Trade and Development Report, RIS, 2003.

Box 2: S&DT Provisions in WTO Agreements

Agreement on Agriculture

- The schedules of developed country members exhibit greater than average reductions in tariffs on a range of products particularly of interest for Developing countries.
- Developing countries have been given flexibility to implement reduction commitments over a period of up to 10 years while LDCs have been exempted from reduction commitments. The least developed countries (LDCs) were also exempted from making commitments to reduce export subsidies and domestic supports.
- Investment subsidies and agricultural input subsidies would be exempted from domestic support reduction commitments.
- There is a provision which allows governmental stock holding programmes for food security.

Technical Barriers to Trade (TBT)

- Article 12.2 suggests that interests of developing countries would be taken into account while implementing Agreement on TBT with a view to ensuring that such technical regulations, standards and conformity assessment procedures do not create unnecessary obstacles to exports from developing countries.
- There are provisions for participation of developing countries in international standardising bodies and international systems for conformity assessment, technical assistance to strengthen their abilities for regulating and enforcing technical standards & establishment of institutions and legal framework which would enable developing countries to fulfil their obligations.

Agreement on Sanitary and Phytosanitary (SPS) measures

- S&DT provisions are covered in Article 9 & 10. Both articles recognise special needs of developing and least-developed country. Provisions in the article include phased introduction of new measures, longer time frame for compliance & technical assistance.

Trade Related Investment Measures (TRIMs)

- TRIMs encompass agreement on flexibility of commitments, of action and use of policy instruments as provided under Article IV. Article 5.2 provides for special transition time period to the LDCs in order to comply with TRIMS. Moreover, there are provisions for extension of transition period (Article 5.3)

Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS)

- The TRIPS Agreement contains provision relating to S&DT which basically intend to provide transitional time period (Article 65.2 and 65.4); technical assistance (Article 67) and provisions relating to LDC Members (Article 66.1 and 66.2).

Understanding on rules and procedure governing the settlement of dispute

- The Understanding on Rules and Procedures Governing the Settlement of Disputes contains 11 provisions pertaining to S&DT. Among others, it includes additional consideration to address special needs of developing countries and encouraging their participation in settling the disputes.

Agreement on subsidies and countervailing Measures

- Agreement recognised that subsidies may play an important role in economic development. There are almost 16 S&DT related provisions in the Agreement on Subsidies and Countervailing Measures.

Source: World Trade and Development Report, RIS, 2003.

it can identify provisions that it will only be able to implement upon the receipt of technical assistance and support for capacity building.

4.3 Present Status and Issues for Consideration

The 12th Ministerial Conference of the WTO will take place in the shadow of the pandemic. The pandemic has shown the world the worst of all vulnerabilities and gross inadequacy of

all global governance institutions put together. The WTO, the institution that made us believe for some years that there could be consensus around global equity, is almost giving up the most important tool in its arsenal to bring about this ‘equity’. Provisions of Special and Differential Treatment (S&DT) that evolved from the non-reciprocal preferential treatment of GATT have been scathingly undermined by the developed countries with the previous

Box 3: Snapshot on Negotiations on S&DT in the Doha Development Round

The Special Session of the Committee on Trade and Development (CTD-SS) was established by the Trade Negotiations Committee in February 2002 to review all WTO special and differential treatment (S&D) provisions with a view to improving them. Under existing S&D provisions, Members provide developing country Members with technical assistance and transitional arrangements toward implementation of WTO agreements. The provisions also enable Members to provide developing country Members with better-than-Most-Favored-Nation (MFN) access to markets.

As part of the S&D review, developing country Members submitted 88 Agreement-Specific Proposals (ASPs). Thirty-eight of these proposals were referred to other negotiating groups and WTO bodies for consideration (Category II proposals). Members reached an “in principle” agreement on draft decisions for 28 of the remaining 50 proposals at the Fifth Ministerial Conference in Cancun, Mexico, in September 2003, the so-called “Cancun 28”. Although these proposals were intended to be a part of a larger package of agreements, they were never adopted due to the breakdown of the ministerial negotiations.

At the Sixth Ministerial Conference in Hong Kong in December 2005, Members reached agreement on five ASPs: (1) access to WTO waivers; (2) coherence; (3) duty-free and quota-free treatment (DFQF) for least developed countries (LDCs); (4) Trade-Related Investment Measures; and, (5) flexibility for LDCs that have difficulty implementing their WTO obligations. The decisions on these proposals are contained in Annex F of the Hong Kong Ministerial Declaration. Negotiations continued periodically on the Cancun 28 until the proponents dropped them from consideration for the Ninth Ministerial Conference in Bali, Indonesia, in December 2013.

In the run-up to the Tenth Ministerial Conference in Nairobi, Kenya, in December 2015, the G90 Group (the African, Caribbean and Pacific Group, the African Group, and LDC Group) proposed 25 ASPs; none achieved consensus at the Ministerial Conference. Prior to the Eleventh Ministerial Conference in Buenos Aires, Argentina in December 2017, the G90 resubmitted 10 of the 25 ASPs with minor revisions, but no change in overall approach. As was the case in 2015, none achieved consensus. The G90 resubmitted the 10 ASPs in 2019, with minor revisions, and again in early 2020. Since 2017, including during informal consultations by the CTD-SS chair in 2020, the United States and several other WTO Members have consistently maintained that the 10 ASPs are not a basis for work, and no outcome is possible on them.

These discussions in the CTD-SS have revealed a profound and often contentious disagreement among Members about the relationship between trade rules and development. This disagreement is further complicated by Members’ divergent views on the need for greater differentiation among self-declared developing country Members. Although this disagreement will not be resolved in the CTD-SS, it is certain to affect any attempt to undertake work in this body.

Source: 2021 Trade Policy Agenda and 2020 Annual Report of the President of the United States

US administration denying the right to 'self declare'. History is testimony to the fact that such provisions have been integral part of multilateral trade rules since the Havana Charter of 1947. Therefore, denying S&DT in its true spirit would mean denying history of global cooperation.

With the fate of Doha Development Agenda (DDA) hanging, the debate on S&DT has become highly contentious and uncertain. For reasons highlighted above, deviation from the existing provisions of S&DT would cause significant harm to large constituencies of the global community spread in several pockets and reverse the direction of intergenerational equity. Demand for preserving the space for S&DT is perfectly aligned with commitments towards reducing vulnerabilities and fulfilling the aspirations of the SDGs. Despite the high moral ground on which such provisions stand, original trading powers have unleashed unabashed attack on these very special instruments of global equity. The argument, that a few emerging countries of the South that have increased their shares of global trade and stand way ahead of the early trading nations in the high-income country group completely ignores the continued and wide divergences in per capita incomes and the magnitude of the vulnerabilities in large developing countries. Attack on public stockholding of food grains by developing countries like India is a case in point.

The current set of proposals for reform of the WTO coming from the US and the EU has a strong emphasis on the widespread repeal of these provisions (See Appendix). The proposals placed by the Trump Administration (and the EU) for reform of the WTO, may not be markedly different from the earlier proposals on the DDA and reform of the WTO. But the pivot around S&DT makes the new proposals coming from US and the EU particularly radical and scathing (Ismail, 2020). The new set of proposals that have poured in recent years

completely ignores the fact that S&DT played an affirmative role in global equity. Those proposals have painted developing countries in poor light for having continued with them despite their rising prosperity. These proposals suggest that developing countries should no longer be allowed to 'self-declare' themselves as 'developing'. Battery of Western researchers have jumped the bandwagon to come up with dubious 'need based' criteria that is counter-intuitive and insensitive to the true long term needs of developing countries.

The EU in its recent communication to the European Parliament strongly argues for targeted approach to support integration into the trading system through greater differentiation between developing countries based on 'identified' needs. They highlight capacity constraints of small public administrations as one of the criteria. The EU has also asked for an 'agreement-by-agreement' approach on S&DT. Both these ideas would significantly dilute the modalities of S&DT.

The US has set ostentatious criteria to drop large developing countries from the S&DT bracket linking their participation in prominent global governance groups like the G20 as a yardstick (WTO Document, 2019: WT/GC/W/764) (See Box 4). Such recategorisation 'by force' has been supported by EU in letter and spirit. Nothing can be more ironical for developing countries, when leadership that they demonstrate towards inclusive global governance is actually turned into liability in terms of development space foregone. It has repeatedly been proven that without robust participation of developing countries 'crisis management' across myriad challenges of the 21st century is untenable. The purported 'WTO Reforms' that are being orchestrated to preserve the institution cannot be at the cost of developing countries ceding their development space.

Box 4: Developed Countries' proposals

Communication from USA (WTO Document, 2019: WT/GC/W/764)

Section 4.3: Whether the WTO's status quo approach to development status was sensible at its dawn, it makes no sense today in light of the vast changes in development and increasing heterogeneity among Members, seen in a number of economic, social, and other indicators explored in Section 1. For example, OECD members, G20 members, and other Members who have made significant gains in development can claim to be developing Members whenever and wherever they see fit, as if the world has stood still since the inception of the WTO. This does not seem to align with the original intent of S&D, which was conceived as a tool to help Members thought to be having difficulty integrating into the world trading system.

Section 4.4: Self-declaration can lead to unpredictable and illogical results in the operation and implementation of existing WTO agreements. For example, Kazakhstan – ranked in UNDP's "Very High Human Development" quartile and having made no previous claim to developing Member status – claimed such status for the first time for the purposes of implementing its obligations under the Trade Facilitation Agreement. Some of the wealthiest WTO Members – including Singapore; Hong Kong, China; Macao, China; Israel; the State of Kuwait; the Republic of Korea; United Arab Emirates; Brunei Darussalam; and Qatar – insist on being considered developing Members and can avail themselves of S&D provisions at their discretion – just like Sub-Saharan Africa.

Communication from European Commission to Trade Policy Committee (EU Document, 2018: WK 8329/2018)

(Section II) (b) Special and Differential Treatment (SDT) in future agreements: While acknowledging the need for particularly flexible treatment of LDCs, flexibilities available to other Members should move away from open-ended block exemptions toward a needs-driven and evidence-based approach that will ensure that SDT will be as targeted as possible.

On the question of 'self-declaration' the US proposal of 2019 (WTO Document, 2019: WT/GC/W/757/Rev.1) states the following: self-declaration can lead to unpredictable and illogical results in the operation and implementation of existing WTO agreements. For example, Kazakhstan ranked in UNDP's "Very High Human Development" quartile and having made no previous claim to developing Member status – claimed such status for the first time for the purposes of implementing its obligations under the Trade Facilitation Agreement. Some of the wealthiest WTO Members including Singapore; Hong Kong, China; Macao, China; Israel; the State of Kuwait; the Republic of Korea; United Arab Emirates; Brunei Darussalam; and Qatar insist on being

considered developing Members and can avail themselves of S&D provisions at their discretion – just like Sub-Saharan Africa.¹

The developing country response came in the form of a joint communication from China, India, South Africa, the Bolivarian Republic of Venezuela, Lao People's Democratic Republic, Plurinational State of Bolivia, Kenya, Cuba, Central African Republic and Pakistan (See Box 5). This proposal highlighted that attempts by some Members to selectively employ certain economic and trade data to deny the persistence of the divide between developing and developed Members, and to demand the former to abide by absolute "reciprocity" in the interest of "fairness" are profoundly

Box 5: Developing Countries' proposals

Communication from Developing Members (WTO Document, 2019: WT/GC/W/765/Rev.2)

Section 1.2: Against this background, recent attempts by some Members to selectively employ certain economic and trade data to deny the persistence of the divide between developing and developed Members, and to demand the former to abide by absolute “reciprocity” in the interest of “fairness” are profoundly disingenuous. The world has indeed changed in many ways since the GATT and the establishment of the WTO, but in overall terms the development divide remains firmly entrenched. It is therefore of greater concern that some Members would attempt to ignore this reality in an effort to deprive developing Members of their right to develop.

Section 1.3: Capacity constraint remains a serious problem for developing Members at the WTO. Notably, they often lack the requisite human resources, negotiating capacity, well-functioning intra-governmental coordination mechanisms, and the effective participation of social partners in trade negotiating processes. These deficiencies diminish not only the ability of developing Members to negotiate, but also the effectiveness of translating negotiated outcomes into measures for domestic economic growth.

Communication from the African Group, Cuba and India

Section 1.6: In the last two years, some Members have suggested a broad range of reforms at the WTO including a slate of new rules, even though existing mandates from the DDA remain unaddressed. ‘WTO reform’ does not mean accepting either inherited inequities or new proposals that would worsen imbalances. Reforms must be premised on the principles of inclusivity and development and respond to the underlying causes of the current backlash against trade and the difficulties that developing Members continue to face vis-à-vis their industrialization challenges. Inclusivity would require, at a minimum, preserving consensus decisions in the WTO.

disingenuous. The world has indeed changed in many ways since GATT and the establishment of the WTO, but in overall terms the development divide remains firmly entrenched. It is, therefore, of greater concern that some Members would attempt to ignore this reality in an effort to deprive developing Members of their right to develop. The proposal also argues that capacity constraint remains a serious problem for developing Members at the WTO. Notably, they often lack the requisite human resources, negotiating capacity, well-functioning intra-governmental coordination mechanisms, and the effective participation of social partners in trade negotiating processes. These deficiencies diminish not only the ability of developing Members to negotiate, but also the effectiveness of translating negotiated outcomes into measures for domestic economic growth (WTO Document, 2019: WT/GC/W/765/Rev.2).

On the question of appropriate assessment of development status and rising inequalities among countries the proposal states: in 2017, the GDP per capita (Current USD) of the United States, Canada, Australia, New Zealand and the European Union was USD 59,531, USD 45,032, USD 53,800, USD 42,941, and USD 33,715, respectively, while the GDP per capita of developing Members, including China, India, South Africa and Brazil, were all below USD 10,000. With the United States as the comparator, the extent to which the developing Members fell further behind the United States can be understood from the fact that, for Brazil, China, India and Indonesia, the gap in GDP per capita and that of the United States increased by at least 71 per cent (2014-2016 vs 1994-1996). With Germany as the comparator, the gap for China, India and Indonesia with Germany increased by at least 23 per cent. With the

United Kingdom as the comparator, the gap for Brazil, China, India and Indonesia, increased by at least 65 per cent. The trend in widening gap of GDP per capita (Constant 2010 USD and PPP) between developed and developing Members is similar to that observed in respect of GDP per capita (Current USD). In general, the gaps in GDP per capita between developed and developing Members were significant, and have been expanding in absolute terms since 1995 when the WTO was created. The proposal went on to suggest that while 38.2 per cent of the world's poor are in LDCs, an overwhelming proportion to the tune of 61.8 per cent live in non-LDC developing Members. Of the second group, India supports close to 35 per cent of the world's poor.

The uniqueness of the S&DT is that they cut across all agreements of the WTO most prominently, Agreement on Agriculture; Technical Barriers to Trade; Agreement on Sanitary and Phytosanitary (SPS) measures; Trade Related Investment Measures (TRIMs); TRIPS; Understanding on rules and procedure governing the settlement of dispute; Agreement on Subsidies and Countervailing Measures, etc. There are huge challenges facing the developing countries in the above for securing their development space and creating capacities for trade and value addition. The Group of 90 developing and least-developed countries (G90) has reaffirmed that the provisions for special and differential treatment (S&DT) remain

an integral part of existing and future WTO Agreements and highlighted 10 unresolved concerns across the above mentioned areas. The communication from the African Group, Cuba and India states that WTO reform does not mean accepting either inherited inequities or new proposals that would worsen imbalances. Reforms must be premised on principles of inclusivity and development (See Appendix). Finally, the challenges specific to 'catching-up'; empowering citizens and improving livelihoods; going up the technology ladder or accessing technologies and resources for sustainable transitions have not been considered while suggesting changes in the S&DT norms in the WTO. Thus the agenda remains open in all its earnestness. There is need for much stronger, coordinated and unified developing country response on the sinister moves of the developed countries is essential.

Endnote

- ¹ The same proposal contends that, the Bali Decision on tariff rate quota (TRQ) administration saw the creation of a mechanism to ensure unfilled TRQs were not a result of protectionist measures. The mechanism applied only to developed Members; self-declared developing Members were only required to address the issue on a best-endeavor basis. While additional flexibilities and exemptions had been proposed in the Doha agriculture text and rejected, Bali was the first time that Members agreed to use development status to exempt all self-declared developing Members from a new commitment rather than take a smaller cut or a longer time to implement.

Appendix

Developed and Developing Country Positions on 'Self-declaration'

Extract from 'An Undifferentiated WTO: Self-declared Development Risks Institutional Irrelevance- Communication by the United States' (WT/GC/W/757/Rev.1, 14 February 2019)

Defenders of the status quo approach by some WTO Members for determining development status – self-declaration – may argue that Members effectively agreed to it by consensus in 1995. They may even claim their authorities would never have sought WTO membership if they could not self-declare as developing. Unfortunately, clinging to this approach leads to a system that prevents true liberalization while anchoring all Members to a world that no longer exists. This contradicts the goals stated by Members in the preamble to the Marrakesh Agreement Establishing the WTO.

Self-declaration and its first-order consequence – an inability to differentiate among Members – puts the WTO on a path to failed negotiations. It is also a path to institutional irrelevance, whereby the WTO remains anchored to the past and unable to negotiate disciplines to address the challenges of today or tomorrow, while other international institutions move forward.

Extract from 'The Continued Relevance of Special and Differential Treatment in Favour of Developing Members to Promote Development and Ensure Inclusiveness- Communication by China, India, South Africa and the Bolivarian Republic of Venezuela, Lao People's Democratic Republic, Plurinational State of Bolivia, Kenya and Cuba, Central African Republic and Pakistan' (WT/GC/W/765/Rev.2, 26 February 2019)

The WTO Agreement (Article XVI:1) provides that "WTO shall be guided by decisions, guidance, procedures, customary practices followed by the contracting parties to GATT 1947." Self-declaration of developing Member status had been a long-standing practice with recognized legitimacy under the GATT 1947, hence it becomes part of the customary practices to be followed by the WTO established in 1995.

As stated in the Marrakesh Agreement, the WTO was created with the multiple objectives of raising standards of living, ensuring full employment, expanding the production and trade, promoting sustainable development, etc. rather than just maximizing trade per se. Moreover, the WTO Members agreed in Marrakesh that WTO would adopt an approach to trade policy consistent with Members' respective needs and concerns at different levels of economic development.

The economic history, including that of today's self-declared developed Members, has shown that such domestic transformation, either institutional reform or productive capacity enhancement, requires the knowledge and understanding of local circumstances and continuous policy experimentation. Developing Members do need same policy space when opening up to the global market to push forward their domestic reform and transformation agenda, which is exactly the reason why the WTO adopts the self-declaration approach. Depriving developing Members of policy space and flexibilities would be a gross violation of the basic tenets of justice and fairness in international governance, and would strike at the very legitimacy of the rules-based system. The WTO, in serving its multiple purposes, should build a development-friendly trade regime, which encourages and supports its developing Members to conduct domestic reform and transformation according to their local situation while being integrated into the global economy.

It should also be well noted that, though the self-declared developing Members have the right to utilize S&DT, they always make their contribution as much as they can. A number of developing Members' utmost commitments on Trade Facilitation Agreement implementation is a good demonstration to show that the self-declaration approach does not paralyze the WTO negotiations, but rather, plays a key role for successful negotiation and feasible implementation of the WTO agreements.

5

Fisheries Subsidy Negotiations in WTO

5.1 Introduction

Temperature is running high as MC12 is not even a week away from its schedule, and several unresolved issues are still pending for effective redressal. Contrary to the expectations, progress in the negotiation between 11 May and 14 July 2021 was virtually trivial. The Mini-Ministerial which was held in mid-July failed to yield much response in terms of breaking the ice in several contentious issues and the Meeting was concluded without much headway in settling unresolved issues. Following the release of the Draft Fisheries Subsidies Agreement (FSA) on 11 May 2021, there was optimism among member countries for the possible successful conclusion of the agreement amidst the persistence of several grey areas. As we are moving closer to the MC12, pessimism is mounting among members and there is little hope for the successful conclusion of the Agreement. The division of opinions on numerous issues between Member countries is so sharp that the possibility of convergence of views on these issues is fading gradually without much respite in the process of negotiation.

Handling the situation is much dependent on the Chair, but some allege that while

Ambassador Santiago Wills was becoming too lenient to a few countries, he became less sensitive for others. Though the Chair described Article 5 as the “heart and soul” of the FSA, he showed a lukewarm response to the issue on reverse SDT. However, the Chair is in a commanding position to bring consensus among member countries in several areas and thereby would be able to remove several square brackets in a number of Articles in the Text which was released on 8 November, 2021 becoming important for both resource-rich and resource-poor countries. The draft text of 8 November, was a significant departure from the earlier draft texts of 11 May and 30 June, particularly by inducting significant changes in Articles 5, 8 and 11. Several resource-poor countries still carry the impression that the spirit of SDG 14.6 and MC11 is not adequately captured in the Draft FSA, and reverse SDT, on the contrary, was left untouched in the hands of big subsidisers to perpetuate in future, thus, allowing the differences to continue between members. The downside risks of a successful conclusion of the FSA are becoming very high after the release of the draft text on 8 November 2021.

As global consensus is not emerging because of a sharply divided house on diverse issues,

general agreement on the FSA is seemed to be a difficult proposition. The tenor of the present Draft Text and negotiations are not consistent with the broad global declarations/agreements since 2015 to conclude the FSA. One can enumerate several of these compelling initiatives responsible for ending the stalemate in the fisheries subsidies negotiation with the sole objective of concluding the Agreement by 2021. The global community committed under the SDG programme of UNDP in 2015, to reduce and prohibit harmful fisheries subsidies by 2020. The SDG 14.6 provision exclusively revealed the interest of developing and LDCs through Special and Differential Treatment (SDT) to be an integral part of the Agreement while prohibiting certain types of fisheries subsidies to arrest overcapacity and overfishing without introducing any new form of subsidy. The UN was conscious of endorsing the provision of SDT in the FSA, keeping in view the vital importance of food and livelihood security issues for the resource-poor fishermen in developing and LDCs, without making any prejudice between the two categories of countries. In the MC10 (Nairobi Ministerial) in 2015, it was agreed that FSA was to be concluded in 2020 to protect the interest of small-scale fisheries and to arrest the declining trend of fisheries stock within the provisions of SDG 14.6.

The matter was extensively brainstormed in the MC11 in Buenos Aires, and a clear mandate was adopted by the members to conclude the FSA in 2020 to respect the global commitment to the UN. The unprecedented worldwide spread of the pandemic distracted the global community in shaping the FSA in 2020 and intense efforts were made since the beginning of 2021 to tide over the decades-old deadlock on fisheries negotiation. As fisheries subsidy negotiations progress, member countries are grappling with various contentious issues, which are yet to find any enduring solutions to overcome the present impasse of the negotiation. For the sake of concluding the

process of negotiation, the basic purpose of the Agreement cannot be defeated by perpetuating unabated use of subsidy by some, at the cost of others who were not historically responsible to reach the present state. It is in the interest of the resource-poor countries to ensure convergence of per capita availability of fisheries subsidy across WTO member countries to be same and equitable. If the present asymmetry in FSA is retained by the WTO members, resource-poor countries would be party to endorse the perpetuation of overcapacity and overfishing activities in generations to come.

Developing countries suffered to a great extent because of the inherent lacuna embedded in the Agreement of Agriculture (AoA) in the Marrakesh Agreement. Therefore, the legacy of the Agreement should not be the basis of the present FSA. The downside effect of the present global fisheries regime is that per capita fisheries subsidies across countries is ranging from USD 400 to USD 40,000 per capita. The US, the EU, Japan and China, Korea, Taiwan, among others have well developed fisheries fleets and are accessing deep international waters and their territorial waters. Often many fishing ships from these countries reach waters of resource-poor countries in the quest for wild fish. Attempts are made through reverse SDT under Articles 4.3 and 5.1.1 to legitimise many of these activities under the legal framework. The Chair of the FSA had a full understanding of the implications of these caveats in the Agreement, but he has not put efforts to put a rider in the Draft Text to present a balanced view. In the last three Draft Texts (i.e., 11 May, 30 June, and 8 November, 2021), the concerns of the developing countries were not addressed, even not in the explanatory note. The comment of the US on forced labour on the fisheries fleets receive prominent attention in the November Draft Text, but not valid comments from developing countries on Reverse SDT. Unless developing countries relinquish their differences among themselves, their tussle with resource-rich countries may not go too far.

5.2 Trends in Different Type of Subsidies

5.2.1 Importance of Fisheries Subsidies

The global debate on fisheries subsidies comprehends three dimensions - economic, environmental, and social. From an economic perspective, the rationale behind fisheries subsidies is to reduce the burden on fishers through cost reduction while providing raw materials and equipment at a lower price, ensuring ease in licensing process, technological advancement, and capacity building in fisheries practices. Subsidies in the fisheries sector also boost trade in the sector as the exporters get an edge over other countries by increasing competitiveness with lower prices in the subsidising country. The social dimension caters to the need of a large population, directly and indirectly, dependent on the fisheries sector, especially in the LDCs and developing countries, as fisheries subsidies have a direct impact on the socio-economic development of the group. Not only to the exporting fishermen but the subsidies in the sector also support the small-scale and artisanal fishers to survive from the domestic competition. However, excess consumption and trade of fishes, due to fisheries subsidies, have a negative impact on the biodiversity with depletion of fisheries stock, and, hence creating an environmental impact.

Fisheries subsidies can be of any form such as fuel subsidies, tax exemption, grants for fisheries management, fisheries development subsidies, etc. The impact of various subsidies on trade and production depends on three variables a) subsidies which help the fishers to enhance the fishing capacity, b) subsidies to improve the fisheries management such as biological sustainable level and c) subsidies of the species which are already overfished (UNEP, 2011). It has been observed that the pressure on marine ecology and fisheries stock is increased with IUU fishing and fishing of species that

are identified as overfished and overcapacity. Fisheries subsidies are known to be complicated given the nature of fish as common good, and such subsidies have an impact not only at the coastal and territorial waters but also on the high seas, EEZ and, Areas Beyond National Jurisdiction (ABNJ) (Kindlon, 2020). Given its impact on the environment and its importance for artisanal fishers and island and coastal countries, the issue of fisheries subsidies has also been dealt with as a separate target in Sustainable Development Goal (SDG)-14. The notion of prohibiting fisheries subsidies for overfishing and overcapacity and eliminating such kinds of subsidies for IUU fishing has been succinctly recognized in SDG 14.6.

5.2.2 Empirical Literature on Fisheries Subsidies Estimation

Fisheries subsidies under the WTO is governed under Agreement on Subsidies and Countervailing Measures (ASCM) which articulates subsidies as any form of financial-price or income-support under the Article XVI of GATT 1994 by the government or public organisation within the Member's territory, whereas FAO defines the fisheries subsidies in a broader sense. FAO (2001b) defines fisheries subsidies as the government "*actions or inactions*" which are specific to the fisheries industry, having an effect, "*increasing or decreasing*", on the potential profit of the industry in any time framework. It does not categorises the subsidies as good subsidies or bad subsidies, rather term them as *positive* for increasing profit to the industry or *negative* which decreases the profit of the industry. FAO categorises the fisheries subsidies into four categories: a) direct financial transfers, b) services and indirect financial transfers, c) interventions with different short and long-term effects and d) lack of intervention-based on modalities of subsidies.

In 1993, OECD's Committee for Fisheries categorised fisheries subsidies based on

economic assistance into four categories: a) market price support, b) direct income support, c) indirect income support, and d) other support. This was revised and restricted to Government Financial Transfers (GFTs), which are based on implementation and identified as: direct payments; cost-reducing transfers; general services and market price support (OECD, 2000). Coopers (2000) divides fisheries subsidies identified by the APEC members on three bases: a) modality, including direct assistance to fishers, lending support programmes, tax and insurance programmes, capital and infrastructure support programmes, marketing and price support programmes, fisheries management, and conservation programmes; b) application, including capture fisheries, aquaculture, and fish processing; and c) scale, including large scale and small scale. Sumaila and Pauly (2006) identifies 13 categories of fish subsidies which are re-grouped under three heads: a) good or beneficial subsidies, b) bad or capacity enhancing subsidies, and c) ugly or ambiguous subsidies.

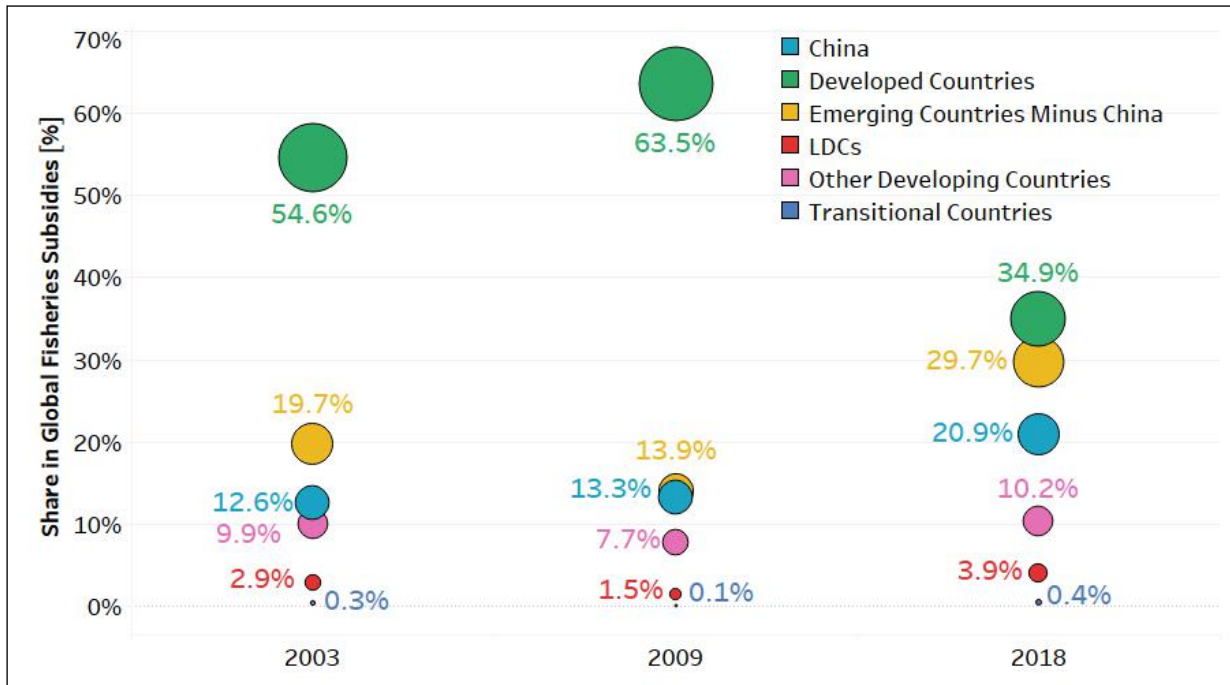
The variation in the magnitude of global fisheries subsidies in the literature is owing to the deviation in the definition of fisheries subsidies and its components in different countries and the different studies. Various studies in the literature have estimated the magnitude and nature of fisheries subsidies. One of the preliminary estimations by FAO estimated global fisheries subsidies to be USD 54 billion (FAO, 1992), whereas estimates from Friends of Fish group (WTO) is in the range of USD 14-20.5 billion annually. Sumaila *et al.* (2013) provides another global estimate of fisheries subsidies to be USD 35 billion in 2009. A similar estimate has been found in Cisneros-Montemayor *et al.* (2016) where global fisheries subsidies were estimated at USD 38 billion in 2014 which was revised to approximately USD 35 billion (Cisneros-Montemayor *et al.* 2020). OECD and APEC member countries have also estimated fisheries subsidies contributed by

their grouping of USD 5.5-6.8 billion and USD 12.6 billion, respectively (Cox and Schmidt, 2002; Coopers, 2000).

Other than the magnitude of fisheries subsidies, the nature of subsidies is extremely important. Sumaila (2019) encapsulates that the majority of fisheries subsidies are capacity-enhancing in nature amounting to USD 22.2 billion, followed by beneficial subsidies (USD 10.6 billion) and ambiguous subsidies (2.5 billion) in 2018, contributing 60 per cent, 30 per cent and 10 per cent of the total fisheries subsidies. A similar composition has been seen in 2009 (Sumaila *et al.*, 2013, Cisneros-Montemayor *et al.*, 2016). In terms of allocation of fisheries subsidies to small and large fishers, the composition of subsidies remains the same, that is, the highest accounted for capacity-enhancing subsidies, followed by beneficial and ambiguous subsidies (Schuhbauer *et al.* 2020). Out of the global fisheries subsidies, fuel subsidies account for the highest stake of around 22 per cent, followed by subsidies granted for fisheries management (19 per cent) and tax exemption (15 per cent) in 2018.

Using data from Sea Around Us¹, global fisheries subsidies is estimated for three years—2003, 2009, and 2018. It is evident from Figure 5.1 that most of the share of global fisheries subsidies is constituted by the developed nations, whereas the share of transitional countries and LDCs is negligible. The share of developed nations increased from 54.6 per cent in 2003 to 63.5 per cent in 2009. Though their share reduced to 34.9 per cent in 2018, it was still the highest in the global fisheries subsidies' distribution. However, it has been noticed that the reduction of subsidies is mainly in beneficial subsidies. A broad distribution of fisheries subsidies by the developed nations, as per its nature, shows that this set of countries have reduced the 'good' or beneficial subsidies more than the 'bad' or capacity enhancing subsidies, where the good subsidies declined with compound annual growth rate (CAGR)

Figure 5.1: Share of Developed and Developing countries in Global Fisheries Subsidies



Source: RIS estimate based on Fisheries Economies, Sea Around Us, 2020.

Note: *Subsidy* value pertaining to islands have been added to the controlling countries, say in case of Andaman & Nicobar Islands, the value of fisheries subsidies has been added in India.

of -5.9 per cent per annum for the year 2003-18 and the same for bad subsidies was -2.9 per cent per annum.

On the other hand, fisheries subsidies provided by the set of emerging countries, excluding China, has shown an increase in the beneficial/good subsidies with a CAGR of 3.4 per cent per annum for the 2009-18 period, which is concentrated in subsidies provided for fisheries management and services and maintenance of Marine Protected Areas (MPAs) for improving the stock of fisheries. Similarly, in the case of bad/capacity enhancing subsidies, though the CAGR accounts for 0.6 per cent per annum for emerging countries (minus China), these countries have shown a reduction in bad subsidies, such as boat construction, renewal, and modernization (-13.8 per cent), fishing port construction and renovation (-8.6 per cent) and fuel subsidies (-3.7 per cent), for the period 2009-

18. An interesting observation in the case of fuel subsidies has been found that the quantum of fuel subsidies provided by emerging countries (excluding China) and developed nations is comparable and is recorded at USD 1.96 billion and USD 1.78 billion respectively, in 2018. However, fuel subsidies provided by China to its fishermen have been recorded at USD 3.4 billion, minutely smaller than the combined fuel subsidies provided by the rest of the emerging countries and developed nations in the same year.

The literature provides a diverging view on the distribution of fisheries subsidies in developed and developing worlds. Classifying fisheries subsidies among the developed and developing nations, it is found that developing countries are the main source of global fisheries subsidies providing 66.7 per cent of fisheries subsidies (Sumaila, 2019). Based on such

estimation, there are various countries, like the United States, Australia, etc. in the negotiating groups that are demanding no exclusion for developing countries in the fisheries subsidy negotiation. However, there are some studies reporting lesser subsidies in developing countries. Mallory (2016) estimated fisheries subsidies in China at a tune of USD 6.5 billion in 2013, where 94 per cent is constituted by fuel subsidies. It has also been estimated that countries like the EU, Japan, and China account for 65 per cent of global fisheries subsidies (Schuhbauer *et al.*, 2017).

Taking forward the discussion with reference to Figure 5.1, where it has been shown that the

major share of fisheries subsidies is provided by the developed world in all the three years, Figure 5.2 provides the subsidy distribution at the country-level within the set of countries at different economic developmental levels. It is vividly evident from the graph that China occupies most of the global fisheries subsidies, accounting for 20.9 per cent, in 2018. Though it was not the case in 2003 and 2009, where it accounted for 12.6 per cent and 13.3 per cent of the total fisheries subsidies, respectively. Interestingly in 2003, nearing the beginning of the fisheries subsidies negotiations in Doha Round, developed countries contributed more than half of the global fisheries subsidies where Japan provided 23.5 per cent of the global

Figure 5.2: Distribution of Fisheries Subsidy in countries at different developmental stages, 2018

(USD million)



Source: RIS estimate based on Fisheries Economies, Sea Around Us, 2020.

Note: Subsidy value pertaining to islands have been added to the controlling countries, say in case of Andaman & Nicobar Islands, the value of fisheries subsidies has been added in India.

fisheries subsidies followed by the United States (16.5 per cent) in 2003. After China, Russia was the fourth largest country providing subsidies in the sector amounting to 4.4 per cent in 2003.

Similar was the case in 2009, where these four countries accounted for 60 per cent of global fisheries subsidies, with a slight change in the ranking – where the United States (30.1 per cent) provided the highest subsidies in the sector followed by Japan (13.7 per cent), China (13.3 per cent) and Russia (3.4 per cent). Over the course of the fisheries subsidies negotiations, many countries have reduced their provisions for subsidies and many have increased the quantum of fisheries subsidies. For example, in developed nations, countries like Japan and the United States have reduced their fisheries subsidies to a share of 8.1 per cent and 9.7 per cent of global fisheries subsidies in 2018, making China the largest country providing fisheries subsidies as also shown in Figure 5.2. In emerging countries, many countries like India, Brazil, the Philippines, Poland, and Russia have recorded a decrease in the quantum of fisheries subsidies from 2009 to 2018.

However, there are some countries that have increased the fisheries subsidies provisions for the fishermen since 2003. Within the emerging countries, excluding China, South Korea has increased its provision for fisheries subsidies from USD 0.69 billion in 2003 to USD 1.17 billion in 2009 and reached USD 3.18 billion in 2018. Thailand, Malaysia and Indonesia, though recorded a reduction in subsidies from 2003 to 2009, have shown increased subsidies provision in 2018. Similarly, in the case of other developing countries, Argentina, Pakistan, Venezuela, etc. recorded growth in the second phase of recession (2009-18). In the case of LDCs, a major share of subsidies in 2018 was recorded with Senegal, followed by Bangladesh, Yemen, and Myanmar, whereas Myanmar was the leader as subsidy provider in 2003 and 2009. The entire analysis shows wide variation within the country-groupings for providing fisheries subsidies over the entire period from 2003-18.

Many of the member countries are in favour of providing a waiver for the developing countries and LDCs as they are highly dependent and are at a lower stage of development with poor technology and management of the fisheries sector as compared to developed nations. A major difference between the developing countries and developed countries is that the developed countries do not have fisheries resources, but they have vessel capacity whereas the developing countries and LDCs do not have vessel capacity but hold fisheries resources (Kumar *et al.*, 2020). Hence, information regarding the distribution of global fisheries subsidies among developed and developing member nations of the WTO is vital for negotiations to be equal and just and many Member countries are also emphasising on common but differentiated responsibilities (CBDR), through SDT in the agreement.

Another debate in the literature pertains to the allocation of fisheries subsidies among various fishermen based on the scale of their activities. It has been argued that the majority of the fisheries subsidies are being granted to large scale fishing activities that increase the pressure on the biological level of fisheries stock and defy the sole purpose of fisheries subsidies to help small-scale and artisanal fishermen to improve their livelihood and undermine their economic viability. Schuhbauer *et al.* (2017) estimates the extent of fisheries subsidies provided to the small-scale and artisanal fishermen to be around 15.6 per cent of the total fisheries subsidies in 2009. This share accounted for USD 5.6 billion of fisheries subsidies to the artisanal fishers which were increased to USD 6.6 billion in 2018 (Schuhbauer and Sumaila, 2016; Schubahbauer *et al.*, 2020). It was further estimated that out of USD 6.6 billion subsidies in 2018, 59 per cent was allocated under capacity-enhancing, 31 per cent under beneficial subsidies and 10 per cent ambiguous subsidies to the small-scale and artisanal fishers.

It has also been discussed in the literature that most of the prohibited fisheries subsidies in the WTO Agreement are capacity-enhancing in nature. Such subsidies had been granted by the developed countries to their fishing sector to increase production (Sumaila *et al.*, 2016). However, one could see a drastic shift by countries like the EU and “friends of fish” from capacity-enhancing subsidies to beneficial and ambiguous subsidies (Kumar *et al.*, 2020). This implies that a majority of the negative impact of curb on fisheries subsidies would be borne by the developing countries² and especially LDCs where the fisheries sector genuinely needs support from the government. Therefore, SDT provisions for developing countries and LDCs would be pivotal for successful negotiations and fisheries agreement.

The variation in the estimation of global fisheries subsidies raises the need for standardisation of definition and categorisation of fisheries subsidies used by various countries. This variation, including the variable nature of the fishes, has made it difficult for academicians and policymakers to make comparisons and assign prospective regulations to control subsidies for IUU and overcapacity and overfishing and meet SDG 14.6 target.

5.3 Issues of Critical Interest in MC 12

5.3.1 Negotiations up to May 11, 2021

The urgency of completing the fisheries subsidies negotiations was highlighted in MC11 with the establishment of a standalone SDG for the oceans (SDG-14). The discussion after MC11 has focused on concluding the fisheries negotiations in 2020, and the negotiating group has been engaged in extensive discussions. However, the deadline of 2020 was postponed by the global pandemic-COVID-19. During the negotiations and informal meetings between the Ministerial Conference (MC) in Buenos Aires in 2017 and proposed MC12 in Nur Sultan

in 2020, the WTO members narrowed down the provisions to be included in the fisheries subsidy agreement. The Chair of the Negotiating Group on Rules shared a consolidated draft with the Members on June 2020 (RD/TN/RL/126) and two revisions in November and December 2020 for the fisheries subsidies negotiations. However, they are not publicly available. Further, a refined draft text for the agreement was prepared by the Chair on May 11, 2021 (henceforth, May Text) providing a clean text to the Members for a clause-by-clause negotiation for the fisheries subsidies. The May Text constituted 11 Articles including three major pillars dealing with the prohibition of-IUU fishing, overfished stock, and overcapacity and overfishing stock and cross-cutting issues like -SDT, transparency and monitoring, technical assistance, and capacity building, etc., which are being discussed in detail in the following subsection. A detailed article-by-article discussion is put forth in the following subsections.

5.3.1.1 Scope (Article 1) and Definition (Article 2)

The first two articles of the May Text discuss the scope of the agreement and some definitions which are being used in the text. Article 1 of the May Text specifies that the agreement and the provisions in the agreement are only applicable to “marine wild capture fishing and fishing related activities at sea”. The negotiating text specifically mentions in the footnote that aquaculture and inland fisheries are excluded from the scope. The exclusion of aquaculture from the scope of the agreement has been in talks from 2007 with Chair’s Text³, which has been maintained among the agreed points, despite some level of opposition from Australia, New Zealand, and the United States⁴ in 2005.

Additionally, exclusion of inland fisheries has also been carried from the Working document of the Chairman in 2008⁵. Like the inland fisheries, the government-to-government payments under fisheries access agreement between two countries are also being excluded

from the purview of subsidies to be prohibited under fisheries subsidy agreement in the WTO. Article 1.2, in square brackets, prohibits WTO member countries to grant fuel subsidies related to fisheries. However, the Chair specifically mentions in his explanatory note⁶ that this section is to be dealt with and resolved at the political level. For the agreement, Article 2 provides the basic definition of the terms-fish, fishing, fishing related activities, vessel, and operator, where the first four definitions have been taken from the Agreement on Port State Measures (PSMA) and the term ‘operator’ from the facilitators’ document and RD/TN/RL/126, which is not publicly available.

5.3.1.2 Prohibition on Subsidies to IUU Fishing (Article 3)

Article 3 of the May Text lays out provisions on the prohibition of fisheries subsidies where the vessel or operator is engaged in IUU fishing. The Article discusses important issues like the determination of IUU fishing, the time period to be notified as IUU fisher, the role of different Member states, laws and regulations needed for countries and SDT provision under the pillar. Article 3.2 lists down the authorized entities/institutions—coastal member, flag state member, RFMO/A, which can determine IUU fishing. However, the determination should be based on a ‘positive approach and follows due process’.⁷ The negotiating members have concluded that there is no hierarchy implied from the list of entities and institutions which are listed in Article 3.2. Additionally, it has also been cleared from footnotes 5 and 6 that the provisions on the listing of triggering institutions do not obligate any Member to initiate an investigation for IUU activities and does not have any legal implications on other international instruments.

Given the seriousness of IUU fishing, Article 3.4 provides the duration of prohibition of fisheries subsidies on IUU activities, where the decision would be based on the sanctions resulting from the triggering institution or the vessel’s engagement in IUU fishing, whichever

is longer. Article 3.5 places the role of Port State for notifying the subsidizing member about the IUU fishing activities. Articles 3.6 and 3.7 layout the need for laws and regulations in each member country to identify and reduce IUU fishing activities, which further needs to be notified to the Committee. Article 3.8 manifests the SDT provisions for resource-poor, low-income or livelihood fishing activities in developing countries, including LDCs, if they are engaged in IUU fishing within 12 nautical miles for two years. This provision is still under discussion in the negotiating meetings where some countries want no SDT provisions in the IUU pillar like the United States, Australia, and others, whereas countries like India want relaxations in Unregulated and Unreported (UU) fishing for developing countries, including LDCs.⁸ However, the current text does not detach UU fishing and take IUU fishing as a single undertaking.

5.3.1.3 Prohibition on Subsidies Concerning Overfished Stocks (Article 4)

The second pillar of the agreement pertains to prohibiting fisheries subsidies for overfished stocks. This Article has been discussed quite late at the negotiating table in the WTO as many members were of the view that evolved provisions on the third pillar on overcapacity and overfishing would provide a clearer picture of the issues to be dealt with the overfished pillar. Such an attempt was made to reduce any duplication in the provisions in the two pillars. Another contentious point in the past rounds was the need for separate provisions for overfished stocks. Some members were of the view that the existing provisions on overcapacity and overfishing stock would cater to the issue of overfished stocks. On the other hand, some countries view overfished stocks as qualitatively superior to overcapacity and overfishing stocks and hence call for a separate discipline.

Article 4.1 of the May Text restricts the fisheries subsidies on overfished stock, without

any conditionalities –lack of recovery of the overfished stock and continuous reduction in the level of overfished stock– as it was in the earlier draft. Such exclusion of conditions provides stricter provisions to the overfished stock as they are ecologically more vulnerable. The second issue concerning this Article is the identification of overfished stock, which has been recognized in Article 4.2 as a combination of: a) identified by a coastal member under the jurisdiction of fishing activity and relevant RFMO/A and b) based on ‘best scientific evidence’. In the earlier negotiating rounds, the member countries were discussing either of these provisions which listed out pros and cons for both the alternatives. The revised proposal, as viewed by some member countries, would provide an appropriate balance between the need for effective discipline and evading excessive interference of institutions/authorities in stock assessment.

Contradicting to the aim of reducing fisheries subsidies, as recognized in SDG14.6 and MC11, Article 4.3 offers an opportunity to the WTO member countries to grant fisheries subsidies if the subsidies are implemented to enhance the sustainability level of the fisheries stock. Though there has been discussion of this Article in the negotiating rounds on the relevance and difference in the provision with respect to Article 5.1.1, yet there has been no discussion on its impact on the fisheries stock and the sole motive of dealing with fisheries subsidies. Such an exemption is an alternative for having a ‘Green-box’ in the fisheries subsidy agreement. Further, there is a possibility of falsely identification or assessment of overfished stock for providing fisheries subsidies which would be legally binding according to the proposed agreement. The exemption (or reverse SDT as addressed in Article 4.3) is also not subject to any time period or any other conditions which would allow countries to use fisheries subsidies at their current pace under the pillar. However, like the

IUU pillar, SDT provisions (Article 4.4) in the overfished pillar have been strict given the huge vulnerability of the biological level of the stock. Articles 4.3 and 4.4 hence reflect a contradicting view of sustainable fisheries.

5.3.1.4 Prohibition on Subsidies Concerning Overcapacity and Overfishing (Article 5)

The last pillar of the fisheries negotiations–overcapacity and overfishing has been given its due importance from the fact that it is the ‘heart of the negotiations’ and is still under discussion. Article 5.1 lists down eight types of fisheries subsidies, mentioned in the footnote⁹, which are to be prohibited by the member states under the fisheries subsidies agreement. However, the contentious point in the negotiations has been the exclusivity of the list of subsidies. While some members are in favour of having an open list of subsidies to avoid redundancy of subsidies that are not listed, others support the decision of having a closed list to be precise in the agreement.

However, the Chair in his explanatory text¹⁰ has made it clear that the current list of subsidies under the pillar is an illustrative list. The point to note is that such an illustrative list without any review methods or process of the list would be a gap in the agreement that can be harnessed by the member countries in granting fisheries subsidies and therefore, would be counterproductive on the issue of reducing fisheries subsidies. This freeway or the *flexibility provision* is further provided in Article 5.1.1 in the May Text where a Member state may grant subsidies if it demonstrates that the subsidies are provided to improve the biological sustainable level of the fisheries stock. The experience of developing countries in the Agreement on Agriculture (AoA) provides evidence that such a freeway could be used as a ‘Green-box’ by some countries to maintain their subsidies on the fisheries stock (Mohanty and Gaur 2021). Interestingly, both the flexibility provisions (Articles 4.3 and 5.1.1) do not have

square brackets, though there is a greater debate existing on these issues, discussed in the following section.

The rest of the article outlays different provisions on the prohibition of subsidies which are contingent in nature, that is, dependent on the anticipated fishing and fishing-related activities (Article 5.2). Additionally, according to the May Text, Members would not be able to provide subsidies to the vessels and operators which fall outside their jurisdiction of the coastal Member state or the relevant RFMO/A (Article 5.3) and to the vessels not flying the flag of their subsidizing Member (Article 5.4). Further, Article 5.5 provides conditions for SDT provisions for developing countries including LDCs with two alternatives, which are discussed in section 5 in detail.

5.3.1.5 Cross-cutting Issues (Article 6-11)

The rest of the May Text prescribes the cross-cutting issues in the fisheries subsidies. Article 6 lists down the specific provisions to be included in the agreement for LDCs given their high dependence on the fisheries sector and on oceans in general. Though much of the exclusions for the LDCs are notified in the three different pillars in SDT provisions, this Article discusses the transition period given to the LDCs to accustom their policies after their exclusion from the list of LDCs category. This specific provision (Article 6.1) has been kept in the square brackets in the May Text as there has been no consensus among the members. Similarly, entire Article 7 is under square brackets, which is dealing with technical assistance and capacity building to be provided to developing countries, including LDCs and land-locked countries, for implementation of disciplines to be governed by the fisheries subsidies agreement.

Article 8 of the May Text lays out the notification requirements on different fisheries subsidies issues that the member countries would have to provide for greater transparency

and effective surveillance mechanisms. This includes notification regarding the type of fisheries activities related to subsidies, catch data by species (Article 8.1 (a)); status of fisheries stocks, name and identification number of vessels, fleet capacity where subsidies are provided, management and conservation measures (Article 8.1(b)); identification of vessels engaged in IUU fishing, list of fisheries access agreements (Article 8.2); any additional information (Article 8.3); and the list of Articles in the May Text that can be invoked only after notification requirements. Under the Institutional Arrangements (Article 9), though not yet finalised, underlines provisions of creating a Committee, composed of representatives from each member, which would regularly meet in two years (Article 9.1). Such regular meetings would examine and review the information provided by the member countries. Articles 9.2 and 9.3 require the members to inform the committee about the existing measures for implementation and administration of the proposed agreement and provide a detailed description of the laws and regulations in the fisheries sector in the country, respectively. Articles 9.4-9.6 specifies the rules for the committee and review mechanism of the information provided by the Members and the operation of the committee.

Article 10 discusses the provisions on dispute settlement which must be governed in sync with other WTO agreements—Article XXII and XXIII of the GATT 1994 and Article 4 of ASCM. Lastly, the May Text provides an article on final provisions (Article 11) which deals with the rights of land-locked countries (Article 11.1), treatment for unassessed fisheries stock (Article 11.2). It further clarifies that the present agreement (to be finalised) on fisheries subsidies would not have any legal implications on the present maritime jurisdiction of the member countries (Article 11.4). Another exemption that is provided in this Article (Article 11.3) pertains to granting of subsidies

under overcapacity and overfishing pillar in times of disaster. Such a provision could also include times of pandemic which severely affect the well-being and livelihood of fishermen, say like in COVID-19.

5.3.2 Negotiations Beyond May 11, 2021

Following the May Text, the Chair of the Negotiating Group on Rules has revised the draft twice, one on 30 June 2021¹¹ (henceforth June Text) and the other on 8 November 2021¹² (November Text). There are some changes in the June Text like minor changes in language (instead of “low income, resource-poor or livelihood fishing or fishing related activities within...” the Text states “Low income, resource-poor **and** livelihood fishing or fishing related activities **up to**...” in Article 3.8 and Article 4.4; addition of provisions like in Article 8.5 where the members have to notify the Committee about the RMFO/A to which they are partied to with other specific information; deletion of clauses (minor change in the definition of an operator in Article 1.2 (e)), changes in Article 8.4 (a), the addition of voluntary WTO funding mechanism, in cooperation with FAO and International Fund for Agriculture Development, to provide technical assistance and capacity building for developing and LDC Member under Article 7 and removal of square brackets for ‘operator’ in Article 3.1 and Article 3.3, and many other addition of square brackets.

However, November Text has added various new provisions or alternatives in Articles 3, 5, 6, 8 and 11, which were entirely or partially not put forth in the earlier version of the consolidated text on fisheries subsidies. Owing to the importance of these issues in the negotiations, we will discuss the changes for each revised Article. Articles 1 and 2 of the revised text (the November Text) has not been changed and kept as the earlier version (the May Text). The title of Articles 3, 4, and 5 have been changed to Subsidies Contributing to

IUU Fishing, Subsidies Regarding Overfished Stocks, and Subsidies Contributing Overfishing and Overcapacity, respectively, in accordance with the mandate and purely for editorial clarification (TN/RL/W/276/Rev.2/Add.1). Though a minor change in terms of inclusion of square brackets, one addition of fishing and related activities in support of IUU fishing in Article 3.1 and two, up to 12 nautical miles for SDT provision for developing countries and LDCs has been made in Article 3.8 and Article 4.4. Article 3.3, in the November Text, provide a new alternative for the determination of IUU fishing.

The May Text has been retained in Alternative 1 for 3.3 where the determination of IUU fishing by coastal Members should be based on positive evidence and should also follow due process, as mentioned in Article 3.3, Alternative1(a). Additionally, in Article 3.3 Alternative1(b), the coastal Member is also required to notify the flag/subsidizing Member of the IUU determination and should provide an opportunity to the Member to submit information regarding the determination. However, the November Text has now included Alternative 2, where after the ‘affirmative determination’ of the vessel or operator engaged in IUU fishing, the coastal Member can prohibit the subsidies, under Article 3.1, after it has provided timely notification (with proper channels, applicable laws and regulations) to the flag/subsidising member and also allow these Member(s) with an opportunity to provide information or dialogue with officials with regard to the IUU determination. Such an alternative would raise delay in the proceedings of prohibiting IUU fishing and would also raise an opportunity of bribing and reversal of already determined IUU activity.

Another major change that is visible in Article 5 where the November Text has combined some Articles and provided new text for SDT provision. In Article 5.1, the revised draft has added the prohibition of subsidies

relating to overfishing and overcapacity which are contingent upon fishing and related activities in ABNJ, which was earlier referred to in Article 5.2 (a) of the May Text or the June Text, with an additional footnote. The explanatory note of the chair also specifies that Article 5.2 (b) of the June Text has been deleted in the revised version as the exception is embedded in the flexibility clause in Article 5.1.1. In the new Article 5.2, which was earlier Article 5.3, the Chair has specified that Members are not allowed to provide subsidies for fishing in ABNJ of the coastal Member and have added, in square brackets, coastal non-Member as well. Additionally, the revised draft in November has provided an alternative to Article 5.3, earlier Article 5.4, for prohibiting subsidies for vessels not flying the flag of the subsidising Member. Alternative 2 for Article 5.3 specifies that subsidies are prohibited for vessels for which the Member does not have control or cannot ensure that it is engaged in fishing-related to overfishing and overcapacity.

The SDT provision for overfishing and overcapacity has been laid down in Article 5.4, which was earlier placed as Article 5.5 with two alternatives in the May Text. It is argued by the Chair that the previous Alternative 1 of Article 5.5 was not able to gather consensus among the Member nations and hence, the revised text is presented based on discussions in the negotiations. Firstly, the entire SDT provision for the LDC members have been shifted to Article 6.1 and Article 5.4 only describes clauses for developing countries. Under Article 5.4 (a), a developing country is allowed to give subsidies for overfishing and overcapacity, mentioned in Article 5.1, only for a prescribed number of years or transition period after the entry into the agreement, which needs to be decided by the negotiating Members and constrained by geographical location, that is within their EEZ or area within the relevant RFMO/A. The debate over the transition period ranges from five years by some members to 25 years

by others. However, such countries need to inform the committee in writing about availing exemption.

Additionally, a developing Member is allowed to provide subsidies under this Article if its yearly contribution of marine capture production is less than 0.7 per cent (*de minimus approach*), based on FAO data, or it may grant subsidies for artisanal and small fishers, described as low income, resource-poor and livelihood fishing, up to 12 nautical miles from its baseline, which remains a debatable issue at the negotiations. It is important to note that, within the footnote, the Text mentions that a developing country is exempted under Article 5.4 (b) (i) if it does not exceed the threshold for three consecutive years. Similarly, it would be re-included if the capture production share falls back below the threshold for three consecutive years. However, one should also consider the fact that at present, FAO provides the global capture data with one year lag, for instance, in November 2021, the latest data available from FAO on marine global capture production is for the year 2019. The availability of lagged data would raise difficulties for some developing countries to avail the SDT provision.

As mentioned earlier, the SDT provisions for LDCs members have been drafted under Article 6 of the proposed text in Article 6.1. The next clause, that is Article 6.2, deals with the provisions of granting subsidies for LDC graduating Members. The present Text provides two alternatives. Alternative 1 provides a similar provision to LDCs, as given to the developing Members in Article 5.4 (a), for a prescribed number of years after graduation and in its EEZ and areas under relevant RMFO/A. Alternatively, the second option states that the LDCs exemption as stated in Article 6.1 can be enjoyed by the LDC nation only for [X] year after graduation. Given the exemption for LDCs and developing countries, the Text has added a clause that the Member would try to ensure that the subsidies provided

by them under Articles 5 and 6 do not contribute to overfishing and overcapacity.

For the remaining Articles, not much has been changed from the June Text to November Text revision, apart from the inclusion of clause relating to forced labour in Article 8.2 (b) where the Members have to notify information regarding vessels that are engaged in forced labour on the basis of the United States submission, earlier this year. Additionally, LDCs and developing Members, taking exemption under Article 5.4, have to provide notification regarding fishing activities and catch data by species, for which subsidies are being provided, every 4 years (Footnote 13)¹³ and owing to the unavailability of fisheries catch data by species, the members may notify the Committee with other relevant information (Footnote 14). The Chair has also detailed out the information required to be notified to the Committee regarding the fisheries access agreements between the Members in Article 8.2 (c), and information regarding the RFMO/A to which the Members are party to with the legal agreements and other necessities in Article 8.5.

The additions in Articles 8.6 and 11.5 provide a blanket provision stating that the information required under the Notification and Transparency clause (Article 8 of the Text) is not confidential information, and the Members are not bound by any decisions/measures by any RFMO/A to which they are not a party, respectively. The aim of revising the Text was to provide a “*balanced*” Text for the negotiations, as stated in the explanatory note by the Chair.¹⁴ Yet, with elaborated discussion on SDT mechanism and no/minimal discussions on the reverse SDT provisions, the Text seems to remain lopsided. Though the Chair, in the revised version of the draft, has tried to put forth a clean text for the Members to negotiate before the MC12, there are contentious issues in all the Articles¹⁵. Given this massive list of unresolved issues and nearing MC12, the task at the hand for conclusion of the fisheries subsidies agreement seems difficult.

5.4 SDT and Reverse SDT: Points of Discord

The November Text was delayed by almost a week and the Draft was far less than the expectation of developing countries. During the last 20 years of negotiations on FSA, there was growing support in favour of developing countries and LDCs for securing fisheries subsidy under SDT and various international declarations/meetings also corroborated the idea of SDT as the core element of the FSA. The UN programme on SDG 14.6 lends support for developing as well as LDCs ‘equally’ to access fisheries subsidy whereas resource-rich countries are construed as ‘polluters’ by many and to share the burden under the principle of ‘common but differentiated responsibility’.

With relatively poor fisheries management and infrastructure, the developing countries, including LDCs in the WTO fisheries negotiations, have asked for certain waivers in the prohibition of fisheries subsidies and the time of implementation for the agreement. These sets of countries, and especially small island developing states (SIDS), are highly dependent on the fisheries sector, with the sector contributing a considerable share in the agriculture output and consumption. Subsidies provision for such countries, including small and artisanal fishermen, helps in promoting the nation’s fishing base while providing livelihood security of fishing communities. While the developed countries have already established their fishing industrial base with unaccounted subsidies to their fishing sector, developing countries in the WTO negotiations are seeking a balanced outcome through SDT. The provisions relating to SDT in FSA proposed Text have attempted to provide fair treatment to the developing countries including LDCs and artisanal and poor fishermen which remain a core concern in the fisheries subsidies agreement for MC12. However, as many countries, including India, have pointed out, the proposed Text is unbalanced and

does not provide solutions to the concerns of developing countries. Additionally, it lacks special reference to the SIDS in the entire text.

The cross-cutting issue of SDT has been discussed in three articles of fisheries subsidies negotiation text, based on the members' discussion over the past 20 years. Given the different vulnerability status of fisheries stock in i) IUU fishing, ii) overfished, and iii) overcapacity and overfishing, the SDT provision has been dealt with separately for IUU and overfished stock and overcapacity and overfishing stock. IUU fishing and fishing of overfished stock need immediate and greater attention as they have detrimental effects on the stock of fish and their biological level. Hence, the proposed text lays out a stricter SDT clause for IUU and overfished stock in Articles 3.8 and 4.4, respectively, as compared to Article 5.4 in overfishing and overcapacity. However, the efficacy of the SDT provisions would depend upon the provisions of reverse SDT articulated in Articles 4.3 and 5.1.1 of the text, providing waivers for all the countries given they demonstrate that granting for such subsidies would increase the stock of fisheries.

5.4.1 SDT and Reverse SDT in IUU and Overfished Pillar

To cater for the concerns of developing countries over the implementation of the prohibited fisheries subsidies and their direct impact on the small-scale and artisanal fishers, the SDT provision for IUU and overfished stock provide flexibility for developing countries including LDCs. Such countries are entitled to allow subsidies to the "low-income, resource-poor and livelihood fishing and fishing-related activities" up to 12 nautical miles for a period of two years, from the date of entry into force of the agreement. Additionally, such countries are also exempted from the dispute settlement clause of the agreement, which has been similar to the peace clause in Agreement-on-Agriculture (AoA) of the WTO. Two issues are

of concern here, one the transition period, and two, the geographical limit of 12 nautical miles.

The revised text articulates that the developing countries, including LDCs, may grant two years for phasing-out the fisheries subsidies relating to IUU fishing and overfished stock. However, this transition period is not agreed upon by the WTO Members. A common perception among some members that emerged from the negotiations of fisheries subsidies is that fisheries subsidies must be terminated at all costs and a time-bound exemption period is needed only for the artisanal fishermen in the developing world to prioritise conservation of the fisheries stock and promote sustainable use of the resource. A no-time bound exemption for small and artisanal fishermen is denied under these pillars. Whereas many developing nations are in favour of increasing the transition period for these Articles and hence, SDT is kept within the square brackets.

Additionally, small fishermen often go beyond territorial waters in search of fish in absence of any demarcation on the surface water to define the territorial sea from the rest of EEZ. India also contended in one of its submissions that though it does not endorse SDT for the illegal fishing component of fisheries subsidies negotiations, small scale and artisanal fishers may fish beyond 12 nautical miles, as it is not "illegal" and under national jurisdiction. The demarcation of 12 nautical miles should not hamstring the livelihood security of the small and artisanal fishermen. Hence, members may explore the option of extending the geographical limit to any other demarcating line between 12 and 200 nautical miles or EEZ which would ensure the economic and social wellbeing of the small and artisanal fishermen.

As discussed earlier, owing to the vulnerability of fisheries resources in IUU and overfished stock, the SDT provisions for the two have been kept strict in comparison to the third pillar. However, some Member countries have

not restrained themselves and have advocated reverse SDT under Article 4.3, under which subsidies may be granted, by any Member country, provided the Member demonstrates that such subsidies are being used for the rebuilding of fisheries stocks to a biological sustainable level. On one hand, countries are objecting to the waiver for LDCs under SDT provisions, this boundless exemption for all countries presents the irony within the overfished pillar of the text. Exemption under Article 4.3, under the name of the rebuilding of stock, would derail the entire purpose of prohibiting fisheries subsidies and SDG 14.6 in the first place.

5.4.2 SDT and Reverse SDT in Overfishing and Overcapacity Pillar

On similar lines, under Article 5.1, fisheries subsidies for overfishing and overcapacity are prohibited but not entirely. According to Article 5.1.1 flexibility to the prohibition is admissible for maintaining sustainable levels of fisheries stock. This Article is a reverse SDT, undermining the waiver provided to developing countries, including LDCs in Articles 5.4 and 6.1 and is likely to undermine the sole purpose of fisheries subsidies in this pillar. On one hand, the SDT for developing members, including LDCs, are subject to a transitional period and many other conditions, the reverse SDT, which would be used by resource-rich Members is permanent without any deadline. As also seen in the literature, Article 5.1.1, though meant for all WTO members, would practically benefit the resource-rich Members in the negotiations. As also experienced in AoA with the implantation of Green Box, resource-rich countries have the tendencies to open-up means to implement subsidies, which would allow fishing vessels of the resource-rich countries to subsidies and expand their sector (Mohanty and Gaur 2021, Wolfenden and Sengputa 2021). Interestingly, the explanation of the Chair and the debate under Article 5 is skewed towards SDT (Article 5.4) than on the reverse SDT (Article 5.1.1).

Under the overfishing and overcapacity pillar, the developing countries and the LDCs are exempted from prohibiting subsidies as prescribed in Article 5.4 of the revised text. The new and revised Text in November explicitly exempts LDCs from prohibiting fisheries subsidies under Article 6.1. However, for developing countries, it has raised various conditions. Discarding India's proposal, the new Text provides waiver for developing countries with a transition period where they can grant subsidies to overfishing and overcapacity stocks within its EEZ and in areas under competence of the relevant RFMO/A. Developing countries may also provide subsidies if their annual share in marine capture production does not exceed 0.7 per cent of the world. Moreover, they may grant subsidies to small and artisanal fishermen only up to 12 nautical miles, as also provisioned under SDT for IUU and Overfished pillar.

This revised text has many contentious issues, including an increased role of the Food and Agriculture Organisation (FAO) as the WTO would consider data issued by the FAO for accounting countries' share in global marine capture production. The conditions depending on the scale of fisheries do not provide an international definition on low-income, resource-poor and livelihood fishing and related activities, making it a self-judging standard. This further can be used as a measure for exemption of harmful fisheries subsidies and would repeat the example of the determination of low-income people in AoA.

Moreover, the inputs of the fishing sector are internationally traded goods, which necessitate dismantling any definitional asymmetries relating to flexibilities in fisheries subsidies. Therefore, an international benchmark or definition of artisanal fishers is required in the WTO agreement on fisheries subsidies for providing a level-playing field to the developing countries. Nevertheless, there is no consensus on the SDT clauses of the proposed text. For bringing sustainability back in the fisheries

sector negotiation, resource-rich countries should share more responsibility under the 'polluters to pay' principle. It is important to understand the fishing management system of member countries and their regulatory provisions under fish subsidy. For several resource-rich countries, there has been a general tendency of these countries to give subsidies to their fisherman even at the cost of others. It is difficult to differentiate between various forms of fisheries subsidy (i.e., good, bad, and ugly) and their future implications on overcapacity and overfishing, leading to depletion of fisheries stock. The bottom line could be scaling down per capita fisheries subsidy to a uniform level based on the principle of equity and equality.

5.5 Unresolved issues before the MC12

5.5.1 Capping Reverse SDT

The reverse SDT provisions in Articles 5.1.1 and 4.3 are based on the 'demonstration' by the subsidiser that maximum sustainable yield (MSY) is maintained as shown in certain 'indications' as put in June 30 draft. Many members have questioned the efficacy of such indicators and have cast doubts about the credibility of such indicators. As 10 big subsidisers are the cause of the present state of the global fisheries stock, the persistence of their unrestricted overfishing and overcapacity activities would not only result in overfishing stock but also spread of jellyfish along the coastal area, threatening the lives of people engaged in coastal activities. In this context, reverse SDT may be entirely abnegated from the Agreement, and if at all considered for retention, it may be for a very short and limited period. It is observed from the global experience that fisheries subsidy regime has not helped the sector in raising the overall global fisheries stock, and therefore, fisheries subsidy in any form is to be removed completely within a short period. No blanket waiver to be allowed to any country and all MSY - enhancing programmes

are to be subjected to scrutiny by the WTO committee for a limited time period with periodic review to examine the efficacy of FS. Irrespective of the nature of fisheries subsidy, it should not extend beyond the national jurisdiction of EEZ of a subsidising country.

5.5.2 Fishing activities in the territorial water

Definition of IUU fishing under Article 3.1 is inconsistent with Article 3.8, referring to 'territorial water'. A country has a sovereign right to undertake fishing activities up to EEZ and therefore, fishing related operations within the 200 nautical Miles are not 'illegal'. Since there is no physical demarcation existing between waters up to territorial sea and beyond, India suggested to separate 'I' (i.e. illegal) from 'UU' as they are not commanding the same status where crossing the demarcation line of territorial water is not illegal but could be 'unreported' and 'unregulated'. If IUU fishing is considered as a single undertaking and each word in the phrase 'IUU' commands the same legal cover, then to justify 'I', territorial demarcation should be permissible up to EEZ in Article 3.8. If this is the case, Article 4.4 may be amended accordingly to make it consistent with Article 3.8.

5.5.3 Definition of "Resource-Poor" Critical for Identifying Beneficiaries

The principle behind subsidy to 'resource poor' fishermen is to support them to acquire inputs that may help them in maintaining their livelihood and securing food security. In a globalised world, tradable goods command similar prices across global. All resource-poor fishermen across the globe should get equal opportunity in accessing a similar level of resources to procure a similar bundle of inputs to maintain their livelihood. This can only happen when the per capita cut-off point is based on constant US dollar. It may be recalled that the definition of 'poor' under the Marrakesh Agreement was discriminatory

in nature where the global cut-off point in dollar terms was not adopted and therefore, several needy people in several countries were deprived of securing state support under the bracket of 'food security' provision. This was a discriminatory provision for poor people under Agreement on Agriculture (AoA). In the MC12, FSA should define resource-poor fishermen based on US dollar in constant terms and not using certain local criteria so that each of them can get equal opportunities to access various fishing equipments such as boat, net, bait, gear, among others from the international market. Such tradable products command similar prices whether from the domestic market or imports.

5.5.4 Equality in the distribution of Fleets

In the earlier fisheries subsidy regimes, 10 highly subsidised countries could raise a formidable set of fisheries fleets over the past decades. As ship-building industry has been exonerated from subsidy discipline, the only industry in the manufacturing sector, responsible for building fleets for fisheries catch on the high seas, as fisheries hardware infrastructure in these countries is well developed. In this regard, the US, the EU, and Japan are ready with a large number of fishing-fleets. Other countries, who have not accessed such opportunities, like Indonesia, India, etc. should also get opportunities to raise similar fleets for promoting industrial fishing. It is a saying that big fishes die in their old age in the deep water. Many countries have not developed their own fleets of fishing vessels for which they have refrained from accessing fish catch in the deep water, particularly within their EEZ. The present FSA should not deprive them of developing their fishing culture but provide them the opportunity to develop their industrial fishing sector. The present global crisis of depletion of fisheries stocks and overcapacity have been the handiwork of the top 10 countries as quoted repeatedly from the literature. The ideal solution could be to cap on the expansion of number of fishing fleets of the

top 10 countries with a view of control of further depletion of fisheries stock and restoration of depleted species at the MSY level. On the contrary, countries having an inadequate size of fishing-fleets are to be permitted to maintain a fleet according to the size of the coastline and EEZ. A flexible approach may be adopted for these countries in developing their industrial fishing sector.

5.5.5 'Fisheries Fund' for Technical Assistance and Fish Replenishment on the High Sea

Following the signing of the Agreement on Fisheries Subsidy, there may be a need for creation of a statutory 'Fisheries Fund' to address various requirements to maintain maximum sustainable yield (MSY) in the ocean space. In several areas, more efforts are to be made to fasten the process of reaching MSY level where there are reporting of slow progress. LDCs have been in need of technical assistance to measure and maintain MSY within their geographical boundaries. Similarly, other groups of countries from developing countries including SIDS are also in need of such technical assistance. Resource-rich countries are pushing the agenda of extending fisheries subsidies beyond their geographical jurisdiction and extending such activities on the high sea. Such activities relating to the high sea should be extended to some other institution/agency rather than to the resource-rich countries. For running programmes for the conservation of fisheries resources at the MSY in the deep ocean, particularly areas not falling within the jurisdiction of any country's EEZ, some multilateral agency may be entrusted to carry out the needed work and resources may be drawn from the proposed 'Fund for Fisheries Conservation'. Since protection and conservation of fisheries stock in the deep ocean is a common cause, therefore, it should be managed through the principle of common but differentiated responsibility. Some arrangement of raising resources for the proposed fund may

be conducted by adhering to the above principle for sustainable use of global fisheries resources. The November Text provides a mechanism for voluntary funding for technical assistance for the developing countries, including LDCs in Article 7. However, given the importance of technical assistance to such countries, the fund should be made statutory in nature.

5.5.6 Review Mechanism of the Text of FSA

A mandatory periodic review mechanism has to be put in place in the FSA. After 20 years of negotiations, a huge divergence of opinions exists between resource-rich and resource-poor members because of the asymmetric nature of the November Text. For commencement of the MC12, there is hardly less than a week to go, but there are sharp differences of opinions existing on diverse issues such as reverse SDT, period of waiver to resource-poor countries, definition of resource-poor fishermen, issues of territorial water and EEZ, limits of Articles 4.3 and 5.1.1 among others. Since May 11, new proposals have also been entertained by the WTO and some of them received from dominant players like the US to restrain 'forced labour' on vessels and such proposals were already accommodated in the November text, keeping other proposals waiting for their turns to come. The Chair already aired his views about such trends and cast doubts about the possibility of accommodating these proposals in the Final Text. The grave concerns shown by several members regarding reverse SDT, particularly Articles 4.3 and 5.1.1 are yet to be resolved in evolving a compromising formula. Some members have expressed their sense of concern towards the Chair's indirect support to the Articles because he has never mentioned anything about members' concern in the earlier Draft Texts including Draft November Text. There are apprehensions that certain temporary solutions may surface as a stop-gap

arrangement from the green room, but that may not be the most enduring one to salvage the situation. Considering these factors in mind, a provision for periodic review clause of the FSA should be embodied in the Agreement. Since many of the targets discussed in the Draft Text are cardinal in nature, solutions to these issues may be subjected to periodic review with a time interval of 2/3 years, for perfect implementation of the Agreement. The agenda on the periodic review process was grossly violated in the Doha Development Round and should not miss this time.

5.5.7 Provision for Dealing with Emergency Situation

Pandemic has greatly affected the world economy, particularly in several resource-poor countries. For the affected economies, the May Draft Text presented a provision under which disaster management in Article 11.3 may provide cushion to these economies. The coverage of the provision under FSA should be expanded to cover up other global or national emergencies including pandemic under Article 11.3. The provision should provide relief to the affected countries and should avail the option of "zero year" facility under which all commitments made by the affected countries to the WTO in the affected years may be exonerated from complying with them. The nature of national/global emergency may differ from one country to another, and such emergency situations may be notified from time to time to the WTO. It may be noted that the objective of the WTO is to restore orderly trade practices between member countries. In case, some members are not in a state to comply with their global commitment because of an emergency, which is temporary in nature, WTO provisions can extend relief, which cannot be taken up to the dispute settlement panel for redressal.

5.5.8 Towards complete phasing out of Fisheries Subsidy

A good subsidy promotes conservation and enhances fisheries stocks, without creating distortion in conservation and income distribution of fishermen. It would be difficult to differentiate between welfare-enhancing good subsidy programmes and their execution. In that case, such subsidy requires regular monitoring of their implementation physically, otherwise, serious lapses may occur even though the subsidy programme is meant for a short period. To avoid the possibility of good subsidies falling into bad hands, subsidies in all formats should be capped permanently (i.e., good, bad, or ugly fisheries subsidies) after the transitional period is over which is meant for both resource-rich and resource-poor fishermen. The experience of member countries indicates that subsidy, be it at the conceptualisation stage or at the stage of implementation, is likely to be bad. As long as fisheries subsidy in any format is not abrogated completely, complying with scrutiny norms of fisheries management programmes, monitoring of subsidy utilisation and other related activities, are to be subjected to regular scrutiny by a committee of the WTO.

It may be noted that in the UN SDG 14.6 and MC10 and MC 11, there was unanimity in extending subsidies to LDCs and developing countries. But enhanced fisheries subsidy through reverse SDT under Articles 4.3 and 5.1.1 in the November Text is not consistent with the spirit of UN SDG and other ministerial declarations since 2015. Through reverse SDT the benefits received by resource-poor and LDCs may be fully nullified. If fisheries subsidy is not permanently capped, very soon we can see fishing vessels everywhere including doorsteps of each one's coastal waters. It is the responsibility of developing countries to endorse a proposal for the complete banning of fisheries subsidy after a transitional period and such transitional period may be similar for resource-poor and resource-rich countries.

For LDCs and SIDS, fisheries subsidy is to be extended permanently without bringing any ambiguity in the text.

5.6 Way forward

The fisheries subsidy negotiation is at a crossroads after two decades of intensive discussion on most of the contentious issues relating to the sector. After the release of the Draft Text, there was widespread speculation about an early solution to the FSA during the mid-July Mini-ministerial or in the mid-October negotiations. It was a big surprise after the release of the Draft Text in November, where it was more tilted towards, contrary to the exceptions, the resource-rich countries and remained as a complete violation of the spirit of the UN Agreement on SDG 14.6 as well as decisions taken by the MC10 and MC11, to meet the expectations of LDCs and developing countries by suitably considering SDT provisions in the FSA to support resource-poor fishermen. The Draft November 8 was more tilted towards the resource-rich countries by advancing a clean mandate in the form of reverse SDT and thereby, squeezing the manoeuvring space of resource-poor countries in the negotiation, thus, casting doubts about the neutrality of the Chair in resolving the outstanding issues. With the divide between resource-poor and resource-rich countries, there is every doubt that the FSA is going to reach any comprehensive deal. In case such a standoff exists, the last-minute option for a resolution could be to 'take it up or leave it' to WTO members. With this expected option in hand, the prolonged negotiation for the FSA would face an abrupt dead end without any compromising formula. As days are nearing the MC12, concerns surrounding a successful conclusion of the FSA are compounding. In such a situation, the Chair can handle the situation with his neutral and unbiased intervention to resolve the impasse over the unfinished agenda of FSA. As a compromising solution, respecting the agenda of the resource-rich countries,

reverse SDT under Articles 4.3 and 5.1.1 should be accommodated in the Agreement for a temporary period before ending it permanently. Similarly, taking cognizance of the spirit of the SDG-14.6 and declarations of the past two MCs of the WTO, a solution- provisions of SDT for a longer period with fishing activities extended up to EEZ may be carve-out to avoid the present stalemate. A successful conclusion of the FSA is very bleak unless micro-management is undertaken on several issues suitable to both resource-poor and resource-rich countries with the sole objective of abolishing fisheries subsidies completely within a stipulated timeframe.

Endnotes

¹ <http://www.seaaroundus.org/data/#/feru>

² There are some developing countries like China, Russia, and South Korea which have a large fishing vessel capacity (Schuhbauer et al., 2017; Kumar et al., 2019).

³ TN/RL/W/213

⁴ TN/RL/GEN/54

⁵ TN/RL/W/232

⁶ TN/RL/W/276/Add.1

⁷ A detailed provision is underlined in Article 3.3 of the May Text.

⁸ TN/RL/GEN/200/Rev.1

⁹ Subsidies for construction, modernization, renovation, etc. of the vessels; subsidies for purchasing of fishing and fishing related machines and equipments; subsidies to costs of fuel, ice or bait; subsidies to costs of insurance, personnel, etc.; income support to operators and vessels or employer; price support of fish caught; subsidies for at-sea support; and subsidies for covering operating losses of vessels engaged in fishing.

¹⁰ TN/RL/W/276/Add.1

¹¹ TN/RL/W/276/Rev.1

¹² TN/RL/W/276/Rev.2

¹³ TN/RL/W/276/Rev.2

¹⁴ TN/RL/W/276/Rev.2/Add.1

¹⁵ Article 1.2 on fuel subsidies, Article 3.1 on addition in definition of IUU prohibition, Article 3.3 for alternatives for prohibition under IUU determination, Article 3.8 on SDT for transition period and geographical limit, Article 4.3 on flexibility or reverse SDT and indicators for rebuilding of fisheries stock and Article 4.4 on SDT, Article 5.1 on list of subsidies and Article 5.1.1 for reverse SDT, Article 5.3 on subsidies for vessels not flying flag of the subsidizing Member, Article 5.4 on SDT, Article 6.2 for LDC transformation period, Article 7 on technical assistance and capacity building, Article 8.2 on notification for use of forced labour and fisheries access agreements, Article 8.5 on notification regarding partying to relevant RFMO/A, Article 9.1 on formation of Committee and its role and Article 11.1 and 11.5 on final provisions.

6

WTO at 25: Issues and Prospects

On 1 January 1995, the World Trade Organisation (WTO) was created to promote global system of trade rules, serve as a forum for the members for negotiating trade agreements, help developing countries build their trade capacity and use trade as a means to achieve development in terms of raising living standards, create jobs and improve people's lives.¹ In the last 25 years of existence, the WTO has built phenomenal repository of knowledge on the successes and failures of global trade in a wide range of areas including ensuring greater participation of member countries in multilateral trade, streamlining trade policy with respect to tariff and non-tariff barriers, building institutions and capacity, reforms in trade facilitation, and perhaps eliminating trade barriers. Visible changes are observed in the scale and extent of participation of developing and least developed countries in global trade measured in terms of level and pace of growth of exports and imports. Many would tempt to attribute this success to the very establishment of WTO and its role in promoting global trade. Parallel to this process the number of Regional Trade Agreements (RTAs) and Free Trade Agreements (FTAs) have multiplied in the past two decades revealing the growing choice for

preferential trade by the countries. While co-existence of both forms of trade were viewed as complementary within the purview of Art. XXIV, the mushrooming growth of RTAs and FTAs with greater coverage of WTO-plus and WTO-extra issues seems to have questioned the relevance and efficacy of WTO as the apex body for governing multilateral trading system.

Barring the Trade Facilitation Agreement (TFA) in 2015, failure of the Doha Round and impasse over crucial trade policy issues in subsequent ministerial meetings further precipitated the debate over the grip of WTO over its primary role in promoting rule-based global trading system. Long and cumbersome negotiations have also fuelled the plurilaterals involving major trading nations on government procurement, services, investment, etc and perhaps to rise and gain legitimacy over burning trade (often non-trade issues), hence creating lobby over the business of WTO. In that context, this chapter attempts to assess the contribution of various agreements of WTO on agriculture, intellectual property rights, non-tariff measures, trade facilitation, etc in promoting global trade, gaps in those agreements in addressing the concerns of trading nations, and the possible areas of

reforms needed to make those agreements effective in the coming years.

6.1 Agreement on Agriculture (AoA)

The Agreement on Agriculture (AoA) formed part of the multilateral agreements entered into at Marrakesh² (at the end of the Uruguay Round negotiations in 1994) for setting up the global trade body. While agriculture was earlier covered under the General Agreement on Tariffs and Trade, 1947 (GATT), issues related to non-tariff measures such as subsidies and import quotas – which fell out of the ambit of the GATT – were leading to trade distortions and unfair competition. The AoA, aiming to reform farm trade, covers three main components: (i) ‘market access’ (through a ‘tariffication package’ including commitments on tariffs, special safeguard mechanism and tariff-quotas – that is, *‘lower tariff rates for specified quotas and higher rates for quantities exceeding the quota’* – to counter import restrictions); (ii) ‘domestic support’ (‘subsidies and other programmes, including those that raise or guarantee farmgate prices and farmers’ income’, *i.e., cutting amber box subsidies that directly affect production and trade, while allowing green box subsidies that have a minimal effect on trade and blue box measures including certain direct payment to farmers and developing country schemes to boost farm and rural development*); and (iii) ‘export subsidies and other methods’ (*these measures aiming to improve export competitiveness artificially are banned unless they are listed in the commitments of members and require to be reduced*).³

Agreement on Agriculture in WTO is required to be looked from the perspective of food security. The need of the hour is to develop a sustainable food system that would guarantee access to food for all, rather than looking at agriculture as another sector of the economy. The latest report by World Food Programme (WFP) notes that lifesaving and life-changing support were provided to 115.5 million people in 2020 and the number is increasing. An

estimated 811 million people are chronically hungry across the world and the scourge of hunger is showing up significantly in the urban regions as well. GATT, the forerunner of WTO provided special status to agriculture compared to the emphasis put on trade in manufactured products, indicating that the negotiators of the GATT were well aware of the unique political status that agriculture enjoyed in some major countries at that time.

The spirit of non-discrimination, reciprocity, transparency, use of tariff measures as against that of non-tariff measures as enshrined in the GATT negotiations were yet to be accepted by some major countries as applicable to the agricultural sector. The GATT allowed countries to use export subsidies on agricultural primary products, subject to the condition that members cannot capture more than an “equitable share” of world exports of products concerned (Article XVI:3 of GATT) whereas export subsidies on industrial products were prohibited. The GATT rules also allowed countries to resort to import restrictions (e.g. import quotas) under certain conditions, notably when these restrictions were necessary to enforce measures to effectively limit domestic production (Article XI:2(c) of GATT), subject to maintenance of a minimum proportion of imports relative to domestic production. However, in practice many non-tariff border restrictions were applied to imports without any effective counterpart limitations on domestic production and without maintaining minimum import access.

In the Doha Round negotiations, launched in 2001 and where agriculture reforms took centre-stage, there has been an emphasis on improving commitments of members on reduction of tariffs and subsidies on agriculture products (including ‘processed food and drink’, but ‘excluding forestry and fisheries products’). As part of the reform process, countries were required to implement their commitments in the agreement and be overseen by a monitoring process including ‘transparency

and peer review' mechanisms handled by the Committee on Agriculture (WTO, 2016). Given the sensitivities in agriculture and despite commitments and reiterations by the members, the reform process has, by and large, been stuck at various levels due to the difficulty in arriving at a consensus.

India, part of the G33 coalition of 47 developing countries, has been highlighting the need to correct the "deep imbalances" in the AoA that "favour developed countries" to ensure a "fair, balanced and development-centric outcome on agriculture at MC12" (Government of India, 2021). This 'inherent asymmetry' has been well captured by Davies et al. (2021) as *"developed countries such as the US provide vouchers to eligible people, in the order of USD 90bn in 2020, to purchase food at market prices. On the other hand, developing countries, being cash-strapped, must build stocks of food products and subsequently release them at administered prices to the target population. But stockpiling too is subjected to restrictions, which are being challenged at the WTO."* Referring to the importance of food security for developing countries, Davies et al (2021) suggests that *"efforts to revive agricultural reform processes at the WTO should prioritize a substantial reduction in the massive levels of trade distorting domestic support in developed countries as a prerequisite for further discussions on tariff liberalization"*. Though it has been agreed that the interim 'peace clause' will protect developing countries from being challenged in the WTO dispute settlement system for providing subsidies under the Public Stock Holding (PSH) programmes till a permanent solution has been agreed upon⁴, the issue has gained importance recently with some members questioning India for "the breach of its rice de minimis limit" when the country invoked the Bali Ministerial Decision on PSH.⁵

In the MC12, in addition to efforts aimed at an agreement on a permanent solution for PSH for food security purposes, the focus

areas include: (i) Special Safeguard Mechanism (SSM) for developing countries that would allow them to effectively use tariffs temporarily to counter import surges or price falls; (ii) transparency (including for cotton as well as for ensuring implementation of Nairobi Ministerial decision on export competition); (iii) trade-distorting domestic support (including for cotton); (iv) 'work programme on market access negotiations post-MC12' (non-tariff barriers, calculation of duties, etc.); and (v) export restrictions (including 'exempting World Food Programme humanitarian food purchases from export restrictions', as well as improving compliance with norms regarding notification) (WTO, 2021a). Among the suggestions were efforts to ensure that members agree on 'substantial reduction' of trade-distorting domestic support as well as on eliminating or prioritizing or eliminating Aggregate Measurement of Support above de minimis (or the 'minimum amounts of trade distorting domestic support that all WTO Members can use') as a first step in the negotiations.

It has also been suggested that 'COVID-19 related payments and the support under PSH programmes' (and during special circumstances such as the global health crisis) could be excluded from a 'stand-still provision for AMS above de minimis in the draft Decision on Domestic Support while negotiations continue post-MC12'. There were also demands to exclude from reduction commitment 'the provision of support to low-income and resource poor farmers.' Further, it was suggested that 'due consideration' must be accorded to the flexibilities required by the LDCs and net food-importing developing countries. Given the difficulties in obtaining domestic support-related data, there was a suggestion that the WTO Secretariat 'maintain and update on a regular basis a domestic support analytical tool on the WTO website as a publicly available resource.' As regards 'market access' negotiations, suggestions include 'flexibilities

for developing countries, treatment of non-tariff barriers and transparency including in respect of non-ad valorem tariffs⁶ as well as ensuring balance in the overall negotiations by linking the progress on this aspect with other pillars of agriculture, and even with elements outside agriculture.

Under discussions on transparency, one major issue has been the importance of addressing capacity constraints faced by the developing country members in complying with notification requirements through measures including simpler and easier notification formats as well as longer timelines. On the issue of PSH for food security purposes, it was suggested that a permanent solution should “cover all agricultural products and all public stockholding programmes for food security purposes, a footnote clarifying the (fixed) external reference price⁶, and include no notification requirement other than the existing ones”. There are persisting differences and uncertainties regarding whether a permanent solution could be agreed to during MC12 and whether there is a need for a work programme for the same. Regarding SSM, which is an issue concerning the livelihood of subsistence farmers and food sovereignty, there is a suggestion for members to agree to adopt “an interim SSM (for 6/9 years) at MC12 as a stopgap measure”

to help members to “gain practical experience with the operation of a safeguard mechanism and facilitate an informed appreciation of the impact an SSM may have on markets and trade” (WTO, 2021b and c).

Regardless of the divergence in positions observed on many issues and challenges relating to arriving at a consensus at MC-12, agriculture reform should be considered a matter of importance even in the post-MC12 phase given the need to ensure an economic revival from the crisis and to be on path to meet the SDGs. Additionally, members should also take into account the increasing regional and bilateral preferential trade agreements that to some extent undermine the WTO’s ability to tackle the issue of food security which is now considered a global public good (Beghin and Schweizer, 2021; Akdoğan-Gedik, 2020).

Countries, particularly in the developed world, resorted to market price support – farm prices were administratively raised. Import access barriers ensured that domestic production could continue to be sold. In response to these measures expanding domestic production of certain agricultural products not only replaced imports completely but resulted in structural surpluses that increasingly were looking for suitable channels for exports. Agreement on Agriculture was crafted to open

Table 6.1: Share of EU and US in Global Agricultural Trade (%)

Country/Region	1980	1990	2000	2005	2010	2015	2020
Exports							
EU	32.8	42.4	38.9	41.9	37.4	37.1	36.3
US	17.0	14.3	13.0	9.8	10.5	10.4	9.5
Combined	49.8	56.7	51.9	51.7	47.9	47.5	45.8
Imports							
EU	42.9	47.1	36.3	39.2	35.7	35.0	32.4
US	8.7	9	11.6	10.7	8.4	9.5	10.1
Combined	51.6	56.1	48.0	49.8	44.0	44.5	42.5

Source: International Trade Statistics, WTO, several issues.

up the necessary channels of trade. In fact, even almost 27 years after the establishment of WTO, the share of the EU and the USA in global exports and imports of agricultural products hovered between 45%- 55% (Table 6.1). Almost similar trend is observed in case o share in food trade, even though the shares in global food trade are marginally higher than that in total agricultural products (Table 6.2).

We may well argue that EU and US together enjoy high monopoly power in export market and considerable monopsony power in the import market of agricultural and food products. Such monopoly powers in exports are maintained by providing domestic support, public stockholding for food security purposes and special safeguard mechanism. Market access, non-tariff barriers including SPS and TBT are factors that enhance the power of these groups to enjoy their monopsony position in the import market. Incidentally, most of these are still not settled and led the Chair of the Committee on Agriculture to comment on November 1 2021 just before MC12 that “gaps remain on several issues, most importantly: (a) An option which can realistically provide a basis for convergence on PSH, a topic which will be addressed more specifically during the dedicated session after this CoA SS meeting; (b)

On Domestic Support, whether members can agree to pursue a numerical target or converge on an alternative language; the timeframe; a possible “standstill” provision; and how to address special and differential treatment for developing countries; (c) Possible immediate deliverables on improved transparency, including on shipments en route or advance notice for export restrictions; (d) A possible time-limited interim SSM, which will be addressed more specifically during the dedicated session after this CoA SS meeting; (e) The language on a possible exemption from export restrictions of WFP’s humanitarian food aid purchases; (f) And the possibility of including specific post-MC12 deadlines for some topics.

The argument is further evidenced as we consider the extent of producer support estimates as a percentage of gross farm revenues presented in Table 6.3. The US and EU continue to provide a considerable domestic support to their farmers, compared to some of their developing peers, with Philippines, China, Indonesia and Russia bucking the trends. A few developing countries are found to be consistently providing negative support to their producers. This is to be assessed further to take care of the considerably huge green box subsidies provided by the EU and USA.

Table 6.2: Share of EU and US in Global Food Trade (%)

Country/Region	1980	1990	2000	2005	2010	2016	2020
Exports							
EU	-	-	40.6	43.4	38.4	38.3	36.3
US	17.6	13.4	12.6	9.1	10.1	10.0	9.2
Combined	-	-	53.2	52.5	48.4	48.3	45.5
Imports							
EU	-	-	36.7	40.2	36.2	37.3	33.0
US	8.7	9.0	11.1	10.1	8.5	10.1	10.3
Combined	-	-	47.8	50.3	44.8	47.4	43.3

Source: International Trade Statistics, WTO, several issues.

Box 6.1 : Priorities for Agreement on Agriculture at MC 12

As global trade community gathers next in Geneva for the Twelfth Ministerial Conference (MC12), it is important to remind ourselves of lessons learnt from the COVID-19 crisis on food security front. According to a World Bank study, 72 countries show a significant number of people running out of food. Nearly 811 million people in the world went hungry in 2020. Local availability and supplies are important – a point that India has been pressing at various WTO meetings.

It is in this respect the MC-12 should address historical injustice that WTO has inflicted on developing countries. Unless MC12 appreciates and takes care of the ‘sentiments’, any meaningful progress is a far cry. Agriculture, ability to trade and livelihoods are far from being a sentimental issue for developing countries. The evidence and facts that support the historical injustice is profound and compelling. Everything else that the WTO does as its business is redundant if it fails the large constituency in developing countries that depend on agriculture for their survival. The survival of WTO in turn is dependent on the outcome of MC12. However, to answer the question whether MC12 would be successful we need to address the ‘historical injustice’ in agriculture. This is particularly crucial because ‘hunger’ is moving towards an all time high globally with deep vulnerabilities with regard to agricultural livelihoods in developing countries.

What constitutes this historical injustice? The list apparently is very long. The most prominent among them include the flawed formula of AMS (Aggregate Measure of Support) calculation. The definition and the method of measurement adopted for AMS in the Uruguay Round were full of problems. The AoA text calculates export subsidies with the base year period 1986-88 and allows key providers of export subsidies to continue with this support. On the other hand, it does not allow any country to provide export subsidies afresh which did not have the provision of export subsidy during the base year nor notify about such provisions for the base year in the country schedule. Implementation of this flawed AMS formula led to the little disciplining of domestic support to agriculture in major OECD countries. The WTO has failed to achieve one of the foremost objectives i.e. reduction in distortion in agriculture trade and regulating the subsidies regime faced with strong and continued resistance from the developed world. Moreover, dominance by the EU and the US in the agricultural markets is retained through a mix of domestic support, WTO mandated special safeguard mechanisms and host of non-tariff barriers like sanitary and phytosanitary measures and technical barriers to trade.

India has maintained that its AMS has been negative and that too by a very large magnitude and hence the question of notification did not arise then. Moreover, with the existing base year inflation is not taken into account and administered price as opposed to market price is counted as ‘support’. This reinforces the injustice as agricultural earnings are abysmally low in India and elsewhere and are increasingly vulnerable to the impacts of climate change as well. As of April 2021, India notified that it has exceeded the *de minimis* level for rice for the marketing year 2019-2020. India’s breach of commitment for rice, a traditional staple food crop, under Article 7.2(b) of the AoA is linked with the support provided as part of public stockholding programmes for food security purposes aligned with the Bali Ministerial Decision. India’s high standards of transparency should also set similar benchmarks for developed countries as well.

India is representative case of the entire developing world for whom a very large share of the population is dependent on this sector and are barely thriving on subsistence agriculture. India’s national Food Security Act of 2013 gave national legitimacy to supporting small farmers and the

country's priority for public stockholding for food security. India's championing the case at the WTO particularly the Bali Package and the Peace Clause are reflective of such priority. With the Covid-19 pandemic wrecking havoc on lives and livelihoods of the vulnerable sections as well as small holder farmers, a permanent solution to the issue is an urgent priority. The solution however has to be fair with adequate lessons from the past so that catastrophe similar to the AMS formula is not repeated. Any push to block the progress made under the public stockholding track would mean collapse of the trade negotiations.

Agriculture negotiations at the WTO have failed to bring in any convergence on the issue of domestic support with strong resistance from the leading Agriculture exporters. The proposals on domestic support emerging before the MC12 reaffirm positions of that of Cairns group. The stubborn posture in agriculture by developed countries is a negative match with their enthusiasm for WTO plus issues and plurilateral negotiations. India along with several other developing countries have made it clear that any meaningful reform process of the WTO should entail removing existing imbalances in the AoA and ensuring a level playing field, particularly for developing economies.

As WTO celebrates its 25th Anniversary at MC12, it is important to reconsider the need of making WTO relevant for contemporary world. In that sense, AoA has to be made compatible with the climate change challenges. The developed country agriculture, including the meat and dairy industry is contributing around 14.5 per cent of global green-house gas emissions. The AoA would have to be reformed to discourage 20th Century production structure and create new incentives for accessing modern, cost-effective technologies for greener and sustainable agriculture.

Food scarcity remained a constant threat to a section of mankind and remains even today. However, the recent COVID pandemic has enlarged the share of human population staring at a terrible food vulnerability. The report titled State of Food Security and Nutrition in the World published in July 2021 records that between 720 and 811 million people faced hunger in 2020, an increase by about 118 million compared to the number in 2019. The forthcoming ministerial in WTO and its embedded process of Agreement on Agriculture cannot overemphasize the need to consider the issue of long-term perspective on food security while arriving at a negotiated settlement. Two issues are in order. First, the issue of food security has to be incorporated in the agreement and second, a quick agreement is to arrived at without stretching the negotiations beyond the currency of the ministerial to a future undefined timeline.

It is worth noting that the Special Rapporteur on the right to food in his interim report (forwarded by the UN Secretary General to the General Assembly of the United Nations)

[available at <https://undocs.org/A/75/219>, retrieved on 15 November 2021], argued to look into the issue of Agricultural trade through the lens of right to food.

6.2 TRIPS

The Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS Agreement), 1994 had evoked much debate before and after finalisation and still continues to do so. For one, it has impacted economic activities all across and for another, its benefits have not flowed to all countries evenly. It was for the first time that Intellectual Property Rights (IPRs) entered into a major international treaty on trade and commerce. The subjects of IPRs like patents and copyrights were products of human brain in the areas of science, literature and art, whereas trade and commerce were dealing with mundane goods. Further, the IPR systems were national in nature and were considered as coming within the sovereignty of each country and had nothing to do with international trade. It was as a result of a long process that IPRs

got incorporated in a treaty under GATT. The beginning was with the Tokyo Round (1973-79) of GATT negotiations when the United States proposed in 1978 for a plurilateral agreement on trade in counterfeit goods. However, during that Round, the proposal could gain the support of the European Community only and was not included in the final agreements (WTO, 2015). The US, however, initiated the subject in the expanded form of IPRs early during the Uruguay Round (1986-94). The main reason for the same was the perception of the US industry losing its competitive edge in the manufacturing sector and that in intellectual property it was the global leader (WTO, 2015). Gradually, after much hesitation, most countries could be persuaded to include a treaty on IPRs in the final documents of the Uruguay Round.

The approach adopted in the TRIPS Agreement was to incorporate the substantive provisions of existing major IPR treaties such as the Paris Convention for Protection of Industrial Property (1883-1961) and the Berne Convention for the Protection of Literary and Artistic Works (1886-1971). It also added certain new provisions in the light of new technological developments like computer software and digital technologies. In the case of inventions, the treaty made the grant of patents to both products and processes which satisfy the conditions of novelty, inventiveness and industrial application mandatory. The Agreement also enhanced the period of patents to 20 years uniformly. Another important addition was the inclusion of service marks within trademarks. Protection of Geographical Indications of Goods, which until then was either voluntary or covered by bilateral treaties, was also made into a minimum obligation.

Before IPRs came under the ambit of the World Trade Organisation (WTO) they had been with the World Intellectual Property Organisation (WIPO) and the UNESCO only. The new regime added a major new dimension to the enforcement of IPRs, in that countries

have to put in place elaborate border measures. Further, TRIPS related obligations also came under the WTO Dispute Settlement Mechanism. So far 42 cases relating to TRIPS Agreement came up before the Dispute Settlement Body, of which India was the complainant in one involving the European Union⁷. This was a case relating to the seizure of Indian generic drugs in transit through the Dutch ports and airports. India was a respondent in two cases involving patent protection legislation in 1996 and 1997.

One of the concerns of developing countries during the Uruguay Round was the impact of the new agreement on public health. The TRIPS Agreement, therefore, incorporated many provisions to address these concerns. In Article 7 regarding objectives, it has been laid down that the protection and enforcement of IPRs should be in a manner conducive to social and economic welfare and a balance of rights and obligations. Further, in Article 8 where the principles have been laid down, it has been stated unambiguously that members may “adopt measures necessary to protect public health and nutrition.” Detailed guidelines regarding the use of patents without authorization have also been laid down in Article 31 indicating the general thinking of the negotiators to take care of public health emergencies. However, soon after the agreement came into effect in 1996, questions were raised on the interpretation of the provisions. This led to the WTO Doha Declaration on Public Health in 2001. It affirmed that “the Agreement can and should be interpreted and implemented in a manner supportive of the WTO members’ right to protect public health and, in particular, to promote access to medicines for all.” Even after such a clear statement, occasionally issues are raised about the use of the compulsory licence, limited though they are, by countries to address public health emergencies or to make affordable access to medicines for the poor. The WTO members agreed in 2003 to incorporate a new Article 31 *bis* to the Agreement incorporating a provision

enabling countries without manufacturing capabilities to issue a compulsory licence for a drug to get it manufactured in another country with such capabilities. The amendment entered into force on 23 January 2017, after a very slow ratification process, and it was the first change to a WTO agreement.

Few issues relating to IPRs continue to occupy discussions in the TRIPS Council even now. The first set relates to patents. The triplet of issues deal with (i) patentability or not of certain inventions relating to plants and animals (life patents), (ii) the inter-relationship between TRIPS and the Convention on Biological Diversity 1991 (bio-piracy), and (iii) protection of traditional knowledge. Major concerns underlying the three issues are the protection of human life, sustaining the environment and bio-piracy. There is a general agreement on

the objectives of these discussions, namely, the need to avoid inappropriate patenting and misappropriation of genetic resources or traditional knowledge. However, there is no agreement yet on the methods and treaty provisions for achieving the same.

The provisions relating to protection of geographical indications (GIs), unlike other IPRs, created two sets of rights, namely, a standard level of protection for all goods and a higher level of protection for wines and spirits. The TRIPS Agreement also proposed negotiations regarding the establishment of a multilateral system of registration of GIs for wines. However, many countries proposed a uniform level of protection for all GIs and unless this is settled the negotiations on a multilateral register cannot make any headway.

Another unsettled issue in TRIPS is the

**Table 6.3: Producer Support in Agriculture US, EU and Developing Countries
(% Share of Gross Farm Revenue)**

Country	1990	1995	2000	2005	2010	2015	2020
US	15.40	9.16	21.38	14.65	7.97	8.94	11.03
EU	31.99	33.40	30.33	28.58	19.33	18.77	19.33
Argentina	0.38	-24.49	-28.03	-30.88	-18.80
Brazil	..	-16.87	9.08	8.77	6.41	2.40	1.35
China	..	5.65	3.52	8.02	12.68	16.07	12.17
India	1.79	-12.35	-14.77	-3.60	-7.62
Indonesia	..	4.94	6.23	3.42	21.28	26.26	20.16
Kazakhstan	..	10.94	11.21	14.05	8.04	11.34	3.14
Philippines	23.65	15.66	22.42	26.97	26.93
Russia	..	13.44	2.40	12.81	19.87	12.72	6.68
South Africa	..	14.49	5.71	6.95	1.92	4.96	2.76
Ukraine	..	-23.82	-0.69	8.78	5.25	0.54	1.38
Viet Nam	7.37	7.97	8.81	-2.44	-6.04

Source: OECD Producer Support Estimate Database, 2021.

applicability of non-violation complaints in the area of IPRs. The provision making the Dispute Settlement Undertaking applicable to IPRs was made with a moratorium on non-violation complaints (Article 64). The TRIPS Council was to examine the issue and make recommendations to the Ministerial Conference. However, in the absence of a consensus, the period of the moratorium was being extended from time to time.

One more issue before the TRIPS Council is regarding the provision on technology transfer which required the developed countries to facilitate dissemination and transfer of technology. Very little headway has been made in this regard, probably because technologies are mostly with private parties. The issue has now become particular importance given climate change concerns and commitments made by countries in the Paris Climate Agreement in 2016. Developing countries are in a quandary because of their commitments to reduce carbon footprint and the high cost of the technologies for the same.

During the TRIPS Council negotiations, countries generally fall into two categories, though in some issues there are more than two groups. The developed countries are arguing for stronger IP enforcement commitments by members and expanding the scope of IPRs, particularly patents. Such provisions are getting incorporated in bilateral and certain regional agreements which are a blow to the multilateral system. In the debate on private rights *versus* public interest, their bias is more towards stronger private rights. The developing countries on the other hand argue for greater stress on public interest. They are of the view that the protection and enforcement of IPRs should contribute to technology transfer in a manner conducive to social and economic welfare. They do not favour taking up new issues of patent reform including term extension or opening the doors for non-violation complaints in TRIPS. In the area of geographical indications, EU

countries have been urging on taking up the negotiations for a multilateral register for wines, whereas many countries feel that standardising the protection should first be settled and that a register can be for all products. Given the current impasse in the Council, there is very little hope for a consensus in the near future on IPR issues. Even the discussions in WIPO are also under stalemate.

The COVID-19 pandemic has impacted the TRIPS Council negotiations in a rather unexpected way but that owes to the fundamental fault lines of the Agreement which could not be fully addressed even with the Doha Declaration on Public Health. The global epidemic seriously challenged the sufficiency and competency of healthcare systems in all countries. To meet with the issue of availability of medicinal products, India and South Africa moved a proposal under Article 9 of the WTO Agreement, for a waiver of obligations on copyrights, industrial designs, patents and trade secrets in relation to health products and technologies for the prevention, treatment or containment of COVID-19 for three years with a proviso for an annual review on the duration.⁸ The proposal with 63 co-sponsors has moved to text-based negotiations. A feature of the negotiations on this is that on both sides one can find developed and developing countries. It signals moving away from the bipolarity of the North versus the South, reflecting new global realities. At the same time, the alternative being proposed by the EU countries that use of TRIPS flexibilities creates a major hurdle, besides it being a more restrictive interpretation of the flexibilities than the one made by the Doha Declaration on Public Health (2002).

In view of the challenges posed by climate change to the environment and human health, and also the commitment of countries to sustainable development goals, there is a need for countries with technologies to be more accommodative of the other countries. The COVID-19 pandemic has also created new

**Table 6.4: SPS Measures Imposed in Agricultural Trade, 2009-2020
(either initiated or entered into force)**

		2009-2014								2015-2020							
Code	HS Product description	SPS	TBT	ADP	CV	SSG	SG	QR	TRQ	SPS	TBT	ADP	CV	SSG	SG	QR	TRQ
	Total	5786	9002	1490	173	248	132	801	9	7466	11378	1436	216	3	151	458	0
S00	Measures without HS code	2045	3627	8			2	1		2139	2722	64	7		122		
S01	Live animals and products	1588	605	8	10	154	5	179	4	2362	1060	3	2	1	1	70	
S02	Vegetable products	1689	965	15	1	138	8	128		2471	1311	2	3	1	2	48	
S03	Animal and vegetable fats, oils and waxes	226	303	5	5	9	1	75		572	516	1	8			9	
S04	Prepared foodstuff; beverages, spirits, vinegar; tobacco	865	1466	19	12	181	10	96	5	1382	2237	21	6	3	2	38	
S05	Mineral products	18	321	14	6		2	120		27	705	23	5			41	
S06	Products of the chemical and allied industries	415	1010	299	30	5	19	399		499	2172	277	26		2	188	
S07	Resins, plastics and articles; rubber and articles	83	670	218	17		9	88		86	1247	194	23		2	19	
S08	Hides, skins and articles; saddlery and travel goods	10	24					80		49	85					24	
S09	Wood, cork and articles; basketware	44	130	40	2		3	86		53	191	19	9			22	
S10	Paper, paperboard and articles	6	81	62	5		10	71		15	182	56	6		5	25	

Table 6.4 continued...

Table 6.4 continued...

S11	Textiles and articles	21	141	101	9	2	14	80		72	340	86	8	1		18	
S12	Footwear, headgear; feathers, artif. flowers, fans	3	57	5				52		4	164	3				15	
S13	Articles of stone, plaster; ceramic prod.; glass	6	418	89	5		12	62		23	632	62	11		4	17	
S14	Pearls, precious stones and metals; coin	4	8					87		7	17					27	
S15	Base metals and articles	14	606	469	77		35	93		67	855	543	97		17	26	
S16	Machinery and electrical equipment	63	1854	132	14		7	172		321	2511	91	14		2	60	
S17	Vehicles, aircraft and vessels	8	468	25	7		1	97		69	758	27	9		1	20	
S18	Instruments, clocks, recorders and reproducers	7	495	19			1	121		11	833	17				29	
S19	Arms and ammunition	1	21					96		45	29					30	
S20	Miscellaneous manufactured articles	6	663	20	3			95		24	907	27	10			98	
S21	Works of art and antiques	1	13					66		18	10					21	

Source: WTO Data

Table 6.5: Nature of WTO Disputes, 1995-2020

Agreements Raised in WTO Disputes (No.)	1995-2020
GATT 1994	488
Anti-Dumping	137
Subsidies	130
Agriculture	80
TBT	54
SPS	47
Safeguards	60
Licensing	49
TRIPS	42
TRIMS	45
GATS	30

Source: WTO

hurdles for development. In such a situation, the TRIPS regime may require a relook to adapt it to current realities.

6.3 Non-Tariff Measures

Sanitary and Phytosanitary Measures

WTO has given its utmost priority to transparency, and the organization has been working on establishing a transparent trade among the members. According to Article 7 of the SPS agreement, members shall notify changes in their sanitary or phytosanitary measures and shall provide information on their sanitary or phytosanitary measures in accordance with the provisions of Annex B (WTO Members' transparency toolkit). Since 1995, SPS notification submission has been on an upward trend where member countries have submitted at least one notification. These notifications help the trade partners to reduce the potential conflicts relating to food safety, animal and plant health in trade. In 2020, WTO members submitted 2122 SPS notifications

which is an all-time high submission.

Developing countries' notification has been on a rising trend since 2000 and their share surpassed developed countries' notification in 2008 which has been maintained since. This confirms the growing commitment and participation of the developing member countries towards the transparency obligations of the SPS Agreement. Brazil submitted the highest number of notifications with a share of 23 per cent of the total notifications, and Tanzania was the only LDC among the top ten notifiers with 4 per cent share in 2020.

Trade facilitating notifications that help smoothen the agricultural trade among the trading partners doubled in 2020 compared to 2017. Out of total emergency notifications in 2020, 84 per cent were related to animal health, and out of total notifications more than two-third were related to food safety. 36 new specific trade concerns (STCs) raised by 14 member countries were discussed in SPS committee in 2020 which is highest since 2003. Out of 36 STCs, 16 are concerned with safety measures and 13 are related to other concerns like certification, inspection and approval procedures and remaining are related to plant and animal health. Since the inception of SPS committee, more than half of the 505 STCs discussed have either been resolved or partially resolved till 2020 which reaffirms the importance of the committee as a forum to resolve the trade related issues.

The number of disputes raised in WTO relating to SPS measures and the nature of disputes are presented in Table 6.5 and 6.6. Anti-dumping cases dominate the disputes followed by subsidies.

During the COVID-19 pandemic food, plant, and animal safety measures hold more significance than ever. The WTO members participated in the discussion on SPS measures. Over 230 delegates participated in March, 2021 meeting concerning the proposal for a Sanitary and Phytosanitary Declaration for the

Table 6.6: WTO Handling of SPS Disputes
(Number of Disputes by Stage in the Proceedings)

Actions	2016	2017	2018	2019	2020
Appeals notified ***	7	7	10	4	4
Appellate Body Reports adopted	5	5	3	4	4
Appellate Body Reports circulated**	5	5	4	5	3
Mutually agreed solutions or withdrawals notified	2	1	0	6	0
No of disputes covered by Appeals notified	7	10	10	4	4
No of disputes covered by Appellate Body reports adopted	5	6	4	5	5
No of disputes covered by Appellate Body reports circulated	5	6	6	5	4
No of disputes covered by panel reports adopted	6	10	9	8	6
No of disputes covered by panel reports circulated	11	11	14	11	5
No of disputes covered by panels composed	6	8	10	29	10
Number of disputes covered by panels established	8	10	28	13	7
Panel Reports adopted	6	9	8	7	6
Panel Reports circulated*	10	9	11	11	5
Panels composed	6	8	11	27	10
Panels established by DSB	8	10	28	11	7
Requests for consultations	17	17	38	20	5

Source: WTO

12th Ministerial Conference. Key highlights of the discussion were adapting to population growth, climate change and technological innovation. Members also proposed including additional aspects in the proposal, such as sustainable food systems, biodiversity, animal welfare and consumer expectations, and to frame the text within the wider context of other WTO agreements. COVID-19 being the highlight of the discussion, WTO secretariat reported total of 86 COVID related SPS notifications by the members. Reports by World Health Organisation (WHO), Food and Agriculture Organisation (FAO), and other organisations were also brought in concluding the lack of evidences proving food as a source of COVID-19 virus. Concerns relating to testing and certification requirements for imported food

products by members were also highlighted.

Private standards are outside the scope of SPS agreement; however, some members believe that private standards fall within the jurisdiction of the SPS committee suggesting that these issues should be on the committee agenda. Besides, it is suggested that private standard information exchange should take place on the margins of the Committee meetings. Country's protection level should not be set by the private sector, for that SPS committee can play a vital role in setting up the standards for a fair international trade. A regional capacity building workshop on food waste by UNEP from its pilot study noted that significant losses being incurred by producers due to overly stringent food safety requirements. Major recommendations by fifth review on SPS are

following: Appropriate level of protection, risk assessment and science, Control, inspection and approval procedures, Equivalence, Fall armyworm, National SPS coordination mechanisms, Notification procedures and transparency, Maximum residue levels (MRLs) for plant protection products, Regionalization, Role of the Codex Alimentarius, the World Organisation for Animal Health (OIE) and the International Plant Protection Convention (IPPC) in addressing specific trade concerns (STCs), and Voluntary third-party assurance schemes.

Technical Barriers to Trade

Members discussed 86 specific trade concerns, of which 19 were discussed for the first time. Following are the major new concerns reported by the member countries. Environment and climate change are new concerns discussed in WTO with a focus on carbon footprint, the use of recycled input materials, the classification of hazardous chemicals, and plant protection. The products covered include batteries, biofuel, chemicals and pesticides.

- *Russian Federation* - On Safety of Wheeled Vehicles
- *Colombia–Biofuels Decree*: The Decree imposes a mandatory minimum B12 biodiesel blend. The measure will negatively affect EU car exports to Colombia. If the combination of the fuels available and the mandatory emission limits in Colombia requires a specific production for Colombia, then this will result in a reduced availability of vehicle models and at higher prices in Colombia.
- *Colombia–Good manufacturing practices of overseas production establishments*: The recently adopted decree no 162 of 16 February 2021 (which modifies the decree 1686/212), establishes a requirement to provide a Good Manufacturing Practices certificate for alcoholic drinks. A clarification is required about alternative documents

(such as free sales certificates) that may be accepted for this purpose, in order to avoid unnecessary burden for authorities and operators in addition to already existing obligations.

- *European Union* - Uniform procedures and technical specifications for the type-approval of motor vehicles with regard to their emergency lane keeping system

6.4 Trade Facilitation Agreement

The importance of trade facilitation reforms has been increasing in a globalized world characterized by intra-industry trade. These reforms were undertaken by countries at individual level under different trading agreements. The Trade Facilitation Agreement under the aegis of WTO provides a harmonized and standardized approach to these reforms. The agreement draws basic features from relevant GATT frameworks and other WTO agreements, as well takes an innovative approach towards Special and Differential Treatment (S&DT) of Developing and Least Developed Countries (LDCs) for effective implementation of the agreement. Literature suggests that most of the benefits of these reforms would accrue to developing world. However, countries are facing implementation challenges because of both domestic and external factors. In this context, technical assistance from developed countries is essential. The gap could also be bridged by developing countries which have made significant progress in this area. The next opportunity in the field of trade facilitation could come from harnessing of new technologies like blockchain and Artificial Intelligence (AI). However, thorough understanding of issues including regulatory, technical and legal issues is necessary for wider application of these technologies. The WTO shall undertake detailed stakeholder consultation in this regard to remove knowledge deficit and countries at their individual level may carry-out domestic assessment of benefits and challenges in utilization of new technologies.

Benefits of Trade Facilitation

Trade facilitation has multi-dimensional benefits. Firstly, it reduces the trade costs⁹ which are disproportionately higher for developing countries in Asia and Africa. These countries generally export intermediate goods and raw materials, but cumbersome customs procedures, logistics inefficiencies and port delays are the biggest factors blocking developing countries from integrating into global value chains. Secondly, trade facilitation results in increase trade flows, export diversification¹⁰, rise in GDP and consequently promotes job creation. Improvement in trade facilitation has larger positive impact on developing countries because they face higher levels of trade barriers, have comparative advantage in exports of time sensitive agriculture goods which are impacted by border delays. They also specialize in exports of intermediate goods traded between global value chains present across borders and these goods are highly sensitive to improvement in trade facilitation reforms. Such reforms also lead to greater participation of Small and Medium Enterprises (SME) in international trade because reduction in trade costs make participation of smaller and relatively less productive firms feasible. The SME profits mainly from improvement in soft infrastructure whereas large firms benefits more from improvement in hard infrastructure (Li and Wilson, 2009)¹¹.

The implementation of trade facilitation reforms also generates secondary effects. Improvement in trade facilitation attracts inward Foreign Direct Investment (FDI) in developing countries. In case of horizontal FDI, simplified trade regulations make investment as more lucrative option in comparison to exporting goods to host country. On the other hand, vertical FDI is dependent on exports and imports as a part of chain. Thus, improvement in trade facilitation increases the probability of vertical FDI flows. Trade facilitation reforms also have potential to increase government

revenues because of increase in regulatory compliance and rise in trade flows. Besides, trade facilitation increases transparency and reduce discretion of custom officials therefore it reduces customs fraud and corruption.

The full implementation of Trade Facilitation agreement will reduce the trade costs by 14.5 per cent on average and this reduction in trade cost would have bigger impact than reducing all MFN tariff to zero (Moisé and Sorescu, 2013)¹². These findings have been confirmed by a more recent study in the context of Asia-Pacific which suggest that full implementation of binding and non-binding commitments under trade facilitation agreement would result in reduction of trade cost by 15 per cent (Duval et. al, 2018)¹³.

The CGE based simulations predict that full implementation of TFA would increase world exports in the range of USD 750 bn to USD 1 trillion. Over the period of 2015-30, the average annual increase in export and GDP due to implementation of TFA could be 2.7 per cent and 0.5 per cent respectively (World Trade Report, 2015)¹⁴. A recent study considering general equilibrium effects suggest a modest scenario. The full implementation of TFA could increase world trade by USD 344 Bn with corresponding increase in global real output by 0.15 per cent (Kumar & Shepherd, 2019)¹⁵. However, the increment in export and GDP is still significant.

Moreover, implementation of TFA has significant impact on export diversification of developing countries including LDCs. In case of full implementation of TFA, export of products by destination for LDC shall increase from 32.9 percent to 35.6 percent and the export to destination by products would increase from 39.2 per cent to 59.3 percent (World Trade Report, 2015)¹⁶. Another study estimates that full implementation of TFA will reduce time to import and export by 47 per cent and 91 per cent respectively (Hillberry & Zhang 2015)¹⁷.

Current Status of Implementation of TFA by Member Countries (A, B, C categories)

Given enormous benefits of trade facilitation reforms it was recognized that having a multilateral agreement on the issue is the best way forward in order to ensure standardized approach across nations. The formal engagement on the issue of trade facilitation started under the aegis of WTO in 1996 during Singapore ministerial followed by launch of formal

negotiations in 2004. The basis of negotiations was relevant provisions of GATT under the Articles V, VIII and X. The negotiations were finalized during Bali Ministerial Conference in 2013 and the agreement came into force on 22 February 2017 after two-thirds of the WTO members ratified the agreement. Thus, it became the first agreement to come into force in the entire history of WTO.

Table 6.7: Implementation of Measures Under TFA Category A, B and C

Grouping	Region	Countries implemented commitments under Category A	Countries yet to implement all commitments under Category B	Countries yet to implement all commitments under Category C
Developed	Asia & the Pacific	3	0	0
	Commonwealth of Independent States (CIS)	1	0	0
	Europe*	33	0	0
	North America	2	0	0
Developed Total		39	0	0
Developing	Africa	18	17	17
	Asia & the Pacific	21	14	10
	Commonwealth of Independent States (CIS)	7	6	6
	Europe	4	2	2
	Latin America & The Caribbean	30	23	24
	Middle East	8	3	2
Developing Total		88	65	61
LDC	Africa	25	20	23
	Asia & the Pacific	8	8	8
	Latin America & The Caribbean	0	0	0
	Middle East	0	0	0
LDC Total		33	28	31
Grand Total		160**	93	92

Note: *Europe include European Union and 32 other countries.

** Four countries (Guinea-Bissau, Haiti, Venezuela and Yemen) have not yet designated TFA provisions under category A, B & C.

Source: RIS analysis based on Trade Facilitation Agreement Database assessed on 10th April, 2020.

The TFA contains provisions for expediting release and clearances of goods through streamlining, harmonizing and modernizing custom procedures. The agreement also sets out measures for international cooperation among domestic agencies on the subject of trade facilitation. Moreover, the agreement recognizes difference in abilities of Developed, Developing and Least-Developed Countries. It provides for special and differential treatment for the developing and LDCs by giving them flexibility to determine their own implementation schedules and the progress in implementation is explicitly linked to technical assistance and capacity building.

Accordingly, countries can categorize each provision of the Agreement under three heads, wherein category A includes provisions to be implemented by the time the Agreement enters into force, provisions under category B could be implemented after a transition period, and category C provisions could be implemented once these countries have access to technical assistance and capacity building in this area. Besides, Trade Facilitation Agreement Facility (TFAF) was created as coordination center to ensure that developing countries and LDCs receive the assistance needed for implementation on TFA.

All the member countries of WTO, except for four members, have implemented provisions designated under Category A. However, majority of Developing countries and LDCs in Africa, Asia and Latin America are yet to implement provisions designated under category B and C (Table 1). In 2020, nine LDC Members notified requests for an extension of the deadline for the notification of definitive dates for category B measures¹⁸.

Challenges in implementation of TFA Commitments

The developing countries including LDCs gives high priority to implementation of TFA measures because of perceived benefits.

However, these countries voice concerns regarding uncertainty related to implementation costs. Though implementation costs are very less compared to benefits of TFA implementation, but the costs have to be incurred upfront and benefits are only realized in medium to long run. Besides, availability of technical know-how to implement TFA measures is another concern. Specifically, establishment of single window and customs automation systems which require ICT infrastructure, post clearance audit and risk assessment, as well as border agency cooperation have been identified as most costly trade facilitation measures to implement for developing countries and LDCs. The ability of least developed and low-income countries to incur such expenditure given competitive budgetary commitment is a challenge. The TFA recognizes this concern and provides flexibility to developing countries and LDCs for classification of TFA measures for which they require external assistance under category C. Till now, 95 members have notified category C commitments. The top three needs identified by Members were with respect to (1) human resources and training; (2) assistance in amending laws or regulations or implementing new ones; and (3) information and communication technologies (ICTs).¹⁹ The Article 22 under TFA requires donor countries to provide information on technical assistance provided by them in this context. However, commitments made under this provision are inadequate given the requirement of developing countries and LDCs (Mohanty, Dash, Kaushik and Kashayap, 2017).²⁰

Moreover, cross country implementation experience suggests that domestic factors also play crucial role in successful implementation of trade facilitation measures. Strong political commitment at highest level is the most important success factor in implementation of TFA measures. Other important measures include cooperation between implementing agencies, participation of private sector and adoption of correct chronological approach

towards implementation of measures and availability of human capital.

New Issues/New digital technologies and trade facilitation – Role of Blockchain

The emergence of new technologies like Blockchain and Artificial Intelligence are providing new opportunities in the area of trade facilitation. AI could assist businesses in complying with regulatory requirements. The technology could monitor and analyze regulatory changes, and make recommendations to clients to ensure compliance.

On the other hand, blockchain has much wider implications. It allows digital records and information to be shared in a secure, transparent and immutable manner without relying on a single trusted third party. The application of blockchain technology is expected to reduce the trade costs substantially, expedite operations and boost trade flows. The technology could also be harnessed for detection of illegal exports and imports, deter illegitimate efforts to circumvent trade rules and identify origin of goods. Application of this technology across network of the WTO member nations require huge investment and coordination efforts, as well as substantial changes to existing systems and practices. The WTO shall assess legal, regulatory and policy implications of the technology and look into data standardization issue for wide scale deployment of technology. Further, countries shall start assessment in terms of cost and benefits of harnessing new technologies at the domestic level to improve trade facilitation.

Implications for developing countries

As discussed earlier, the most significant impact of implementation of TFA would be witnessed by developing world in terms of reduction of trade costs, increment in exports and real GDP. African and least-developed countries (LDCs) are expected to witness biggest average reduction in trade costs. The rise in exports due

to TFA would be highest for LDCs, followed by developing and developed countries. The gains in terms of rise in GDP would be higher for developing countries with average economic growth of 0.9 per cent per annum as compared to 0.25 per cent average economic growth in developed countries. Thus, speedy implementation of TFA is essential and it should occupy highest political priority in developing countries and LDCs because cross country evidence suggests political will is the most crucial factor in successful implementation.

On the other hand, technical assistance and capacity building are other crucial factors for which these countries depend on external sources. The aid received from developing world is sub-optimal given huge requirements. Therefore, developing countries and LDCs should assist each other within the construct of South-South Cooperation. Those developing countries which have taken a lead in implementation could assist their counterparts through technical assistance and capacity building programs.

6.5 Competition Policy

Competition policy has been seen to increase efficiency, enhance quality of products and services, lower prices and cater to consumer welfare²¹. The basis of international trade, be it absolute advantage, comparative advantage, factor endowment or something else²², is allowing competition to work across borders in increasing degrees by way of reduction of tariff, tariff equivalent and/or non-tariff barriers so as to facilitate reaping of the benefits in terms of higher output, higher income and larger welfare. And the fundamental basis for trade liberalization is to reap the benefits of competition across borders. Naturally competition policy has been part of the discussions directly or indirectly in all efforts at regional or international fora for liberalization and globalization of economic interactions, especially trade.

The Havana Charter²³ drawn up after the Second World War included provisions related to investment policy and competition policy. Since the US failed to ratify the Charter it was still born. What survived was the General Agreement on Tariffs and Trade (GATT) 1947, with limited provisions on international trade, confined to goods. Hardly any provision on competition policy was included explicitly in GATT 1947. However, the core GATT principle of National Treatment (NT) symbolized competition policy under GATT in an indirect way. The GATT Decision on Arrangements for Consultations on Restrictive Business Practices, in November 1960²⁴ and the Multilaterally Agreed Equitable Principles and Rules for the Control of Restrictive Business Practices²⁵ (known more popularly as the UN Set) gave further fillip to recognition of competition policy in the international economic cooperation arrangements, though not directly under GATT. The OECD Council Recommendation of 23 October, 1986 was another step forward.²⁶

Competition policy provisions are explicitly included in the General Agreement on Trade in Services (GATS), Trade Related Investment Measures (TRIMs) and Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPs), as well as in the plurilateral Government Procurement Agreement (GPA). Art VIII of GATS stresses the responsibility of domestic monopoly service providers in the relevant market to adhere to the fundamental WTO principle of Most Favoured Nation (MFN, Art. II) Treatment. Article IX is another important competition policy provision under GATS. GATS incorporates Annex on Telecommunications, which includes competition policy related safeguards. The TRIPs agreement, like GATS, explicitly recognizes the relevance of competition policy. Articles 8.2 (practices that unreasonably restrict trade or technology transfer), 31 (compulsory licensing of patents) and 40.1 and 40.2 and 40.3 (control of anti-competitive practices) are the relevant provisions. In the accession negotiations and

accession protocols of countries that newly join the WTO, competition policy figures prominently. Trade Policy Reviews (TPRs) of members invariably include reference to the state of competition policy play in the member under review.

Leaning on the mandate in Article 9 of the TRIMS Agreement the first Ministerial Conference of WTO (Singapore, 1996) decided on a Working Group processes which studied the issue of the relationship between trade and competition policy. The Doha Ministerial Conference (2001) agreed on a structured discussion and a decision at the following (Cancun, 2003) Ministerial Conference based on consensus. Cancun conference was inconclusive. The Geneva Framework Agreement (2004) decided to take three Singapore issues of competition policy, investment policy and transparency in government procurement out of the Doha round of trade negotiations.^{27, 28}

While a multilateral framework on competition has not materialized, competition policy provisions are gaining in prominence in Regional Trade Agreements (RTAs). There has been a proliferation of RTAs²⁹ and more and more RTAs have provisions related to competition policy in differing degrees. Compared to the pre-Geneva Framework period when competition policy was part of the Doha Round, dedicated competition policy chapters in RTAs are higher during the post Geneva Framework years (64 per cent).³⁰ It has been noticed that the deeper the level of integration of RTAs the more the chance of stronger competition policy provisions finding place therein³¹.

Competition policy under increasing strain

It has been noticed that since the days of the global financial crisis industrial policy has made a comeback in many parts of the world.³² The Uruguay Round of trade negotiations and the Marrakesh agreement and the birth of the World Trade Organisation (WTO), all were aimed at

and resulted in the restraining of the industrial policy led gains from trade and growth being minimized. The recent weakening of the multilateral trading system is both a cause and a result of entrenchment of industrial policy in member countries. The pandemic induced restraints on trade and travel flows expedited the process³³. Non-tariff barriers to trade have emerged as major restraints on competitive flow of goods across borders. Services also face non-tariff equivalent barriers. As the share of services in international trade increases as years go by³⁴ the non-tariff equivalent trade barriers too are rising. The UNCTAD classification³⁵ identifying measures affecting trade flows includes measures affecting competition.

Competition Policy and the Digital economy

Since the Uruguay round of trade negotiations which started in 1986 and ended in 1994 the world has changed substantially. Digital economy and digital firms have come to dominate the economic landscape in recent years³⁶. Services trade has grown faster than goods trade³⁷ and e-commerce has grown by leaps and bounds³⁸. Blockchain technology and global value chains have gained prominence in international trade. All these have changed the nature of competition in markets: understanding of the markets, the concept of market dominance (given the transient nature of dominance of tech firms), the way artificial intelligence and deep learning algorithms are influencing interaction between and among firms and changing the nature and pattern of concerted conduct. There has been noticed a tendency of digital enterprises to sustain market power and dominance unfairly by restraints on competition, competitors and potential rivals. The extant norm of asset/turnover based threshold for mandatory notification of mergers to competition authorities in most jurisdictions result in many major mergers escaping regulatory scrutiny. It is consoling that shift to 'transaction value threshold' is gaining

momentum in different jurisdictions.³⁹

Competition Policy and Law in Times of Crisis

Regulatory forbearance has been common across jurisdictions during the Covid19 pandemic⁴⁰. Industrial policy has been allowed to take precedence over competition policy. There has been near consensus among competition authorities, drawing also on the views of the informal coalition of competition regulators, the International Competition Network (ICN)⁴¹, to go soft on collaborative conduct which could be justified as necessary to meet the exigencies of supply disruptions due to the pandemic. While many of the competition authorities tried to prepare frameworks for a lenient approach, including confining such approach to sectors severely affected by the pandemic, the fear that such cooperative conduct thus condoned during the pandemic might persist and get entrenched is real.

New Issues in WTO

Even as mandated negotiations and informal discussions in the plurilateral mode on issues like e-commerce, investment facilitation for development and Small and Medium Enterprises are proceeding in or on the sidelines of the WTO, competition policy does not appear to figure in these discussions. While the efforts at a competition policy framework in WTO failed the role of competition policy is ever more relevant in trade with the increasing prominence of services trade and of the digital economy. The increasing presence of competition policy provisions in the RTAs is a standing testimony to this. The mandated negotiations should consider including explicit provisions on competition policy. While consensus has not emerged on inclusion of new issues in the multilateral framework, any future framework on e-commerce, in particular, should have explicit competition policy provisions to ensure that e-commerce firms do not gain and/or perpetuate market power through unfair means

and exploit such advantage in trade relations.

Endnotes

- ¹ See 'Who We Are' section on WTO website (www.wto.org).
- ² For details, see https://www.wto.org/english/docs_e/legal_e/04-wto_e.htm
- ³ For details, see https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm3_e.htm
- ⁴ For details, see https://www.wto.org/english/thewto_e/minist_e/mc11_e/briefing_notes_e/bfagric_e.htm
- ⁵ For details, see https://www.wto.org/english/news_e/news21_e/agri_18jun21_e.htm
- ⁶ Under the AoA, "the fixed external reference price shall be based on the years 1986 to 1988". For details, see https://www.wto.org/english/res_e/publications_e/ai17_e/agriculture_ann3_jur.pdf. However, several Members have contended that given the need for inflation adjustment, the base period for calculation should be changed to a more recent one. There are also differences over AMS notifications in local currency instead of US dollars. See for instance, WTO (2018).
- ⁷ https://www.wto.org/english/tratop_e/dispu_e/find_dispu_cases_e.htm
- ⁸ https://www.wto.org/english/docs_e/docs_e.htm
- ⁹ Trade costs include all costs (transportation costs, tariffs and non-tariff measures, information costs, customs fees and charges, the cost of time, etc) incurred in getting a good to the final user, other than the cost of production itself (Anderson and van Wincoop, 2004).
- ¹⁰ Export diversification means increase in the number of exported products by destination and the number of export destinations by product.
- ¹¹ Li, Y., & Wilson, J. S. (2009). *Trade facilitation and expanding the benefits of trade: Evidence from firm level data* (No. 71). ARTNet Working Paper Series.
- ¹² Moisés, E., & Sorescu, S. (2013). Trade facilitation indicators.
- ¹³ Duval, Y., Utoktham, C., & Kravchenko, A. (2018). *Impact of implementation of digital trade facilitation on trade costs* (No. 174). ARTNet Working Paper Series.
- ¹⁴ WTO. (2015). *World Trade Report 2015*.
- ¹⁵ Kumar, U., & Shepherd, B. (2019). Implementing the Trade Facilitation Agreement: From Global Impacts to Value Chains.
- ¹⁶ WTO. (2015). *World Trade Report 2015*. https://www.wto.org/english/res_e/booksp_e/world_trade_report15_e.pdf.
- ¹⁷ Hillberry, R., & Zhang, X. (2015). *Policy and performance in customs: evaluating the trade facilitation agreement*. The World Bank.
- ¹⁸ WTO. (2021). First review of the operation and implementation of the trade facilitation agreement.
- ¹⁹ WTO. (2021). First review of the operation and implementation of the trade facilitation agreement.
- ²⁰ Mohanty, S., Dash, P., Kaushik, V., & Kashyap, B. (2017). *Trade Facilitation in Asia Africa Growth Corridor: Potential for India-Japan Cooperation*. RIS Discussion Paper #217, Delhi.
- ²¹ <https://www.autoritedelaconcurrence.fr/en/the-benefits-of-competition>
- ²² Including National Competitive Theory or Porter's diamond or Product Life Cycle Theory, among others
- ²³ Havana Charter for an International Trade Organization, chapter V, available at https://www.wto.org/english/docs_e/legal_e/havana_e.pdf. accessed on 21-02-2021
- ²⁴ https://www.wto.org/gatt_docs/English/SULPDF/90740130.pdf, accessed on 21-02-2021
- ²⁵ <https://unctad.org/topic/competition-and-consumer-protection/the-united-nations-set-of-principles-on-competition>, accessed on 21-02-2021
- ²⁶ The Recommendation for Co-operation between Member Countries in Areas of Potential Conflict between Competition and Trade Policies was adopted by the OECD Council on 23 October 1986 on the proposal of the Committee of Experts on Restrictive Business Practices (now called Competition Committee)
- ²⁷ WT/L/579, para. 1(g).
- ²⁸ https://www.wto.org/english/tratop_e/region_e/region_e.htm#rules_ita
- ²⁹ <http://rtais.wto.org/UI/PublicMaintainRTAHome.aspx>
- ³⁰ Robert D. Anderson, William E. Kovacic, Anna Caroline Müller and Nadezhda Sporysheva - 5 December 2019, Competition Policy, Trade and The Global Economy: An Overview Of Existing WTO Elements, Comments in Regional Trade Agreements, Some Current Challenges and Issues for Reflection, Global Forum on Competition, OECD, 5 December, 2019
- ³¹ https://unctad.org/system/files/nonofficialdocument/tdc_7th_2015_Competition%20Policy%20and%20RTAs_en.pdf
- ³² 15 Robert H. Wade (2011), Return of Industrial Policy?, International Review of Applied Economics, Volume 26, 2012: Economic Policies of the New Thinking in Economics, available at: <https://doi.org/10.1080/02692171.2011.640312>, And Aiginger, Karl and Rodrik, Dani (2020), Rebirth of Industrial Policy and an Agenda for the Twenty-

- First Century, *Journal of Industry, Competition and Trade* volume 20, pages189–207(2020)
- ³³ <https://thediplomat.com/2020/05/will-covid-19-bring-industrial-policy-back-in-vogue/>
- ³⁴ In 2018, services accounted for an average share of 22.4 % of the world's trade in goods and services; this could be compared with a share of 19.6 % some eight years earlier, confirming that services were a growing part of world trade , Available at: <https://www.google.com/search?q=share+of+services+in+international+trade&oq=share+of+services+in+international+trade&aqs=chrome..69i57j33i22i29i30l3.20121j1j15&sourceid=chrome&ie=UTF-8>
- ³⁵ <https://unctad.org/webflyer/international-classification-non-tariff-measures-2019-version>
- ³⁶ https://unctad.org/system/files/official-document/ciclpd54_en.pdf
- ³⁷ https://www.wto.org/english/res_e/booksp_e/executive_summary_world_trade_report19_e.pdf , accessed on 14-06-2021
- ³⁸ <https://www.forbes.com/sites/michelleevans1/2021/03/25/global-e-commerce-market-to-expand-by-us1-trillion-by-2025/?sh=4ac550eb6cc0>, accessed on 14-06-2021
- ³⁹ https://www.bundeskartellamt.de/SharedDocs/Publikation/EN/Leitfaden/Leitfaden_Transaktionsschwelle.pdf?__blob=publicationFile&v=2
- ⁴⁰ <https://www.competitionpolicyinternational.com/author/giorgio-monti/>, accessed on 23-09-2020
- ⁴¹ <https://www.internationalcompetitionnetwork.org/wp-content/uploads/2020/04/SG-Covid19Statement-April2020.pdf>, accessed on 03-04-2021

7

WTO Reforms: Drivers and Contestations

7.1 Transformation Since the Launch of Doha Round

Global trade has undergone radical transformation since the Doha Round negotiations began in November 2001. Brisk adoption of digital technologies has led to a fall in trade costs and a rise in e-commerce transactions as well as greater internet-enabled trade (WTO, 2018a, b). The participation of developing countries in international trade as well as 'South-South trade' (or trade between developing countries) increased (WTO, 2016a and WTO, 2018a). Global commercial services trade gained greater importance with it outpacing merchandise trade during the 2006-2016 period¹ (WTO, 2017a) and was "less volatile" than goods trade in the 1995-2014 period, "indicating the greater resilience of services to global macroeconomic upheaval" (WTO, 2015a). However, the COVID-19 pandemic hurt global commercial services more than merchandise trade (20 per cent fall versus 8 per cent decline) (WTO, 2021a). The Global Value Chain (GVCs) concept - where the production processes are fragmented and in effect denationalised - has got entrenched and grown thanks in part to a surge in Preferential Trade Agreements (PTA),

particularly the deeper PTAs that support the GVC phenomenon (World Bank, 2017). Concepts such as 'mass-customisation,' 'fast fashion' and 'Just-In-Time' manufacturing are gaining ground to quickly cater to the fast-changing consumer demands and desires in a cost-efficient manner. This has resulted in production runs and product cycles becoming shorter and firms shifting production centres closer to the end consumer. Today, competitive advantage rests with manufacturers and service providers flexible enough to accommodate these trends in their operations (Linden, 2016).

These developments helped in greater trade integration across the globe. However, benefits from the globalisation process were not distributed equitably within and among nations. Moreover, the initiatives to integrate regulatory processes worldwide were eroding national policy space. Therefore, while globalisation and trade led to greater economic integration, the challenges in political integration turned public opinion against it. Trade was blamed for job losses. However, retrenchments were on account of the failure of many to adapt themselves to as well as adopt the technological changes due to various reasons including lack of resources and the needed skill sets. The

unrelenting nature of globalisation as well as its fast pace and lack of inclusiveness resulted in a backlash against globalisation and support for populist leaders in many parts of the world, who then came to power and adopted protectionist policies as promised during their electoral campaign. The world trade system was jolted when the Trump-administration took unilateral measures including tariff hikes directed at China and several other nations by citing ‘national security threats’ in a bid to narrow the ‘huge’ trade deficit that the U.S. has with those countries (Bown and Kolb, 2019).

These developments come at a time of a high level of trade disputes (WTO, 2018c) and when trade-related issues are increasingly becoming political in nature from previously being merely technical (Laïdi, 2008). The WTO has been struggling to keep pace with the above-mentioned developments and concerns. The global body also could not arrive at a solution on the outstanding Doha Round issues such as the trade-distorting agricultural subsidies. Calls have grown to expedite discussions on WTO reforms and ensure that the rules are updated to tackle the 21st Century trade-related challenges. Meanwhile, geopolitical rivalries as well as national and regional interests have led to the emergence of competing preferential trade blocs and multilateral financial institutions (Park, 2018).

Post-COVID Challenges

This situation has become more complicated post the COVID-19 pandemic outbreak that impacted the global economy and trade in particular. Global merchandise trade, which was already slowing since the second quarter of 2019, plunged to hit a low in the second quarter of 2020 (WTO, 2021a). However, thanks to the huge fiscal and monetary stimulus and relief measures by governments as well as the COVID-19 vaccination drive, there was a “faster than expected” growth in world trade and output in the first half of 2021. Greater vaccination coverage through

quicker production and distribution of vaccines across the world as well as easing of mobility restrictions are needed to boost trade growth and help it return to pre-pandemic levels by the first quarter of 2022 (WTO, 2021b).

Health has now acquired a position of great importance in trade-related discussions. It has become the primary edifice on which developmental processes are being structured. Developing countries have been severely impacted by the pandemic on account of their resource constraints in the health sector. The global health crisis has laid bare the inequities in health-related goods and services segments, be it due to the difficulties faced by developing countries in acquiring the raw materials for manufacturing and trading of COVID-19-related diagnostics and therapeutics, or on account of the troubles faced by them in gaining access to the technologies including those related to mRNA vaccines. WTO discussions are rightly looking at measures including temporary waiver of certain provisions in the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), as well as “voluntary licensing and technology pooling (and) the full use of TRIPS flexibilities” (WTO, 2021b).

Even before the COVID-19 pandemic-induced recession hit global trade, it was already in the slowing mode (WTO, 2020a) due to trade skirmishes (Ellyatt, 2018) and the sluggish demand following the global economic slump. World-wide travel and transport restrictions post the COVID-19 outbreak severely affected commercial services trade and manufacturing. The combined effect of the restrictions on imports and mobility following the coronavirus disease outbreak has hurt trade across the world. Given all these developments, WTO Director General Ngozi Okonjo-Iweala spelt out what the priorities for the organization should be for the 12th Ministerial Conference. These include: addressing the issues related to COVID-19; concluding the negotiations

on fishery subsidies; developing a work programme to reform the dispute settlement system; looking into the need for updating the WTO rulebook to address issues relating to e-commerce and the digital economy including ways to bridge the digital divide; and concluding the negotiating work on the plurilateral initiative, especially the one on services domestic regulation (WTO, 2021c).

Considering the above-mentioned factors, this chapter looks at the ramifications of five relevant aspects driving or necessitating reforms in world trade governance: 'polarising trading communities;' the 'proliferation of bilateralism;' the 'rise of plurilaterals;' and the 'emerging regional arrangements.' It also looks at some of the main proposals on WTO reforms as well as the related coalition dynamics.

7.2 Factors Necessitating WTO Reforms

7.2.1 Polarising Trading Communities

There have been several trade wars in the 20th and 21st Centuries, starting with the Smoot-Hawley Act of the US that led to import tariff hikes at the time of the 1929-1939 Great Depression. Then there was the Yom Kippur war-related embargo by the Arab members of the Organization of Petroleum Exporting Countries on oil exports to the US in 1973, the US imposing an embargo in 1980 on grain exports to the erstwhile Soviet Union against the latter's invasion of Afghanistan, and the US-Europe 'pasta war' in the 1980s (DailyFX, 2021). However, the consequences of the recent trade wars, as seen between the US and China, are worse than that of the skirmishes that happened in the last Century as the global economy is now more integrated. The stakes, therefore, are higher than what they were till the late 1990s for a majority of the WTO members that have significant interests in trade. In addition, owing to the deeper global integration of stock markets, financial system and commodity trading system, the ripple effects of trade

conflicts are felt all over the world. Then, there are the added security and resource (critical raw materials as well as financial capacity and skilled workers) dimensions stemming from the 'tech wars.'

Contemporary Trade Wars

In the recent years, trade war was in the limelight following the Trump administration's decisions, to check imports from China and narrow the trade deficit of the US with that country. "... trade wars are good, and easy to win," read a tweet by the then US President Donald Trump in March 2018 (Trump, 2018). However, as the history of trade wars has shown, polarisation did not begin with Trump. He only accentuated and hastened the process. In 2009, the Obama-administration imposed safeguard tariffs on car and light truck tyre imports from China to protect domestic manufacturers of the item in the US and to ensure 'fair play' from China. Instead of these steps succeeding in getting China to change policies, they resulted in China taking retaliatory measures. It was later found that the main beneficiaries of the US move were not the local US tyre manufacturers as was intended, but foreign exporters (from Asia and Mexico) of tyres to the US. The move helped save a little over a thousand jobs in the US tyre manufacturing sector but led to significant job losses in the US tyre retail segment. It also resulted in export losses for US chicken firms on account of China's retaliatory measures (Hufbauer and Lowry, 2012).

History repeated itself when the Trump-administration imposed tariffs on account of "dumping" of steel and aluminium into the US by its trading partners including China. This 'unfair' practice was 'destroying' American manufacturing and adversely impacting the country's national security (Govt of the US, 2018a). The trade war that followed saw retaliation from the countries affected by US measures. The US also initiated a technology war against China to protect American interests in the semi-conductor industry and intellectual

property rights. The US also brought out a new law (Export Control Reform Act) to identify technologies ‘essential’ to safeguard its national security and incorporate them under the export control norms as well as enforce stringent technology export curbs and licencing restrictions (Bown and Kolb, 2020). Other recent unilateral actions include China’s curbs on coal imports from Australia following the latter banning Chinese telecom majors from its 5G network on national security grounds (Johnson and Scott, 2020). The global trade tensions and the related tariff increases resulted in a significant increase of the overall stockpile of (merchandise) import curbs (WTO, 2020b). Moreover, it is to be noted that unilateral measures and/or retaliatory actions violate WTO norms (WTO-a; WTO-b; WTO, 2020c).²

Root Causes of Trade Tensions

The lessons to be drawn from trade tensions include the need to look into their root causes and to find ways to address them holistically (Chong and Li, 2019). In the context of its trade war with China, the US has been alleging a lack of level-playing field for its industries in China due to the latter’s government subsidies, import curbs and ‘inadequate’ protection of intellectual property rights (Sukar and Ahmed, 2019). Also, the US had expected that China’s economy would open up following its accession to the WTO (Qin, 2020). The WTO accession transformed China into a manufacturing and technology major. However, the transformation was on account of state-led economic development. The trade war has put Chinese state-owned enterprises (SOE) under the scanner and highlighted the difficulties in ensuring a level-playing field when companies from other countries take on the Chinese SOEs in various markets across the world (Li and Farrell, 2020).

As briefly discussed earlier, the role of technology in trade wars, as seen in the case of US versus China, has become prominent. The reasons for this scenario include the challenges

being faced by multinational companies from developed countries in gaining market access in economies with substantial population. The challenges are on account of curbs on foreign ownership and control in sectors deemed critical and sensitive and are troubled by direct and indirect requirements on technology transfer to local companies (Gros, 2019).

The dominant themes in these episodes of trade friction include geopolitics and competition by China and the US that have been asserting their military and economic supremacy (Zhang, and Flint, 2021) and pushing the “China model” and the “Washington consensus” respectively. The objective is to expand their influence by controlling trade, technology, supply chains and connectivity links (Zhou, 2020). This is reflected in the phenomenon of economic nationalism (Beams, 2018; Chow, 2020) and the related initiatives such as “Make America Great Again” / “America First” / “Buy American Act” and “Made in China 2025” / ‘Belt and Road Initiative’. While these trade and technology wars adversely impacted the output of various sectors as well as overall economic growth of the US and China (Hanson, 2020), the ramifications were felt beyond the shores of both the countries. These events disrupted the Global Value Chains (GVCs) and consequently the global economy as well (Itakura, 2020). The GVCs underwent reconfiguration with several manufacturing facilities shifting from China to South Asia and Southeast Asia (Salitskii and Salitskaya, 2020).

Meanwhile, the COVID-19 pandemic outbreak and the consequent mobility curbs are stepping up the use of digital technologies in the GVCs as a means of enhancing resilience and risk mitigation (Dilyard, Zhao and You, 2021). However, there are challenges regarding: (i) the insufficient capability of developing countries to catch up with their developed counterparts in this technology-based new industrial revolution; and (ii) the instances of countries not complying with the norms of the rules-

based trading system including the principles of openness and multilateralism (Fuzhan, 2019). These developments have raised questions about the WTO's ability to address not only such issues, but also the problems on account of the distortions arising from the state-owned enterprise-led trade deployed by China, as well as the extensive use of national security exception provisions by the US (to then impose unilateral measures to advance protectionism as well as its own economic and trade-related interests) (Caporal, et al., 2019).

Unilateral Measures

In what could be useful lessons for the larger WTO membership, evidence has shown that unilateral measures are not the solution that can address trade differences. These unilateral measures have not had the intended effect of

employment generation and narrowing of the deficits. Studies have also pointed out that in an interlinked world, protectionist actions - like the ones taken by the Trump administration - tend to adversely impact domestic stakeholders (See Table 7.1 for impact of tariff hikes and alternatives).

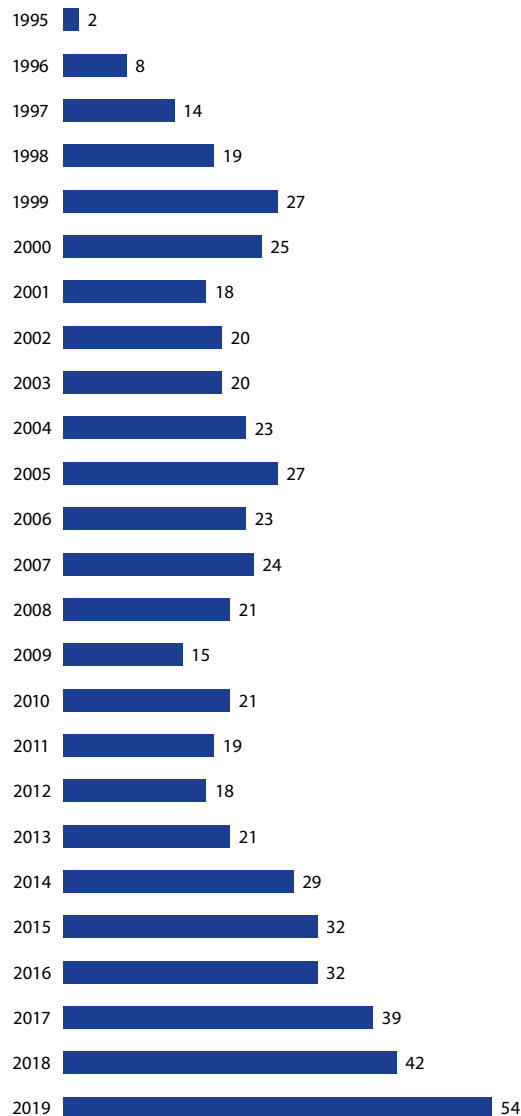
Resolving Dispute Settlement Body Stalemate

Polarisation happened also on account of trade acquiring a political dimension in the US-China relations, and trade being used as a tool to settle political scores (Kapustina, et al., 2020). However, several big powers such as Japan, South Korea, and ASEAN nations (RCEP website) as well as the EU (European Commission, 2021) have taken a nuanced stand owing to the deep integration of their economies with China. Despite allegations of

Table 7.1: US Tariff Hikes - Impact and Alternatives

Impact of US' unilateral measures	What should be done instead
<ul style="list-style-type: none"> - Focus of the US to increase tariffs to bridge trade deficit and weaken competition from foreign firms led to imports turning costlier for US consumers as the higher cost due to tariffs was passed through into American domestic prices (Reinbold and Wen, 2018; Amiti et al., 2019) - Aggrieved US companies included those in the user industries importing inputs that became costly due to the tariff hikes (Lincicome, 2018). - The consequences of tariff hikes hit the U.S. farm sector forcing the US government to provide financial assistance for those directly impacted by retaliatory tariffs (Hopkinson, 2019); China's retaliation led to welfare losses in the US (Guo, et al., 2018; Waugh, 2019). - Tariffs hurt the US exports' competitiveness; Investor sentiments were hit as the trade war and currency devaluation by nations to boost the global competitiveness of their firms led to currency wars (Evans, 2019). 	<ul style="list-style-type: none"> - Address domestic factors including the fall in savings, wage increases and a greater shift towards services. The above-mentioned domestic factors weaken domestic manufacturing and worsen the current account deficit scenario, as seen in the case of the U.S (Sheng, et al., 2019). - In an interconnected world, unilateral steps will lead to welfare losses across the world. A better way to manage such situations is to carry out internal reforms to improve local capacities in technology-enabled manufacturing and the related skill development (Carvalho, et al., 2019).

Figure 7.1: Average of monthly active proceedings, 1995-2019



Source: WTO, 2020d

‘unfair’ practices against China (Durkin, 2018), these countries/blocs have chosen to go in for agreements to protect their interests, as well as to shield themselves and from any Chinese retaliation. So, while total polarisation looked inevitable at one point, the self-interest of these countries has checked it to some extent. Another major concern in the context of polarisation is the delays in ending the deadlock over the appointment of WTO Appellate Body (AB)

members. This could exacerbate the present conditions and lead to a substantial number of trade disputes (Bermingham, 2020) as well as result in difficulties in satisfactorily managing the high level of dispute settlement activity. Figure 7.1 shows that the year 2019 recorded the highest level recorded so far since the inception of the WTO in 1995) (WTO, 2020d). Therefore, revival of the AB to the satisfaction of all the WTO members is most important to reinforce the credibility of WTO and the conviction in its ability to address trade issues at a multilateral level.

TFA and Paris Agreement

Polarisation of positions on various trade-related issues has also led to the present multilateral negotiations being stuck. Taking forward the decision-making process through consensus (Obolenskiy, 2019; Marceau, 2020) of all the members has become extremely challenging. Meanwhile, open plurilateral initiatives (such as the Joint Statement Initiatives taken at the Buenos Aires Ministerial Conference) (Hoekman, 2020) or multilateral agreements like the Trade Facilitation Agreement (TFA) that respected the sensitivities and “specific needs and levels of development” of all its signatory Members (as against a ‘one size fits all’ agreement) are being seen as viable alternatives to effectively address the trade disputes related to the 21st Century challenges that are being faced by the global trading system (WTO, 2017b). TFA met with success due to the Special and Differential Treatment (S&DT) provisions that it incorporated (WTO-c)³. The lesson from TFA is that a monolithic multilateral trade architecture may not be able to address all the issues that the developed and the developing countries have. The approach of sticking just to the exclusive plurilateral agreement-approach also brings in fissures within the membership. However, what can help are entering into agreements that are telescopic in nature, where countries can commit to reforms depending on their capacity, bring in the S&DT in a conceptual

manner as well as the flexibility needed to comply with the terms of the agreement.

In this regard, it will be apt to also refer to the Paris climate agreement that provides its signatories with a built-in flexibility, engagement on a voluntary basis, and the use of “the principle of equity and common but differentiated responsibilities and respective capabilities, in the light of different national circumstances” (UNFCCC, 2015)⁴. All these provisions helped developing country signatories build their confidence to bring out renewable energy programmes as the edifice that can help meet their voluntary commitments. They also provided developing countries like India the flexibility to make voluntary commitments as there was a realisation that measures to combat climate change will only help their own economies in the long run. The way shown by the TFA, and the Paris climate agreement is the direction in which multilateral trading system should be moving forward – that is, with adequate and appropriate flexibilities, as well as transparency and voluntary commitments wherever needed and agreed upon by the Members, considering the benefits arising from those commitments.

7.2.2. Proliferation of Bilaterals

Bilateralism has been on the rise since the launch of the WTO in 1995 for reasons including the challenges faced by developed countries as they tried to achieve non-trade objectives and behind the border benefits in multilateral settings. This can be deduced from the happenings at the WTO’s first ministerial conference in Singapore in 1996. The Singapore ministerial had seen the agenda being expanded due to the introduction of four new issues, namely investment, government procurement, competition policy and trade facilitation (WTO-d).

The European Community⁵ was keen on taking forward talks on the Information Technology Agreement and telecommunication. It also sought the inclusion of financial services,

investment, and competition as well as labour standards and environment protection, while the US also wanted labour rights to be part of the agenda. The developing countries, however, opposed the move saying the International Labour Organization, and not the WTO, was the ‘appropriate’ platform to discuss labour-related matters. On the proposal to link trade and environment, developing nations expressed concerns as they felt that it “could undo their gains in market access for agricultural concessions.” They also opposed the move to link trade and environment as, according to them, it would amount to protectionism (‘green protectionism’) and lead to ‘undermining’ of exports from the developing world. On competition policy, they said it was premature to discuss its linkage with trade. The opposition from the developing countries, and India’s efforts in particular, just before the launch of Doha Development Agenda in 2001 ensured that the Doha Declaration did not launch the Singapore issues. Rather, the Declaration stated that “negotiations (on the Singapore issues) will take place after the Fifth Session of the Ministerial Conference (in Cancun, Mexico in 2003) on the basis of a decision to be taken, by *explicit consensus*, at that session on modalities of negotiations (that is ‘how the negotiations are to be conducted’) (VanGrasstek, 2013c). The lack of such a consensus and the focus being on the development agenda meant that the Singapore issues – barring ‘trade facilitation’ – were off the table in the Doha Round (WTO-e).

New Issues in RTAs

With the rising trend of bilateralism, the Singapore issues and newer topics are being explored in bilateral and regional agreements (Kerr, 2018). There are concerns though regarding the inclusion of issues such as labour, environment, data protection, competition policy, anti-corruption, ‘movement of capital,’ human rights, investment, intellectual property rights, taxation and state-aid that go beyond the commitments of nations at the WTO (Horn, et

al., 2010). Provisions related to these issues are seen in the bilateral pacts of the EU and the US. This reflects their efforts to push forward such issues through bilateral pacts after their failures to do so at the multilateral level due to opposition from the developing world. Even though some of these measures have the potential to be eventually multi-lateralised, it is to be seen if that can be done in a manner that benefits all nations (Morin, et al, 2019; WTO-f).

A vast majority of the Regional Trade Agreements or RTAs are bilateral agreements (Crawford and Fiorentino, 2005). The cumulative number of RTAs in force grew from 47 in 1995 (the year of the launch of WTO) to 348 in 2021 (May), while the cumulative notifications of such pacts rose from 58 to 563 during the same period (WTO, 2021b) (see Table 7.2 for the leading RTA ‘users’).

Table 7.2: The Main RTA “Users”

Country/Bloc	RTAs (Number)
EU	44
EFTA States	31
Chile	30
Singapore	26
Turkey	23
Mexico	22
Peru	20
Korea	19
Japan	18
Panama	17
India	16
China	15

Source: WTO (as on 1 January 2021) (WTO, 2021d)

RTAs provide their signatories more favourable market access norms, and therefore are preferential and discriminatory. RTAs gained acceptance due to their flexibility in addressing specific or unique concerns of the signatories and liberalise trade by lowering barriers. However, they fall short when it

comes to addressing multilateral issues such as subsidies (WTO-g). While RTAs may lead to greater regional integration, they also cause a “spaghetti bowl” phenomenon that increases transaction costs due to the complexities stemming from the differences in tariffs. Moreover, they “dilute” the multilateral trading regime and non-discrimination principle (Bhagwati, 1995). These pacts also result in trade diversion with their signatories relying less on imports from more competitive suppliers from countries not party to the FTA, and instead importing more from their FTA partners whose suppliers may not be the world’s most efficient or competitive (Nguyen, 2019).

Unequal Benefits

There are also apprehensions over the huge benefits gained by the developed economies from bilateral trade agreements with small economies and nations with lesser bargaining power (Leeg, 2019; Lombana, 2020). In these pacts, the rich nations were also able to push through provisions that are not compatible with WTO agreements or beyond the scope of multilateral trade agreements. A related concern regarding the bilateral trade agreements between developed and developing economies is over the possibility of non-inclusion of Special and Differential Treatment norms that are a hallmark of all multilateral trade agreements. In this regard, it is important to take note of the 2001 Doha Ministerial Declaration (WTO, 2001). It showed that the members had agreed to “negotiations aimed at clarifying and improving disciplines and procedures under the existing WTO provisions applying to regional trade agreements.” The Declaration specified that the negotiations “shall take into account the developmental aspects of regional trade agreements.”

WTO members have committed to ensure that RTAs (including bilaterals) are “complementary to, not a substitute for, the multilateral trading system” (WTO, 2015b)⁶. That said, bilateral trade pacts are now an

important aspect of the rules-based multilateral trading system, especially since the WTO has been able to sign and bring into force just a couple of multilateral pacts - the Trade Facilitation Agreement (TFA) and the Peace Clause Agreement on public stockholding for food security purposes - in the 25 years of its existence (Ugaz, 2019; WTO-h). During this period, there have been persisting differences between the developed and developing world over several issues that then led to the stalling of the Doha Development Round talks. The trend of bilateralism got a boost with the US prioritising bilateral trade deals during the Trump-administration (Government of the US, 2017a). However, the focus of the Biden administration now is to restore America's previous efforts to promote multilateralism including in matters relating to trade (European Parliament, 2020).

An important and relevant aspect of RTAs is that the signatories consider not only economic but also strategic and political factors (Kostyunina, 2020). In this context, it was seen that Political Alliance usually leads to a Free Trade Agreement and hardly so vice-versa⁷. With the increase in the number of FTAs, the focus is now on monitoring of these pacts to ensure greater transparency including through their timely notification to the WTO. In this regard, it is important to note the concerns regarding "delays in the receipt of statistical data from parties, data discrepancies in Members' submissions, and delays in the receipt of comments from parties" (WTO, 2019a).

There are also worries about the WTO's limitations to monitor these FTAs due to its inadequate institutional capacity. Therefore, it is important to either enhance the WTO's FTA monitoring capacity or consider suggestions such as bringing out norms on: (i) imposition of a moratorium on FTAs till a comprehensive assessment of the existing ones are conducted; (ii) preventing Members to "draw rights from

an agreement, or invoke it during the dispute-settlement process, unless the agreement has been properly notified and reviewed" (Panezi, 2016). It is vital to strengthen the Committee on RTAs to ensure a rigorous and timebound examination of RTAs notified under Article XXIV of the General Agreement on Tariffs and Trade (GATT 1994) as well as under Article V of the General Agreement on Trade in Services (GATS). Also, in order to ensure greater representation of developing countries in this Committee, capacity building efforts at the national level need to be supported. It is important to note that the jump in the number of bilaterals is symbolic of the changing nature of the political economy related to global trade. This increase in FTAs make it imperative for the rules-based multilateral trading system to consider the differentiated needs and concerns of countries in its rule-making process.

7.2.3. Rise of Plurilaterals

Plurilateral agreements within the multilateral framework are an option available to like-minded members when they are unable to forge a consensus with other members on issues of their interest⁸ (WTO-i; WTO, 2004). A "significant" departure from the consensus-based decision-making approach was observed in the Nairobi Ministerial Declaration (Government of India, 2015), which noted that though many Members reaffirmed the Doha Development Agenda, other Members did not do so as they believed that new approaches were required to achieve meaningful outcomes in multilateral negotiations (WTO, 2015b). This was followed by the Buenos Aires Ministerial Conference in December 2017 ending without a Declaration, but with three proponent groups - each comprising developed, developing and least-developed countries who are WTO members - announcing new initiatives to take forward talks at the WTO on issues relating to e-commerce, investment facilitation and MSMEs. These proponents also invited all the other WTO members to join the discussions

(WTO, 2017c). The plurilateral approach is now being billed as an “escape route” from the Doha Round impasse (See Table 7.3 on WTO members in plurilateral negotiations). The categories of Plurilateral Agreements (PA) within the WTO framework include: (i) open PAs, where benefits are extended to all members on a Most Favoured Nation (MFN) basis - immediately and unconditionally - and therefore can be beneficial even to those not among the initial signatories (to foil ‘free riding’, it was specified that these agreements will come into force only when they attain a ‘critical mass of participants’); and (ii) exclusive PAs, where only the parties to the pact are allowed to enjoy the benefits (and for the rest, the benefits are extended on a conditional MFN basis - and these may include additional commitments as well - to prevent ‘free riding’) (Adlung and Mamdouh, 2018).

Table 7.3: WTO Members Participating in Plurilateral Negotiations

Plurilateral Topic	Members
Pharma	34
Health and Medical	40
Environmental Goods	45
Government Procurement	46
Trade and Environmental Sustainability	49
Trade in Services Agreement	50
Services Domestic Regulation	63
Information Technology Agreement	81
E-commerce	86
MSMEs	94
Telecoms	101
Investment Facilitation for Development	105

Source: Akman, et al., 2021

Pros And Cons

The concern regarding the plurilateral approach within the GATT/WTO framework (as seen in the Tokyo Round Codes) was that it would result in different categories of WTO members. Such a situation would undermine the very purpose of creating a multilateral body that encourages governments to consider policies that push development and are market-based. The Uruguay Round saw the plurilateral approach not being taken forward. Instead, the Round witnessed the adoption of the ‘single undertaking’ principle (in other words, ‘nothing is agreed until everything is agreed,’ or an ‘all or nothing’ approach). Going by the principle, it was necessary to ensure that the entire WTO membership subscribes to the agreements, but with dissimilar periods of implementation (WTO, 2004).

The advantage of plurilaterals is that on entering into force, they could potentially “reduce the spaghetti bowl of RTAs especially if they supersede existing bilateral agreements and develop common rules (such as for rules of origin) to be applied by all parties to the agreement” (WTO-j). However, the pertinent question here is whether the WTO can prevent the global trading system from being ‘balkanised’ by these mega-trading blocs. Also, can the WTO, instead, be a guiding force by being a platform for plurilaterals/mega-RTAs to ensure that commitments, including on the ‘21st Century’ issues, in these agreements are consistent with the WTO rules and later on be multilateralised (E15Initiative, 2013).

As mentioned earlier, plurilaterals are a deviation from the consensus-based decision-making that is mandated at the WTO. However, some recent initiatives, including at a high-level have suggested a relook at the consensus-based decision making. A case in point is the joint report by the WTO, IMF, and World Bank. The report cited the effectiveness of plurilateral approaches taken: (i) in the Tokyo Round in the form of Codes, some of which were later

multilateralised; and (ii) the Information Technology Agreement and its expansion; as well as (iii) smaller multilaterally negotiated packages such as (a) the unbundling of trade facilitation from the broader Doha Round negotiations and successfully concluding it earlier in the form of the TFA; and (b) the agreement in 2013 to ban agricultural export subsidies. It then backed such cooperative initiatives to take forward reforms and noted that many members prefer plurilaterals within the WTO system than outside of it (IMF, World Bank and WTO, 2018).

There have also been similar suggestions including by a High-Level Board of Experts independent of the WTO, which mooted the launch of an ‘open, non-discriminatory plurilateral’ approach without the requirement of a consensus by all WTO members. Such an approach considers the different development levels of WTO members and gives the members the flexibility to not be part of any plurilateral agreement. This flexibility enables the members to retain their policy space in order to address their specific developmental challenges, and then join the agreement whenever they are ready (Bertelsmann Stiftung, 2018b). The EU has also backed open and non-discriminatory plurilateral negotiations in areas where WTO members are not able to arrive at a consensus. In this regard, the EU suggested amending the WTO agreement to create a new Annex IV.b containing plurilateral agreements that are applied on a non-discriminatory basis (MFN-basis), and which could be easily amended (European Commission, 2018).

Another proposal - to take forward the plurilateral approach and thereby ‘improve’ negotiations at the WTO - is to bring out a package that would lead to the conclusion of the Doha Round. The package could include all the commitments where there is major progress and where there is an explicit acceptance of moving towards a plurilateral approach within the WTO framework. A new committee or

working group could be formed to help with the details of such plurilateral approaches in close consultation with the WTO Committee on RTAs (Elsig, 2016a). The next step, as the UNESCAP suggests, could include identifying innovative provisions or commitments in existing regional or plurilateral agreements and looking at whether the WTO could provide a modality for these commitments to be multilateralised or applied to other relevant sectors (UN, 2018).

Legal Status of Joint Statement Initiatives

The WTO has seen attempts to include new issues such as e-commerce, investment facilitation and MSMEs into the Doha Round agenda. Groups comprising countries from the developed and the developing world pushed their interests on those three topics during the Buenos Aires Ministerial Conference in December 2017 (WTO, 2017c, d, e, and f)⁹. The WTO framework has shown that strong coalitions are needed to ensure protection of common interests. Given this background on the Joint Statement Initiatives (JSI), it is important to look at their legal status and their negotiated outcomes.

India and South Africa (and later Namibia) had brought this aspect to the fore in their communication before the WTO (WTO, 2021e; Government of India, 2021). Their joint communication referred to the Marrakesh Agreement definition of ‘plurilateral agreements’ and pointed to the need for a decision “exclusively by consensus” to include such agreements in Annex 4 and accord it legal status. According to them, the JSI proponents are attempting to offer such new forms of ‘plurilaterals’ or ‘open agreements’ (in which the ‘benefits can be extended on a Most Favoured Nation-basis on achievement of critical mass coverage’) and thereby suggesting that there is no need for a consensus to incorporate these new rules into the WTO system. This move, according to India and South Africa, is not legally consistent with the principle of consensus-based decision making

enshrined in the Marrakesh Agreement. Such attempts will also weaken the rule-based multilateral trading system as will amount to introducing new rules or amendments to the prevailing WTO rules by circumventing the ‘collective oversight’ of members, India and South Africa said. Besides, it will in effect side-line crucial issues such as agriculture and development, as well as create an imbalance in ‘agenda-setting, negotiating processes and outcomes, they claimed. Further, India and South Africa pointed out the overriding effect of Marrakesh Agreement provision in case of a conflict between any of its provisions and the provisions of any of the Multilateral Trade Agreements. They said, therefore, the option available for JSI proponents are either to seek consensus among the WTO members for such discussions and agreements or pursue an RTA or plurilateral agreement outside the WTO framework or seek amendments to the Marrakesh Agreement to permit the ‘Flexible Multilateral Trading System’ (through a consensus-based approach).

This stance was opposed by Canada, which said the WTO and the GATT systems had within them various kinds of plurilaterals involving interested members. Canada backed ‘transparent, inclusive and open’ JSIs on the grounds that they help address key issues of common interest through rulemaking when the multilateral route is not ‘viable.’ It noted that a majority of the members, many from the developing world, are involved in at least one such JSI, indicating widespread support for such a mechanism (Government of Canada, 2021).

In this context, it is important to look at the Nairobi Ministerial Declaration, which India is a signatory to. The Declaration had incorporated the divergent views on addressing Doha Development Agenda and had sown the seeds for JSIs to be launched in the subsequent Buenos Aires Ministerial Conference – a move seen as a natural consequence to the virtual

ending of the Doha Round talks in the format that occurred till the Nairobi round. There is a need to understand that the outstanding Doha Round issues, including on agriculture, will now have to be taken forward by balancing them against a new agenda in the post-COVID scenario and by creating a new coalition (or strengthening the existing ones) to push that agenda. With the world changing drastically since the impasse on farm issues at the WTO in 2008, the members also need to take into account factors such as the internal reforms carried out by them in the agriculture sector, the subsidies that have been since moved from red (forbidden subsidies) to amber (subsidies that need to be reduced) to green (permitted subsidies) box (WTO-k; Peiris Mendis, 2017). The issues relating to farm subsidies and fisheries are global in nature, and therefore require a multilateral treatment. However, some of the issues being discussed under the JSIs (on e-commerce, MSMEs, investment facilitation and services domestic regulation) may not be ripe enough to be multilateralised yet. This is because of the divergent views on many of the elements within these JSIs as well as due to apprehensions of developing country members losing their policy space on those elements if the JSIs are multilateralised without incorporating the appropriate flexibility provisions regarding their implementation. Same is the case on issues relating to the other joint statements (though not termed JSIs) on “trade and women’s economic empowerment,” fossil fuel subsidies reform and the proposal on Multi-Party Interim Appeal Arbitration (WTO, 2017g; WTO, 2017h; WTO, 2020e). Most developing countries are yet to develop their own detailed and robust internal policies and regulatory norms on the issues that the JSIs are aiming to address. It is vital to help the developing countries build their capacity to understand these issues in detail as well as to do a cost-benefit analysis on participating in the JSIs (or being out of the JSIs) in order to enable them to actively take part in the WTO-level discussions. The JSI proponents should make

it a priority to first address the developmental aspects of these issues and ways to incorporate Special and Differential Treatment in their discussions on the lines of the TFA and the Paris climate pact to win the confidence of the developing world. Another point of debate is whether or not to use the WTO's financial and human resources as well as time for these JSIs at a point when there is an urgent need for those to be directed towards strengthening multilateral negotiations. Also, with the JSIs having already been initiated and progressing, there is a need to see whether the benefits flowing from these plurilaterals will be confined to the participants post the conclusion of discussions, or if they will be extended to non-signatories on an MFN basis with conditions (to prevent free riding) or in an unconditional manner. It is pertinent to note that though non-signatories were unable to prevent the initiation of JSIs, they will be in a strong position to block their larger implementation and inclusion into the Annex 4 agreements by citing a lack of consensus for the same, and would be more motivated to do so if the benefits are not extended on an MFN basis unconditionally (Angeles, et al., 2020). They can use their veto power to block JSIs as a bargaining chip to ensure a successful conclusion of the outstanding Doha Round issues including on agriculture. In this context, it is worth recalling how India was forced to delay its TFA ratification as a negotiation tactic to obtain a fool-proof 'peace clause' on public stockholding for food security purposes. There were apprehensions that the advanced economies would not show interest in taking forward the developing world's need for a fool-proof 'peace clause' once the TFA enters into force after its ratification by two-thirds of the WTO membership. Such a scenario would have resulted in the developing economies losing their bargaining chip with which they could obtain such a 'peace clause' until a permanent solution is agreed upon regarding the issue of public stockholding for food security. When the US and India came to

an agreement on the 'peace clause' and when India ratified the TFA subsequently, both the sides in effect recognised the need for dropping a confrontationist approach and instead choosing a symbiotic relationship to achieve success in the multilateral trade negotiations (Government of India, 2014). In the context of plurilateral discussions as well as with regard to the negotiations on the outstanding issues of Doha Round (trade-distorting farm subsidies, etc.) too, the positive aspect that can be gleaned from the 'TFA-peace clause episode' is the non-confrontationist and accommodative approach that prevented countries from reneging on their commitments or holding each other to ransom.

Also, it is important that the JSI proponents encourage non-participating members to be observers and gain greater understanding about the nuances of the issues to decide on whether or not to join the JSI talks. Such an approach would be better than considering the non-participants as free-riders and deciding to extend the JSI benefits on an MFN basis with conditionalities. A blended strategy of multi-tiered participation and observership may not be the answer to all the problems, but that would help instil more confidence among developing country members about plurilaterals within the WTO framework.

A plurilateral approach in itself may not take forward the larger interests of multilateralism, given the deadlock on various related issues and the differences of views among the WTO members. However, what could work as a solution is a strategy of promoting plurilaterals embellished with certain basic principles of the trading system including that of 'immediate and unconditional MFN', transparency, as well as the flexible approach promoted by TFA for developing countries - regarding transition period needed to comply with the provisions of the agreement depending on a member's level of development as well as the technical and financial assistance. To prevent free riding, it can be specified that the plurilateral will

come into effect only after it attains a ‘critical mass’ of participants. Such ‘open’ and ‘non-discriminatory’ plurilateral agreements can also strengthen the negotiating arm of the WTO and bring down the number of bilaterals and regional trading arrangements.

Plurilaterals might initially lead to the creation of various groups within the WTO, but in the long run, it can turn out to be an advantage as without the plurilaterals, the WTO would struggle to move forward due to the economic crisis that is leading to nationalism and bilaterals as well as the emergence of geopolitics due to the differences between the two dominant powers, the US and China. The Special and Differential Treatment (SDT) for developing countries will have to be embedded within plurilaterals as SDT is a major incentive for developing countries to take part in the WTO processes. The concept of ‘peace clause’ that is now within the Agreement on Agriculture also needs to be incorporated as a flexibility solution into plurilaterals to avoid conflicts. Such flexibilities might make the multilateral architecture weak temporarily, but in effect it is these approaches that will help modernise and sustain the WTO framework.

7.2.4. Emerging Regional Arrangements

Among the consequences of the deadlock at the WTO’s Doha Round is the proliferation of *plurilaterals outside the WTO framework* in the form of the Regional Trade Agreements (RTA) and the increasing complexity of these pacts. As per data available with the WTO, all of its 164 members are signatories to one or more RTAs, and around a fifth of the global merchandise trade happens on a preferential basis between RTA partners. RTAs play a valuable role by being the crucible for innovative ideas that later on find their way into the WTO system. The relationship is also mutual as RTAs take forward the WTO rules by expanding them and introducing WTO-plus provisions. However, it is seen that regarding handling issues such as the pandemic or the ones such as subsidies

that are global in nature, RTAs do not have the bandwidth to replace the WTO system (WTO, 2021f; WTO, 2021g).

Mega RTAs have the ability to wield enormous influence in the global trading system. For instance, the 11 signatories of the CPTPP have a combined gross domestic product of USD 10.6 trillion or 13.3 percent of global GDP, and a combined market of 480 million people (Government of New Zealand, a). Another RTA called the Regional Comprehensive Economic Partnership (RCEP), involving China and 14 other countries, is in the works. The RCEP connects “about 30 percent of the world’s people and output” and “could add USD 209 billion annually to world incomes, and USD 500 billion to world trade by 2030.” When the RCEP gets ratified (by at least six ASEAN members and three of the non-ASEAN signatories) and enters into force, it would be the biggest trade and investment pact arrived at since the end of Uruguay Round (of GATT) (Cook and Das, 2017).

In other mega RTAs that are in the same structural class but different in terms of their scope and coverage, Latin America has the Pacific Alliance between Chile, Colombia, Mexico, and Peru (with a combined GDP of USD 3.85 trillion and is home to 221 million people) (Government of New Zealand, b). The Alliance aims at gradually moving towards a regime of free movement of goods, services, capital, and people (European Parliament, 2014). Africa has the Tripartite Agreement between parties to the Common Market for Eastern and Southern Africa, the East African Community, and the Southern African Development Community, in addition to the African Continental Free Trade Agreement or the AfCFTA (with a combined market of 1.2 billion people and a GDP of USD 2.5 trillion) (African Trade Policy Centre, 2018).

Outside The WTO Framework

The scope of mega-RTAs (or plurilaterals *outside the WTO framework*) extends to aspects beyond

trade and include elements such as labour, sustainable development, environment (climate change, environmental goods and services etc.), investment (including Investor-State Dispute Settlement or ISDS), competition policies, intellectual property rights, government procurement, State-owned Enterprises (SoE) and designated monopolies, e-commerce, supply chains, small and medium enterprises, gender-related norms, forced localisation of production, energy and raw materials, as well as standards.

The CPTPP, for instance, has included most provisions of the initial TPP, (which the US was a signatory to but later opted out). Though the original TPP had included several 'new issues' such as those relating to e-commerce, SoEs, intellectual property and competition, the CPTPP - which retained some of these 21st Century issues, has, however, suspended 22 provisions. These suspended provisions relate to certain aspects of sectors/activities including express shipments; investment (including the application of investor-state dispute settlement provisions, submitting a claim to arbitration, etc.); express shipments; cross-border services trade; financial services; telecom; government procurement; intellectual property; environment; as well as transparency and anti-corruption. These suspended provisions can become effective only when there is an agreement on them among all CPTPP signatories. This means the CPTPP is now seen as a pact with lower ambition agreement than what was initially intended. The CPTPP also does not define environmental goods and services or provide any list and has instead left it to the parties to enter into 'bilateral or plurilateral cooperative projects' on the same. The pact specifies that the parties cannot dilute labour standards or reduce the protection of labour rights. Significantly, the CPTPP has standstill (preventing the parties from "amending a non-conforming measure to make it more restrictive than the one listed") and ratchet ("binding autonomous liberalization")

mechanisms. Incidentally, all the CPTPP parties are signatories to several other RTAs, resulting in several overlapping RTAs (WTO, 2021h, WTO 2021i).

The RCEP includes 'new issues' like e-commerce, competition, government procurement, investment and small and medium enterprises. The RCEP, once ratified by its signatories, aims to eliminate import tariffs on several items in the next two decades (RCEP website). It will also enable easier movement of professionals across the borders for short-term work (Government of India, 2018). The other major RTA in the pipeline that proposes to be of high standard by including these 'new issues' is the Transatlantic Trade and Investment Partnership (TTIP) between the US and the European Union. While 15 rounds of talks had taken place, the negotiations had come to a halt in 2016 until further notice¹⁰ (European Commission, 2016 and 2017a). The EU is also proposing to replace the 'outdated' ISDS model with a "modern and transparent Investment Court System (ICS) that effectively protects investment while fully preserving the right of governments to regulate" (European Commission, 2015). Another noteworthy plurilateral outside the WTO framework is the Trade in Services Agreement (TiSA) being negotiated by 23 WTO members including the European Union and accounting for 70 per cent of the global services trade. The TiSA, aiming to liberalise services trade - was based on the WTO's multilateral General Agreement on Trade in Services. The negotiations began in March 2013 and 21 rounds were held by November 2016. However, talks had since been suspended (European Commission, 2017b).

Fragmented Global Trading Architecture

The US-China trade war might significantly impact global incomes. However, the combined positive effect of mega trade pacts *viz.* the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP) and the Regional Comprehensive Economic Partnership (RCEP)¹¹

(both without the US) can offset these losses, “but not the individual losses of China and the US” (Petri and Plummer, 2020). It is, however, significant to note that these mega regional trade agreements are also leading to complexities including differences in standard setting and challenges in establishing a trading system with harmonised standards (Ajibo, et al., 2019).

Notwithstanding the suspension of many provisions that were sensitive to some of its members, the standards that the CPTPP (which had covered government procurement, SoEs and e-commerce among others) tried to set were still high when compared to many of the other trade pacts and even the RCEP. The CPTPP’s attempt to bring out comprehensive digital commerce norms embedding the principle of non-discrimination and prohibiting data localisation and e-transmissions customs duties as well as the adoption of some of these provisions in the US-Mexico-Canada Agreement (or the renegotiated NAFTA) and the EU-Japan Economic Partnership Agreement are now being cited as building blocks for a WTO-level e-commerce agreement (Manning, 2020).

However, the US-China trade wars and the differences in the standards being set by mega regional trade pacts anchored by big powers, as well as the continued impasse at the multilateral negotiations could lead to a fragmented global trading architecture, where small countries that are not part of these arrangements could lose out (Akman, 2016; Akman, et al., 2020). Moreover, the signatory countries will be faced with the challenges stemming from the discrimination against exports from non-signatories. The challenges will also be on account of trade diversion due to preferential tariff treatment to the signatory countries leading to ‘higher-cost’ imports from the trade pact member countries instead of ‘lower-cost’ imports from non-signatories. On the other hand, there could be some gains to non-signatories either

due to lower costs on account of their lower standards when compared to the signatory members, or in certain cases if the third-party countries voluntarily harmonise their standards with the signatory countries (Dee and Gali, 2007). Considering these complications and complexities flowing from the mega regional pacts, influential global platforms such as the G20 and BRICS, whose members are in one or more of these mega FTAs, should ensure that these agreements are ‘consistent with and contribute to’ the WTO norms. In this regard, they should facilitate efforts to enhance capacity building in countries that are not part of these mega-regionals. This will help such countries to improve their standards as well as infrastructure and they will be encouraged to boost regulatory cooperation with countries that are signatories to mega trade pacts.

7.3 Proposals on WTO Reforms

The WTO, since its launch in 1995, has emerged as one of important pillars governing the global economy. It is the only global forum where the developing countries, including some of the smallest and the poorest nations, have managed to take on the developed countries thanks to the concept of ‘one country, one vote’ and the veto power available to all the member countries, as well as the Dispute Settlement Mechanism (DSM) that was functioning well till recently. However, due to the various reasons stated earlier in this chapter, the multilateral trading system requires in-depth reforms. In this context, it is pertinent to look at some of the previous and recent efforts (See Table 7.4) on GATT/WTO reforms, the attempts to push the concept of ‘facilitation’ as integral to trade governance as well as the use of platforms such as BRICS, G20 and coalition initiatives to protect the interests of countries.

Facilitation 2.0

The impact of protectionist measures has increased to a record high with populists coming to power in several countries with

Table 7.4: Some Major Reports and Suggestions on GATT/WTO Reforms

Report	Main Suggestions
'Leutwiler report' of 1985	<ul style="list-style-type: none"> - Regular oversight to ensure countries have open and transparent trade policies - Ensure fair farm items trade without special treatment for nations or commodities - Ensure scrutiny of subsidies; Revise subsidy rules to make them more effective - Tighten norms on customs unions and free trade areas so that they don't erode the multilateral trading system - Help developing nations to use their competitive strengths; Enhance their integration into the trading system instead of letting them receive special treatment - Expand services trade; Ensure adequate flows of development finance
'Sutherland report' of 2004	<ul style="list-style-type: none"> - Preferential Trade Agreements (PTA) must be subject to meaningful review and effective disciplines in the WTO; PTAs must ensure the 'trading and development prospects of the beneficiaries,' and not harm the interests of those outside it. - WTO must improve coordination and cooperation with other intergovernmental bodies for better global governance. - Improve functioning of the WTO Dispute Settlement Body and Appellate Body - Ensure members don't abuse 'consensus' approach; get a written explanation from a member blocking a measure 'which has broad consensus support.' - Ensure plurilaterals accord attention to members choosing not to participate; prevent small groups from introducing issues strongly opposed by many members. - Ensure technical assistance and capacity building aid for LDCs to implement obligations as part of any WTO agreement.
US, EU, Japan, 2017	<ul style="list-style-type: none"> - Address "large market-distorting subsidies and state-owned enterprises, forced technology transfer, and local content requirements and preferences"
EC, 2018 and EC, 2021	<ul style="list-style-type: none"> - Address industrial subsidies (by effectively capturing trade-distorting subsidies) and the activities of state-owned enterprises - Address 'forced tech transfer' that is a 'barrier' to services and investment. - Review Special and Differential Treatment (SDT) to see which members need to be encouraged to 'graduate' and opt-out of SDT - Promote 'open' plurilateral negotiations; apply their results on an MFN basis. - Ensure a mechanism with incentives to improve notification compliance and imposition of sanctions 'for wilful and repeated non-compliance.' - Amend provisions of Dispute Settlement Understanding relating to the functioning of the Appellate Body (AB); ensure 'proceedings shall not exceed 90 days unless parties agree otherwise'; provide for one single but longer (6-8 years) term for AB members'; ensure AB does not make findings on issues not necessary to resolve a dispute. - Ensure promotion of climate and sustainability considerations in the WTO - Ensure early completion of an 'ambitious and comprehensive WTO agreement on digital trade'

Table 7.4 continued...

Table 7.4 continued...

Ottawa Group, 2018 ¹²	<ul style="list-style-type: none"> - Resolve issues relating to AB, SDT, and strengthening of the monitoring and transparency of members' trade policies
Canada, 2018	<ul style="list-style-type: none"> - A high-level endorsement of the importance and improvement of notification and transparency measures as well as of the need to streamline the dispute settlement system - Narrow the scope for AB "advisory opinions" - Identify issues that can be addressed through multilateral agreements and those that could be subject to 'open' and 'closed' plurilateral initiatives - Adopt a new 'development dimension' approach: "one that recognizes the need for flexibility for development purposes while acknowledging that not all countries need or should benefit from the same level of flexibility"
China, 2019	<ul style="list-style-type: none"> - Reform process needs to ensure preservation of such core values of non-discrimination and openness, consensus-based decision-making, remove development deficit in the extant WTO rules, and help achieve SDGs. - start appointment process of AB without delay - Strengthen disciplines to prevent unilateral measures inconsistent with WTO Rules as well as to prevent 'abuse' of national security exceptions, and carry out multilateral reviews on such measures - Rectify the inequity in rules on Agriculture by gradually eliminating AMS entitlements of developed Members as well as by reaching an agreement on the permanent solution for public stockholding for food security purposes - Expedite fisheries subsidies negotiations and take forward the Joint Initiatives on e-commerce, investment facilitation and MSMEs in an 'open, transparent and inclusive' manner - Preserve the developing Members' SDT rights and ensure 'adequate and effective' SDT in future negotiations - Do not institute special or discriminatory disciplines on SOEs in the name of WTO reform; Foreign investment security reviews must be impartial and transparent - Provide technical assistance and capacity building to developing Members to help them 'fulfil notification obligations on time'
African Group, Cuba & India, 2020	<ul style="list-style-type: none"> - Improve the WTO's negotiation function by strengthening WTO's 'multilateral character' and preserving consensus decision-making; addressing the unilateral and protectionist actions; reaffirming the SDT as a non-negotiable right for all developing countries as well as by promoting the development agenda (deliver on the outstanding development issues of the DDA, address asymmetries in WTO Agreements including on Agriculture, Subsidies, TRIMS and TRIPS, and reinvigorate discussions in the 1998 E-Commerce Work Programme by looking at the e-commerce moratorium and digital divide issues) - Restore the AB and the two-tier WTO DSU - Reaffirm existing transparency commitments and not add more obligations; allow for different economic models and not promote for one form or another - Respond to the COVID-19 pandemic: introduce a Moratorium on trade measures, provide sufficient flexibilities on intellectual property disciplines for developing

Table 7.4 continued...

Table 7.4 continued...

	countries, and do not ask developing nations to 'relinquish their required trade policy space such as through the permanent liberalization of tariffs or agreement to end the use of export restrictions
Ismail, 2020 (South Centre)	<ul style="list-style-type: none"> - Agriculture: Remove the trade-distorting subsidies of developed countries - Implement recommendations of the 'Aid for Trade' Task Force; provide additional aid for trade; ensure existing aid is effective and is ownership by the partner countries. - Ensure balanced rules; retain policy space for development - Ensure inclusiveness, transparency, and full participation of developing countries in the negotiating process
Joint communication from 31 Members (developing and developed), 2021	<ul style="list-style-type: none"> - Reaffirm relevance of and support for the rules-based multilateral trading system (MTS) including in the context of the global health crisis - Support plurilateral negotiations such as the Joint Statement Initiatives - Ensure Members fully comply with their notification obligations - Support WTO's two-tier dispute settlement system
African Group, 2021	<ul style="list-style-type: none"> - Safeguard WTO's multilateral character and principles of non-discrimination, predictability, transparency, and commitment to development; address inequity prevailing in the trading system - Preserve SDT and uphold decision-making by consensus - Ensure sharing common but differentiated responsibilities in a multilateral system built to advance global public goods and protect the global commons - Restore two-tier dispute settlement system
International Chamber of Commerce, 2021	<ul style="list-style-type: none"> - Put market access, especially in services and the digital economy, back on the agenda; Make permanent the moratorium on customs duties on electronic transmissions - Recognise the legitimacy, legality and need for advancing rulemaking through open, transparent, and inclusive plurilateral negotiations - Adopt a new evidence-based approach to SDT based on objective economic criteria - Restore the full operation of the AB; Ensure separate treatment for trade remedies; Increase the number of AB members; Make appointments permanent for a defined period of time with a competitive pay grade and expand the recruitment pool. - Update WTO Agreement on Subsidies and Countervailing Measures to prohibit discriminatory industrial policies, and to eliminate over-capacity and market distortions in manufacturing sectors, particularly in state owned enterprises and transfer of technology - Create a crisis management protocol for future crises - Eliminate trade practices inhibiting the scaling of vaccine production capacity and disrupting global supply chains - Finalise the fisheries subsidies negotiation

Source: Authors' compilation from Leutwiler and Leutwiler, 1985; Sutherland, 2004; Government of Japan, 2018 and Government of the US, 2017b; European Commission, 2018 and European Commission, 2021; WTO, 2018d; WTO, 2019b; WTO, 2020f; Ismail, 2020; WTO, 2021j; WTO, 2021k; ICC, 2021

the help of those that have lost out in the globalisation process, and in turn putting in place barriers against trade, investment, and movement of people across borders. Meanwhile, the globalisation process is continuing thanks to the growth in the digital economy. International data flows have been rising - in turn, connecting more people and exerting a greater influence in the conduct of international trade and finance. It is estimated that over a tenth of the international merchandise trade currently happens through the e-commerce route, while around half of services traded across the world are digitised (McKinsey & Company, 2016). However, the major concern here is that a few advanced economies have been cornering a larger share of the benefits from international data flows than the rest of the world -- thanks to their greater digital connectedness as well as control over the supply chains, digital infrastructure, and content globally. Given the globalisation backlash as well as the rise of populism and protectionism across the world, it may now become extremely difficult to obtain new and greater market access in most countries through multilateral trade agreements. This realisation is possibly among the reasons leading to the dawn of an *era of facilitation*.

The concept of 'trade facilitation' evolved from a 'Singapore issue' (during the first WTO Ministerial Conference in 1996) and was initially opposed by developing countries citing resource constraints and the lack of mandate to discuss it at the WTO. Now, it is described as the 'success story' of the Doha Round negotiations (Bhagwati and Sutherland, 2011). The WTO's Trade Facilitation Agreement (TFA) on goods has been billed as the biggest global trade deal so far this century. It is aimed at easing Customs norms, bringing more transparency, reducing costs, and boosting merchandise trade (WTO, 2017i).

The challenge now will be to see how Trade Facilitation 2.0 incorporates the best elements of the proposals on the table including on

facilitating investments as well as services trade and in the process ensure that it leads to 'inclusive facilitation.' In this context, India had suggested that like the TFA in Goods, "there is need for a counterpart agreement in services that can result in reduction of transaction costs, streamlining procedures and eliminating bottlenecks" (WTO, 2016b). The proposed trade facilitation in services (TFS) pact was also about 'facilitation' - that is "making (existing) market access 'effective' and commercially meaningful and not about 'new' (or greater) market access." However, India then made a tactical retreat on the TFS recognising the difficulties in pushing that proposal at a time of an increasing protectionist measures in many countries, especially those related to movement of people. It nevertheless made a point on the importance of facilitation in the growing services trade and on the trade facilitation concept being an integral part of WTO norms (WTO, 2017j)¹³. Even post the outbreak of COVID-19, India, at the G20 Foreign Ministers' Extraordinary Meeting, had proposed a three-pronged approach to cross-border movement of people. It had proposed a "voluntary 'G20 Principles on Coordinated Cross-Border Movement of People' that includes: (i) *Standardisation of testing procedures and universal acceptability of test results*; (ii) *Standardisation of 'Quarantine procedures'*; and (iii) *Standardisation of 'movement and transit' protocols*" (Government of India, 2020). While this was mooted in the context of the COVID-19-related travel restrictions that were adversely impacting foreign students, foreign citizens and stranded seafarers, some aspects such as 'standardisation' of procedures and protocols can be considered in the context of services trade facilitation as well.

The 'facilitation' aspect was also pushed forward through another proposal to develop a multilateral framework on investment facilitation. In this regard, among the main aspects is the need to make a distinction between the terms 'investment facilitation'

and ‘investment promotion.’ ‘Investment facilitation,’ as per UNCTAD, refers to policies and actions to make it easier for investors to set up and expand their investments, as well as to carry out their day-to-day business in host countries. The focus here is on reducing or eliminating ground-level obstacles to investment through norms ensuring transparency, efficient administrative procedures, greater predictability, and stability of the policy environment for investors. Investment promotion, on the other hand, is about promoting a specific location as an investment destination through measures including marketing and incentives, and therefore is competitive and country specific. Investment facilitation assumes importance in the light of the estimated USD 2.5 trillion-gap faced by developing countries annually as they try to achieve the Sustainable Development Goals. Though investment is considered important for growth and development, national and international investment policies have not accorded sufficient attention to investment facilitation (UNCTAD, 2017).

Recognising these finance and regulatory gaps, blocs such as the BRICS have produced an Investment Facilitation Action Plan to enhance efficiency and promote cooperation to boost intra-BRICS investment. However, the emerging economy grouping has specified that the Plan is only voluntary in nature and that ‘BRICS countries fully preserve the right to regulate, national policy space, policy making and approaches to investment in other bilateral, plurilateral and multilateral frameworks and processes’ (BRICS, 2017). This balanced approach is more suitable for developing countries, which recognises that they have to find ways to attract greater investment but want to do it in a manner that will help meet their developmental needs.

Whether Facilitation 2.0 will be delivered in the form of a single package comprising various elements related to the 21st Century

challenges or whether it will be in the form of multiple packages of plurilateral agreements within the WTO framework, will – going by the current norms – have to be determined through the WTO’s practice of decision-making by consensus.

The concept of ‘single undertaking’ interlocks different outcomes and is seen to be in the interest of developing countries. The Doha Round negotiations, however, have shown the difficulties regarding the implementation of the ‘single undertaking’ concept. Nevertheless, the uphill task faced by developing countries in protecting their interests was seen during multiple rounds of WTO negotiations even as developed countries managed to secure their needs. It is, therefore, only logical to expect developing countries to use ‘single undertaking’ as a negotiating strategy. This ‘give and take’ was seen during the Buenos Aires Ministerial Conference where India opposed the demand by developed countries for a permanent moratorium on customs duties on e-transmissions. India insisted on approval for permanent moratorium on non-violation and situation complaints (NVC) under the TRIPS agreement. Finally, the demands for a permanent moratorium in both the cases were dropped and WTO members agreed to extend on a temporary basis the customs duty moratorium on e-transmissions (for two years or till the next Ministerial Conference) and similarly, the moratorium on NVCs.

It is natural to expect members to lock in this ‘single undertaking’ concept and ‘give and take’ as a strategy when they enter into negotiations with regard to old and new issues. Sorting out old issues (including those related to trade distorting farm subsidies, etc.) will encourage developing countries to look at new issues in a positive manner. There would be greater incentives to do so if the concerns regarding knowledge and capacity gaps relating to new issues are also addressed. An agenda that has a mix of new and old age issues, and not one that

is heavy with plurilaterals, is what will take the WTO forward. Members, of course, will also have to learn to live with ‘single undertaking’ as a negotiation strategy.

7.4 Coalition Dynamics

Reliance on coalitions is integral to forge a consensus on various issues as coalitions can make the process more democratic, inclusive, and equitable. Coalitions enable WTO members, especially from the developing world, which are handicapped by inadequate resources and capacity, gain a stronger voice, and increase their bargaining power. What drives individual countries to join or forge a coalition is the need to protect themselves from powerful nations or coalitions that threaten to hurt their interests (Walt, 1985). Table 7.5 is about the concerns that come up in coalitions, the ingredients needed for it to be successful as well as the lessons learnt from the successes and failures of coalitions.

Consensus-Based Decision-Making

Another important aspect is devising ways to improve the consensus-based decision-making¹⁴. In this context, periodically, there have been proposals to set up a smaller executive body à la a board of directors with representations from different groups of WTO members as well as some other innovative experiments (WTO-I) (Also see Table 7.6).

The current WTO style of coalition formation for a consensus-based decision-making provides much-needed flexibility, where members are at liberty to decide the nature and size of their coalitions in line with the changing dynamics of the negotiations. What can also help is a mechanism to provide adequate financial and technical resources for this coalition building approach, and particularly for the coordinators of various coalitions to improve their functioning (Patel, 2007).

7.5 Conclusion

Ultimately, as the former WTO chief Roberto Azevêdo said, the members should ensure a balanced approach - where the global trading system would be strong enough to help countries resolve disputes and depoliticize areas of friction, while being flexible enough to help countries to seize the opportunities that the Fourth Industrial Revolution will provide (WTO, 2018e). It is also important to ensure that WTO norms provide enough room for schemes that assist those who have been adversely impacted by trade by helping them build their skills for future jobs and careers (Wolla and Esenther, 2017; TAA for Workers Program, 2016). In addition, since it is the Global Value Chains that drive trade today, and particularly tech-intensive trade, it is important to consider having trade norms that are not limited to addressing just tariffs and border barriers. Therefore, as the UNESCAP says, “WTO rule-setting needs to turn towards discussing management of policies and measures which impact international coordination of production facilities, access to services and connectivity infrastructure, financing, risks, or managerial know-how” (UN, 2018).

In order to stay relevant, the WTO must ensure that discussions on proposals, including on open and non-discriminatory plurilaterals, aiming to strengthen global trade governance should happen within the multilateral framework, and not outside of it. Also, firming up of a framework with voluntary norms subject to peer pressure should not be seen as a dilution of multilateralism, but as an evolutionary step. There can be carve-outs so long as they do not violate the basic codes. The WTO can also remain relevant by rising to the occasion during all major global crises like it did during the 2008-2009 financial crisis as well as post the COVID-19 outbreak that disrupted global trade and supply chains, weakened consumption and pushed the global economy

Table 7.5: Coalitions- Concerns, Ingredients for Success and Lessons

- Members leave a coalition due to divergence between their national interests and the coalition's collective interests, or if the costs of being in the coalition outweigh the benefits. Equitable division of gains from the coalition's efforts is crucial (Williams, 1987).
- Randomly formed and haphazardly run coalitions that are heterogeneous with diverse and even competing interests won't work; Coalitions are influenced by geopolitical alignments, including through RTAs, happening outside WTO; What would work are issue-based, well-organised and internally coherent alliance led by one or more strong and powerful nation(s) (Rolland, 2007).
- Ingredients for success include individual strength of members, deep commitment to common goals, and recognizing the values and principles of each member (Çakmak, 2007).
- In the Uruguay Round, the G-10 coalition of countries including Brazil and India failed to counter attempts by developed nations on inclusion of services in trade negotiations.
- G-10 was also against launching a new trade round and incorporating other 'new' topics such as trade-related aspects of intellectual property rights and investment measures.
- G-10 was unsuccessful as it did not collaborate closely with other developing nations on various proposals as well as on research, unlike the Café au Lait coalition (for the inclusion of services in the Uruguay Round) and the Cairns Group (for agriculture liberalisation).
- Drawing lessons from their setbacks and from the success of Café au Lait and Cairns Group, developing countries then formed coalitions on the basis of: (i) regions (ACP, African Group etc); (ii) various levels of development (SVE, LDC etc); or (iii) on the basis of what they lost out in the Uruguay Round (G20 and G33 on agriculture as well as Special and Differential Treatment and on TRIPs, and Public Health Coalition on TRIPS norms related to affordable access to quality drugs in developing nations).
- Coalitions also widened the scope – e.g.: the Like-Minded Group, set up to focus on developing countries' issues related to implementation in the period immediately preceding the Doha Round, also fought the inclusion of "Singapore issues" (such as competition policy, trade and investment, transparency in government procurement and trade facilitation).
- In the Uruguay Round, developing country coalitions were only about government-to-government collaboration; but during Doha Round, such coalitions were open to partnering with civil society organisations that were even based in the global North.
- Flexible approaches and consistent advocacy led to gains in the Doha Round including ensuring that 'development agenda' stayed at the core of the negotiations (Narlikar, 2005)
- 'Friends of the Doha Agenda' coalition was proposed to give fresh energy and leadership to end the Doha Round deadlock and help in its successful conclusion (Elsig, 2016b).
- Developing country-coalition G20 is united despite varied composition and differences.
- Flexible approach led to G20 members joining forces with other coalitions on issues not coordinated with the group's collective agenda, even while maintaining its unity (e.g.: India and China, though in G20, were part of G33 coalition with defensive interests in agriculture, while Brazil and South Africa, also of G20, had offensive interests in agriculture).
- Hong Kong Ministerial saw G20 and G90 taking on the US and EU; NAMA-11 coalition aimed to protect the interests of developing countries in industrial goods talks.
- Flexible and pragmatic approaches are what lead to successful coalitions (Woll, 2008).

Table 7.6: Novel Methods to Arrive at a Consensus

Proposals / Innovative Experiments	Intended/Actual Effects
A formal 'WTO Consultative Board'	<ul style="list-style-type: none"> - While such a Board would not be given decision-taking powers, it would be empowered to make suggestions to the entire WTO membership for their approval (Blackhurst and Hartridge, 2004). - A Consultative Board could be convened by the WTO Director General; it could comprise representations from a limited number of countries and partly on a rotating basis and meet at regular intervals as well as before every Ministerial Conference (WTO, 2004). - GATT regime saw a sort of an executive board during 1975-1985 with the setting up of the Consultative Group (CG) of 18 and its expansion later to be the CG22 (VanGrasstek, 2013a). Developed nations used the forum to advance their own interests; it was suspended in 1989 due to its poor performance and was not renewed. - Such proposals are unlikely to be brought to life due to the possibility of some countries not being represented, as well as on account of conflicting, incompatible and varying interests of countries due to different development levels (Narlikar, 2002).
Green room	<ul style="list-style-type: none"> - Where a small group of influential countries would conduct a closed-door meeting informally during Ministerial Conferences to evolve a consensus. - Disliked by members left out of the process. - Prompted the formation of coalitions based common defensive or offensive interests or based on geographic location of countries. - To make the green room process open and acceptable to the larger membership, representatives / coordinators that are part of the process are required to report back to their coalition partners about what transpired in those closed-door meetings. - There is now an increase in developing countries as WTO members, and many of them have set up (or are setting up) permanent missions in Geneva including those dedicated to trade. Efforts to boost capacity of those trade missions show greater involvement in negotiations. - Pooling of resources and forming strong coalitions can help developing countries overcome their handicap of inadequate resources. - Rich countries also form influential coalitions by persuading poor and weak countries to be a part of them and adopting a carrot (e.g.: payments) and stick (e.g.: peer pressure, threats) strategy to ensure that there are no defections and that these types of North-South alliances remain intact (VanGrasstek, 2013b).
Concentric circles	<ul style="list-style-type: none"> - Tried out at the WTO Ministerial meeting in July 2008. - A small group of members representing the different positions of the larger membership attempt to resolve or narrow the differences. - This small group then takes their achievements to a larger group and further to an even larger group progressively to arrive at a consensus. The last stage involves submitting their document to the entire WTO membership for approval (WTO-m).

into recession. The WTO stepped in by informing the global community about trade-related notifications, focusing on ensuring a smooth flow of trade in medical goods, even as it served as a forum for its member countries to highlight trade-related concerns (WTO-n). It is also working on a “horizontal and multilateral” response covering areas including “intellectual property, trade facilitation, export restrictions and monitoring of supply chain performance” (WTO, 2021l). Further, WTO members showed willingness to engage in a text-based process to look at proposals on ways to ensure “global equitable access to vaccines and other medical products” (WTO, 2021m).

An increasingly interconnected and interdependent world troubled by vulnerability, uncertainty, complexity, and ambiguity (VUCA) makes it imperative for the WTO to help formulate dynamic responses and strategies by taking into account ‘economic, environmental, geopolitical, societal, and technological (EEGST)’ factors (Maavak, 2021). Given the time-consuming nature of international law processes, the WTO’s structure and agenda should internalise, internationalise the above-mentioned factors, and create mechanisms, which will on a continuous basis keep working on structural deficits as they emerge and keep debating substantive issues as they arise. This also means the WTO has to continuously reinvent itself to counter criticisms including that its rulebook has not effectively addressed the need to ensure access to medicines in economically weak countries (McBride, et al., 2019). The best way to make sure that trade is not a zero-sum game is to provide developing countries sufficient flexibility, adequate time, and resources to integrate themselves fully with the global system in a manner that help them meet their developmental needs.

Endnotes

¹ Global goods shipments rose by around 32 per cent (in value terms) since 2006 to touch USD 16 trillion in 2016, while commercial services exports jumped by about 64 per cent during the same time to USD 4.77 trillion (WTO, 2017a).

² They violate Article 23 of the Dispute Settlement Understanding (Members shall not determine the occurrence of a violation by another and take any action “except through recourse to dispute settlement in accordance with the rules and procedures of the DSU”) (WTO-a). They also breach Article I (General Most-Favoured Nation Treatment, or preferences given by any country to another shall be accorded to all others as well) and Article II (Schedules of Concessions, according to which Members cannot impose duties ‘in excess of those set forth and provided for’ in the Schedules) of the GATT (WTO-b).

On the issue of US unilateral measures taken against China using the US Trade Act of 1974 (Section 301-310), a WTO panel ruled that they were “prima facie inconsistent with Article I:1 of the GATT 1994 because they applied only to products from China; and prima facie inconsistent with Article II of the GATT 1994, because they were applied in excess of the rates to which the United States bound itself in its Schedule of Concessions”. It also found that the US “had not provided an explanation demonstrating how the imposition of additional duties on the selected imported products... was apt to contribute to the public morals objective invoked, and, following on from that, how they were necessary to protect public morals” (WTO, 2020c).

³ The TFA specifies that “where a developing or least-developed country Member continues to lack the necessary capacity, implementation of the provision(s) concerned will not be required until implementation capacity has been acquired”, and that “the extent and the timing of implementation of the provisions of this Agreement shall be related to the implementation capacities of developing and least-developed country Members” (WTO-c).

⁴ The Paris Agreement recognized “the specific needs and special circumstances of developing country Parties” and “the specific needs and special situations of the least developed countries with regard to funding and transfer of technology”. In addition, it was agreed that developed country Parties “shall provide financial resources to assist developing country Parties with respect to both mitigation and adaptation in continuation of their existing obligations under the Convention.” There were also provisions to ensure that developed country Parties provide information on “financial, technology transfer and capacity-building support

provided to developing country Parties”, and the developing country Parties provide information on how much support they have received from developed country Parties under those heads (UNFCCC, 2015).

⁵ Later replaced by the European Commission

⁶ RTA is an exception to the WTO principle of non-discrimination. However, RTAs, while boosting trade between their signatories, are not allowed to raise barriers to prevent or hamper trade with third parties. The concerned WTO rules on RTAs include Article XXIV of the GATT, 1994 (covering trade in goods including the establishment and operation of free trade areas and customs unions), Enabling Clause (on agreements between developing nations) and Article V of the General Agreement on Trade in Services or GATS (covering services trade).

⁷ An analysis of FTAs and Political Alliances (PA) of 160 countries during the 1990-2012 period also showed that “a state prefers to form both FTAs and PAs with trade hub partners that have more FTAs but prefers to form only PAs with political hub partners that have more PAs” (Mon, et al., 2019). Also, a study on the FTAs of Sri Lanka showed the country gained politically – albeit indirectly – from its FTAs with Pakistan and India (Bandara and Yu, 2009).

⁸ Article IX (on decision-making) of the Marrakesh Agreement establishing the WTO enables the multilateral body to continue the practice of decision-making by consensus followed under General Agreement on Tariffs and Trade (GATT), 1947. The term ‘consensus’ is defined under footnote 1 to Article IX, which states that “the body concerned shall be deemed to have decided by consensus on a matter submitted for its consideration, if no Member, present at the meeting when the decision is taken, formally objects to the proposed decision” (WTO-i).

This democratic way of functioning is to ensure that developed economies do not ride roughshod over the developing country members. This member-driven approach is also aimed at ensuring that opinions of the smaller and less-developed members are considered in all the decisions, as well as to make sure that they are convinced of the benefits of each decision taken at the WTO. However, the drawback in this approach is that with each member having one vote, even the smallest country gets the power to block a decision that is supported by most of the members. This could either paralyse decision-making or force like-minded parties to shift to another platform like a regional trade agreement or set up another institution for implementing their decisions (WTO, 2004).

⁹ Proponents of the joint statement on e-commerce accounted for about 77 per cent of global trade.

The aim was to initiate exploratory work on trade-related aspects of e-commerce. The group kept itself open for all WTO members to be part of the initiative (WTO, 2017c and d). On investment facilitation, the proponents included 70 WTO members accounting for around 73 per cent of trade and 66 per cent of inward Foreign Direct Investment (FDI). They aimed to launch structured discussions to develop a multilateral framework on investment facilitation and stated that at the core of such a framework would be facilitating greater participation of developing and least-developed Members in global investment flows. They assured that framework would be adaptable, flexible, and responsive to the evolving investment facilitation priorities of Members (WTO, 2017c and e). On MSMEs, the proponents of the joint statement included 87 WTO members accounting for 78 per cent of world exports. The objective was to form an informal working group on MSMEs that is open to all members and to ensure a multilateral decision to establish a formal work programme for MSMEs at the next Ministerial Conference (in 2020) (WTO, 2017c and f).

¹⁰ The negotiations were on aspects including public procurement, trade in services (including cross-border services and financial services), trade and sustainable development, labour, environment, energy, and raw materials, MSMEs, as well as investment protection and dispute settlement (European Commission, 2016). As per a joint EU-US report, the negotiations had seen progress in areas, “namely on better access to markets for EU and US firms, on simplifying technical regulations without lowering standards and on global rules of trade, including sustainable development, labour and the environment with a dedicated chapter on smaller firms.” However, it added that “significant work remains to resolve differences, including improving access to public procurement markets, providing strong investment protection that preserves the right to regulate, and reconciling approaches to trademarks and geographical indications” (European Commission, 2017a).

¹¹ Bilateral trade imbalance with China was among the reasons for India pulling out of the RCEP originally proposed between the 10-member ASEAN bloc and its six free trade agreement partners (India, Japan, South Korea, China, Australia, and New Zealand). The US had earlier pulled out of the Trans-Pacific Partnership (that later on went ahead as the CPTPP) (Weigold, 2019; Gaur, 2020).

¹² The Ottawa Ministerial on WTO Reform: countries including Australia, Brazil, Canada, Chile, European Union, Japan, Kenya, Korea, Mexico, New Zealand, Norway, Singapore, and Switzerland.

¹³ This can be seen in ‘General Agreement on Trade in Services (GATS), including its Preamble and in

Article III (Transparency), Article IV (Increasing the Participation of Developing Countries), Article VI (Domestic Regulation), Article VII (Recognition), Article XIX (Negotiations on Specific Commitments) and the Annex on Movement of Natural Persons' (WTO, 2017).

¹⁴ It is to be noted that the Ministerial Declaration of the 2001 WTO Ministerial Conference had (albeit, in the context of negotiations on a multilateral framework on investments) recognised the importance of decisions to be taken by explicit consensus, on the modalities of negotiations. As per

the Declaration, "any framework should reflect in a balanced manner the interests of home and host countries and take due account of the development policies and objectives of host governments as well as their right to regulate in the public interest. The special development, trade and financial needs of developing and least-developed countries should be an integral part of any framework, which should enable Members to undertake obligations and commitments commensurate with their individual needs and circumstances" (WTO, 2001).

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