



**Asia-Pacific
Economic Cooperation**

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**Summary Report - Workshop on Effective Domestic
Policymaking for Stimulating Economic Upgrading
Through Global Value Chains 2022**



**Workshop on Effective Domestic
Policymaking for Stimulating Economic
Upgrading Through Global Value Chains
1-2 March 2022**



**Asia-Pacific
Economic Cooperation**

**Workshop for Effective Domestic Policymaking
for Stimulating Economic Upgrading through
Global value chains**

WORKSHOP SUMMARY REPORT

2022

APEC Project: CTI 14 2019A

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Introduction

The emergence of global value chains (hereinafter – GVCs) has allowed economies to reduce production costs and increase their product competitiveness by utilizing production opportunities in economies where locational advantages confer a competitive benefit. Effective participation in GVCs also favor faster industrialization and technological development of economies due to increased transfer of technical knowledge, skills and expertise.

Both developed and developing economies can benefit from the participation in the GVCs, however, not all economies and businesses are equally involved in the GVCs and are able to fully extract potential benefits that participation in global production processes could offer.

At the same time, a more “profitable” participation can be ensured by effective domestic policymaking, which also has to account for all the modern-day developments in the global economy, including, among others, the fourth industrial revolution. Therefore, to promote effective participation in the GVCs’, domestic policies need to address a combination of spheres, including domestic policies that create an enabling environment for businesses, infrastructure, intellectual property protection, human capital and education, business environment and competition, macroeconomic and financial stability, innovation and technology.

As the APEC region plays an integral role in the formation and development of GVCs, individual and joint efforts by the APEC economies in promoting a more effective regulatory environment would enable a more efficient functioning of GVCs that would benefit not just the APEC economies themselves by stimulating higher domestic value added production, but also other economies worldwide that are integrated into global production processes, including both developed and developing economies.

The main objective of the project is to facilitate a better understanding among APEC economies of how different policy instruments in various policy areas (individually and/ or in combination) can contribute towards a more effective participation of economies and businesses, including MSMEs, in the GVCs, as well as their upgrade through GVCs.

The project directly relates to APEC Support Fund – Sub-Fund on Free Trade of the Asia-Pacific and Global Value Chains funding priorities with regards to promoting GVC development and cooperation as following: (1) Addressing trade and investment issues that impact GVCs; (2) Enabling developing economies to better participate in GVCs; (3) Assisting SMEs to benefit from GVCs; (4) Improving the investment climate for GVCs development; (4) Enhancing resiliency of GVCs. The project will also demonstrate concrete efforts to address and advance progress on APEC

Strategic Blueprint for Promoting Global Value Chains Development and Cooperation endorsed at the APEC Economic Leaders Meeting in 2014, as well as APEC Strategic Blueprint for Promoting Global Value Chains 2020 – 2025, endorsed at the APEC Ministers responsible for Trade Meeting in May 2019.

With the aim to analyze current development trends of GVCs and potential challenges that impede APEC economies' ability to upgrade through GVCs and identify ways to address them, including through reviewing the APEC economies' existing domestic policies and best practices, the virtual "Workshop on Effective Domestic Policymaking for Stimulating Economic Upgrading through Global Value Chains" was held on 1-2 March 2022. It was hosted by Russia and co-sponsored by Chile; China; Indonesia; Malaysia; the Philippines; and Viet Nam.

Background

The APEC Project CTI 14 2019A «Workshop on Effective Domestic Policymaking for Stimulating Economic Upgrading through Global Value Chains» (Project) was implemented to meet the following objectives:

- to explore key challenges that impede the APEC economies' ability to economically upgrade through the GVCs;
- to review existing APEC economies' domestic policies that contribute towards their more effective participation in the GVCs and in higher value added production;
- to compile best practices in APEC region that stimulate economic upgrading through the GVCs.

The Project includes three major phases: (1) developing and circulating a Pre-Workshop Questionnaire and the analysis of APEC economies' feedback; (2) conducting a two-day virtual workshop and (3) preparing of the Workshop Summary Report, that contains the analysis of 2 previous phases.

From 25 January to 25 February 2022, the Pre-Workshop Questionnaire (hereinafter - Questionnaire) was circulated to the APEC economies (Annex #1). The Questionnaire had been prepared to gather the following: (1) information from the APEC economies on the current situation and on the developments in the global economy that have an impact of the GVCs' formation and functioning; (2) views of the APEC economies on existing challenges they face in economically upgrading through the GVCs and maximizing domestic value-added production, as well as (3) the APEC economies' practices and experiences on how to tackle such challenges.

Prior to the two-day workshop, an overview of responses was prepared to summarize the results of the Questionnaire (Annex #2). In total, six economies submitted their feedback on the Questionnaire: Chile; Indonesia; Japan; Peru; Thailand; and Russia.

The two-day virtual workshop dedicated to the effective domestic policymaking for stimulating economic upgrading through global value chains was held on 1-2 March 2022. The workshop included two sessions with expert presentations followed by the Q&A, with 9 speakers and 107 participants from 14 economies and international organizations (World Trade Organization, International Trade Centre, Asian Development Bank, etc.) in total. In addition, during each session, blitz surveys were conducted (Annex #3), after which the moderator presented their main results.

Workshop – Discussion Findings

Opening Remarks

The workshop was opened by welcoming remarks from *Ms. Marya Baranova*, Deputy Director of the Department for Trade Negotiations, **Ministry of Economic Development of Russia**.

Ms. Baranova welcomed the workshop participants and highlighted the importance of the discussion of the issues concerning the effective participation of the APEC economies and companies in the GVCs using various domestic policy instruments. She stressed that the GVCs sectors are still fueling growth in many APEC economies, which have different options at hand to facilitate skills and education development, capital flows and the process upgrading that could foster value-added gains in the GVCs. A large spectrum of areas can play a role in the GVCs upgrading. Among them are infrastructure, connectivity, investment and trade policy, business climate and institutions, financial development, labor market policy, education and skills, product standards and innovation, as well as labor, social and environmental standards.

Ms. Baranova noted that the determinants of the participation in the GVCs include both global and domestic levels. At the global level, the reduction of trade and investment barriers and low costs of international trade are among necessary conditions. New challenges – such as new trade barriers arising from the evolving environmental agenda – may also affect the GVCs formation. At the same time, she emphasized that transparency, trade facilitation, greater regulatory compatibility, pro-growth competition and innovation policies, which collectively appreciate the needs of economies at different levels of development and firms of various sized and structures, can contribute to more effective integration in the GVCs. Ms. Baranova stressed that reducing risks to the participation in the GVCs requires strategies that are committed to multilateralism, non-discrimination and transparency.

In conclusion, she pointed out that despite the differences with regard to the APEC economies participation in the GVCs, especially in terms of their size, degree of industrialization and rate of growth, as well as various industries experience, technological and other changes, there is still a wide range of challenges that are common for the most APEC economies, and therefore it is important to learn from each other's experience, as well as to exchange views on effective policymaking to overcome obstacles on the way of upgrading along the GVCs.

Session 1. Value Chains in a Changing World

This session was dedicated to the modern challenges and developments in the global trade and their impact on intra-APEC/regional and global value chains. Moreover, the presentations in the first session focused on the assessment of the value chains transformation amidst the new realities created by the COVID-19 and its economic consequences, the development of regional economic integration processes, the Fourth Industrial revolution (including the evolving digitalization, and the development of IT and AI), the growing role of TNCs, the rise of global constraints relating to the technology transfer, the emerging forms of competition distortions, the green economy development, and other relevant factors.

Mr. Evgeny Kanaev, Professor and the Deputy Head of Faculty of World Economy and International Affairs, **National Research University “Higher School of Economics” (Russia)** made a brief review of the Asia-Pacific GVCs transformation, as well as presented the main results of the analysis of the APEC economies replies on the circulated Pre-Workshop Questionnaire.

He started his presentation by outlining the GVCs main dimensions both from the perspective of producers and consumers. The Table #1 reflects the main factors.

Table #1. Producer and Consumer Dimension

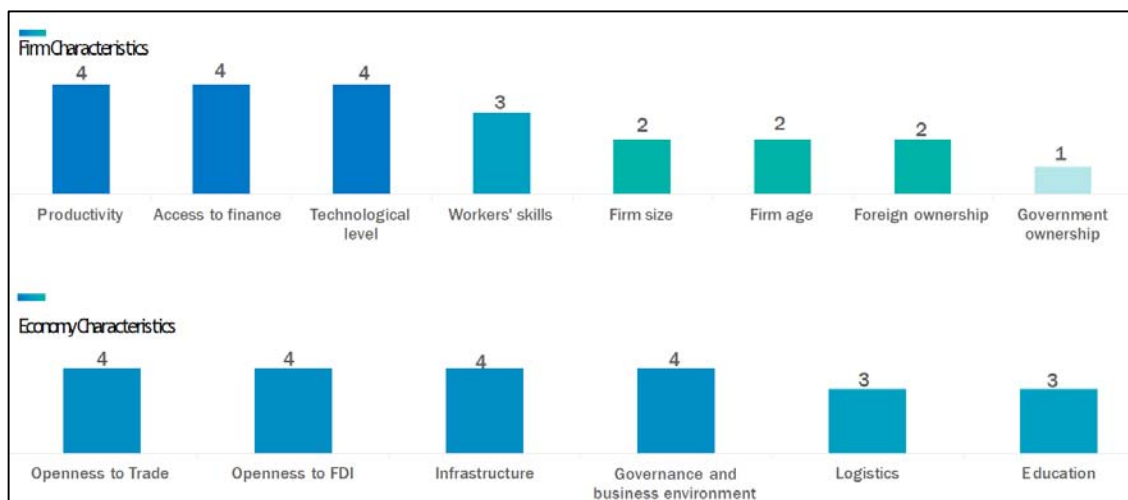
	Producer’s GVCs	Consumer’s GVCs
Factors of development	Industrial capital	Trade capital
Core competences	R&D, production	Design, marketing
Entry barriers	Scale effect	Assortment effect
Typical industries	Automobile, aircraft construction, computer production	FMCG
Companies: forms of property	MNCs	Local firms
Network connections	Investment	Trade
Network organization	Vertical	Horizontal

Mr. Kanaev identified the main macro-factors and trends shaping different kinds of GVCs in the APEC region. Among them are the rise of the Fourth Industrial Revolution, reshoring (a shift from globalization towards more local supply chains), diminishing returns on capital and labor, green economy development (which is accompanied by new challenges of technological change), emergence of “Shopper Asia” (as domestic demand is increasing across the region), as well as implications of the COVID-19 pandemic.

The speaker thereafter presented the main results of the circulated Pre-Workshop Questionnaire. First, he identified the key developments in the global economy that have an impact on the GVCs based on the replies received from some economies. Modernization of customs procedures and further trade facilitation efforts, low transportation costs and reliable logistics network, progressive tariff reduction (including through FTAs/RTAs), ICT and technology revolution, rise of the digital economy, skills development, as well as legal certainty were indicated as strongly positive. As regards the negative ones, respondents identified the following: the rise of protectionism (including increased NTMs), the container crisis, global chip shortage, trade tensions, technological gaps and technology disruptions, demographic shifts and the restrictive domestic regulations on internal and foreign trade. It should be noted in particular that the COVID-19 pandemic, according to the respondents' replies, had both negative and positive (mainly due the development of digital economy and e-commerce) impacts.

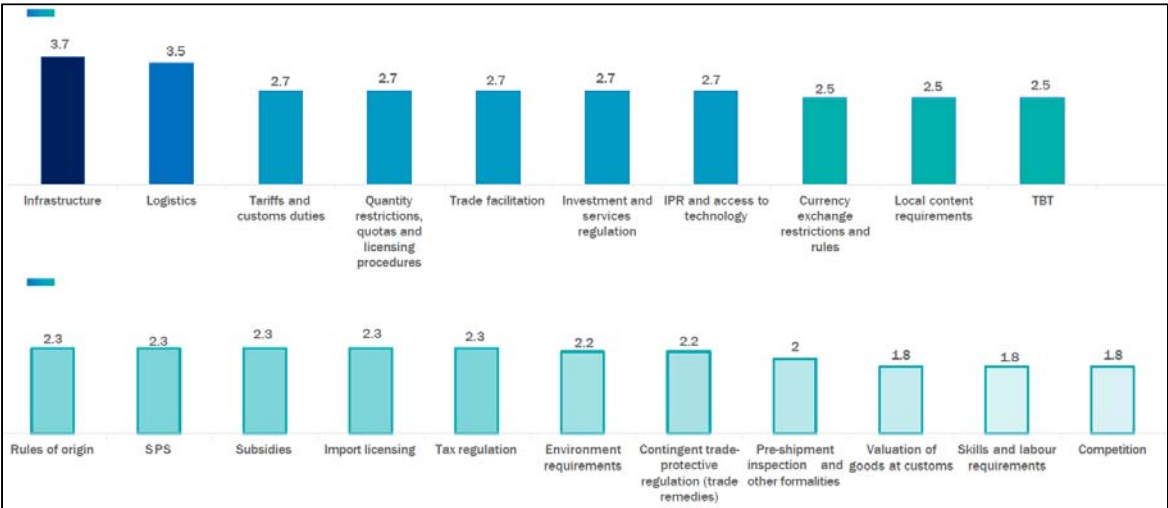
Second, Mr. Kanaev presented the key determinants of the participation in the GVCs. Since decisions about participating in the GVCs are usually made at the company level, the firm productivity, access to finance and technological level were recognized as key drivers of the participation in the GVCs today. In addition to the factors mentioned, the respondents indicated the importance of workers' skills for the successful participation in the GVCs.

Figure #1. Key determinants of GVCs participation



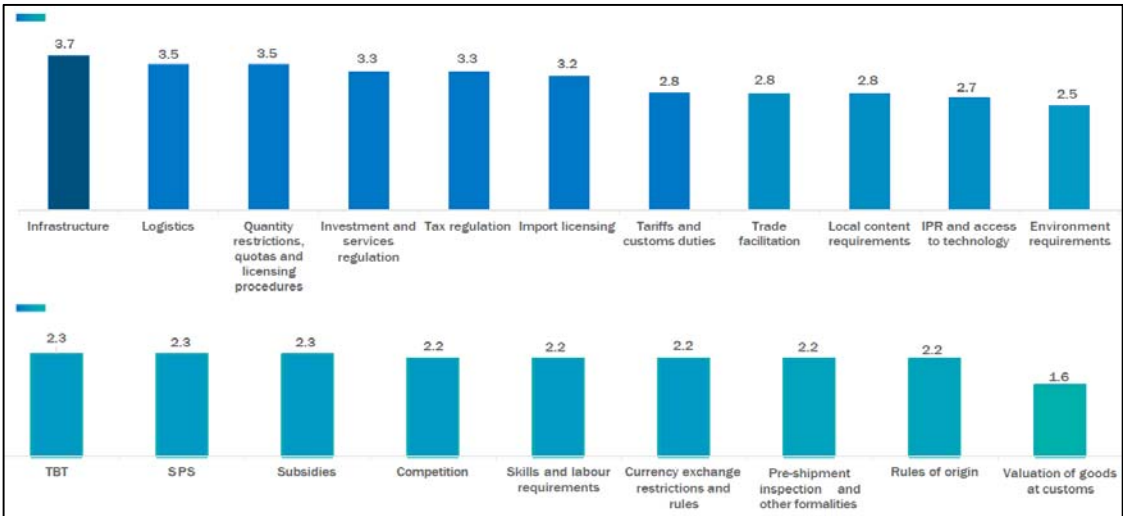
As regards the economy characteristics, the majority of replies indicated openness to trade and FDIs, the availability and quality of infrastructure, the level of governance and business environment as key factors that hide potential in the context of participation in the GVCs across the Asia-Pacific region.

Figure #2. Main spheres encountering restraints to GVCs functioning



Third, the speaker emphasized that the replies showed that there are still many spheres encountering restraints to both the economies’ participation in and their upgrading within the GVCs. Logistics and infrastructure, IPR and access to technology, as well as investment and services regulation were indicated as the main spheres encountering restraints. On the contrary, some respondents noted that competition, skill and labor requirements and valuation of goods at customs do not assume profound significance.

Figure #3. Main spheres encountering restraints to GVCs upgrading

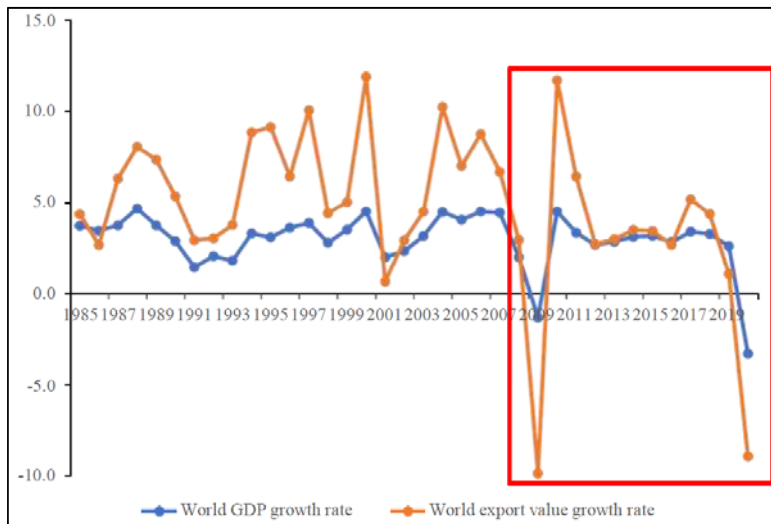


As for the main spheres encountering restraints to the GVCs upgrading, the participants also highlighted infrastructure, logistics, quantitative restrictions, quotas and licensing procedures and investment and services regulation, TBT and IPR as the key areas. Stress has been also laid on the

following spheres: tax regulation, subsidies, SPS, local content requirements, and import licensing.

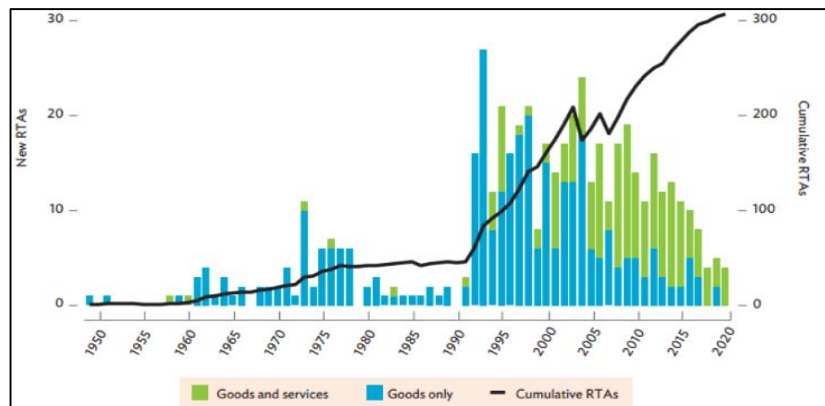
Ms. Yang Cuihong, Professor of the **Academy of Mathematics and System Science, Chinese Academy of Sciences (China)**, in co-authorship with Yu Zhang, Kailan Tian and Xuemei Jian, shared the findings of the study on potential economic and environmental effects of the shift from globalization to regionalization.

Figure #4. The growth rate of world GDP and exports



Reviewing the dynamics of the world GDP growth rate, as well as the world export value growth rate, the speaker proposed the term “slowbalization”, as a phenomenon opposite to “hyperglobalization”.

Figure #5. The number of regional trade agreements



Ms. Yang Cuihong also noted that there is a tendency to turn towards regionalism, which is mainly evidenced by the growth of the number of the new regional trade agreements.

Describing trade in components, she stressed that the value chains are more regional than globalized, since three interrelated production hubs have already emerged: the USA; China; and Germany. According to the speaker, such trends indicate a withering of globalization and a rise of regionalization. In this regard, Ms. Yang Cuihong raised the following question: what would be the potential economic and environmental effects if the globalization process switched into being more regionalized?

In order to assess the effects of regionalization, the speaker defined it as “changing the purchasing sources to a narrowed region”. According to the

calculations presented by Ms. Yang Cuihong, the aggregated value-added in the mentioned regions have accounted for about 85% of the world GDP since 2015. Respective calculations have been prepared via the use of the multi-regional input output model. It was also estimated that the three respective regions own relatively independent production factors from external regions, which provides the basis for the formation of the tripartite “North America-Europe-Asia” regionalized economic landscape.

Ms. Yang Cuihong conducted *ex ante* scenario analyses by considering two scenarios: complete regionalization¹ and partial regionalization².

Implementation of the first scenario, according to the speaker’s view, would widen the income gap between developed and developing economies, as well as lead to the carbon emissions decrease in Asia and Europe with simultaneous increase of emissions in North America. As regards the second scenario, the regionalization of Asia’s supply chains with North America would have the largest effects on its emissions and on value added. In terms of Europe, its regionalization with North America would have slightly less effects compared with Asia. In terms of North America, its regionalization with either Europe or Asia would increase its value added and emissions. In technology-intensive industries, regionalization would have the most profound effects on regional value added and emissions. Regionalization in labor-intensive industries would have large effects, significantly reducing value added and emissions in Asia. Resource-intensive and service-based regionalization would strongly affect value added and emissions in North America and Europe, but to a less extent in Asia.

Ms. Yang Cuihong, in summing up, emphasized that de-globalization is far from a good trend for the world economy, as it will widen a gap between developed and developing economies. According to the presenter’s assessment, if economies still prioritize growth to carbon emissions mitigation, Asia and Europe will continue to support globalization, while North America may tend to opt for regionalization, especially the regionalization between North America and Asia. In addition, if the environmental costs are taken into account, the emissions in North America will increase substantially under a regionalization scenario. In those circumstances, although a complete regionalization among Asia, Europe and North America is still unrealistic, a partial restructuring of supply chains is inescapable, especially in high-tech industries.

¹ Complete regionalization: the inter regional trade among North America, Europe and Asia are completely replaced by intra-regional flows.

² Partial regionalization: certain regions or industries (resource intensive, labor intensive, technology intensive, and service-based industries) are regionalized.

Asian Development Bank, represented by *Ms. Elisabetta Gentile*, Economist from Economic Research and Regional Cooperation Department, analyzed the employment effects of technology, trade, and consumption in the GVCs with an emphasis on developing Asia.

Despite the fact that Asia has significantly contributed to the global poverty reduction³, including by means of participating in the GVCs, the speaker noted that the adoption of the Fourth Industrial Revolution technologies might result in job losses in developing Asia. The possible consequences depend on the extent of the technological changes. Ms. Gentile identified two main scenarios: (1) if machines replace workers at one or more of the production tasks in the GVCs; (2) if the changes erode the labor cost advantage of emerging economies, thus encouraging reshoring production to advanced economies. At the same time, she highlighted that if technologies within the Fourth Industrial Revolution are skill-based, their adoption may shift demand from workers with lower skills to those with higher skills, thus widening inequality.

Ms. Gentile argued that between 2008 and 2018, the implementation of technology along the GVCs resulted in a decrease in both routine and non-routine employment levels. At the same time, demand for goods and services from the Asian middle class resulted in an increase in both routine and non-routine employment levels, which compensated negative impacts of technology.

Assessing the policy implications, she stressed that more sophisticated technologies are likely to aggravate skills mismatches in developing Asia. To avoid this scenario, a skilling or reskilling of the labor force, improving labor regulations and social protection measures, tax and expenditure policies warrant consideration. The speaker also pointed out that technology, which has created 'the problem,' can also be the solution in case a necessary support infrastructure and an environment conducive to innovation are to be created.

Mr. Christopher Ilagan, Director of Corporate Affairs, **Cargill Philippines Inc., (the Philippines)**, provided an overview of the companies' activities, especially with regard to the agriculture and food production. The speaker noted that Cargill has operated in the Philippines since 1949, and today it has more than two thousand employees in twenty-seven locations.

Among the company's projects, special attention should be given to the Sustainable Certified Coconut Oil Production (hereinafter – SCNO). It is a joint project implemented by Cargill, BASF, Procter & Gamble, Deutsche Gesellschaft für Internationale Zusammenarbeit and German Federal Ministry for Economic Cooperation and Development within the period from November 2015 to October 2019. The project was aimed to increase income and

³ Between 2005 and 2015, Asia lifted 611 million people out of poverty, bringing down the headcount ratio from 25.6% to 7.0% and Asia's share of the developing world's poor went from 65.0% to 36.2%.

economic self-sufficiency of smallholder coconut farmers in selected regions of the Philippines and Indonesia through operating a sustainable certified coconut oil supply chain. SCNO was implemented in cooperation with Agricultural Training Institute, Philippine Coconut Authority and Rainforest Alliance. The project had major economic and social implications, resulted in an income growth and productivity increase of farming enterprises.

Mr. Ilagan also highlighted some challenges they encountered during their work experience in the Philippines. In particular, he indicated high local input costs, including the high-energy prices, underinvestment in infrastructure and poor logistics, as well as inefficient production sector with systemic issues. Concerning the COVID-19 pandemic impacts, Mr. Ilagan noted that fragmented governance at the local level created bottlenecks, affecting the resilience of supply chains.

According to Mr. Ilagan's view, the solution of many challenges might be the Philippines participation in the RCEP and the CPTPP that could lower costs to trade and provide harmonization of trade rules, which, in turn, might increase the level of governance. At the same time, he noted that efforts should be also made to advance the green economy agenda and to find an effective response to the challenges related to the climate change.

Session 2. Policies to Improve the Value Chain: What Needs to be Done?

This session was dedicated to the policies applied by APEC economies concentrating on the most effective strategies, both at domestic and international level, that tackle the key barriers to integration and upgrading of the domestic firms, including micro, small and medium ones, in GVC.

Mr. Victor Stolzenburg, Research Economist of the Economic Research and Statistics Division, **World Trade Organization** (hereinafter - WTO) reviewed policies aimed to facilitate upgrading in GVCs and focused on different issues from training incentives to domestic market development and innovation policy.

The speaker presented different types of the GVCs upgrading, among which he highlighted the following: process upgrading (improving production processes to increase productivity), product upgrading (improving products to obtain higher margins), functional upgrading (taking over higher margin functions in GVCs), channel upgrading (making use of new distribution channels) and inter-sectoral upgrading (entering higher margin sectors). Each type of the GVCs upgrading might require different policies to implement and tend to be case-specific.

Mr. Stolzenburg noted that as the GVCs integration happens in most economies through the entry of foreign lead firms, inter-firm (knowledge spills over from lead firms to domestic firms) and intra-firm (lead firms expand their local activities) upgrading should be scrutinized separately. Such upgrading trajectories can occur through different channels, including staff training, staff turnover (e.g. employee spinoffs use better technology and have a 4 year head start over other firms in accessing markets their parent firms serve) and vertical and horizontal firm-to-firm relationships (e.g. a 10 p.p. increase in foreign presence is associated with an increase in the productivity of domestic firms in supplier sectors of about 9%).

A special emphasis was laid on the policy environment in which companies operate. In particular, the speaker noted that the policies should not only aim at attracting foreign investments but also at incentivizing the use of local resources, first of all, because lead firms tend to prefer local sourcing. However, such an approach requires the presence of specific conditions (adequate quality, adherence to standards, etc.). When implemented thoroughly, policies can create the conditions necessary for the entry of foreign lead firms in the local markets, including the adequate level of human capital development and domestic market development.

Concerning the human capital development, the speaker noted that investments into education belong to the most profitable investments since

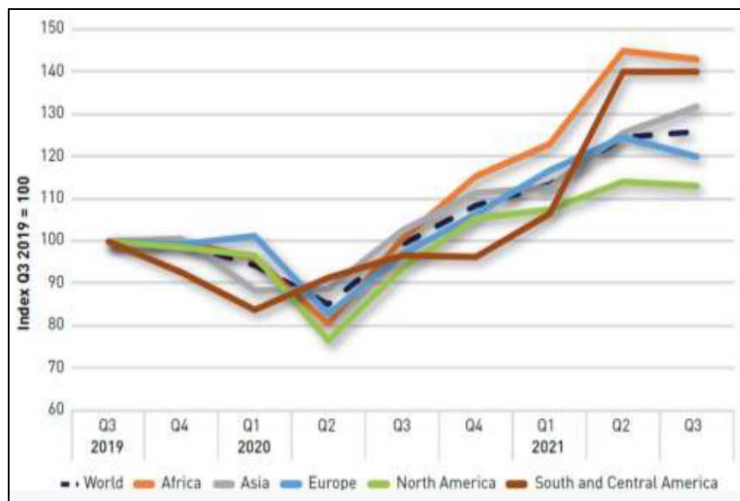
they benefit all aspects of economy, not just trade. Global structural change and digitization continuously drives up demand for skilled workers, which in turn aggravates the importance of investing in the education, despite the fact that returns from such investments take time to manifest.

Training policies in contrast can lead to immediate returns. However, according to the speakers view, such policies should optimally be designed together with lead firms, as well as provide incentives to lead firms. Mr. Stolzenburg shared information about programs implemented by Samsung in Viet Nam. They included workshops and training courses organization, as well as technical consultation program development.

In conclusion, the speaker offered several recommendations aimed at domestic market development, noting that a dynamic domestic business environment is, with human capital development, the most important enabler of spillovers. These recommendations include: (1) supporting innovation through appropriate R&D policies; (2) ensuring access to affordable high quality inputs; (3) ensuring demand through integration and/or procurement: scaling up economic possibilities; (4) fast and transparent business regulations; (4) ensuring access to qualified staff; (5) assistance with environmental and social standards demanded in major markets; etc.

Mr. Quan Zhao, Trade Policy Advisor, **International Trade Centre** focused his presentation on the issues related to the supply chains resilience and preparedness for future shocks.

Figure #6. World exports of intermediate goods



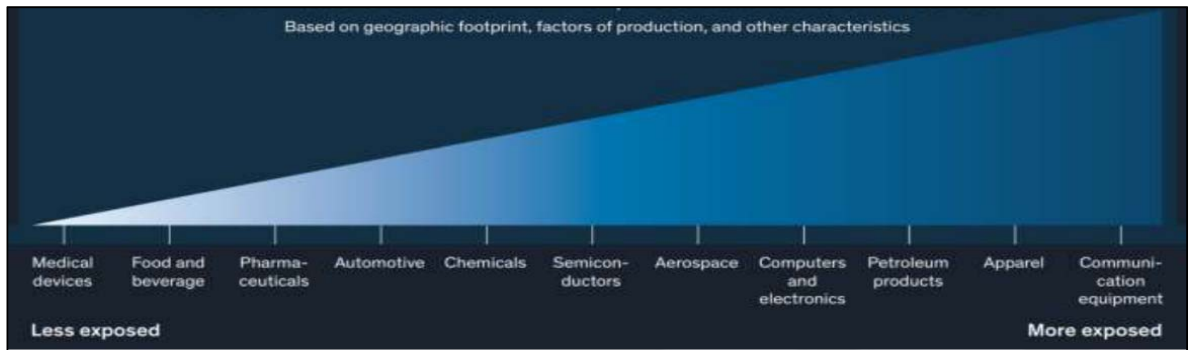
The speaker first noted that the COVID-19 implications have proved to be seriously detrimental to supply chains, resulting in an increase in demand, and in a simultaneous decrease in supply, as well as causing delivery delays.

At the same time, however, he stressed that GVCs activities recovered to pre-pandemic level to date. Proof of this is that the world exports of intermediate goods posted increases in all regions since Q3 2020, and surpassed pre pandemic intermediate goods export level (Q3 2019).

Nevertheless, according to the McKinsey surveys result to which Mr. Zhao had referred, pandemic, inflation and supply chain disruptions are still among

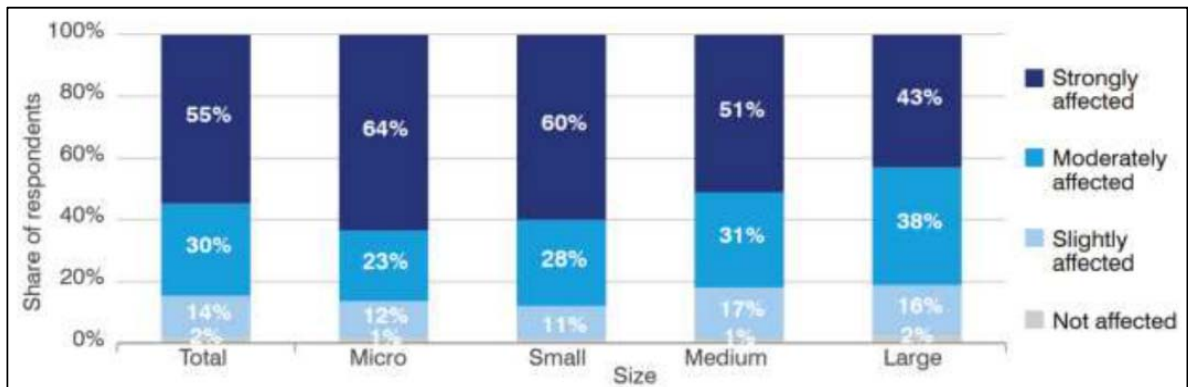
the top of concerns for business sector. Supply chain shocks remain a treat as they are becoming more frequent and severe.

Figure #7. The degree of exposure to shocks



In reviewing the COVID-19 impacts on different value chains, Mr. Zhao identified that value chains related with medical devices, food and beverage and pharmaceuticals turned out to be less vulnerable to such shocks. At the same time, value chains related with petroleum products, apparel and communication equipment demonstrated a high degree of exposure to shocks.

Figure #8. The degree of exposure (by different types of companies)



In turn, MSMEs ended up to be the most vulnerable owing to fewer resources and less experience, a lower degree of preparedness and limited access to information, regardless of the kind of value chains.

The speaker thereafter concentrated on possible recommendations that could be implemented to enhance supply chains resilience.

In terms of trade and investment policies, Mr. Zhao noted the need of ensuring an open, non-discriminatory, predictable and stable trade and investment environment for both APEC region and globally, the importance of facilitating efforts to fully implement TFA, as well as the further acceleration of digital trade facilitation implementation that could cut average trade costs in the region.

As regards the COVID-19 response, the speaker highlighted the importance of timely provision of information on health protocols, joint support to global efforts, such as COVAX, facilitation of trade and investment

in manufacturing of essential goods, enhancing cooperation in pandemic control/relieve, as well as exchange on strategies and lessons learned in dealing with supply chain shocks.

In terms of technology and innovation development, he underscored the importance of the servicization of supply chains (through the development of electronic trading platforms) and supply chains automation (development of the Internet of Things technologies, artificial intelligence, blockchain, robotics, as well as data standardization and facilitation of data exchange on transportation, especially with regard to the maritime).

In addition, Mr. Zhao stressed the need of monitoring the changes in the TNCs' business strategies for possible consequences for the GVCs development. Special emphasis was also made on the policies aimed at increasing share of MSMEs in the GVCs, including through encouraging the inclusion of MSMEs in chains created by large companies and TNCs, as well as promoting the MSMEs' digitalization.

Ms. Sarah Thorn, Senior Director of Global Government Affairs, **Walmart (USA)**, focused her presentation primarily on Walmart's interactions with MSMEs within the GVCs.

The speaker noted that Walmart is implementing an omni-channel strategy that diversifies the company's means of the products delivery to customers. Such a strategy involves various grab-and-go areas and different ways to pay, both physically and digitally. According to the Ms. Thorn view, this strategy enables all the components of the supply chains to function efficiently within the digital ecosystem.

The speaker highlighted that Walmart supports MSMEs for various reasons. In particular, the engagement with local suppliers helps company to learn about the features of different markets and clients' preferences. In addition, she outlined the main challenges that Walmart usually encounters when dealing with MSMEs. In particular, these include lack of skills, inability to respond to necessary standards, as well as package and distribution deficiencies.

Ms. Thorn also noted that Walmart understands that the issue with regard to the access to finance is a serious one, especially for MSMEs. In this regard, company developed supply chain financing programs – "Tier 1 Best Financing" and "Tier 2 Better Financing". Participation in these programs depends on company's compliance with the environmental standards. In particular, pricing policy with regard to the financing is linked to supplier's CDP scores.

As for the recommendations for the APEC economies, the speaker suggested the following steps: (1) to improve the physical supply chain infrastructure; (2) to encourage the digital infrastructure development; (3) to

accelerate initiatives aimed at strengthening digital economy; and (4) to increase MSMEs digital literacy.

Mr. Luciano Cuervo, Senior Economic Advisor of the Global Value Chains Division, **Undersecretariat of International Economic Affairs (Chile)**, presented the policies implemented by Chile to enhance its participation in the GVCs.

The speaker identified the present trends affecting their participation in the GVCs. In particular, these include the following factors: (1) trade frictions; (2) reshoring; (3) the negative impacts of the COVID-19 pandemic; as well as (4) the economic recession.

Mr. Cuervo thereafter briefly shared information about Chile's strategy with regard to the both participation in and upgrading within the GVCs. It involves regional value chains enhancement through strengthening production links at the regional level. Such business model involves that Chile imports components from third party economies to produce final goods and further exports them to the markets with which free trade agreements have been concluded. Mr. Cuervo highlighted the importance of maintain an open, non-discriminatory, rules-based, predictable, and stable multilateral trading system, as embodied in the WTO. He also underscored the need to resist the growth of trade protectionism, including in the form of unilateral trade restrictions.

Ms. Alexandra Mochalova, Trade Policy Expert of the **WTO Expertise Center (Russia)**, focused her presentation on the ways of promoting effective GVC participation in the APEC region using trade policy instruments.

Ms. Mochalova argued that such GVCs participation is associated with higher value-added production. Consequently, using the example of the Eurasian Economic Union (hereinafter – EAEU, Union), the speaker evaluated various strategies implemented by the Union and its Member-economies to promote their participation up the value chains to the higher stages of production. In particular, Ms. Mochalova focused on the role of non-preferential and preferential trade agreements in promoting EAEU's effective GVC participation.

According to the speaker, international treaties of various levels increase the level of legal certainty by establishing uniform long-term "rules of the game" for all its' participants, which is why the creation of an extensive FTA network with foreign partners that are tightly integrated into regional and global value chains is one of the priorities of the EAEU. Consequently, Ms. Mochalova evaluated Unions' FTAs' that are already in force⁴ and argued that

⁴ FTA between the EAEU and Vietnam (came into force in October 2016); FTA between the EAEU and Serbia (October 2019); interim agreement signed between the EAEU and Iran (October 2019).

to increase their effectiveness the following elements also have to be accounted for within an FTA framework: services and investment regulation, and intellectual property protection (including brands, design and patented technologies, as well as IP enforcement mechanisms), which increasingly determine the ability of economies and companies to benefit from GVCs.

Finally, the speaker also stressed the importance of a stable and predictable multilateral trading system with an effectively functioning WTO at its' core for efficiently functioning GVCs. Ms. Mochalova further argued that without the WTO, as the guarantor of legal certainty in international trade, there would always be a risk of certain GVCs' participants applying trade restrictive measures that would impede on the movement of goods and services, and, as a consequence, disrupt GVCs functioning. She urged APEC economies to unite in the fight against protectionism, which undermines the very foundations of MTS and the WTO, as well as to actively participate in the ongoing WTO work aimed at adapting the organization to the modern-day economic realities.

Conclusion

Through this workshop, participants mentioned a number of factors and challenges affecting the formation and functioning of the GVCs.

Among them are:

- *The Fourth Industrial Revolution*. Industries are “moving” into a high-tech, knowledge-intensive sphere with a growing share of service sectors. Access to technology becomes vital to the companies’ competitiveness. This also concerns the access to “green” technologies in the context of the “green agenda” rapid development. Against this background, smooth and unimpeded flow of technologies is important, while artificial restriction on access to technology can be considered as an emerging tool of protectionism.
- *Robotization of production*. This might lead to an increased demand for highly qualified personnel. It mainly affects industries that are largely dependent on the GVCs (automotive, textile production, electronics).
- *Fragmentation of production within the framework of the «third unbundling»*. This comprises the chains fragmentation into production stages, as well as into separate tasks (“task relocation”), many of which are performed through outsourcing (including from other economies due to the emergence and development of digital technologies). The trend is particularly evident in the service sector.
- *The impact of the GVCs transformation on employment*⁵. The most negative effect is expected from the robotization of production within the GVCs (-46.5%). The least negative effect (-0.1%) is expected from task relocation within the GVC (for example, if the stages of labour-intensive work are moved to the least developed economies/regions, the total number of so-called “routine” workers will not change, only the geographical distribution changes).
- *Reshoring*. The focus is on proximity to markets, but not on the cheapness of the production factors, when deciding on the production relocation. New technologies lead to the automation of production, which makes the companies’ production relocation to the economies with cheap labour force. The “reverse relocation” of production to the developed economies and the concentration of the entire automated production cycle in a single economy is probable. At the same time, these changes may lead to producers starting to locate production facilities near their main sales markets to reduce transport and trade costs. In the future, such trends may lead to the geographical redistribution of the value chains and the concentration of the entire production cycle in a single economy, while the volume of trade in

⁵ Calculations of the Asian Development Bank

intermediate goods may decrease, while trade in technologies, equipment and services related to the production may increase. In critical conditions, such changes in the value chains can allow companies to diversify their production processes, having all the production capacities not in one economy (based on the logic of cheapness of production factors), but in several economies, depending on the volume of demand. At the same time, the scenario of “absolute” reshoring is unlikely.

— *The impact of the value chains regionalization on the amount of value added created in the region, as well as on the level of CO2 emissions.* The approach to the participation in the GVCs (regionalization vs. globalization) depends on what the government’s task is (maximizing national added value vs. reduction of CO2 emissions).

— *Green economy development.* The compliance of companies with high environmental standards becomes a prerequisite for integration into the GVCs (from “nice-to-have” to mandatory). The different speed of green development with a simultaneous trend towards the imposition of individual standards by some economies distorts competitive conditions and increases the gap in the competitiveness of economies.

— *COVID-19.* The GVCs in the field of medical equipment production were affected to a lesser extent. The production of ICT equipment, on the contrary, was affected to a greater extent. The general trend is that the more robotic production is, the less it has suffered from the pandemic. Regardless of the sector, micro-small and medium-sized enterprises suffered the most.

— *The growth of trade protectionism and trade frictions.* This has a significant negative impact on the GVCs. Through the workshop, participants evaluated that restrictions on FDIs might create the most negative effects for the high-margin GVCs/segments of the chain.

Through the workshop, participants highlighted a number of practical recommendations, including but not limited to:

— develop the human capital, including through (1) investment increase in education; (2) support of retraining programs; (3) R&D support; (4) facilitation of intra-company personnel exchanges (parent company – subsidiary company), as well as (5) assistance in organizing training at the intra- and inter-company levels with an emphasis on the digital component (for example, Samsung’s annual training program for local firms in Viet Nam);

— facilitate access to highly qualified foreign personnel by streamlining the movement of natural persons;

— improve the investment climate to attract FDIs, including through simplifying the terms for opening and doing business; increasing regulatory transparency; increasing the level of investment protection (including within

the framework of bilateral agreements for the protection and promotion of investments).

- increase the level of intellectual property rights protection, including through strengthening the enforcement of the IP law.

- facilitate access to technologies and ensure that access to technologies is not used as means of protectionism;

- facilitate access to finance;

- facilitate access to high-quality components and equipment used in the local value chains, including through the reduction of tariff rates, the elimination of non-tariff barriers.

- adapt the taxation system to the value chains in which local companies participate;

- modernize the existing physical infrastructure while simultaneously developing the digital infrastructure.

- support servicization of supply chains, including through the development of electronic trading platforms.

- support policies that contribute to the increased share of MSMEs in the GVCs, including through encouraging the inclusion of MSMEs in chains created by large companies and TNCs; and increasing the level of MSMEs digitalization.

- increase the level of supply chains automation (increase productivity and reduce operating costs), including through the development of the Internet of Things technologies, artificial intelligence, blockchain, robotics, as well as data standardization and facilitation of data exchange on transportation (especially with regard to the maritime).

- reduce trade, logistics, and administrative costs for economic operators, including through facilitation of cross-border procedures, significant automation and digitalization of customs operations; full implementation of the WTO Trade Facilitation Agreement; investment facilitation; facilitation of domestic regulation in services; logistics services development and reduction of respective costs; and reduction of administrative burden.

- assist businesses in adapting to modern environmental, social, and labour standards used by the world market leaders;

- monitor changes in the TNCs' for possible consequences for the GVCs development;

- encourage initiatives from the private sector that could support GVCs effective formation and functioning;

- enhance regional value chains through strengthening production links at the regional level.

- maintain an open, non-discriminatory, rules-based, predictable, and stable multilateral trading system, as embodied in the WTO.

- improve the WTO rules to adapt them to modern-day challenges and trends in global trade (including the development of common approaches to the e-commerce regulation at the international level).
- resist the growth of trade protectionism, including in the form of unilateral trade restrictions.

Annexes

Annex #1. Pre-Workshop Questionnaire

The questionnaire aims (1) to gain a better understanding of the current situation and new developments in the global economy that have an impact of GVCs' formation and functioning both in the Asia-Pacific region and worldwide; (2) to explore existing challenges, both international and domestic, APEC economies/companies face in economically upgrading through GVCs and maximizing domestic value added production and (3) review various practices and experiences of the APEC economies in promoting a more effective integration into global production processes that stimulate higher domestic value added production.

Personal Information

APEC Economy	
Name	
Designation / Position	
E-mail	
Website (optional)	

1. Please, describe your economy's participation in GVC (please, tick the boxes that are most relevant to your economy's participation in GVCs):

Backward participation ⁶ mostly	Forward participation ⁷ mostly
<input type="checkbox"/>	<input type="checkbox"/>
Complex GVC participation mostly	Simple GVC participation mostly
<input type="checkbox"/>	<input type="checkbox"/>

⁶ Backward linkages: import of foreign inputs to produce goods/services for export.

⁷ Forward linkages: export of intermediates/inputs to GVC partners to produce their exports of goods and services.

FDI-related GVCs				Trade-related GVCs, involving trade in intermediates		
<input type="checkbox"/>				<input type="checkbox"/>		
Stage of the GVC (several options are possible):						
R&D	Design	Branding	Manufacture	Marketing	Distribution	Sales/after service
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

2. Please, rank the key sectors of your economy with the highest backward participation ratio (<i>top GVC-importing sectors</i>): Sector	Ranking: from 1 to 5 1 – the highest ratio 5 – the lowest ratio
Agriculture	
Mining	
Manufacturing	
<i>please, specify:</i> <i>textiles/chemicals/ automotive/ other</i>	
<i>please, specify:</i> <i>low-technology manufacturing/ high-technology manufacturing</i>	
ICT	
Services	

3. Please, rank the key sectors of your economy with the highest forward participation ratio (*top export sectors to GVCs*):

Sector	Ranking: from 1 to 5 1 – the highest ratio 5 – the lowest ratio
Agriculture	
Mining	
Manufacturing	
<i><u>please, specify:</u> textiles/chemicals/ automotive/ other</i>	
<i><u>please, specify:</u> low-technology manufacturing/ high-technology manufacturing</i>	
ICT	
Services	

4. Please, name the TOP-5 key developments in the global economy that have an impact of GVCs' formation and functioning worldwide? Please, indicate whether such developments have positive or negative impact on upgrading and innovation along GVCs.

№	Factor	Impact on GVCs
1.		
2.		
3.		
4.		
5.		

Additional comments:

5. Please, name the TOP-5 key developments in the global economy that have an impact of GVCs' formation and functioning in the Asia-Pacific region? Please, indicate whether such developments have positive or negative impact on upgrading and innovation along GVCs.

Nº	Factor	Impact on GVCs
1.		
2.		
3.		
4.		
5.		

Additional comments:

6. What are the spheres where the vast majority of restraints in partner's market to your economy's activities within GVCs can be met? Please, provide an example (*optionally*).

	Sphere	Scores: from 1 to 5 1 - the weakest influence 5 - the strongest influence
1.	Tariffs and customs duties	
2.	Rules of origin	
3.	Valuation of goods at customs	
4.	TBT	
5.	SPS	
6.	Subsidies	
7.	Import licensing	
8.	Quantity restrictions, quotas and licensing procedures	
9.	Pre-shipment inspection and other formalities	
10.	Local content requirements	
11.	Contingent trade-protective regulation (trade remedies)	

12.	Currency exchange restrictions and rules	
13.	Trade facilitation	
14.	Tax regulation	
15.	Investment and services regulation	
	<i>Limitations to Mode 1 (cross-border supply of services)</i>	
	<i>Limitations to Mode 2 (consumption abroad)</i>	
	<i>Limitations to Mode 3 (commercial presence)</i>	
	<i>Pre-establishment</i>	
	<i>Post- establishment</i>	
	<i>Limitations to Mode 4 (movement of people)</i>	
16.	Skills and labour requirements	
17.	Environment requirements	
18.	Competition	
19.	IPR and access to technology	
20.	Logistics	
21.	Infrastructure	
22.	Other (please, specify)	

Additional comments:

7. Please, identify the sphere(s) that may face the majority of restraints to economic upgrading through GVCs can be met?

	Sphere	Scores: from 1 to 5 1 - the weakest influence 5 - the strongest influence
1.	Tariffs and customs duties	
2.	Rules of origin	
3.	Valuation of goods at customs	
4.	TBT	
5.	SPS	
6.	Subsidies	
7.	Import licensing	
8.	Quantity restrictions, quotas and licensing procedures	
9.	Pre-shipment inspection and other formalities	
10.	Local content requirements	

11.	Contingent trade-protective regulation (trade remedies)	
12.	Currency exchange restrictions and rules	
13.	Trade facilitation	
14.	Tax regulation	
15.	Investment and services regulation	
	<i>Limitations to Mode 1 (cross-border supply of services)</i>	
	<i>Limitations to Mode 2 (consumption abroad)</i>	
	<i>Limitations to Mode 3 (commercial presence)</i>	
	<i>Pre-establishment</i>	
	<i>Post-establishment</i>	
	<i>Limitations to Mode 4 (movement of people)</i>	
16.	Skills and labour requirements	
17.	Environment requirements	
18.	Competition	
19.	IPR and access to technology	
20.	Logistics	
21.	Infrastructure	
22.	Other (please, specify)	

Additional comments:

8. What are the key determinants of GVC participation today? Please, rank.

Characteristics	Scores: from 1 to 5 1 – the weakest influence 5 – the strongest influence
Firm characteristics	
Productivity	
Firm size	
Firm age	
Foreign ownership	
Government ownership	
Technological level	
Workers' skill	
Access to finance	
Other (please, specify)	

Economy characteristics	
Openness to Trade	
Openness to FDI	
Education	
Infrastructure (including digital one)	
Logistics	
Governance and business environment	
Other (please, specify)	

9. Is the GVC dimension reflected in your economy's policy document(s), plan(s) or strategy(ies)? Do they explicitly target any GVC-specific goals? If yes, please describe.

10. Is there an illustration of your economy's experience that helps to economically upgrade through GVC that you want to showcase as an example of best practice? If yes, please describe.

11. What could be done internationally to promote more effective participation of your economy in GVCs?

Annex #2. Overview of the Replies to the Questionnaire

Six economies submitted their replies to the Pre-Workshop Questionnaire: Chile; Indonesia; Japan; Peru; Thailand; and Russian Federation.

1. Participation in GVC

Chile described its participation in the GVCs as mostly forward participation with both complex and simple participation. Chile's respondents have also outlined FDI-related GVCs and trade-related GVCs, involving trade in intermediates. Manufacture and sale/after-sales services were indicated as the stages of the participation in the GVCs.

Indonesia indicated that its participation in the GVCs is mostly simple participation, in FDI-linked GVCs and trade-linked GVCs, including trade in intermediate goods. The following stages of the participation in the GVCs were identified: R&D, manufacture, distribution, marketing, sales/after-sales service.

Japan described its participation in the GVCs as mostly forward participation with the following stages: R&D, design, branding, production, marketing, distribution, sales/after-sales service.

Peru has indicated that its participation in the GVCs as mostly forward and complex participation, in FDI-related GVCs. The following stages of the GVCs participation were identified: R&D, branding and manufacture.

Russia mentioned that its participation in the GVCs is mostly forward with both complex and simple participation. Russia's respondents have also outlined trade-related GVCs, involving trade in intermediates. Manufacture and distribution were indicated as the key stages of the participation in the GVCs.

Thailand described its participation as both backward and forward with complex and simple types of the participation in the GVCs. Thailand's respondents have also outlined FDI-linked GVCs and trade-linked GVCs, involving trade in intermediate goods. Thailand has indicated the following GVCs stages: design, manufacture, sales/after-sales service.

2. Key sectors of the economy with the highest backward / forward participation⁸

Regarding the key sectors of the economy with the highest backward participation, respondents indicated the following:

— **Chile:** agriculture (4 out of 5), manufacturing (3 out of 5), mining (2 out of 5) and services (2 out of 5) and ICT (1 out of 5);

⁸ The questionnaire establishes a table of scores from 5 (the lowest) to 1 (the highest).

- **Indonesia**: agriculture (4 out of 5), mining (4 out of 5), manufacturing and services (2 out of 5), ICT (2 out of 5);
- **Japan**: mining (5 out of 5), agriculture (4 out of 5) and technologically-advanced manufacturing (1 out of 5);
- **Peru**: services (5 out of 5), mining (4 out of 5), ICT (3 out of 5), agriculture (2 out of 5) and manufacturing (textiles, 1 out of 5);
- **Russia**: agriculture (3 out of 5), mining (3 out of 5), services (3 out of 5), manufacturing (chemicals, metallurgy; 2 out of 5), ICT (1 out of 5);
- **Thailand**: agriculture (5 out of 5), mining (4 out of 5), motor vehicles (3 out of 5), services (3 out of 5), ICT (2 out of 5) and wholesale and retail trade (2 out of 5), manufacturing (1 out of 5), computer and other electronic products (1 out of 5);

As regards the key sectors of the economy with the highest forward participation, respondents noted the following:

- **Chile**: mining (5 out of 5); manufacturing (5 out of 5); agriculture (4 out of 5); ICT (4 out of 5); and services (2 out of 5);
- **Indonesia**: ICT (4 out of 5); services (4 out of 5); manufacturing (3 out of 5); agriculture (2 out of 5); and mining (1 out of 5);
- **Japan**: mining (5 out of 5); agriculture (4 out of 5); services (3 out of 5); ICT (2 out of 5); and manufacturing (chemicals, steel, electrical equipment, automotive) (1 out of 5);
- **Peru**: ICT (5 out of 5); manufacturing (textiles and high-technology manufacturing) (4 out of 5); services (3 out of 5); agriculture (2 out of 5); and mining (1 out of 5);
- **Russia**: ICT (4 out of 5); high-technology manufacturing (4 out of 5); services (3 out of 5); low-technology manufacturing (3 out of 5); agriculture (2 out of 5); mining (2 out of 5); manufacturing (chemicals, ferrous and non-ferrous metallurgy; 1 out of 5),
- **Thailand**: mining (5 out of 5); ICT (4 out of 5); agriculture (3 out of 5); manufacturing (2 out of 5); computer and other electronic products (2 out of 5); and wholesale and retail trade (1 out of 5);

3. TOP-5 key developments in the global economy that have an impact on GVCs' formation and functioning worldwide / in the Asia-Pacific region

Chile identified three major factors on the global level: trade wars as a "generator" of uncertainty in the GVCs, the COVID-19 economic consequences, including the disruptions of the GVCs and high transport costs, and non-tariff measures. These factors create uncertainties for decisions related to the participation in the GVCs. Chile's respondents have indicated

that ICT revolution and the digital economy development may positively influence Asia-Pacific GVCs.

With respect to the positive factors that affect both global economy and Asia-Pacific region, **Indonesia's** experts indicated RTAs/FTAs, digital transformation in trade, skilled labor, as well as the development of sustainable policies. Such factors, according to the respondents' answers can increase the opportunities of MSMEs. As for the negative ones, Indonesia outlined increasing protectionist measures (NTMs, export restrictions) and the long-term impact of the COVID-19 pandemic, especially with regard to the GVCs.

Japan's respondents highlighted five positive factors without indicating the negative ones. Such factors include concluding FTAs/RTAs, reducing tariffs and transportation costs, expanding ICT technologies and improving the efficiency of customs clearance and certification procedures.

Peru's opinion was in many ways similar to the Japan's one, especially in terms of the revolution in the ICT field and the rise of digital economy. Peru considers that the existence of restrictive measures in domestic and foreign trade policies could negatively affect GVCs. According to the Peru's survey, transport sector in the Asia-Pacific region has been heavily impacted by the measures, adopted to tackle the spread of the COVID-19 pandemic. In particular, such measures have led to the GVCs disruptions that resulted in the increase of the transportation costs and prices of essential goods worldwide. On top of that, Peru's respondents highlighted the drastic suffer of the private sector from the pandemic, especially MSMEs.

As regards to the positive factors that affect both global economy and Asia-Pacific region, **Russia** mentioned digital technology development and increased technological automation, as well as enhancing the efficiency of customs clearance procedures and certification. With respect to the negative ones, Russia outlined the increased barriers to technology transfers and diffusion of knowledge, increasing transport costs, as well as expansion of restrictive business practices by TNCs. In addition, the emphasis was laid on the lack of FDIIs (in the context of the reshoring process), which negatively affect the participation in the GVCs in the Asia-Pacific region.

In the view of **Thailand's** experts, new technologies (Internet of Things, blockchain technology, cloud computing, 3D printing, Metaverse) have a positive impact. However, a huge technological gap between developed and developing economies, as well as between TNCs and MSMEs, affects the economic competitiveness. Thailand outlined the following positive factors: upgrade of skills and infrastructure, adherence to open trade policy, efficient regulation and environment friendly policy. At the same time, according to the Thailand's respondents, geopolitical tensions could lead to trade wars and new restrictions imposed on global trade flows. Thailand' also noted that global

supplies are shocked by the lockdowns. Factories were forced to stop their operations for months. The container shortage and the increase of protectionist policies were also mentioned as negative factors. As for the impact on GVC's formation and functioning in the Asia-Pacific region, Thailand noted that the shift of supply chains towards regionalization has had a positive impact on the level of economies' and companies' cooperation. The technological and innovative potential, according to Thailand's respondents, has also contributed to an increase in competitiveness, especially of MSMEs. With the assistance of such regional trade agreements as RCEP or CPTPP, Asia-Pacific economies may fully explore their opportunities for increasing their competitiveness.

4. The spheres with the vast majority of restraints in partner's market within GVCs⁹

Regarding spheres with the vast majority of restraints in partner's market within GVCs, respondents indicated the following:

— **Chile: 5 out of 5:** Tariffs and customs duties, rules of origin, SPS, import licensing, quantitative restrictions, quotas and licensing procedures to embrace the majority of restraints. **4 out of 5:** Valuation of goods at customs, TBT, subsidies, local content requirements, contingent trade-protective regulation (trade remedies), trade facilitation, investment and services regulation (all Modes), skills and labor requirements, logistics, infrastructure. **3 out of 5:** The pre-shipment inspection and other formalities, currency exchange restrictions and rules, tax regulation, environmental requirements, IPR and access to technology. **2 out of 5:** Competition.

— **Indonesia: 4 out of 5:** Tariffs and customs duties, and TBT. **3 out of 5:** Rules of origin, subsidies, quantitative restrictions, quotas and licensing procedures, local content requirements, contingent trade-protective regulation (trade remedies), currency exchange restrictions and rules, trade facilitation, tax regulation, investment and services regulation, skills and labor requirements, environmental requirements, competition, IPR and access to technology, logistics, as well as infrastructure. **2 out of 5:** Valuation of goods at customs, SPS, import licensing, pre-shipment inspection and other formalities.

— **Peru: 5 out of 5:** Infrastructure and logistics. **3 out of 5:** IPR and an access to technology. **2 out of 5:** local content requirements. **1 out of 5:** investment and services regulation.

⁹ The questionnaire establishes a table of scores from one (the weakest influence) to five (the strongest influence).

— **Russia: 5 out of 5:** IPR and access to technology. **4 out of 5:** TBT, contingent trade-protective regulation (trade remedies), currency exchange restrictions and rules, investment and services regulation, environment requirements, logistics. **3 out of 5:** Rules of origin, SPS, import licensing, quantitative restrictions, quotas and licensing procedures, infrastructure. **2 out of 5:** Tariffs and customs duties, local content requirements, trade facilitation, tax regulation, skills and labor requirements, competition. **1 out of 5:** Pre-shipment inspection and other formalities and valuation of goods at customs.

— **Thailand: 5 out of 5:** Currency exchange restrictions and rules, trade facilitation, logistics, infrastructure. **4 out of 5:** Subsidies, import licensing, quantitative restrictions, quotas and licensing procedures, pre-shipment inspection and other formalities, tax regulation, investment and services regulation. **3 out of 5:** Tariffs and customs duties, rules of origin, TBT, local content requirements, contingent trade-protective regulation (trade remedies), environmental requirements, and competition. **2 out of 5:** Valuation of goods at customs. **1 out of 5:** Skills and labor requirements.

5. The spheres that may face the majority of restraints to upgrading through GVCs¹⁰

Regarding spheres that may face the majority of restraints to upgrading through GVCs, respondents indicated the following:

— **Chile: 5 out of 5:** Tariff and customs duties, rules of origin, SPS, import licensing, quantitative restrictions, quotas and licensing procedures. **4 out of 5:** Valuation of goods at customs, TBT, subsidies, local content requirements, trade remedies, trade facilitation investment and service regulation, skill and labor requirements, logistics and infrastructure. **3 out of 5:** Pre-shipment inspection and other formalities, currency exchange restrictions and rules, tax regulation, environmental requirements, IPR and access to technology. **2 out of 5:** Competition.

— **Indonesia: 4 out of 5:** Tariffs, customs duties, and TBT. **3 out of 5:** Rules of origin, SPS, subsidies, quantitative restrictions, quotas and licensing procedures, local content requirements, trade facilitation, tax regulations, skills and labor requirements, environmental requirements, competition, IPR and access to technology, logistics and infrastructure. **2 out of 5:** Valuation of goods at customs, import licensing, pre-shipment inspection and other formalities, contingent trade-protective regulation (trade remedies), currency exchange restrictions and rules, investment and services regulation.

¹⁰ The questionnaire establishes a table of scores from one (the weakest influence) to five (the strongest influence).

- **Japan: 5 out of 5:** Import licensing, quantitative restrictions, quotas, and licensing procedures. **4 out of 5:** Investment and services regulation. **3 out of 5:** Local content requirements. **2 out of 5:** pre-shipment inspection and other formalities, tax regulations. **1 out of 5:** Logistics.
- **Peru: 5 out of 5:** Infrastructure. **4 out of 5:** Logistics. **3 out of 5:** IPR and access to technology. **2 out of 5:** Investment and service regulation. **1 out of 5:** Environmental requirements.
- **Russia: 5 out of 5:** IPR and access to technology. **4 out of 5:** TBT, quantitative restrictions, quotas and licensing procedures, investment and services regulation, skills and labor requirements, environment requirements, competition, logistics, infrastructure. **3 out of 5:** SPS, subsidies, local content requirements, contingent trade-protective regulation (trade remedies). **2 out of 5:** Tariffs and customs duties, import licensing, pre-shipment inspection and other formalities, currency exchange restrictions and rules, trade facilitation, tax regulation. **1 out of 5:** Rules of origin and valuation of goods at customs.
- **Thailand: 5 out of 5:** quantitative restrictions, quotas and licensing procedures, currency exchange restrictions and rules, trade facilitation, logistics and infrastructure. **4 out of 5:** rules of origin, SPS, import licensing, pre-shipment inspection and other formalities, tax regulation, investment and services regulation. **3 out of 5:** tariffs and customs duties, valuation of goods at customs, TBT, subsidies, local content requirements, contingent trade-protective regulation (trade remedies). **1 out of 5:** skills and labor requirements and IPR and access to technology.

6. The key drivers of the GVC participation today: firm and economy characteristics¹¹

Regarding the firm characteristics, respondents indicated the following:

- **Chile:** access to finance (4 out of 5); firm size (4 out of 5); productivity (4 out of 5); firm age (3 out of 5); technological level (3 out of 5); workers' skill (3 out of 5); foreign ownership (1 out of 5) and government ownership (1 out of 5).
- **Indonesia:** productivity (5 out of 5); workers' skills (5 out of 5); access to finance (5 out of 5); firm size (3 out of 5); technological level (3 out of 5); firm age (2 out of 5); foreign ownership (2 out of 5); and government ownership (2 out of 5).
- **Peru:** access to finance (5 out of 5); technological level (4 out of 5);

¹¹ The questionnaire establishes a table of scores from one (the weakest influence) to five (the strongest influence).

— **Russia**: technological level (5 out of 5); access to finance (5 out of 5); workers' skill (5 out of 5); productivity (3 out of 5); firm size (2 out of 5); firm age (1 out of 5); foreign ownership (1 out of 5) and government ownership (1 out of 5).

— **Thailand**: access to finance (5 out of 5); technological level (5 out of 5); workers' skills (5 out of 5); productivity (5 out of 5); foreign ownership (4 out of 5); government ownership (2 out of 5); firm size (2 out of 5); firm age (1 out of 5);

As regards the economy characteristics, respondents have noted the following:

— **Chile**: openness to trade (5 out of 5); openness to FDI (5 out of 5); education (4 out of 5); infrastructure (4 out of 5); logistics (4 out of 5); and governance and business environment (4 out of 5).

— **Indonesia**: openness to trade (4 out of 5); openness to FDI (4 out of 5); infrastructure (4 out of 5); governance and business environment (4 out of 5), education (3 out of 5); logistics (3 out of 5).

— **Peru**: education (3 out of 5); infrastructure (2 out of 5); logistics (1 out of 5);

— **Russia**: openness to FDI (5 out of 5); openness to trade (5 out of 5); education (4 out of 5); logistics (4 out of 5); governance and business environment (3 out of 5), infrastructure (3 out of 5).

— **Thailand**: openness to trade (5 out of 5); openness to FDI (5 out of 5); governance and business environment (5 out of 5), education (4 out of 5); infrastructure (4 out of 5); logistics (4 out of 5).

7. The GVC dimension reflected in the economy's policy documents and strategies

Chile stressed its intention to participate in the GVCs. To this aim, the Global Value Chains Division has conducted a study about Chile's participation in the GVCs, and developed several specific policies towards upgrading Chile's current participation in the GVCs.

Indonesia indicated that increased participation in the GVCs is one of the objectives of National Medium Plan (PJMN 2020-2024), which encourages firm internationalization and Indonesian exports increase

The **Japanese** respondents stressed that Japan has the "Global Food Value Chain Strategy", which is a series of planned activities aimed at creating value on every stage of the chain, from agricultural production, manufacturing, processing and distribution to consumption.

Peru informed about the existence of several strategic documents. First, National Competitiveness and Productivity Plan 2019-2030, which is aimed at

increasing Peru's competitiveness in the global market and creating added value through sustainable economic growth (with a territorial approach). Second, Digital Agenda for the Bicentennial, which implies acceleration of Peru's digital transformation to reach 2021 as a transparent, competitive, innovative economy that can make social improvement viable.

Russia informed that there is no single document or strategy with regard to its economy participation in the GVCs. However, there are some strategies, related to the digital economy development and several industrial sectors, which target some GVC-specific goals.

Thailand's experts responded that Thailand is implementing an export-oriented development strategy that encompasses progressive trade liberalization and the FDI growth. Thailand intends to participate in ten high value industries, which will positively affect labor skills and R&D. Thailand informed about the following documents: the (Draft) Thirteenth National Economic and Social Development Plan (2023-2027), which emphasizes promotion of MSMEs' access to the GVCs; the National Strategy (2018-2037) with a special focus on training entrepreneurs competitive in both domestic and international markets. The Ministry of Industry's Twenty-Year Development by Industry 4.0 (2017 - 2036) pursues the goal of integrating Thailand into the GVCs.

8. Illustrations of the economies' best experiences to upgrade through GVC

Chile described the model of productive linkages that seek to enhance business models to promote economic complementarities between Chile's closest trading partners, mostly, through the FTA frameworks.

Indonesia presented the experience of the Indonesian company "Astra" and its cooperation with the Japanese partners. This joint venture has allowed the company to adopt technologies and management system, thus contributing to the production of complex and high value-added goods, such as automotive and motorcycle components. Indonesia's production processes tended to rely more on domestic sources for intermediate inputs during periods of economic crises (for instance, the global financial and economic crises of 2008-09).

As an example of best practices, **Peru** shared information with regard to the Center for Productive Innovation and Technology Transfer (CITE). It meets the demands of producers and entrepreneurs in different sectors, mostly, food, apparel, furniture and wood. In 2020 alone, through the CITE network, 108,014 technology transfer and innovation services were provided across the economy, serving 27,457 clients.

Russia has implemented the State Programme for the Economic Development and Innovation Economy, combining activities to improve the business and investment environment, increase employment in SMEs, and for self-employed, improving labour productivity, stimulating technology adoption, and improving the efficiency of public administration. The State Programme was also complemented with other strategies aimed at improving competition in the economy. These include Government Order No. 147-r of 31 January 2017 to improve processes relevant for doing business, Presidential Decree No. 618 of 21 December 2017 on the Main Directions of the State Policy on the Development of Competition, the 2018 Road Map to promote competition in the Russian economy and move certain areas of natural monopolies from a state of natural monopoly to a competitive market for 2018-20, and the 2019 Strategy for the Development of Competition and Anti-Trust Regulation in the Russian Federation for the Period up to 2030. Russia has also taken measures to attract larger FDI inflows and improve the business climate. For example, Federal Law No. 69-FZ of 1 April 2020 on the Protection and Encouragement of Investment in the Russian Federation was approved in 2020, and the authorities are implementing a “regulatory guillotine” mechanism that includes consolidating key regulatory principles.

According to the results of the questionnaire presented by **Thailand**, GVCs influence the labor market through creating jobs (especially in rural areas), and diversifying its sectoral coverage. As an automobile hub of Asia, Thailand plays a significant role in the automobile value chain. Since the 2000s, several TNCs have established technical centers to perform highly innovative activities like advanced engineering, design and new product development. In addition, Thailand is developing the Eastern Economic Corridor (EEC) as a part of the Thailand 4.0 policy for area-based development initiative.

9. Directions and measures to promotion of an effective participation

Chile presented the view that the reduction of trade uncertainties, including through addressing trade and investment barriers (in terms of tariffs or non-tariff barriers), will positively contribute to the participation in the GVCs.

Indonesia indicated reduction of trade and investment barriers, information-sharing on market trends, conformity assessment, enhancement of connectivity and logistics, *etc.*

Japan's respondents pointed out that digital platforms could promote more widespread and effective participation in the GVCs through increased

modularisation and reduction in communication costs. Such platforms, in particular, offer new opportunities for MSMEs, simplifying access to GVCs.

From **Peru's** point of view, it is important to strengthen international cooperation in the field of technology and information exchange. The roadmap/technology implementation programs development may evaluate the results of such cooperation.

Russia has mentioned that it is necessary to ensure trade and investment environment is free, fair, predictable, non-discriminatory, transparent, and open. From Russia's point of view, economies must also intensify their collective efforts to curb protectionism in global trade. In addition, Russia suggested APEC economies to adopt measures, which can positively affect MSMEs activities. In particular, such measures may be aimed at accessing MSMEs to finance, which can, in turn, increase their competitiveness in the international markets and ensure their effective participation in the GVCs.

Finally, **Thailand** indicated that in addition to the ongoing initiatives it is necessary to promote MSMEs' participation in the GVCs by increasing their access to finance and *pro bono* legal and accounting advice. Thailand's respondents, moreover, emphasized the importance of participating in FTAs/RTAs to enter the global market and attract FDIs, especially in 10-S Curve industries in which Thailand specializes (such as automobiles and medicals).

Key Outcomes

The analysis of respondents' answers on circulated questionnaire has demonstrated the following outcomes:

— The participation in the GVCs of the majority of the APEC economies, that participated in the survey, is mostly forward and complex. FDI-linked GVCs and trade-linked GVCs are relevant to all the economies participated in the survey. This suggests that the GVC-related activity tend to be growing in scale and complexity;

— Services, agriculture, mining, ICT, manufacturing (both electrical equipment, automobile, chemicals, textiles, basic metals), as well as wholesale and retail account for the highest backward participation. The following sectors account for the highest forward participation: agriculture, mining, manufacturing (including technologically advanced products), services, ICT, as well as wholesale and retail. It signifies that both forward and backward participation in GVCs are diverse and complicated across the Asia-Pacific region.

— The influence of the global trends on GVCs worldwide is controversial. In particular, the development of ICT may be dubious. It can stimulate economic growth, especially the MSMEs activities, and increase the developmental gap among economies. At the same time, FTAs/RTAs and an upgrade of skills and infrastructure were recognised as positive factors. Meanwhile, the COVID-19 pandemic, increased transportation costs, as well as the rise of protectionism were seen as overwhelmingly negative.

— The answers has shown that there are still many sectors with various restraints in the partners' markets to the economies activities within GVCs. Logistics and infrastructure, IPR and access to technology, as well as investment and services regulation were indicated as the main spheres encountering restraints. On the contrary, some respondents noted that competition, skill and labor requirements and valuation of goods at customs do not assume profound significance.

— As for the main spheres encountering restraints to the GVCs upgrading, survey participants has also highlighted the infrastructure, logistics, quantitative restrictions, quotas and licensing procedures and investment and services regulation, TBT and IPR as key areas. Stress was laid on the following spheres: tax regulation, subsidies, SPS, local content requirements, and import licensing.

— Since decisions about participating in GVCs are usually made at the company level, the firm productivity, access to finance and technological level are recognised as key drivers of the participation in the GVCs today and were ranked 4 out of 5. In addition to mentioned factors, respondents indicated the importance of workers' skills for the successful participation in the GVCs and

ranked them 3 out of 5. As regards the economy characteristics, the majority of survey participants have indicated that openness to trade and FDIs, the availability and quality of infrastructure, the level of governance and business environment as key factors that hide potential in the context of participation in the GVCs across the Asia-Pacific region. Such factors were ranked 4 out of 5.

— All the respondents attached considerable significance to the participation in the GVCs. The economies carefully examine the prospects of participation in the GVCs across different industries. As business and government develop their strategies in a close synergy, companies of APEC economies, who participated in the survey, are likely to further deepen and diversify their participation in the GVCs.

— Outlining the directions for promotion of an effective participation in the GVCs, the need to provide free, fair, predictable, non-discriminatory, transparent, and open trade and investment environment comes into existence. In addition, digital economy development, trade and investment liberalization established by various FTAs/RTAs, as well as an increased participation of MSMEs in the GVCs can be mentioned.

Annex #3. Results of the Blitz Surveys¹²

Panel #1. March 1, 2022

The participants were asked three questions:

1) Operation on higher end of global value chains is always more effective and desirable (Y/N)

The major part of answers was positive – 63% of responses.

2) Please indicate the most important motivation factor for decisions to carry out international sourcing (Please, tick one option)

The distribution of answers was as follows:

- ✓ First place - access to technology - 33%
- ✓ Second place - reduction of labor costs - 26%
- ✓ Third place - cost reduction (excluding wages) - 19%

Average value - reduction of delivery time - 11%

Low value – lack of qualified personnel on the spot (4%) and poor quality of local products (7%).

3) Please indicate the TOP-3 most important barriers when considering or carrying out international sourcing (Please, tick 3 options)

The distribution of answers was as follows:

- ✓ Restrictions on FDI are in the first place – 67% of responses;
- ✓ Tariffs and other trade restrictions are in second place – 56% of responses;
- ✓ Restrictions related to administrative legal norms – 48% of responses;
- Less importance was attached to taxation problems – 37% of responses;

Three factors have approximately the same importance at the average level – problems with the quality of foreign goods and services, lack of personnel, access to financing – 22-26% of responses. Low value was attributed to – meeting customer needs, difficulties in partner search abroad and language barriers – (4-7% of responses).

¹² They were conducted during two sessions on 1-2 March 2022 (60-67% of the participants responded to the blitz survey)

Panel #2. March 2, 2022

1) What is a key area of policies to induce upgrading along GVCs?

The distribution of answers was as follows:

✓ Highest importance - development of human capital - 34% of responses;

✓ Average importance - infrastructure and logistics development - 24% of responses; attracting FDI and stimulating the use of local resources - 28% of responses;

✓ Low importance - development of the local market - 14% of responses.

2) Are WTO rules an important instrument to support effective GVCs participation (Y/N)

All the participants gave the positive answer (100%).

3) What are the most important criteria for enabling economy's upgrading along GVCs? (Please, tick 3 options)

✓ Infrastructure, including digital one - 66% of responses;

✓ Two factors mattered equally: openness in trade and favorable business environment - 59% of responses;

✓ Development of education and qualification of employees - 54% of responses;

At the same time, respondents noted the importance of the following criteria's: the openness of the economy to FDIs (34%), logistics development (17%) and industrial potential (24%).