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Trade and Human Resources Development: Capacity Building for Inclusive Trade

APEC Human Resources Development Working Group

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Produced by

Washington CORE, L.L.C.
4500 East-West Highway, Suite 730,
Bethesda, Maryland 20814 United States
Sean Chappell, James Tetlow and Takahiro Nakamura
Tel: (1) 301 654 2915 ext. 111
Fax: (1) 301 654 4054
Email: takan@wcore.com
Website: www.wcore.com

For

Asia-Pacific Economic Cooperation Secretariat
35 Heng Mui Keng Terrace
Singapore 119616
Tel: (65) 68919 600
Fax: (65) 68919 690
Email: info@apec.org
Website: www.apec.org

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1 Executive Summary

1.1 Introduction

Open and free trade has been one of the major drivers for global growth in the latter half of the past century. However, in many economies, concerns over inequality and local job losses caused by changing trade patterns have grown. The risk of future job losses due to labor-saving technologies such as artificial intelligence and robotics only add to these anxieties, despite many new jobs being created at the same time.

The rapidly changing global market has exacerbated these concerns and anxieties as digital skills have become more important than ever, while the distribution of wealth has in many cases been skewed toward small groups of businesses and individuals. This has led to calls for more protectionist trade policies in some economies. International organizations are increasingly recognizing the need for comprehensive adjustment policies to support workers and ensure that the growth brought by trade and emerging technologies is inclusive.

To keep up with these major changes in individual economies and across the region, the global talent market today needs more agility and flexibility in capacity building and systems. The adjustment policies to support workers and SMEs whose livelihoods have been impacted by changes in global trade are referred to collectively as “inclusive trade” or “inclusive growth” and include many possible policy actions, such as worker reskilling, promoting labor market participation by disadvantaged groups, and other active and passive labor programs.

Recognizing the importance of inclusive trade and growth, APEC leaders have endorsed the APEC Action Agenda on Advancing Economic, Financial and Social Inclusion in the APEC Region[1], and every APEC economy has committed to implementing policies that foster inclusive growth. Similarly, the Boracay Action Agenda to Globalize MSMEs established in 2015 included a firm commitment to encourage SME participation in regional and global trade.[2]

APEC activities to support policies for inclusivity are being progressed through multiple working groups, including the Policy Partnership on Women and the Economy (PPWE)’s work to encourage economic participation by women, and the Economic Committee’s efforts to encourage participation by underrepresented members of society. In the labor market policies and human resource development fields, the Human Resources Development Working Group (HRDWG) and the Health Working Group respectively are trying to increase access to better human capital development and social protection. Notably, the HRDWG’s recent efforts led to the APEC Framework on Human Resources Development in the Digital Age[3], which was endorsed by economic leaders in 2017.

This report is one component of “HRD 02 2018T - Trade and Human Resources Development: Capacity Building for Inclusive Trade,” an APEC HRDWG initiative under the leadership of Japan that seeks to develop regional efforts to “facilitate understanding how a wider range of individuals and business can participate in the trading system and to enhance quality of policy making focusing on human resource development (HRD),” as part of APEC’s priorities to encourage inclusive trade and growth.

The report builds on the prior components of the APEC HRDWG initiative, including a literature review paper and a one-day symposium held on the sidelines of the APEC Senior Officials Meeting 2 (SOM 2) in Chile in May 2019.

The purpose of the report is to discuss challenges for inclusive trade and present best practices for policy interventions in areas such as trade promotion for MSMEs, active labor market policies, digital skills interventions, and international collaboration. The findings from the literature research and the symposium have been consolidated to a list of common challenges and best practice recommendations for APEC economies to enhance the effectiveness of their trade and HRD policy initiatives and related regional cooperation activities for inclusive trade.

1.2 Project Background

1.2.1 Project Components

This project has three major components:

1. A **discussion paper** presenting a review of inclusive trade in the global literature and an analysis of 3 APEC member economies' good practices in the field in order to identify opportunities for capacity building around human resource development. The discussion paper is appended to this report in the Annex.

2. A **symposium** on inclusive trade held on the sidelines of the SOM 2 meetings in Chile in May 2019, where the research team shared its initial findings. The symposium convened APEC member economies and expert speakers, and invited guests to discuss inclusive trade and provide key insights that were later incorporated into the final report. The materials from the symposium, including a symposium report, the agenda, an audience survey and the speaker biographies, are appended to this report in the Annex.

3. A **final report**, which combines the findings from the literature research and the symposium to identify the potential best practices and lessons learned and presents recommendations to the HRDWG on how APEC member economies can best implement policies for inclusive trade.

1.2.2 Literature Research and Consultations

1.2.2.1 Literature Research

From January 2019 through April 2019, the project team conducted a thorough review of available global literature on inclusive trade and growth, focusing in particular on the latest status of efforts to support inclusive trade among APEC economies. The project team conducted background literature research on case studies of successful efforts implemented outside of the APEC region, as well as global recommendations for policy best practices by leading international organizations like the World Economic Forum (WEF), International Labour Organization (ILO), the Asian Development Bank (ADB), and the Organisation for Economic Co-operation and Development (OECD).

Through the literature research, the project team selected 3 economies for case profiles to review their initiatives supporting inclusive trade:

1. Australia
2. Japan
3. Singapore

The economy reviews were based on existing literature on their policies for worker education, labor market participation promotion, and other active and passive labor programs. The project team considered the challenges, goals, and policy approaches in each economy for insights on best practices.

1.2.2.2 Consultations with Experts

In tandem with the literature research, the project team consulted with two of the experts who presented at the symposium to solicit their feedback to support the case study profiles.

Table 1: List of Consultations

Date (2019)	Economy	Organization
28 February	Australia	Department of Employment, Skills, Small and Family Business
10 January; 9 April*	Japan	Asia University of Japan

* The project team also consulted the expert from Asia University of Japan through e-mail exchanges between these times.

1.2.1 Symposium

On 3 May 2019, a one-day symposium (**"Symposium on Trade and Human Resources Development: Capacity Building for Inclusive Trade – Exploring how digital skills training and other innovative approaches are making the benefits of trade more accessible and sustainable for all"**) was held in Viña del Mar, Chile, on the margins of the APEC Senior Officials Meeting (SOM 2).

The purpose of the symposium was to provide an overview of past and ongoing work related to inclusive trade in and outside APEC, to share good practices on policies and measures from APEC member economies, and to facilitate discussions among the speakers and audience members on possible ways to improve in the future. Although there are many policy fields related to inclusive trade, the symposium focused on two themes, "Human Resources Development in the Digital Age" and "Promoting Inclusive Trade for MSMEs."

Approximately 35-40 persons attended the symposium. Speakers and panel commentators were from economies including Australia; Chile; Indonesia; Japan; the Republic of Korea; Malaysia; the Philippines; Chinese Taipei; and Viet Nam, as well as international organizations, namely the Asian Development Bank and APEC Policy Support Unit. Audience members came from the above economies and from additional economies such as New Zealand and the United States. The speakers and panel commentators included representatives from government agencies, academia and non-profit organizations, with expertise in a wide array of policy areas, including economics, trade, MSMEs, HRD, active labor market programs, education, gender equality, and digital skills development.

The findings from the symposium's presentations, panel discussions, and audience Q&A were compiled into a symposium report. The main contents of the symposium report are reproduced in this report in **Chapter 4 – Symposium**.

1.2.2 Additional Research

Following the symposium, the project team conducted additional literature research, based on the feedback from experts and audience members, to incorporate new findings from the symposium, further develop the core arguments presented in the literature research and address the suggestions made during the Q&A session following the project research team's presentation.

1.3 Summary of Inclusive Trade Challenges

The following is a brief summary of the major inclusive trade challenges that were identified through the symposium and the literature research. **Chapter 2 – Inclusive Trade Challenges** covers this topic in more extensive detail.

Structural Change as a Consequence of Trade

Domestic firms are sometimes unable to unable to offer products or services at competitive prices as foreign firms may produce items at lower cost or have superior products or better production methods. This can cause declining employment in import-competing industries and particularly pronounced

impacts in labor-intensive sectors, and can lead to workers experiencing negative impacts due to changes in demand for labor.[4]

While protectionist policies can provide direct relief to workers and firms facing adjustment costs, economic theory and empirical evidence suggest that the relief is temporary and that economy-wide costs may be incurred from allocating limited resources toward less productive and less competitive activities. Furthermore, some evidence suggests that such policies promote the idea that a majority of job losses stem from international trade liberalization, when a much larger proportion of job losses are caused by factors outside of the purview of trade policy.[5]

Structural Change as a Consequence of Technological Advancement
Technological changes and increased competitiveness in high-skilled sectors can increase demand for high-skilled labor, while growth in low-skilled sectors can incentivize owners of capital to invest in labor-saving technology to remain competitive. This leads to wage inequalities between low and high-skilled workers and technologically related unemployment. Fast growth in demand for high-skill labor from technological advancement can also lead to skills shortages and relatively skilled workers' obsolescence in the changing job market.[6]

Labor-saving technologies such as robotics, autonomous systems and artificial intelligence pose an especially pressing challenge, as these could lead to large-scale redundancies in low-skill sectors, while the majority of jobs created will be in higher-skill sectors.

The combination of reduced demand for low and middle-skilled labor, replacing labor with capital investments in technology, and higher requirements for education and skills may increase income inequality and lead to serious challenges for inclusion if economies do not take action.[7]

Alignment of Skills Supply with Skills Demand
One of the key challenges to resolving skills challenges is addressing the mis-match between the skills supply and the pipeline for new talent. For example, youth workers may find it challenging to learn the right skills for emerging jobs or to anticipate changes in demand for skills, while mature-aged workers may encounter barriers to acquiring new skills to stay in their roles or may find it difficult to transition to new roles.[8]

A key challenge in supporting inclusion is that often graduates of education and training programs as well as adult workers lack the skills required by employers, leading to lower productivity, and unemployment and underemployment for workers. These challenges can impact workers of all age and skill levels.[9]

Supporting Disadvantaged Populations
Vulnerable groups in society face additional challenges in adjusting to structural changes since they often have less capacity and resources to adapt.[10] When these disadvantages are not addressed, they may lead to inequalities which can hinder economic growth and lead to parts of the labor force being excluded long-term from access to greater opportunities.[11]

Key policy challenges for inclusive trade in high-income economies identified by APEC include an ageing population, lack of equal opportunities for women and youth unemployment. Middle-income economies largely face challenges stemming from unstable economic conditions that have limited the ability of workers to invest in education and skills development. This disproportionately harms poorer citizens due to inequitable access to human capital services.[12]

Challenges for MSMEs
MSMEs face many challenges to participating in international trade. About 80% of trade is conducted through global value chains (GVCs), which creates disadvantages for MSMEs as there are many barriers to entering these often highly established networks.[13] Increasingly complex international trading regimes create barriers for small firms that larger firms can more easily navigate. For example, tariff and non-tariff barriers create disproportionately large costs for MSMEs to engage in international trade.[14]

MSMEs also face a number of barriers in accessing capital. These barriers limit their ability to invest in information, skills and technology, which further reduces MSMEs' capacity to control high trading costs. Factors that limit MSMEs' access to both public and private lending include risk aversion by institutions that lend to MSMEs, MSMEs' poor financial literacy, predatory informal lending practices, and bureaucratic delays in accessing government sources of capital.

1.4 Summary of Policy Interventions for Inclusive Trade

The following is a brief summary of notable policy interventions for inclusive trade that were identified through the symposium and the literature research. **Chapter 3 – Policy Interventions for Inclusive Trade** covers this topic in more extensive detail.

Trade Policy and MSMEs
Trade policy efforts that focus on streamlining and harmonizing regulations could have significant benefits for MSMEs.[15] For example, MSMEs can benefit from harmonized regulatory standards that reduce the compliance burden for small firms for packaging, certification and labeling. Similarly, MSMEs can benefit from efforts to streamline complex, lengthy and costly customs procedures.

FTAs can help MSMEs to access greater business opportunities, through tariff reduction, protection for their investments, liberalization of the services sector, and IP protection.[16] Trade negotiations can also address equity issues in economies, such as gender inclusion. For example, pre-ratification conditions in trade agreement negotiation processes can be leveraged to remove legal barriers against women's equal participation in the economies (and therefore equal advantages from trade), with follow-up monitoring and enforcement mechanisms, to ensure that women can increase their share of trade benefits.[17]

Trade Promotion for MSMEs
The OECD suggests that public support for MSMEs can help to overcome informational asymmetries. Support mechanisms include providing information on rules and regulations, disseminating market information, international trade fairs or identifying foreign business partners. The internal capacity of MSMEs is also key to their ability to export. Policies that combine various forms of education and training with coaching by an export adviser or consultant can be effective in improving MSMEs' capabilities to navigate international markets.[18] Policies that promote innovation domestically can also contribute to creating MSMEs that can succeed internationally.

Active Labor Market Policies (ALMPs)
The OECD defines ALMPs as policies to improve the functioning of the labor market that are directed at the unemployed, and can include measures such as: [19]

- Making the process of matching between job vacancies and job seekers more efficient;
- Training to upgrade and adapt the skills of job applicants;
- Direct job creation through public-sector employment or subsidization of private-sector work.

ALMPs can include policies such as public employment services, industrial and trade adjustment assistance[1], measures to align curricula in education and training with labor market demand for skills, and digital skills interventions to provide resources to "help economies leverage digital and distance-learning technologies to build a 21st Century workforce through improved career and technical education (CTE). Specific examples of ALMPs that draw on experiences in Australia, Japan and Singapore are provided in **Chapter 3**.

[1] Industrial and trade adjustment assistance refers to programs that aim to mitigate the adverse effects of changes to industrial composition in a domestic economy as a result of trade, technological or other factors.

1.5 Key Findings

The research findings for this project encompass the following 4 key themes:

1. There is a need to support MSMEs in global value chains through trade policy and capacity building
2. Active labor market policies (ALMPs) can provide valuable tools to support disadvantaged workers that have been negatively impacted by trade
3. Supporting workers' access to digital skills training will enhance their opportunities to participate in global trade
4. International cooperation is necessary to effectively address inclusive trade challenges

The following section describes each of these 4 themes and their associated best practices in greater detail.

1. <u>There is a need to support MSMEs in global value chains through trade policy and capacity building</u>

MSMEs currently face serious challenges to participate in global markets and receive the full benefits of free trade. Economies can improve their trade promotion public policy support mechanisms for MSMEs in global value chains through various policy actions, such as through improving MSMEs' access to finance, supporting the skills and capability development of MSMEs (including assistance with developing their digital skills), helping them to overcome non-tariff barriers, and consolidating public sector resources so that MSMEs can easily access key information.

Streamlining regulatory bottlenecks for MSMEs
There are several regulatory requirements that disproportionately impact MSMEs, such as freight, customs clearance regulations, inspections and other technical barriers. Trade policy efforts that focus streamlining and harmonizing regulations could have significant benefits for MSMEs.

Measures to address these disadvantages to MSMEs include the liberalization of trade in services, such as lifting product market regulations which can contribute to increased competition, innovation and cheaper access to imports. Non-tariff barriers such as Rules of Origin, labeling rules and sanitary regulations can be particularly challenging for MSMEs to interpret. Similar streamlining could mitigate barriers related to complex, lengthy and costly customs procedures, such as simplifying documentation requirements or automating certain processes. In situations where these solutions require active cooperation between domestic and foreign stakeholders, it is important to create 'win-win' arrangements that lead to more inclusive global value chains.[20]

Supporting MSMEs' access to capital
Many MSMEs, especially in developing economies, face several barriers in accessing capital, which limits their ability to invest in information, skills and technology and further reduces their capacity to face high trading costs. The International Finance Corporation (IFC) found that the financing shortfall for MSMEs exceeds $2 trillion, or an estimated one-half to two-thirds of all formal MSMEs.[21] Factors that limit MSMEs access to both public and private lending include lending arrangements that are designed for larger firms and are ineffective for MSMEs; risk aversion by institutions that lend to MSMEs; poor financial literacy; reliance on informal lending practices that may take advantage of MSMEs; and bureaucratic delays in accessing government sources of capital.

Helping MSMEs to improve their access to capital can address challenges in terms of workforce development and talent retention, access to technology and investments to increase production capacity. The Philippines MSME Development Plan prescribes measures to ease MSMEs' access to finance, such as streamlined loan processes, and helping MSMEs to access formal loans rather than usurious informal lending and special financial products (loans with no collateral requirement, microfinance, structural financing, etc.).[22] Innovative technologies such as blockchain and AI have the potential to simplify compliance procedures related to know-your-customer (KYC) procedures, anti-

money laundering, and counter-terrorism financing requirements could make it easier for financial institutions to lend to MSMEs by reducing informational asymmetries.[23]

Ensuring that MSMEs can easily access key information to compete internationally

MSMEs generally lack the resources to hire staff with specialized skills needed to identify export opportunities, establish relationships with foreign buyers, and navigate complex trading regimes.[24] APEC has advised that policies to assist MSMEs' integration into GVCs could include programs to promote awareness and understanding of the benefits of integrating SMEs into GVCs, and to work with multinational corporations to develop more specific capacity building programs for local SME. At the industry level, it is key for economies to understand how GVCs can be linked to specific sectors of the domestic economy, as well as strengths, weaknesses, opportunities and threats for domestic SMEs.[25] Similarly, the OECD recommends providing information on rules and regulations, disseminating market information, international trade fairs or identifying foreign business partners can help overcome informational asymmetries. Policies that combine education and training with coaching by an export adviser or consultant can be effective in improving MSMEs' capabilities to navigate international markets.[26]

Japan has a number of measures to reduce informational challenges faced by MSMEs, such as hands-on support through regional chambers of commerce and local financial institutions around Japan, research and networking support to navigate foreign business environments, For example, the "Japan Mall" project collaborates with several global e-commerce platforms to facilitate partnerships for MSMEs to sell their products. The program is free for MSMEs and is designed to minimize or eliminate many of the risks that SMEs face in global trade.[27] In Korea, the government has established an 'FTA Call Center' and integrated web portal on issues such as rules of origin and customs clearance to support MSME exports.[28] The Export Capacity Enhancing project provides a deeper level of support through education, global market information supply, marketing, market research, strategy consulting and global brand development services for MSMEs.[29]

Capacity-building for MSMEs to enter international markets

Policies that promote innovation domestically can also contribute to the creation of MSMEs with the capability to succeed internationally. Intellectual property protection, R&D fiscal incentives, university-industry collaborations and partnering between MSMEs and foreign firms can facilitate the knowledge transfers required to climb the value chain in GVCs.[30]

Japan's J-Startup program provides a good example of a policy that facilitates relationships between large foreign firms and MSMEs. Investment and business leaders at major firms like Google, Amazon, and Panasonic nominate SMEs to participate in the program who then receive financial, administrative and mentorship support in entering international markets. Those major companies then provide the participating SMEs with support such as mentoring free of charge. Japan also provides extensive supports for MSMEs to have their intellectual property and geographic indications registered and recognized in target economies.[31]

In the Philippines, programs exist to mobilize large enterprises to support MSMEs with capacity building on human resources through mentorship and coaching to create more inclusive value chains. Other programs provide access to productive technology and facilities for MSMEs through relationships with large enterprises, which has eased barriers to launching businesses and led to significant employment creation.[32]

2. <u>Active labor market policies (ALMPs) can provide valuable tools to support disadvantaged workers that have been negatively impacted by trade</u>

When properly employed, ALMPs can provide effective policy tools to help workers whose employment has been negatively impacted by trade through tools such as skills training and job search assistance. Policies must be carefully structured to target assistance to workers facing the greatest employment challenges and to avoid unfairly favoring specific workers over those in greatest need of assistance. Policies to support education and skills training should be designed to reflect industry demand, and

should be developed in coordination with relevant authorities and stakeholders such as industry, unions, workers, trade associations, and education providers.

According to the APEC PSU, a meta-analysis of over 200 studies has concluded that ALMPs can positively impact employment of individuals two to three years after completing programs. Another study has found that ALMPs can reduce unemployment, particularly for low-skilled workers.[33] Measures can include consultation with employers and industry groups, certifications, information on the labor market (job vacancies, in-demand skills), education and training.

Programs should ideally combine job-search assistance with training and information for workers

Research suggests that ALMP programs that combine several different components are most effective. In particular, the ILO has found that the most effective program sequence for unemployed individuals is intensive job-search assistance with counseling and monitoring first, which provides the most positive short-term effects, and then in a second step providing training, which provides positive medium-to long-run effects due to the accumulation of human capital.[34]

APEC has highlighted the critical role of public employment services in supporting jobseekers and displaced workers with linkages to training, as well as the importance of labor market information systems (LMIS) to provide information on available jobs and in-demand skills to inform these activities.[35] Economies such as Australia collect data on the employment and earnings outcomes of participants in public employment services to inform improvements to program implementation.[36]

Policies for education and skills training should reflect industry demand

One of the core challenges faced by many APEC economies is developing a workforce with the skills that are necessary to be competitive and adaptable in a rapidly changing global economy. There are several intertwined challenges in this topic: the mismatch between employers' needs and the availability of workers in new and emerging fields; the difficulty for education systems to appropriately prepare youth and adults with employable skills; and the need for policies that support unemployed or underemployed workers in learning new skills or adapting to effectively compete in the current economy. Reflecting these challenges, more than 40% of APEC member economies have expressed concerns that they do not have sufficient training and vocational education.[37]

Policies for education and skills training should seek to align curricula in education and training with the labor market demand for skills. Since the reach and impact of government policy is limited, it is important to for business and government to collaborate with education providers, including community colleges and similar trade-focused organizations, in developing solutions for skills training and to ensure that they reach as many workers as possible.

For example, Australia's approach to VET includes an integrated set of nationally recognized qualifications (the National Skills Framework), training 'packages' for these qualifications and a quality-assurance framework for training providers (the Australian Quality Training Framework). The development of qualifications and training packages is designed to be industry-driven; various councils and committees consisting of government agencies, employers and other stakeholders identify current and emerging skills needs and reach consensus on appropriate training programs, with reviews every three years.[38] The government also provides funding for training programs in identified areas with skills shortages where employers contribute a proportion of overall funds.[39]

Similarly, Singapore's education and VET system is coordinated through several committees and statutory boards that bring together government, industry, unions, workers and trade associations to develop and validate skills standards, assessment strategies and training curricula for different sectors. The statutory board SkillsFuture Singapore collaborates with industry, unions and sectoral government agencies to define national standards for qualifications under the Singapore Workforce Skills Qualifications (WSQ) system, which is a national credentialing system used to train, assess and certify skills and competencies for the workforce. This helps to develop career pathways, supports workers in acquiring and demonstrating skills to employers, and helps to align workers' skills with industry demand.[40]

Trade adjustment assistance (TAA) policies should target assistance to workers facing the greatest employment challenges
TAA policies aim to mitigate the negative impacts from international trade on certain sectors of the domestic economy. Successful policies can help workers in impacted sectors to find new employment through activities such as résumé preparation, supporting job applications, developing interview skills, training to obtain licenses, wage subsidies, and other assistance.

However, post-program evaluations for various industrial and trade adjustment assistance policies have found that sector-specific adjustment assistance often risks providing support to workers who would still find employment without additional assistance. In doing so, the policies may be providing unemployed workers from specific sectors with benefits over disadvantaged workers from other sectors. Programs must therefore be carefully structured to target assistance to workers facing the greatest employment challenges, and to avoid unfairly favoring specific workers over those in greatest need of assistance. Economies such as Korea and Australia have been studying ways to effectively target adjustment assistance based on the severity of challenges faced by workers.

3. Supporting workers' access to digital skills training will enhance their opportunities to participate in global trade

Digital technologies pose a challenge for human resources development as they create entirely new job roles, skills demands, and business models and transform existing economic sectors. Over 60% of CEOs in APEC economies report having difficulties in finding employees with adequate digital skills. However, digital literacy is critical to accessing opportunities in the modern economy. It is important for APEC members to invest in their digital infrastructure, technology skills training, and enhance internet literacy.

Digital skills development is a valuable tool to support workers' inclusion in global markets
Given the scale of workforce transitions resulting from the development of advanced technologies, policies must manage this transition to ensure workers are not left behind by capital-intensive "jobless growth."[41] Measures being explored through APEC publications and workshops include strengthening coordination between employers, educators and policymakers to support the alignment of academic and training curricula with required digital skills in the private sector, early education interventions around digital skills, as well as large-scale digital upskilling and re-skilling through measures such as annual forums and creating a compendium of digital skills definitions.[42]

For example, Japan faces the dual challenge of an acute shortage of IT professionals, and the need for labor-saving technologies to address a declining workforce. As a result, Japan has implemented several policies to encourage HRD for AI professionals. The strategy includes educational reforms such as National Curriculum Standards that incorporate IT, programming and data science skills at the primary and secondary levels. The government and universities are also working to encourage expanded IT education at the university level through a consortium of 6 national universities with centers on mathematics and data science to increase accessibility to advanced IT skills for a wider range of students. Japan hopes to develop the digital literacy of the population as a whole, to prepare all workers, including less-skilled workers, and businesses, including MSMEs, for major changes in work and trade caused by technological advancement.[43]

While AI and labor-saving technologies can be viewed as a risk to employment, Japan has established working groups on the ethical implications of AI, where principles such as providing citizens with 'literacy' in AI to ensure they can find employment in an economy that extensively uses these technologies are being discussed. This will help to ensure that citizens can participate in this vision of the future to promote inclusive growth.[44]

Digital skills development policies should emphasize inclusivity for disadvantaged groups
While digital skills development is important for the workforce as a whole, it can be particularly valuable as a mechanism to support employment for disadvantaged groups such as women, mature-aged workers, low-income groups, and MSMEs.

For example, APEC and the US Department of Education Office of International Affairs, Office of Educational Technology (OET) collaborate on the APEC Digital Workforce Development Project, an initiative to provide resources to "help economies leverage digital and distance-learning technologies to build a 21st Century workforce through improved career and technical education (CTE)." It includes representatives from government, industry and academia to showcase models for digital CTE that address elements (1) content, (2) delivery, and (3) quality; (4) inclusion of women, girls and underrepresented students; and (5) data analytics in digital workforce development.[45] CTE utilizes distance-learning technologies to expand the opportunities for access to quality education, training and employment that strategically harness digital technologies.

The APEC HRDWG has initiated several relevant projects on digital skills, SMEs and entrepreneurship. Relevant projects include the APEC Digital Opportunity Center (ADOC), which offers computer skills training to vulnerable groups in rural and urban areas in APEC communities, and the APEC Digital Workforce Development Project, which is assisting economies in mitigating barriers for digital skills attainment for their workers.

4. International cooperation is necessary to effectively address inclusive trade challenges

Ensuring that the benefits of the global trading system are shared by all will require significant international cooperation to reduce inequality and promote best practices in relation to worker transitions and skills development. Collaboration among ministries and agencies towards the common goal of inclusive trade and growth is key and depends on a common mindset that is supportive of trade and also addresses the challenges faced by workers and businesses as a result of trade. Finally, the sharing of evidence, best practices and lessons learned among APEC economies can produce insights to facilitate effective policy design and implementation.

Developing frameworks for data collection and analysis
International collaboration can help to develop the frameworks for data collection and analysis across APEC. Future policies for inclusive trade could benefit from access to reliable, up-to-date and well-integrated statistics on relevant topics, as well as a further sharing of evidence on trade and human resources at many levels.

For example, one current challenge is the lack of statistics on women's employment and skills development across APEC and within individual economies. Cooperation to establish a common set of metrics and data collection methods on this topic could help stakeholders in each economy to formulate more effective and individually targeted policies to better support women's participation in business and global trade.[46]

2 Inclusive Trade Challenges

2.1 Global Definitions of Inclusive Trade and Inclusive Growth

The World Bank has noted that a rapid pace of growth should be broad based across sectors and inclusive of the large part of the economy's labor force in order to reduce poverty.[47] It is important for economies to set policy priorities and allocate its resources towards initiatives that promote economic growth that broadly benefits all members of society. 'Inclusive growth' and 'inclusive trade' are two concepts that guide the international community towards tackling global inequality and social inclusion, in order to distribute the benefits of trade more equitably and allow more workers (including vulnerable or underrepresented groups such as women, youth, mature-aged workers, and low-income communities) to participate in international trade.

The following table presents the definitions of inclusive trade and inclusive growth from major international organizations.

Table 2: Definitions of Inclusive Growth and Inclusive Trade

Term	Organization	Definition
Inclusive Growth	APEC	An improvement in income and its distribution, both of which must complement each another.[48] 'Growth' as "a fairer distribution of income (as measured by a reduction in inequality), without an increase in average incomes, can hardly be called growth." [Economic growth that] marginally benefits the poor can hardly be called inclusive".[49]
	WEF	Inclusive growth can be thought of as a strategy to increase the extent to which the economy's top-line performance is translated into the bottom-line result society is seeking.[50] The goal of inclusive growth is a "broad-based expansion of economic opportunity and prosperity."[51]
	OECD	Economic growth that is distributed fairly across society and creates opportunities for all.[52]
	World Bank	Rapid pace of growth is unquestionably necessary for substantial poverty reduction, but for this growth to be sustainable in the long run, it should be broad-based across sectors, and inclusive of the large part of the economy's labor force.[53]
Inclusive Trade	UNESCAP	All people can contribute to and benefit from international trade, equality of opportunities as precondition. [54]

2.2 Inclusive Trade Challenges in the APEC Region

2.2.1 Overview

Liberalized trade unequivocally leads to increased GDP and poverty reduction. In the 30 years since APEC was founded, trade among APEC economies has grown from $3.1 trillion to $21 trillion. GDP growth has averaged about 3.7% and a 1% increase in trade has been linked to a corresponding 0.5% increase in Human Development Index (HDI) scores.

Other achievements include 1 billion fewer impoverished people and a middle class that has grown from 28% to 63% of the overall population in the region.[55] Trade also contributes significantly to employment creation, particularly in exporting sectors.[56] Trade integration reduces consumer prices by relieving tariffs and barriers and through firms' productivity gains; and access to goods and services at lower prices can improve living standards of lower-income households.[57]

Trade also supports greater social inclusion. Increases in income and tax revenues from trade can be invested in public services such as education, employment assistance and health and labor market assistance, improving workers' skills and living conditions. Competition from open trade reduces firms' ability to practice intra-sector wage discrimination against disadvantaged groups. Studies have found

that competition from trade has reduced the gender wage gap in industries with larger tariff declines and trade is associated with reduced racial wage discrimination. Trade agreements that contain labor provisions promoting labor force participation can strengthen the social dialogue on labor conditions for disadvantaged groups and how to support job transitions for affected workers.[58] The OECD has noted that the benefits of trade have a pro-poor bias, since poor consumers spend relatively more on sectors that are more traded (such as food and beverages) and thus experience larger price drops when their economy opens to trade.[59] The benefits of trade for lower-income households are especially relevant since the International Monetary Fund (IMF) has found that "an increase in the income share of the bottom 20% is associated with higher GDP growth."[60]

Trade may also widen income gaps or adversely affect workers in import-competing industries.[61] Certain sectors and their workforces may face harm when exposed to foreign competition, leading to large-scale lay-offs where workers can face reduced wages and unemployment. Trends in technological innovation and industrial transformation exacerbate these impacts as enterprises replace workers with capital investments in labor-saving technologies. A number of studies show that the majority of job losses come from productivity-improving technological changes.[62] While trade cannot be blamed for relative inequality, it also does not necessarily contribute to reducing it.

Widening income gaps and job losses have contributed to anti-trade sentiments in some economies, leading to protectionist policies that threaten the advancement of globalization and economic integration. In 2016, the WTO found that "the rate of new trade-restrictive measures introduced by G20 economies in 2016 reached the highest monthly average since 2009 (21 new measures a month), outnumbering measures aimed at facilitating trade."[63]

Furthermore, a large body of research shows that protectionist policies are ineffective at securing long-term inclusion since they do not address the root causes of unemployment, such as technology development, changes in consumer demand, and labor market rigidities, and have been shown to incur economy-wide costs. The costs of protectionist trade measures such as tariffs also fall disproportionately on lower-income workers, consumers and economies.[64]

The following sections will explore the challenges for inclusive trade in greater detail to inform a discussion of policy options.

2.2.2 Structural Change and Technological Advancement

Structural Change as a Consequence of Trade

Liberalized trade by definition exposes firms in the domestic economy to competition from foreign firms, which can cause some sectors to become less competitive, especially import-competing sectors. Domestic firms may find themselves unable to offer products at competitive prices as foreign firms may produce items at lower cost or have superior products or better production methods. This can cause declining employment in import-competing industries and particularly pronounced impacts in labor-intensive sectors.[65]

Furthermore, low and middle-skill workers in high income economies and low-skill workers in low-income economies can be negatively impacted by export growth as well. These trends cause many firms to downsize, move offshore or close, bringing high adjustment costs for some workers. Many of these workers are likely to come from lower-income households and have lower access to skills training and startup capital, thus increasing the risk of structural unemployment.[66]

The aforementioned challenges largely harm workers due to changes in demand for labor as a result of changing competitiveness in sectors. In addition, workers experience other negative impacts from changing demand for skills, largely from technological innovation.

Trade and globalization are smaller contributors to employment declines in certain sectors than technological innovation and other factors. Technological changes and increased competitiveness in high-skilled sectors can increase demand for high-skilled labor, while growth in low-skilled sectors can incentivize owners of capital to invest in labor-saving technology to remain competitive. This leads to

wage inequalities between low and high-skilled workers and technologically related unemployment. Fast growth in demand for high-skill labor from technological advancement can also lead to skills shortages and relatively skilled workers' obsolescence in the changing job market.[67]

Despite economic theory and empirical evidence showing the benefits of trade and the lack of a significant linkage between imports and unemployment, "factor and production reallocation do not automatically occur; and workers who are laid off may not easily find alternative employment." This can cause "a vicious cycle of poor health and financial conditions" for workers who are not quickly able to adjust to new economic realities. These challenges lead to the need for policies to mitigate challenges and avoid workers' long-term exclusion from the benefits of trade. Predictably, these trends create constituencies for protectionist policies as policymakers struggle to mitigate adjustment costs for particular workers and firms.[68]

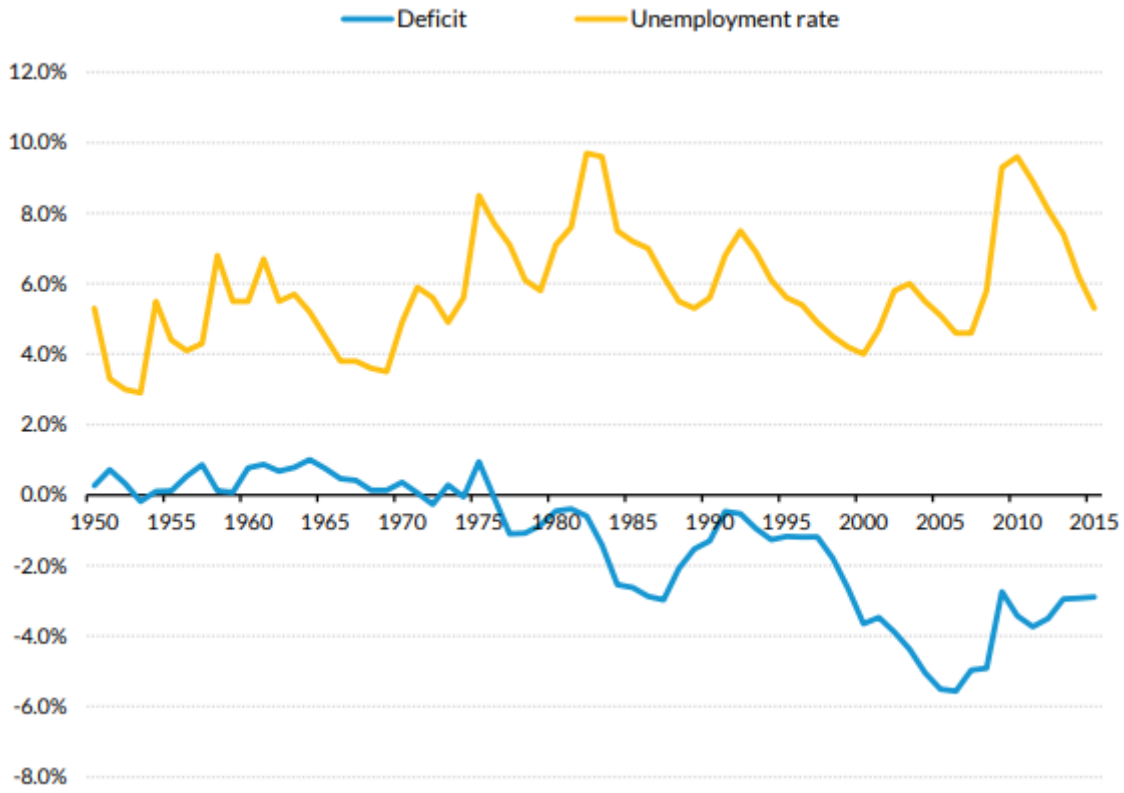
While protectionist policies can provide direct relief to workers and firms facing adjustment costs, economic theory and empirical evidence suggest that economy-wide costs may be incurred from allocating limited resources toward less productive and less competitive activities. Furthermore, some evidence suggests that such policies promote the idea that a majority of job losses stem from international trade liberalization, when in fact a much larger proportion of job losses are actually caused by factors outside of the purview of trade policy.[69]

Structural Change as a Consequence of Technological Advancement

Most job losses come from technological advancement rather than trade, which raises further questions about the effectiveness of protectionist policies. Policymakers must devise interventions that avoid negative impacts stemming from a failure to address adjustment costs from technology, while also considering objectives to support innovation that lead to productivity and competitiveness improvements for domestic industries.

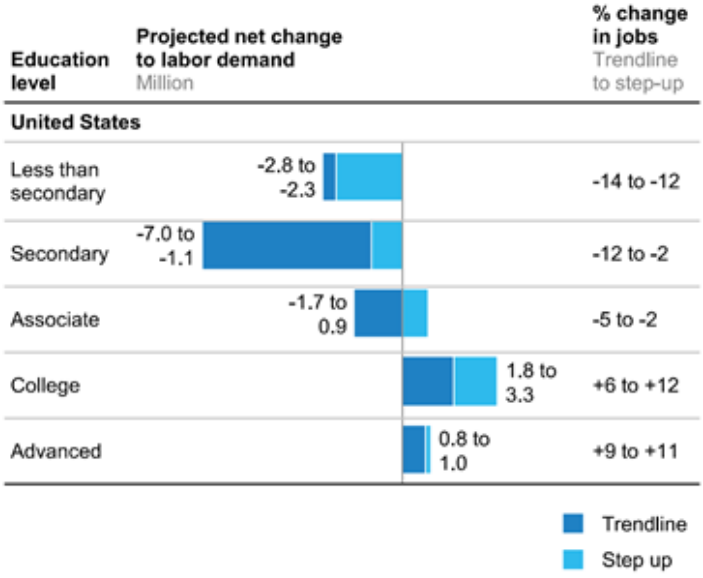
Taking the US state of Ohio as an example, of the 750,000 manufacturing jobs lost between 1969 and 2019, only about one-third of losses could be attributed to international trade, while two-thirds of losses were caused by automation and domestic competition.[70] A 2015 paper on the decline of the US manufacturing sector found that 87% of job losses were attributable to productivity-improving technology. Analysis also shows that employment shares in certain sectors can decline even if these sectors have an overall trade surplus.[71] Figure 1 shows the weak relationship between trade deficits and unemployment, based on the experience of the US. The figure demonstrates how, between 1987 to 2002, the trade deficit grew while unemployment fell, but from 2006 to 2009, the trade deficit fell while unemployment rose.[72]

Figure 1: Trade Deficit and Unemployment in the US 1950-2015[73]



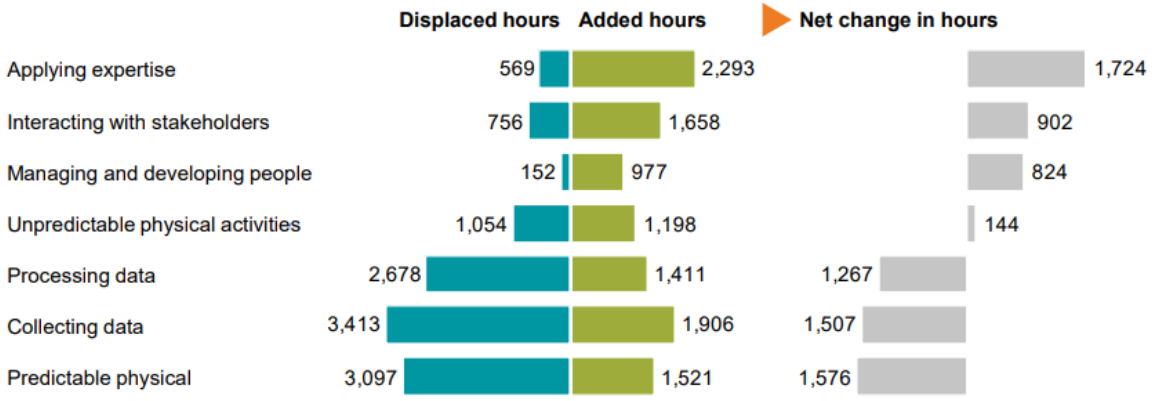
Labor-saving technologies such as robotics, autonomous systems and artificial intelligence pose an especially pressing challenge as these could lead to large-scale redundancies in low-skill sectors, while the majority of jobs created will be in higher-skill sectors. The following chart is based on an analysis by US consulting firm McKinsey that projected large net changes in labor demand as a result of labor-saving technologies for jobs that do not require a college degree. Lower skilled workers will predictably face greater challenges in adjusting to new economic realities brought about by technological innovation, exacerbated by challenges they currently face in accessing education and training.[74]

Figure 2: Net Change in Total Employment by Education Required, 2016–30 (US)[75]



McKinsey's analysis also finds that the introduction of these technologies will skew activities and capabilities required by industry toward "more personal interactions and more advanced levels of cognitive capabilities" and higher levels of educational attainment. The chart below shows how repetitive rules-based tasks including processing and collecting data and predictable manual labor will see large reductions in terms of total work hours.

Figure 3: Total Work Hours by Activity Type, 2016–30 (Germany)[76]



McKinsey also found that skills required for work will be more dynamic, involving a "shifting mix of tasks and activities." This requires lifelong learning to create a more flexible, adaptable and resilient workforce. The combination of reduced demand for low and middle-skilled labor, replacing labor with capital investments in technology and higher requirements for education and skills will increase income inequality and lead to serious challenges for inclusion if economies do not take action.[77] For example, one of the acute challenges for skills training programs in economies like Australia is responding to reduced demand for lower-skilled labor, since workers with the lowest skills attainment are also among the least likely to engage with skills training programs while they are employed.[78] This finding is common across many OECD economies.

2.2.3 Alignment of Skills Supply with Skills Demand

Overview

A key challenge in supporting inclusion is that often graduates of education and training programs as well as adult workers lack the skills required by employers, leading to lower productivity, and unemployment and underemployment for workers. These challenges can impact workers of all age and skill levels. For example, youth workers may find it challenging to learn the right skills for emerging jobs or to anticipate changes in demand for skills, while mature-aged workers may encounter barriers to acquiring new skills to stay in their roles or may find it difficult to transition to new roles.[79]

As discussed previously, trade and technological advancement create more pressing challenges for low and middle-skilled workers as the demand for their skills drops. This issue poses significant challenges for individual workers and firms, while skills shortages and mismatch more broadly can limit economic growth.[80]

This issue is often referred to in literature as the 'skills mismatch' and can take numerous forms such as: vertical mismatch (over-education, under-education, over-skilling and under-skilling), horizontal mismatch (based on field of study or sector), skill gaps, skill shortages (unfilled and hard-to-fill vacancies), and skill obsolescence.[81]

Since the global financial crisis, a lack of qualified applicants has left employers struggling to fill certain vacancies.[82] In some advanced and emerging economies, significant investments in education have not been accompanied by job growth, leading to high rates of graduate unemployment and qualification mismatch.[83] For example, in Korea, a study by the Korea Employers Federation found that it took 18.3 months and about $53,000 USD for a company to train a newly-hired graduate on average, despite Korea's heavy investment in education.[84]

The following graphs from the OECD show incidences of over-qualification and under-qualification of workers. An average of 21% of workers are overqualified, and 13% are under-qualified. These skills mismatches lead to suboptimal results from investments in human resources development.[85]

Figure 4: Incidence of Over-qualification (Percentage of workers whose highest qualification is higher than the qualification they deem necessary to get their job today)[86]

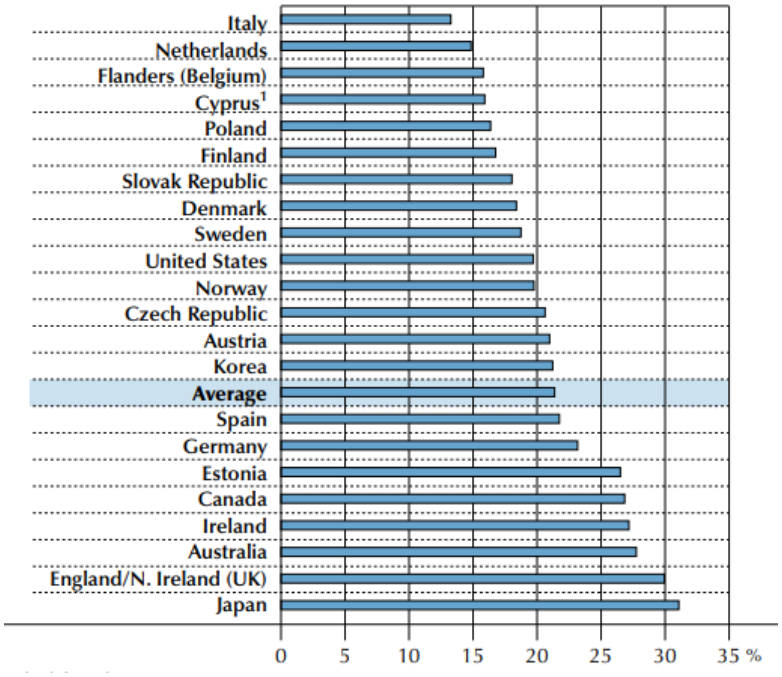
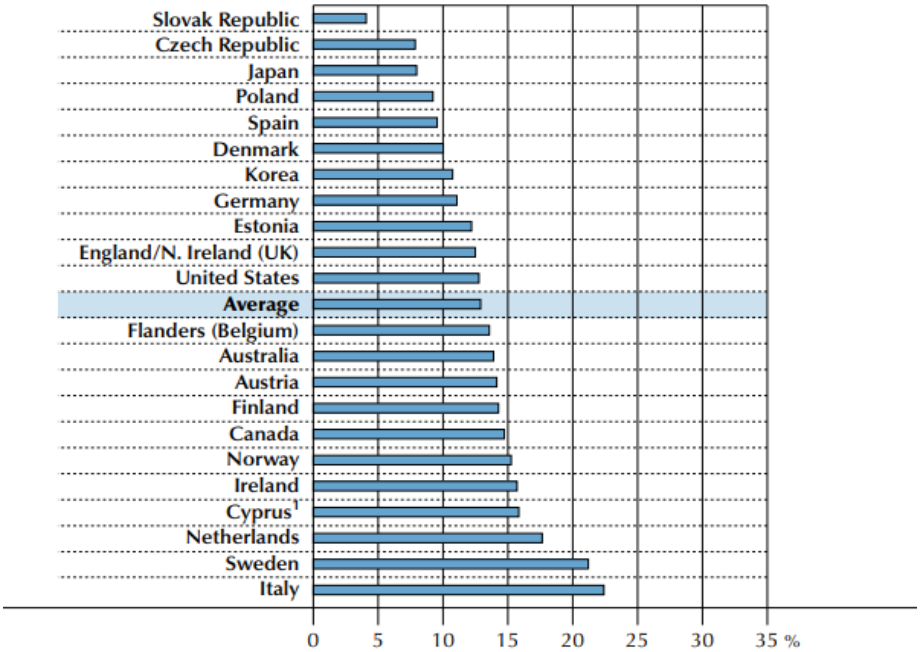


Figure 5: Incidence of Under-qualification (Percentage of workers whose highest qualification is lower than the qualification they deem necessary to get their job today)[87]



Challenges Resulting from Skills Mismatches

Graduate under-employment leads to challenges including lower wages and job dissatisfaction. Underemployed graduates in the US and Canada face challenges with forming families, housing, and

repaying student debt. The bulk recruitment of pre-graduation students in Japan, however, can cause long-term precarious employment for those who fail to secure contracts at large corporations.

Meanwhile, in developing economies, the rapid expansion in public and private universities is raising concerns about over-education and under-employment, falling returns from university education, and skills mismatches from poor-quality program standards. These poor-quality program standards mean that households may face informational asymmetries about the labor market value for program skills, despite heavy investments in these higher education programs.[88]

Analysis in advanced and developing[89] economies shows a lag in higher education's response to labor market demand.[90] A study in the US created a model linking the labor market, students and the higher education sector. The model suggests that students largely receive signals on which degree to select from "increasing salaries vacancies for specific occupations through friends and family, the media, or other sources." However, slot availability in these programs is often inelastic or inflexible, and is based mainly on admissions and staffing availability. Thus, the supply of educated workers is weakly responsive to wages and only moderately responsive to vacancies in the labor market. Demand responsiveness, however, varies across degree programs; IT degrees are significantly more responsive than medical degrees, for example.[91]

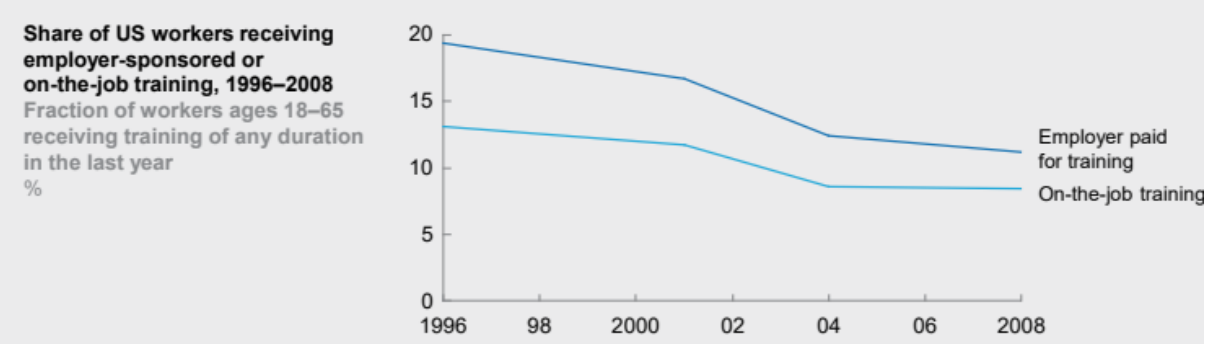
These challenges are present in Chile, where a lack of dialogue between the educational sector and businesses correlates with graduate unemployment and underemployment. As a result, educational institutions are focusing on indicators that are not necessarily aligned with ensuring students have the proper skills to succeed in the workforce.[92]

In response to shortages in adequately skilled job applicants, especially in vocational and STEM fields, governments in advanced and developing economies have increased their emphasis on technical and vocational education and training (TVET), including APEC, G20, OECD, ILO, UNESCO, and ASEAN.[93] These organizations have also found that the challenge of demand responsiveness for TVET programs is common. An APEC study on enhancing of relevance of TVET stated "the most challenging task of TVET is to produce the right-type of skilled workforce who are able to match the needs of the industry and labor market demands." A lack of demand responsiveness for TVET programs leads to skills mismatches, skills shortages and ultimately unemployment, especially among youth.[94]

These challenges stem from a lack of engagement between industry and TVET institutions, as well as rigid, centralized or inflexible TVET programs. Challenges observed in Viet Nam's TVET system include supply-driven programs, over-emphasis on theory versus practice, over-emphasis on public sector employment, centralization and inflexibility, and overuse of exam-based assessment.[95] The OECD identified challenges in the Philippines TVET system including its supply-drive nature, lack of responsiveness and inflexibility to labor market demand and a poor reputation among stakeholders such as job seekers and employers.[96]

In many economies, employers are increasingly reluctant to invest in on-the-job training and favor shorter-term contracts, notably in Chile; Japan; Korea; Peru; and the US. Small businesses are less likely to offer on-the-job training than larger businesses. Data from Australia shows that 2/3 of small businesses offered no structured training for employees.[97] Figure 6 shows that the provision of on-the-job training and employer-sponsored training has been declining in the US. This raises serious challenges for ensuring an inclusive labor market, as these trends lead to decreased labor productivity, a polarization of income between more secure and less secure employment, and exacerbated skills mismatch.[98]

Figure 6: US Workers Receiving Employer-sponsored or On-the-job Training



Skills mismatches also disproportionately impact women as educational systems can create learning environments that exclude women from access to certain skills. Cultural norms often direct women toward careers in education, health and welfare, humanities and the arts, which limit their opportunities to be at the frontier of technological developments in other industries. The UN Conference on Trade and Development has found low employment by women in high-tech sectors such as chemicals, electrical, electronic machinery and applications, industrial machinery and transport equipment, which limits their participation in services-exporting industries.[99]

2.2.4 Supporting Disadvantaged Populations

In the context of structural changes from trade and technological advancement, vulnerable groups in society face additional changes to adjust to new economic realities, especially since they often have less capacity and resources to adapt.[100] When these disadvantages are not addressed, they lead to inequalities which can hinder economic growth in the long-run and lead to parts of the labor force being excluded long-term from access to greater opportunities.[101]

Key policy challenges for inclusive trade in high-income economies identified by APEC include an ageing population, lack of equal opportunities for women and youth unemployment. Middle-income economies largely face challenges stemming from unstable economic conditions that have limited the ability of workers to invest in education and skills development. This disproportionately harms poorer citizens due to inequitable access to human capital services.[102]

Challenges in Supporting Mature-Aged Workers

An ageing society leads to a declining overall labor force participation and may face fiscal challenges from decreased tax revenues. Fiscal challenges exacerbate the challenge of increased healthcare and the social services costs associated with ageing and retirement.

Despite an overall decrease in the workforce as older citizens retire, advanced economies are seeing increased labor force participation rates by mature-aged workers. However, mature-aged workers face a particular set of challenges in the labor market, such as needing retraining in a market where high-cost training programs are designed for younger workers with updated skill sets.[103] Physical and cognitive challenges also diminish productivity and make elderly workers more susceptible to illness and injury, which requires flexible working arrangements and environments which may not be available. 'Ageism' can create barriers to employment opportunities if mature-aged workers are stereotyped or discriminated against.[104] It is also important to support workers as they may face adjustment costs related to the demand for their skills dropping. In Viet Nam, many women over 35 are forced out of jobs at companies owned by foreign investors as their productivity is perceived to decline with age.[105]

These demographic trends are particularly pronounced in Japan, where the working age population is declining rapidly and the elderly dependent ratio is increasing. Elderly citizens are increasingly re-entering the labor force, but often as irregular workers rather than full-time staff; the proportion of irregular workers is 12.8% for ages 55 to 59 and 72.1% for ages 65-69. These elderly workers only make between 50-70% of the wages they received in previous full-time positions, and wage supports expire after they pass retirement age.[106]

Challenges in Supporting Women's Employment and Entrepreneurship

Women also face structural barriers in APEC economies, such as exclusion from opportunities, preventing them from deriving the full benefits from trade. Many of these factors are related to gender norms or stereotypes which vary across economies. While many gender-based gaps in access to secondary and tertiary education have been reduced, women's labor force participation is consistently lower than men's in APEC economies. Women also remain underrepresented in engineering and technology degree programs and overrepresented in teaching and nursing studies.[107]

Women in many economies also struggle to stay in careers due to societal expectations for them to perform domestic work, alongside insufficient access to relief such as maternity leave and child care. Societal expectations for women to become housewives after marriage may cause challenges for women to stay in their careers.[108] An OECD survey found that women spend on average 4.5 hours per day on unpaid household work while men spend just over two hours on housework. Surveys show that women's representation in formal employment and exporting companies is low, while their participation is concentrated in sectors with higher demand for low-cost labor and a high degree of informal work. Less than one in five companies surveyed by the World Bank had women in upper management positions. These factors make it difficult for women to acquire greater skills and pursue opportunities in global value chains.[109]

Economies may also struggle to formulate adequately targeted policies to address gender disparities due to a lack of available sex-disaggregated statistical data. Economies are thus working with an incomplete picture of women's and men's economic, political and social situations in the world.[110]

Challenges in Supporting Informal Workers

Middle-income economies face challenges in supporting large populations of vulnerable and informal workers. Informal work is characterized by low wages, sparse statutory protections and low employment benefits. Estimates in APEC put the informal working population at 453 million, or 30% of total employment. These populations face additional barriers in accessing education and training opportunities, and typically work in MSMEs that are unlikely to provide on-the-job training.[111]

2.2.5 Challenges for MSMEs

MSMEs and start-up companies face additional challenges to participate in international trade, and may have difficulty locating or accessing the public sector resources intended to support them. In most OECD economies, MSMEs account for only 20-40% of total exports.

Participating in GVCs

About 80% of trade is conducted through global value chains (GVCs). Since the 2008 global financial crisis, GVCs have been going through consolidation and convergence. Consolidation results from multi-national corporations (MNCs) increasingly sourcing from a smaller pool of larger suppliers as opposed to many small suppliers. Convergence results when lead firms in different GVCs are sourcing from the same upstream suppliers.

These trends create disadvantages for MSMEs as there are many barriers to enter these highly established networks.[112] MNCs and larger enterprises are very cautious about choosing MSME suppliers and assess their capabilities from multiple perspectives.[113] This can create barriers for MSMEs with limited resources to invest in capacity building, expansion, new technology, etc., given that the most-valued factor by MNCs is product quality. This means that if an MSME's product or service isn't already at the standard demanded by MNCs, it will likely not even be considered in the supplier selection process.[114]

The business environment, physical and informational infrastructure, sector-specific factors and characteristics of MSMEs themselves influence their competitiveness and their successful integration into the GVCs.[115] Sparse information and low communications capacity can limit MSMEs' capacity to interact with customers, suppliers, business partners and clients. Transport infrastructure is also crucial for MSMEs' market access, sourcing of inputs, and finding employees.[116]

Overcoming Barriers to Exports

The *Facebook-OECD-World Bank Future of Business Survey* finds that MSMEs face barriers to exports, including finding business partners (63%), market access limitations (41%), different regulations in other economies (38%), customs regulations (35%), language and/or cultural gap (33%), securing export finance (31%), poor online payment alternatives to sell online (29%), large geographical distance from home economy (26%) and poor internet connection to sell online (18%).[117]

Increasingly complex international trading regimes create barriers for small firms that larger firms can more easily navigate. Generally lacking economies of scale, tariff and non-tariff barriers create disproportionately large costs for MSMEs to engage in international trade.[118] Many of the costs associated with trade are largely fixed regardless of the amount of goods being exported, meaning an outsized portion of their operating costs are needed to access international markets.[119]

MSMEs face major challenges with outwards FDI, partly due to a lack of knowledge about international business. Studies by both the US and Japanese governments have found that MSMEs generally lack the resources to hire staff members with the specialized skills that are needed to identify export opportunities, establish relationships with foreign buyers and navigate complex trading regimes.[120] Non-tariff barriers such as Rules of Origin, labeling rules and sanitary regulations can be particularly challenging for MSMEs to interpret.[121] The US International Trade Administration finds that American small businesses struggle with engaging foreign customers, complex and sometimes non-transparent foreign and domestic regulations, tariff and non-tariff barriers and time-consuming foreign customs procures.[122]

Access to Capital

MSMEs also face a number of barriers in accessing capital. These barriers limit their ability to invest in information, skills and technology, which further reduces MSMEs' capacity to control high trading costs. Factors that limit MSMEs' access to both public and private lending include risk aversion by institutions that lend to MSMEs, MSMEs' poor financial literacy, predatory informal lending practices, and bureaucratic delays in accessing government sources of capital. The International Finance Corporation (IFC) has found that the financing shortfall for MSMEs in developing economies exceeded $2 trillion, suggesting that 1/2 to 2/3 of formal MSMEs lack adequate access to finance.[123]

Many of these challenges stem from informational asymmetries between the bank and the enterprise, since MSMEs may lack the information, documentation or ability to demonstrate creditworthiness. The legal foundation and institutional structures for lending were originally designed for larger firms, and generally do not support using collateral and non-traditional data for the risk-based lending critical for MSME access to finance.[124] For example, in the Philippines, it is difficult to secure loans from formal financial institutions without collateral or revenue documentation, which smaller firms may struggle with. This can lead to reliance by MSMEs on informal lenders that take advantage of their clients with usurious interest rates.[125] In cases where MSMEs do secure formal loans, they often have higher interest rates and greater requirements for collateral.

IP Protection

Intellectual property (IP) protection also poses challenges for MSMEs in many economies. A survey in Japan has shown that 20% of MSMEs perceive risks in foreign expansion due to the possibility of IP infringement by foreign companies and competition from counterfeit goods, while small businesses in Chinese Taipei struggle to integrate into GVCs due to underuse of the IP system.[126]

Challenges for Women-led MSMEs

In many economies, women face additional challenges to participate in trade, and women-led enterprises are less likely to be involved in exporting than male-run enterprises.[127] An ITC survey found that in almost half of all exporting companies, less than 20% of owners were female, reflecting how business ownership by women concentrates in sectors with higher demand for low-cost and flexible labor, and businesses owned by women are generally smaller.[128]

Many of the gender-based barriers discussed in Section 2.1.3 similarly disadvantage female entrepreneurs. Women-owned MSMEs face additional barriers to access capital, which limits their ability to consider expanding internationally. A survey in Australia found that 74% of internationally-engaged women-owned exporting businesses wanted to expand to additional economies, but faced challenges in accessing bank loans and instead relied on reinvested profit and personal savings.[129] Market information and networks is also more difficult to access for women due to social norms; the Global Entrepreneurship Monitor's '2010 Women's Report' found that women entrepreneurs in many economies had "smaller, less diverse networks and tended to rely more on personal contacts." These challenges as well as higher degrees of informality create challenges to identify and take advantage of market opportunities.[130]

3 Policy Interventions for Inclusive Trade

3.1 Trade Policy and MSMEs

Free trade agreements (FTAs) can remove trade bottlenecks that disproportionately impact MSMEs, such as freight, customs clearance regulations, inspections and other technical barriers. Trade policy efforts that focus streamlining and harmonizing regulations could have significant benefits for MSMEs.[131]

Measures to address these disadvantages to MSMEs includes liberalization of trade in services, such as lifting product market regulations which can contribute to increased competition, innovation and cheaper access to inputs. Domestically, economies could consider removing barriers to entrepreneurship in service sectors such as telecommunications, transport and logistics, and professional services.

MSMEs can benefit from harmonized regulatory standards for packaging, certification and labeling. Harmonized standards in these areas will reduce the compliance burden for small firms. Similarly, MSMEs can benefit from efforts to streamline complex, lengthy and costly customs procedures. Economies including China, Canada, and Malaysia are exploring mechanisms to simplify documentation requirements and automate certain processes to make it easier for MSMEs to overcome these barriers. [132]

Participation in FTAs can help domestic SMEs to compete internationally. For example, Japan is actively negotiating FTAs such as the 11-economy Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Japan-EU Economic Partnership Agreement (EPA), which will provide Japanese SMEs with greater business opportunities through tariff reduction, protection for their investments, liberalization of the services sector, and IP protection.[133] Japan's Growth Strategy 2018 targets "taking advantage of growing markets overseas", including doubling the export and revenue from foreign subsidiaries of MSMEs to ￥25.6 trillion by 2020.[134] Other trade goals include increasing the ratio of trade with FTA partners among all of Japan's foreign trade to 70% by the end of 2018 (18.9% in 2012) and increasing FDI inflows to ￥35 trillion (￥19.2 trillion in 2012).

Trade negotiations can also address equity issues in economies, such as gender inclusion. Pre-ratification conditions in trade agreement negotiation processes can be leveraged to remove legal barriers against women's equal participation in the economies (and therefore equal advantages from trade), with follow-up monitoring and enforcement mechanisms, to ensure women can increase their share of trade benefits.[135] Chile has extensive experience including gender-related provisions in free-trade agreements (FTAs), including in agreements with Argentina, Brazil and Canada. These provisions currently involve cooperation activities on capacity building skills efforts, financial inclusion, advancing women's leadership and developing women's networks, promoting female entrepreneurship, conducting gender-based analysis, implementing gender equality commitments included in global conventions such as the SDGS, and developing workshops, seminars, dialogues and other forums for exchanging knowledge, experiences and best practices.[136]

3.2 Trade Promotion for MSMEs

Supporting MSMEs in increasing their export activity is key to supporting inclusive trade, since they account for the majority of firms, represent large proportions of total employment, and can support a more equitable distribution of costs and benefits through increasing job opportunities for poor households and using locally generated inputs.[137]

Greater involvement by MSMEs in international trade "creates opportunities to scale up and enhance productivity, by accelerating innovation, facilitating spill-overs of technology and managerial know-how, and by broadening and deepening the skillset," and "goes frequently hand in hand with higher productivity, and can be an important driver of employment growth."[138] According to the OECD, the rise of GVCs and digital transformation offers new opportunities for SMEs to integrate into the global economy. "Greater flexibility and capacity to customize and differentiate products can give SMEs a competitive advantage in global markets relative to larger firms, as they are able to respond rapidly to changing market conditions and increasingly shorter product life cycles."[139]

In response to these revelations, many economies have launched a variety of efforts to mitigate the barriers that MSMEs face in engaging in international value chains. The APEC issue paper "Integrating SMEs into Global Value Chains: Policy Principles and Best Practices" finds that policies to assist MSMEs integration into GVCs are needed at the general horizontal level and for specific sectors. Horizontal policies could include "programs to promote awareness and understanding of the benefits of integrating SMEs into GVCs, and to work with MNCs to develop more specific capacity building programs for local SME." At the industry level, it is key for economies to understand how GVCs can be linked to specific sectors of the domestic economy, as well as strengths, weaknesses, opportunities and threats for domestic SMEs.[140]

The OECD suggests that public support for MSMEs can help to overcome informational asymmetries. Support mechanisms include providing information on rules and regulations, disseminating market information, international trade fairs or identifying foreign business partners. The internal capacity of MSMEs is also key to their ability to export. Policies that combine various forms of education and training with coaching by an export adviser or consultant can be effective in improving MSMEs' capabilities to navigate international markets.[141]

Japan and Korea have both implemented several measures to reduce the informational challenges faced by MSMEs. For example, Japan provides MSMEs with personal support through regional chambers of commerce and local financial institutions around Japan, including research and networking support to navigate foreign business environments. The "Japan Mall" project by the Japan External Trade Organization (JETRO) collaborates with several global e-commerce platforms to facilitate partnerships for MSMEs to sell their products. The program is free for MSMEs and is designed to minimize or eliminate many of the risks that SMEs face in global trade.[142] In Korea, the government has established an 'FTA Call Center' and integrated web portal on issues such as rules of origin and customs clearance to support MSME exports.[143] Korea's "Export Capacity Enhancing" project also provides MSMEs with a deep level of support through education, global market information supply, marketing, market research, strategy consulting and global brand development services for MSMEs.[144]

Policies that promote innovation domestically can also contribute to creating MSMEs that can succeed internationally. Intellectual property protection, R&D fiscal incentives, university-industry collaborations and partnering between MSMEs and foreign firms "can facilitate the knowledge transfers required for upgrading in GVCs."[145] For example, Japan's J-Startup program facilitates relationships between large foreign firms and MSMEs. Investment and business leaders at major firms like Google, Amazon and Panasonic nominate SMEs to participate in the program. Participating SMEs then receive financial and administrative support and free mentorship from large firms in entering international markets. Japan also provides extensive support for MSMEs to have their intellectual property and geographic indications registered and recognized in target economies.[146]

In the Philippines, programs exist to mobilize large enterprises to support MSMEs through capacity building on human resources through mentorship and coaching to create more inclusive value chains.

Other programs provide access to productive technology and facilities for MSMEs through relationships with large enterprises, which has eased barriers to launching businesses and led to significant employment creation.[147]

Greater access to capital can address challenges in workforce development and talent retention, access to technology and investments to increase production capacity. The Philippines MSME Development Plan prescribes measures to ease MSMEs' access to finance, such as streamlined loan processes, and helping MSMEs access formal loans rather than usurious informal lending and special financial products (loans with no collateral requirement, microfinance, structural financing, etc.).[148] Innovative technologies such as the blockchain and AI could simplify compliance procedures related to know your customer (KYC) procedures, anti-money laundering, and counter-terrorism financing requirements could make it easier for financial institutions to lend to MSMEs by reducing informational asymmetries.[149]

3.3 Active Labor Market Policies (ALMPs)

Around the world, governments have implemented active labor market policies (ALMPs, also sometimes referred to as labor market assistance) in order to improve job prospects and worker productivity. The OECD defines ALMPs as policies to improve the functioning of the labor market that are directed at the unemployed, and can include measures such as: [150]

- Making the process of matching between job vacancies and job seekers more efficient;
- Training to upgrade and adapt the skills of job applicants;
- Direct job creation through public-sector employment or subsidization of private-sector work.

These tools are commonly used to assist workers displaced by trade, technology, automation, shifts in consumer demand and other factors.[151] For instance, the European Globalisation Adjustment Fund (EGF) was established in 2006 in order to finance ALMPs supporting workers who had been affected by trade within the European Union (EU). The EGF co-sponsored 17 projects that offered a variety of training, job search assistance, and employment investment. Through EGF sponsorship, 9,072 workers among the 19,434 workers found new jobs by the end of the EGF implementation period.

Other labor policy challenges that ALMPs can respond to include:

- Lifetime negative impacts to productivity and employability among youths "Not in Education, Employment or Training" (NEETs) can be mitigated through training and linkages to opportunities;
- The proliferation of temporary insecure work and the reluctance by employers to invest in training can be responded to by incentivizing individuals to enter training programs or for private companies to invest in training;
- Poor educational quality and programs unresponsive to demand should be alleviated through collaboration between government agencies and the private sector to regularly review and monitor programs in terms of needed skills and industry trends.[152]

According to the APEC Policy Support Unit (APEC PSU), a meta-analysis of over 200 studies has concluded that ALMPs can positively impact employment of individuals two to three years after completing programs. Another study found that ALMPs can reduce unemployment, particularly for low-skilled workers.[153] APEC Business Advisory Council (ABAC) has noted that the size and makeup of both active and passive policies should vary across economies based on each local circumstances. Japan and the US, for example, spend less than 1% of GDP on both active and passive programs while Nordic economies spend much more of their GDP on programs; and developing economies invest much less.[154]

This study largely concerns active policies given evidence of their impact on unemployment and greater emphasis on preparing workers for changing labor market situations, while passive policies lack a capacity building aspect and produce little evidence pointing to increased employment.[155] In the case of the US, an executive economic advisory board suggested that a "targeted shift in US spending—more on labor market policies and less on disability policies—could bring workers back into the labor force, helping them adjust and contributing to greater US economic growth."[156]

Measures can include consultation with employers and industry groups, certifications, information on the labor market (job vacancies, in-demand skills), education and training. These measures aim to minimize the time a worker spends unemployed so that they can maintain living standards, skills and employability. The APEC PSU has categorized ALMPs into four broad categories based on the challenges they aim to mitigate as shown below.[157]

Table 3: Examples of Active Labor Market Policies (ALMP)

ALMP	Policy Examples
Employment	• Collaboration with employers and industry groups to maintain or grow employment and reduce unemployment or underemployment
Labor market information systems (LMIS)	• Gathering labor market information through surveys of the labor force and firms/employers • Projecting future labor supply trends that can be used by government, employers, job seekers, workers and education providers to understand the current labor market and required skills for emerging jobs • Feedback from social protection programs
Skills development	• Improving access to primary and secondary education • Providing technical and vocational training and apprenticeships, especially for displaced workers and disadvantaged groups • Supporting lifelong learning
Social protection	• Skills matching • Job information portals • Employment assistance

Source: APEC Policy Support Unit (2017).

3.3.1 Optimizing the Effectiveness of ALMPs

Research by APEC and organizations such as the ILO suggests that ALMP programs that combine several different components are most effective. In particular, the ILO has found that the most effective program sequence for unemployed individuals is to start with intensive job-search assistance with counseling and monitoring, which provides the most positive short-term effects. Then, in a second step, providing training, which provides positive medium-to long-run effects due to the accumulation of human capital.[158] APEC highlights the critical role of public employment services in supporting jobseekers and displaced workers with links to training, as well as the importance of labor market information systems (LMIS) to create a wealth of information on available jobs and in-demand skills to inform these activities.[159] Examples of LMIS include the Canadian Occupational Projection System (COPS)[160], the Federal-State Workforce and Labor Market Information System (WLMIS) in the United States and the Skills Panorama system in Europe.[161]

The OECD finds that the most common ALMPs are public employment services, and many economies aside from the US and Japan are increasing spending on placement services. These placement services can reduce unemployment but do not "fundamentally change labor market demand or increase human capital in ways that may have larger payoffs over the long term." Fundamentally changing labor market demand requires complementary human resource development and employment creation measures.[162] Economies such as Australia collect data on the employment and earnings outcomes of participants in public employment services to inform improvements to program design and implementation.[163]

Evidence from Australia's Skills Checkpoint for Older Workers program provides some preliminary lessons on how ALMPs can be optimized to address challenges faced by disadvantaged populations. The program offers support to mature-aged Australians' employment outcomes; participants undertake an assessment of their skills and receive a customized career plan and guidance on what types of jobs they might pursue and how. Participants who complete this process then gained access to financial incentives to use for training programs.

An evaluation of the program's pilot showed that a high level of customization of assistance to client needs and the addition of new services based on client demand were effective in securing high levels

of satisfaction with the program. Furthermore, the quality of services was dependent on a range of factors, including the service providers' client engagement skills; expertise in career development and transition; knowledge of recruitment practices, labor markets, industries and occupations; ability to customize services; and links to relevant networks and other services. Australia will soon launch a web-based application to further optimize this process. Users will fill out information about their skills and receive an evaluation of their job prospects.[164]

Skills training programs can contribute to long-term wage increases, while short run impacts are limited especially if wages are reduced during training. Training programs have been shown to be most effective when they focus on a particular job role, as well as job readiness skills such as interviewing skills and preparing resumes and CVs.[165] Training focused on preparing workers for jobs in a particular sector also have positive effects on earnings and employment if training is reflective of industry demand.[166] Skills training targeted toward economically disadvantaged adults and those with low income and low educational attainment have positive employment impacts and are cost-effective.[167]

Measures such as employment subsidies and wage insurance are costly, but can be productive in encouraging short-run employment. However, these measures run the risk of providing supports to firms that would have otherwise hired workers. Placement services and training can increase efficiency by linking skilled workers with jobs supported by the subsidy so it can eventually be phased out.[168]

Direct employment creation by the government, or public works, has even greater costs due to the need to cover salaries and administrative costs, and generally does not have positive long-run employment impacts. Furthermore, participating in public works can signal to employers that a worker is less employable.[169]

ALMPs can respond to challenges of inclusive trade by assisting workers displaced by international trade and technological disruption to find new employment, improving their resilience to such changes through acquisition of the appropriate skills and mitigating high adjustment costs. In the context on inclusive trade, objectives of ALMPs can include:

- Directly assisting workers displaced from international trade through trade-adjustment assistance programs (TAAs) that can involve a range of public employment services, subsidies, skills training, etc.
- Aligning the curricula of education and training programs with industry-demand through collaboration with industry and unions, establishing skills certifications, and collecting data on issues (workforce challenges, skills shortages, skills required for various jobs, placement rate of program graduates, etc.).

3.3.2 Trade Adjustment Assistance (TAA)

Trade adjustment assistance refers to programs that mitigate negative impacts international trade might have on certain sectors of the domestic economy. These programs which can involve ALMPs specifically targeted at workers in these sectors.

The OECD advises that trade adjustment programs can be a "useful supplement" to more general government programs such as unemployment insurance schemes and public employment services, especially when mass layoffs have led to a surge in unemployed persons all chasing the same types of largely unavailable jobs, or where general ALMPs are limited in scope and effectiveness. In those situations, OECD advises that longer training and re-education programs that lead to technical or science, technology, engineering and mathematics (STEM) related qualifications that match current skill demands offer promise as an ALMP policy.[170]

However, the OECD warns that there is a weaker case for adjustment assistance measures that are targeted at trade-displaced workers. In particular, OECD has found that:[171]

> "There is an evident inequity in providing special assistance for the relatively small share of displaced workers whose job loss can be linked to international competition, when similar assistance is denied to other displaced workers facing similar adjustment difficulties.

> Cumbersome administrative procedures are also required to determine eligibility, leading to arbitrary decisions (e.g. whether workers displaced from a domestic supplier of a trade-impacted firm should qualify) and potentially long delays which greatly undercut the timeliness and effectiveness of the support."

The OECD advises that the best solution is to offer effective re-employment services to all displaced workers. When this is not politically or fiscally viable, then measures which prove to be cost-effective should be extended to all displaced workers as soon as possible.[172]

One of the earliest and longest-lasting programs for trade adjustment is the United States' Trade Adjustment Assistance program (TAA program), launched in 1962.[173] The TAA program offers support for to workers who become unemployed or are threatened with job loss due to the impact of imports from trade liberalization. The program offers those workers training, reemployment services, job counseling, weekly income support, Reemployment Trade Adjustment Assistance (RTAA), and tax credits for health insurance. [174] In FY 2017, 43,615 US workers joined the program, which had a budget of about US$790 million.[175]

Results from 2017 show that 63% of participants received training, 89% received some type of credential and 75% found employment within six months of the program.[176] Evaluations of the program find neutral to positive impacts on employment, mixed effects on wages and that the program "is generally beneficial for worker."[177] However, a 2012 study found that the net benefit to society of the TAA program was negative $53,802 per participant.[178]

Despite these costs, a 2012 study commissioned by the U.S Department of Labor speculated that if the TAA program made even a modest contribution to increasing support for liberalized trade, it could be considered a net benefit to society. However, the report finds little to no evidence in the case of the US that the TAA program makes passing trade policies easier.[179] Concerns have also been raised regarding the program's eligibility requirements, which exclude workers displaced by technological advancement and changes in consumer demand, since this may also give the false impression that the majority of job displacement comes as a result of trade. According to the Council of Economic Advisers, the program "seems to have been originally launched to provide political scope for the pursuit of FTAs" in response to pressure from labor unions.[180]

The following case study into the Australian Government's response to the transition of the car manufacturing industry contributes to lessons regarding assistance targeted at displaced workers and affected firms.

3.3.3 Case Study: Australia's response to the car manufacturing industry's transition

Background

Between early 2013 and 2014, the car manufacturers Ford, Holden and Toyota respectively announced they would cease vehicle production in Australia by the end of 2017. Tariff protection for the car manufacturing industry was progressively wound back in the 1980s and 1990s. The winding back of Australian Government financial support for the industry; against a backdrop of a high domestic exchange rate, the introduction of FTAs with other car producing economies, and shifting consumer preferences ultimately forced the manufacturers to cease domestic car production. Estimates of direct job losses varied, with 27,500 to 40,000 workers expected to face redundancy over several years.[181,182]

Policy intervention

In 2014 the Australian Government announced the $155 million Growth Fund to support workers, businesses and regions affected by the changes to Australia's car manufacturing industry. The Growth Fund focused support on affected supply chain businesses to diversify and reduce their dependence on the car manufacturers, stimulate business activity in adjacent manufacturing sectors and support affected workers to quickly gain new jobs through ALMPs.

The Skills and Training Initiative and Automotive Industry Structural Adjustment Programme (AISAP) was a key elements of the support for displaced workers through the Growth Fund. These elements centered on the provision of labor market information, career advice, assistance with skills and training, and employment support. Holden and Toyota each contributed $15 million to the initiative and delivered the majority of services to their workers, with close collaboration between industry and government to design ALMP services. AISAP supported all displaced workers, particularly those within the supply chain, through the provision of résumé preparation, job applications, interview skills and funding for training to obtain tickets or licenses.

Lessons learned

In the Australian context, the impacts of the transition of the car manufacturing industry were less severe than originally expected. The long lead times for targeted government support for supply chain diversification, staggered job losses over several years, and implementation of ALMPs prior to workers losing their jobs contributed to lessening the impact on workers and companies within affected regions. The relatively strong labor market and buoyant economic conditions positively contributed to the likelihood of supply-chain companies and workers making successful transitions.

The success of the transition support has resulted in the following best practice being identified in supporting workers and businesses:

- Early notifications and long lead times for workers and firms are critical
- Local labor market information should ideally be paired with tailored career advice
- Informed by career advice, training is linked to industry demand and individual preferences
- Strong collaboration between industry, government, workers and affected communities
- Promotion of health and wellbeing support

The car manufacturers have reported that as many as 80% of their former workers had either found new jobs, retired or had commenced study. The new career pathways taken by workers is diverse, with most workers regaining employment within the manufacturing industry. However, many workers have also regained employment in growth industries, such as health care and socially assistance industry. Around 70% of supply chain companies remained in business, with some companies diversifying into new sectors and downsizing their workforce.

Central to the successful outcomes for workers and supply chain firms was the close collaboration between the car manufacturers, the Australian Government and relevant state governments with the common objective of supporting the impacted workers and community. The National Automotive Facilitator, employed by the Australian Government to assist with the coordinated car manufacturing industry transition, worked directly with the car manufacturers and state governments to ensure that

impacted workers were connected with employment services, job opportunities, training and a range of other support services that were provided.

The close collaboration between industry and government helped to identify service gaps and increase the flexibility of available services to respond to worker needs. The lessons from providing assistance for retrenched workers have been documented within the Good Practice Guide in Socially Responsible Restructuring that was prepared by the National Automotive Facilitator.[183]

Current ALMPs in Australia targeted towards displaced workers have reflected advice that sector-specific adjustment assistance should be carefully structured to target assistance to workers facing the greatest employment challenges, and to avoid unfairly favoring specific workers over those in greatest need of assistance.[184] The OECD's *Back to Work: Australia* report also recommends that support for retrenched workers be broadened beyond sector specific interventions and to allow access to support for displaced workers from any sector.[185] The OECD also recommended that the intensity of support be tailored to the level of disadvantage faced by workers.

Recent policy in Australia has broadened support for all displaced workers. Since 1 July 2019, all retrenched workers and their partners are able to immediately access job search assistance prior to becoming eligible for income support. In addition to this support, there are a number of tailored support programs to assist retrenched workers in regions that are undergoing significant transitions.

Based on the post-project evaluations conducted for Australia's AISAP and the US's TAA, these types of programs can suffer from challenges related to the targeting of assistance based on workers' needs since they may introduce the contingency that aid is provided to workers who might not otherwise require it, and displaced workers who do not meet narrow eligibility requirements are excluded. However, it is possible for TAA programs' benefits to outweigh the costs if they are carefully designed and implemented in a manner that supports workers and encourages support for free trade.

Demand responsiveness and coordination of education and training

In order to mitigate the challenge of skills mismatch, it is key to pursue measures to align curricula in education and training with labor market demand for skills. Measures employed by economies largely seek to mitigate informational asymmetries between the government, education/training institutions and employers. In the case of the US TAA program described above, many challenges in terms of lower earnings and suboptimal job placement rates were attributed to a lack of consideration of labor market demand for skills in the design of training programs.[186]

Labor economics research organization IZA World of Labor finds that policy intervention in this area is warranted given the "information asymmetries inherent in an experience good such as a university education, a product or service whose quality cannot be fully determined before it is purchased and consumed." The authors suggest that regulatory provisions that require collecting and publishing data on graduates' employability and labor market outcomes by institution and program could reduce these information asymmetries. The authors also suggest quality assurance regulations. However, both of these measures depend on adequate institutional capacity for data collection and enforcement.[187]

Increasing employer engagement in education and training can also help mitigate asymmetries. An APEC report titled "Enhancing the Quality and Relevance of Technical and Vocational Education and Training (TVET) for Current and Future Industry Needs" includes a number of best practices for occupational frameworks and occupational competency standards. 'Occupational frameworks' include overviewing the sector, competency areas and relevant skills, labor market demand for those skills and training requirements. 'Occupational competency standards' refer to performance criteria and how these skills should be taught.[188] Faculty are important stakeholders in this process, as professional development measures can complement efforts to increase curricula relevance by updating the faculty's knowledge.[189]

The creation of occupational frameworks calls for high-level of industry involvement (including sub-sectors, MSMEs, larger enterprises, etc.) throughout the development process. Industry input provides statistical data, and helps to create an overview of industries to facilitate long-term planning and an

analysis of career paths and occupational descriptions. Deep industry involvement can support occupational frameworks that accurately categorize the supply and demand of skills in the economy to inform training programs to address challenges.[190]

Australia's approach to Vocational Education and Training (VET) is a good example of a system with elements designed to encourage employer engagement. The system includes an integrated set of recognized qualifications (the National Skills Framework), training 'packages' for these qualifications and a quality-assurance framework for training providers (the Australian Quality Training Framework). Qualifications and training packages' development is designed to be industry-driven; various councils and committees consisting of government agencies, employers and other stakeholders identify current and emerging skills needs and reach consensus on appropriate training programs, with reviews taking place every three years for updates.[191] The Commonwealth, state and territory governments in Australia also provide financial incentives to employers to participate in VET, which largely consists of financial support to employers who take on apprentices. The government is also providing funding for training programs in identified areas of skills shortage, with employers co-contributing to the training costs.[192]

Singapore's VET system is also identified in "Enhancing the Quality and Relevance of Technical and Vocational Education and Training (TVET) for Current and Future Industry Needs" as a best practice example. Singapore's education and VET system's development is guided toward industry relevance through a complex governance arrangement that brings together government, industry, unions, workers and trade associations through committees and statutory boards to develop and validate skills standards, assessment strategies, and training curricula for different sectors.

Under this system, the statutory board SkillsFuture Singapore collaborates with industry, unions and sectoral government agencies to define national qualifications standards under the Singapore Workforce Skills Qualifications (WSQ) system, which is a national credentialing system used to train, assess and certify skills and competencies for the workforce. This helps develop career pathways, supports workers in acquiring and demonstrating skills to employers and ultimately helps align workers skills with industry demand.[193]

Figure 7: Qualifications for Environmental Cleaning under WSQ[194]

Singapore has historically engaged foreign investors in its VET system under a "skills and technology transfer model," where the government upskills citizens to attract foreign companies, and engages citizens in the training system through incentives such as subsidies and grants. This creates a mutually beneficial arrangement where investors get access to skilled workers who contribute to the quality and relevance of the VET system.[195]

The following case study describes another Singaporean initiative that emphasizes lifelong learning and deep skills mastery, with a similar emphasis on industry engagement and demand responsiveness.

3.3.4 Case Study: Singapore's SkillsFuture Initiative

Background

SkillsFuture is a national movement that "provide[s] Singaporeans with the opportunities to develop their fullest potential throughout life, regardless of their starting points." The program started from late 2014 and is administered by SkillsFuture Singapore (SSG) under the Ministry of Education (MOE). It includes both labor policy outcomes as well as other policy instruments that address a wider range of beneficiaries over a longer period.

SkillsFuture provides the direct disbursement of government funds for skills training, subsidies and work placements, as well as information provision and planning activities to encourage citizens to choose new skills to better align their competencies with industry demand. The four key 'thrusts' of SkillsFuture are:

1. Help individuals make well-informed choices in education, training and careers
2. Develop an integrated high-quality system of education and training that responds to constantly evolving needs
3. Promote employer recognition and career development based on skills and mastery
4. Foster a culture that supports and celebrates lifelong learning[196]

The programs contribute to economic development goals through human capital development, while some address societal goals such as individual and community development more broadly. Economic development goals include promoting human capital development through education and training, creating an education and training system that is responsive to industry needs and highlighting employers with policies that support employees' skills development. The social policy component of the program promotes equity and social inclusivity in society through increasing upward mobility by creating more educational and training opportunities and promoting a culture of lifelong learning.

SkillsFuture supports the larger government initiative called the Industry Transformation Program. Under this program, government, small and large firms, Trade Associations and Chambers (TACs) and unions create Industry Transformation Maps (ITMs) that outline plans for productivity improvement, innovation, internationalization and skills development to promote growth and competitiveness for each industry. These maps seek to ensure that the skills that citizens require are applicable to available jobs in industries that contribute to economic development goals.[197]

SSG also works with sector lead agencies, unions, employers and other stakeholders to design and implement strategies to address the manpower challenges in key sectors, in support of the ITMs. A key initiative is the development of 'Skills Frameworks', which provide information on the industry, career pathways, occupations and job roles, existing and emerging skills as well as relevant training programs. There are over 30 Skills Frameworks covering various industries. The Skills Frameworks are jointly developed by SSG together with industry partners, employers, unions and education and training institutions.

Policy intervention

The SkillsFuture initiatives provide a wide range of ALMPs that seek to upskill citizens and/or link them with available employment. These include:

- The **SkillsFuture Credit** provides a learning credit for all Singapore Citizens over 25 to spend on approved education and training programs. As of 2018, about 431,000 Singaporeans have utilized their SkillsFuture Credit.
- The **SkillsFuture Work-Study Degree Programme** integrates curricula and on-the-job training through partnerships between companies, government agencies, and universities offering this program. Students may also receive tuition fee sponsorship, stipends and sign-on bonuses from companies.[198]
- The **SkillsFuture Work-Study Diploma and Post-Diploma Programmes** let employers recruit recent graduates from the polytechnics and the Institute of Technical Education

(ITE) and prepare them for suitable job roles. Graduates gain access to high quality training, income, the potential to acquire industry-recognized certifications and a structured career progression pathway, while employers gain access to educated graduates and may receive grants up to S$15,000 per individual to cover costs of training. The programmes are currently active in over 30 sectors.[199]
- The **SkillsFuture Mid-Career Enhanced Subsidy** provides higher course fee subsidies to Singaporean Citizens aged 40 and older to mitigate the challenges that mid-career individuals face in undertaking training.[200]
- The **SkillsFuture Qualification Award** encourages lifelong learning among all employed Singapore Citizens by providing incentives up to S$1,000 to attain qualifications under Singapore's credential system (Singapore Workforce Skills Qualifications, or WSQ).

Several SkillsFuture programs specifically highlight the need to prepare Singaporeans to participate in Singapore's transition to an innovation-driven economy.
- **SkillsFuture for Digital Workplace** equips adults and workers with basic digital skills and assists them to "understand emerging technologies and how they impact work, interpret and use data, and adopt a positive mindset for change, innovation and resilience." The program includes specific courses for sectors such as Food Services, Hospitality and Retail.[201]
- **SkillsFuture Series** addresses priority and emerging skills through short, industry-relevant training programs in data analytics, finance, tech-enabled services, digital media, cyber security, entrepreneurship, advanced manufacturing, and urban solutions.[202]
- **SkillsFuture Study Awards** encourage early to mid-career Singapore Citizens to develop specialist skills in future economic growth sectors and areas of demand. Award recipients receive S$5,000 to defray training expenses associated with courses.[203]
- **SkillsFuture Fellowships** "recognize and support Singaporeans who have displayed skills mastery in their respective fields as well as personal commitment to mentorship and the skills development of others." Award recipients receive S$10,000 which they can use to defray their training expenses.

Lessons learned

SkillsFuture is an example of the success of demand-driven education, training and skills development policy, and provides a valuable contribution to Singapore's internationally recognized skills development system.

Studies on the SkillsFuture initiative have noted some perceived limitations, including an insufficient focus on soft and cross-job skills, a lack of flexibility in eligibility for courses and an insufficient amount of credits disbursed. In terms of social equity, a journal article on Singapore's education and development policies notes that Singaporean citizens are eligible for SkillsFuture Credits, but not permanent residents, which the article notes may be linked to growing public discontent over immigration in Singapore.[204] However, a number of SkillsFuture initiatives and SSG training subsidies are open to both Singaporean citizens and permanent residents.

SkillsFuture demonstrates Singapore's high level of industry and stakeholder coordination and communication in HRD policy development. Coordination and communication allow stakeholders to represent their interests, mitigate informational asymmetries between actors, and mobilize resources towards the most effective interventions. These highly integrated planning measures are a key element in ensuring that education and training programs are responsive to industry demand, so that workers are equipped with skills that they can apply to available jobs.

3.4 Digital Skills Interventions

3.4.1 Overview

Given the proliferation of digital technologies throughout society, business and government, digital literacy and the use of ICT technology is critical to accessing opportunities in the modern economy. Over 60% of CEOs in APEC economies report having difficulties finding employees with adequate digital skills, while certain economies face a shortage of up to 1.5 million digitally skilled managers and analysts. Thus, inadequate digital skills limit both the success of businesses and the ability for citizens to access available opportunities.[205]

Digital technologies pose a challenge for human resources development as they create entirely new job roles, skills demands, and business models and transform existing economic sectors. The fact that skills that are in demand evolve and change over such a rapid period creates challenges for governments to identify and predict skills demand, leading to challenges for education and training providers to provide learners with relevant skills.

To ensure that APEC economies can integrate into the digital economy, ABAC has noted that it is important for APEC members to invest in their digital infrastructure, technology skills training, and enhance internet literacy, narrowing the digital divide.[206] Other measures being explored through APEC publications and workshops include strengthening coordination between employers, educators and policymakers to support the alignment of academic and training curricula with required digital skills in the private sector, early education interventions around digital skills, as well as large-scale digital upskilling and re-skilling through measures such as annual forums and creating a compendium of digital skills definitions.[207] An example of an initiative in APEC supporting digital skills development is the implementation of 10 APEC Data Science and Analytics Competencies, a resource for academia and training providers to align the development of curricula, courses and programs to industry needs. These competencies were identified through collaboration between labor officials, academic leaders and the business community in APEC.[208]

Given the scale of workforce transitions spurred by advanced technologies, governments will need to explore policies to manage this transition to ensure workers are not left behind by capital-intensive "jobless growth."[209] These technologies have massive potential to increase productivity, develop economies and address societal challenges, which makes it unwise to limit their adoption. Japan is an example economy in this area and has instituted significant education reforms and other programs to prepare its workforce for a world characterized by artificial intelligence (AI).

3.4.2 Case Study: Japan's AI Strategy

Background

The rising impact of AI on the jobs market has brought attention within Japan to some of the challenges that it faces in its domestic talent market. These challenges include the lack of international salary competitiveness, associated with unstable employment for young skilled workers, and a lack of support for creative entrepreneurs and innovators[210], as well as gender inequality in the ICT sector.[211]

Japan aims to cultivate the digital literacy of the population as a whole, so that all citizens have the capability to participate in creating a sustainable society. This will enable human resources to be mobilized effectively in all fields of society. These policies will support all citizens in developing the knowledge and skills related to "Mathematics, Data Science, and AI", which form the basic knowledge of the digital society and the fundamental capabilities necessary to design new forms of society, products and services.[212]

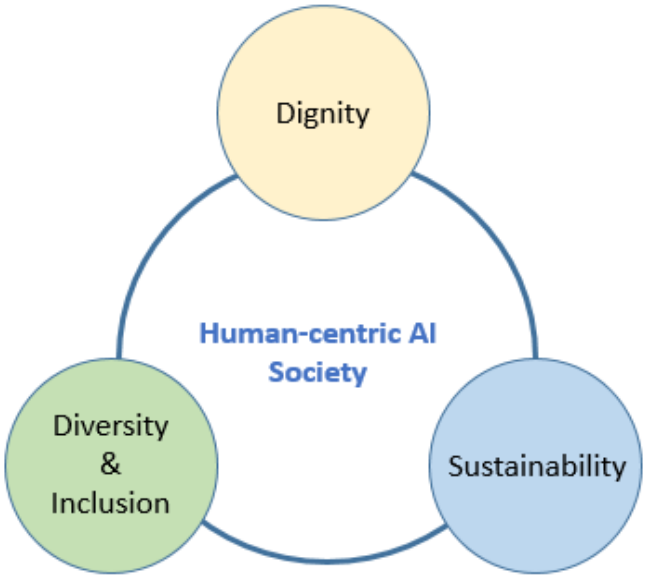
Policy intervention

Japan has implemented several policies to encourage HRD for AI professionals that can potentially encourage inclusive growth in Japan (and in the Asia and Pacific region) through equipping college graduates with knowledge of AI.

These measures aim to ensure Japanese workers are able to participate in advanced fields that will shape the future of the global economy and will be critical to support the economy's overall competitiveness..[213]

While AI and labor-saving technologies can be viewed as a threat to employment, Japan has established working groups on the ethical implications of AI to discuss principles such as providing citizens with 'literacy' in AI to ensure they can find employment in an economy that extensively uses these technologies. This shows how Japan views AI as an essential engine of industrial development, and thus it must ensure citizens can participate in this vision of the future to promote inclusive growth.[214]

Figure 8: Principles of Japan's AI Strategy[215]



To equip citizens with AI skills, Japan's Ministry of Education, Culture, Sports, Science and Technology (MEXT) has announced new National Curriculum Standards for primary and secondary education that incorporate programming into the curriculum. The new standards will be implemented from FY2020.

The public agencies and universities are also working to encourage expanded IT education at the university level through a consortium of 6 national universities with centers on mathematics and data science through the development and national expansion of introductory-level standardized curriculum and teaching materials.

Japan is also providing several skills certification and educational programs for skills required for work in advanced emerging IT fields, including training for work-ready young AI professionals from NEDO (New Energy and Industrial Technology Development Organization), development and training in emerging IT fields by the Information-Technology Promotion Agency (IPA), and funding for innovative work by young researchers by the Japan Science and Technology Agency (JST).

Japan also views international cooperation as essential to achieving these goals related to AI. In order to attract international talent and investment in the AI field, many of the aforementioned efforts aim to establish a research and development 'infrastructure' for AI, similar to how Singapore uses education and training to create skilled human resources to attract FDI.

Lessons learned
Through education and training, Japan can prepare workers for a society in which AI is an important aspect of the economy and social services such as education, transportation and medicine.[216] While the initiatives profiled are still in their early stages and have not yet had impact assessments, this case shows how Japan is making efforts to prepare its citizens to interact and use AI as a labor-augmenting rather than labor-replacing technology to promote inclusive growth, drive innovation, augment economic competitiveness and address pressing domestic challenges.

3.4.3 Examples of Effective Digital Skills Interventions

Increasing mid-career training opportunities to promote lifelong learning is essential, as economies generally lack robust mid-career training opportunities. Short-term and targeted training for specific growth occupations is needed to increase flexibility and adaptability of the workforce.

US consulting firm McKinsey suggests Singapore's SkillsFuture as an initiative showing "that individuals can be supported and motivated to continuously acquire new skills." The coding bootcamp program Laboratoria also shows how short-term skills training programs focusing on in-demand occupations can yield positive employment benefits. Laboratoria operates in Chile, Mexico, and Peru, and provides an immersive 6-month bootcamp for young women to find employment in high-demand tech sectors such as web development and user-experience (UX) design. The program responds to the large gender gap related to education and employment in technology industries. The program has an 80% placement rate for graduates, who typically go on to earn much higher salaries than their cohorts in conventional higher-education systems.[217]

Education reforms can enhance the focus on in-demand skills in the digital age such as technology skills, teamwork, creativity, communication, and social and emotional skills, including using digital technologies as teaching tools to create more personalized paths of learning for students. Digital and distance learning technologies can deliver education and training that is more flexible and adaptable to meet individual learning outcomes. Accessibility can be increased through at-scale distribution methods such as massive open online courses (MOOCs).[218]

APEC and the US. Department of Education Office of International Affairs, Office of Educational Technology (OET) collaborate on the APEC Digital Workforce Development Project, an initiative to provide resources to "help economies leverage digital and distance-learning technologies to build a 21st Century workforce through improved career and technical education (CTE)." It includes representatives from government, industry and academia to show models for digital CTE that address (1) content, (2) delivery, and (3) quality, (4) inclusion of women, girls and underrepresented students, and (5) data analytics in digital workforce development.[219] CTE through distance-learning technologies

"exemplifies the opportunities for expanding access to quality education, training and employment that strategically harness digital technologies."

The final report for the project included several recommendations regarding the delivery of CTE using distance learning technologies:

- **Course Content in digital CTE:** blend academic and technical skills and the ability to use skills in workplace environments, incorporate career exploration and development content, and include adaptive elements to personalize the learning experience.
- **Delivery of digital CTE** must consider the need for technical infrastructure. Programs should target areas based on local needs for industry areas and occupations to increase the impact of programs: investments should be made in technical updates, curriculum upgrades and professional development for teachers.
- **Quality of digital CTE:** quality assurance protocols that correspond with the district, state, and/or provincial level standards; use of quality indicators and rubrics at the system and course levels; quality protocols that incentivize faculty and staff.
- **Inclusion of women, girls and underrepresented students in digital CTE:** using inclusive imagery, examples and language choice; highlight opportunities and earning potential of jobs; design programs in consideration of physical, financial, technical, and other barriers for students.

The program involved a public-private initiative to teach data science and analytics (DSA) competencies using distance learning technologies called Project DARE (Data Analytics Raising Employment). The initiative responds to analysis that shows labor market demand for data analytics skills rising dramatically; employee shortages exceed any other skill category.

The program began by convening a group of business, government and academic leaders in APEC economies who defined a list of 10 recommended DSA competencies, including: operational analytics; data visualization and presentation; data management and governance; domain knowledge and application; statistical techniques; computing; data analytics methods and algorithms; research methods; data science and engineering principles; and 21st-Century skills (cross cutting skills such as collaboration, communication critical thinking, planning and organizing, problem solving, decision making, customer focus, flexibility, business fundamentals, etc.). Economies including Indonesia; Mexico; the Philippines; and the United States have made efforts to implement these practices.[220]

Lessons learned include:

- Measures to facilitate interactions among learners and with teachers can "bridge the gaps in space and time that are a factor in online learning programs." Tools to promote this engagement include Facebook Live posts, office hours through video-conferencing platforms, and scheduled group or individual conferences.[221]
- To mitigate challenges of distance learning where students fail to learn develop work-ready competencies (such as lack of engagement with course formats, lack of real-world context, lack of 'sense of community'), programs must integrate workplace experience elements, and become more immersive by having students apply skills in projects and build inter-disciplinary skills.[222]

The future steps in the program include:

- Developing a compendium of digital skills definitions for APEC for use by employers, job seekers and academia;
- Creating a forum for APEC to share data on digital skills supply and demand;
- Supporting economies in increasing DSA faculty and incorporating DSA into the classroom though capacity building, collaboration networks and additional tools.[223]

3.4.4 Strategies for Digital Skills Interventions

Analysis shows that interdisciplinary skills such as management, leadership, social and emotional sensing and reasoning will become increasingly important as a result of digitalization, even though

educational systems generally struggle to teach these skills. ALMPs that encourage worker reskilling and job placement can complement these measures, although economies may consider that passive income supports may be necessary in light of the divergence of wage and productivity growth in the digital age.

In addition to the programs used to encourage investment in capital, research and development, governments may also consider incentives for employers to invest in worker training. Singapore and Australia have measures in place to increase the quality and relevance of programs. Digital technologies may also support better awareness for policymakers on labor market challenges. Governments could collect more timely data on the labor market (jobs, skills, wages, and individual mobility) through online sources of data, including job boards, professional sites such as LinkedIn, and private tech companies to supplement household and employer surveys.[224]

Certain organizations have produced resources and best practices economies can consult when formulating strategies to address digital skills gaps. The International Telecommunications Union (ITU) of the UN provides a toolkit for digital skills strategies. The toolkit is non-prescriptive, in recognition of the diversity internationally in terms of digital skills attainment and needs within economies. The toolkit includes elements such as:

- Methods and frameworks for institutional coordination, stakeholder engagement and governance for digital skills initiatives;
- Starting points, such as defining skills the strategy will develop and compiling inventories of existing policies, plans and programs that support digital skills development;
- Analysis of current and future trends such as demographic trends, technological changes, business trends, trade, industrial policies, etc.;
- Creation of a digital skills strategy, with targets for education (primary, secondary, tertiary), work-related digital skills (for youth, adults, elderly);
- Benchmarks and monitoring/evaluation to compare progress with other economies and measure internal project milestones;
- Solicitation of public comment and expert commentary on the strategy;
- Periodic forums to foster communities of practice among training providers to improve the delivery of programs; and
- Continuous iterative improvements to the strategy and programs to reflect lessons learned and the progressive achievement of goals.[225]

4 Symposium

4.1 Methodology

The symposium focused on two themes for inclusive trade, “Human Resources Development in the Digital Age” and “Promoting Inclusive Trade for MSMEs.” The project team brought together a wide range of key stakeholders knowledgeable in inclusive trade to facilitate deep discussions and strengthen relationships and knowledge sharing between participating experts and different economies.

The speakers and panel commentators for the symposium were chosen through a combination of direct invitations to experts and nominations by economies. The project team sought to invite a balanced representation of government, academic and non-governmental sectors from developing and developed economies, and to include women as speakers and panel commentators.

The two morning speeches and project team presentation were structured to provide a strong background on recent APEC activities, as well as Chile’s priorities and recent initiatives as the APEC host economy. The morning session prepared the audience members for the in-depth discussions in the two afternoon panel sessions. The panel sessions focused on the two key symposium themes and emphasized exploring inclusivity in policies for groups such as mature-aged workers, women, and MSMEs.

The concluding remarks presented the key findings from the symposium, and reminded the audience about the importance of free trade for shared prosperity and growth and APEC’s commitment to ensuring that growth from trade and technological development is inclusive.

4.2 Agenda

An abbreviated version of the symposium agenda is provided below. The full symposium agenda is attached in the Annex of this report.

Symposium on Trade and Human Resources Development:
Capacity Building for Inclusive Trade
– Exploring how digital skills training and other innovative approaches are making the benefits of trade more accessible and sustainable for all –

3 May 2019, Vergara B, Hotel Sheraton Miramar, Viña del Mar, Chile

1. Opening/Welcoming Remarks
Mr Haruyuki Yada, Director of APEC Office, METI, Japan
Mr Tsai Meng-Liang, Deputy Director General, Workforce Development Agency, Ministry of Labor, Chinese Taipei (APEC Capacity Building Network (CBN) Coordinator)

2. Speeches
Mr Emmanuel A. San Andres, APEC Policy Support Unit
Presentation: “Globalisation, Digitalisation and the Challenge of Inclusion.”

Ms Maria Ignacia Simonetti, APEC Priority Coordinator for Women, SMEs and Inclusive Growth (Chile); Head of the Gender Department, General Directorate of International Economic Relations Chile
Presentation: “Chile´s Inclusive Trade Initiatives.”

3. Capacity Building for Inclusive Trade: Human Resources Development Case Studies in APEC
Mr Sean Chappell, Research Analyst, Washington CORE, L.L.C.
Presentation of project research on case studies on current initiatives for inclusive trade in APEC member economies.

4. Panel Sessions
Panel 1: Human Resources Development in the Digital Age
Moderator: Mr James Tetlow, Washington CORE, L.L.C.

Panelists:
- Mr Nicholas Mowbray, Department of Employment, Skills, Small and Family Business (Australia)
  Presentation: “Helping older workers to adapt in the changing labour market.”
- Professor Pi-Chi Han, National Kaohsiung Normal University (Chinese Taipei)
  Presentation: “Women and Girls as Change Agents for Fostering the Inclusive Trade”

Panel 2: Promoting Inclusive Trade for MSMEs
Moderator: Dr Jong Woo Kang, Asian Development Bank
Panelists:
- Professor Arata Kuno, Asia University of Japan (Japan)
  Presentation: “Policies for Increasing the Beneficiaries of Globalization: Recent Initiatives in Japan.”
- Professor Inkyo Cheong, Inha University (Republic of Korea)
  Presentation: “FTA Utilization Support and TAA Program for MSMEs - Case of Korea.”
- Professor John Paolo Rivera, Asian Institute of Management (The Philippines)
  Presentation: “Policies for human resources development and inclusive trade - The case of the Philippines and Lessons for APEC Economies.”

5. Concluding Session
Mr Haruyuki Yada, Director of APEC Office, METI, Japan

6. Closing Remarks
Professor Dong Sun Park, President, Institute of APEC Collaborative Education (IACE), Republic of Korea (HRDWG Lead Shepherd)

4.3 Summary of Speeches, Presentations and Panel Discussions

4.3.1 Morning Session

Opening/Welcoming Remarks
Mr Haruyuki Yada of the Japanese Ministry of Economy, Trade and Industry (METI) opened the event by calling attention to the central policy theme of inclusive growth and trade, noting that “Women, SMEs and Inclusive Growth” is one of the four policy priorities of APEC Chile 2019.

He touched upon the background of this symposium as follows: As a result of APEC’s efforts since its launch, APEC has achieved remarkable trade and investment liberalization and impressive economic growth under the Bogor Goals. However, despite significant achievements in trade liberalization, economic growth and poverty reduction, the benefits of economic growth have not been shared evenly. Inequality has widened between various groups and areas, which has fueled anti-globalization sentiments in parts of the world. Digital technology and innovation are major contributors to these structural changes.

He emphasized that APEC member economies need to implement comprehensive policies on inclusive trade in a coordinated manner to support those who have been left behind by market changes, and to help workers to seize new opportunities through technological innovation and globalization. Finally, he concluded his remarks by wishing for the fruitful and meaningful outcomes of the symposium.

Mr Tsai Meng-Liang, the Coordinator of the APEC Capacity Building Network (CBN), a component of the HRDWG that focuses on skills development, then gave the opening remarks for the symposium. He introduced APEC Chile 2019’s theme of “Connecting People, Building the Future,” and stressed the importance of human capital investment in the digital age.

This year, two CBN project events have been scheduled on the sidelines of SOM2: the "Symposium on Trade and HRD Capacity Building for Inclusive Trade," sponsored by Japan, and a workshop sponsored by Chinese Taipei, "APEC Skills Development Capacity Building Alliance (ASD-CBA): Fostering Connected APEC through Upskilling." Both events are disseminating CBN's shared values of facilitating capacity-building and shared human capital. Mr Tsai called upon the participants in the two

events to gather insights on promoting inclusive trade that can help APEC member economies to prepare for a skills-centered digital future.

Speeches
The morning session included two speeches. The first speaker, Mr Emmanuel A. San Andres of the APEC Policy Support Unit, presented on trends in the APEC region regarding the relationship between international trade growth, human resources development, and technological advancement. He noted that there has been tremendous economic and trade growth in APEC over the 30 years it has existed, and the large reduction in poverty and an increase in access to digital technology. Trade and technological change, however, have contributed to a decoupling of productivity growth from wage growth, which has implications on how the benefits of economic growth are distributed.

Mr San Andres noted that widening income gaps and dissatisfaction from workers that are concerned that they are not getting their fair share of a growing economy have led to increasing support for protectionist policies. Protectionism, however, has been shown to be ineffective in addressing these problems since the majority of job losses come from technological change and threaten economic efficiency by distorting markets. Structural barriers to inclusion that contribute to these trends include: lack of access to skills development; lack of access to financial services, social protection and insurance; discriminatory institutions, laws and practices, especially related to women's participation; and unfair labor practices.

The second presentation, by Ms Maria Ignacia Simonetti, the APEC Priority Coordinator for Women, SMEs and Inclusive Growth (Chile), discussed Chile's inclusive trade initiatives and priorities for APEC. Ms Simonetti presented on various initiatives by Chile and APEC to support the inclusion of women and MSMEs. Despite many accomplishments by APEC in the past 20 years, pervasive gender-specific barriers — such as lack of access to capital and technology — still prevent women from fully participating in the economy. Ensuring equal access to digital dividends and learning opportunities is instrumental to increasing women's economic empowerment, and will require a multidimensional approach, including infrastructure capacity, digital skills education, affordability, and other areas.

Research Project Presentation: Capacity Building for Inclusive Trade: Human Resources Development Case Studies in APEC
The project team[226] presented on its ongoing research project to identify best practices in HRD and trade promotion through literature research on global policy reports and three APEC economy case studies (Australia, Japan and Singapore).

The presentation described the findings from three APEC economy case studies.
- The Australia case focused on a sectoral industrial adjustment assistance program and included lessons on targeting assistance based on the severity of challenges faced by workers.
- The Singapore case discussed labor productivity challenges and integrated education and skills policy interventions. Lessons learned focused on governance and demand responsiveness of programs.
- The Japan case concerned advanced digital skills interventions to respond to sectoral labor shortages and an ageing society. Lessons learned focused on ensuring inclusivity in employment policies in light of rapid innovation and industrial transformation.

The project team also shared some preliminary findings from the literature research:
- The mismatch between supply and demand of skills is a key challenge. Policy responses include (a) the governance of education and skills training to create demand-responsive programs by involving relevant authorities and stakeholders (government, industry, unions, workers, trade associations, etc.); (b) developing skills certification programs that address key skill mismatch needs and meet global standards; and (c) securing investments by foreign companies in skills development to provide citizens with advanced and internationally competitive skills
- Each economy faces the risk of job losses from new technologies. Economies should implement policies to encourage digital skills development to prepare workers for a rapidly changing job market, and prepare citizens to be competitive in high-tech fields like artificial intelligence.

- Policies to support disadvantaged populations in the workforce should target assistance to workers facing the greatest employment challenges. Policies should reduce barriers to education for disadvantaged workers to increase labor force participation through creating programs that specifically respond to their needs.
- MSMEs face many barriers to benefitting fully from global trade, such as access to finance and overcoming non-tariff barriers. In order to address these barriers, economies should improve trade promotion public policy support mechanisms for MSMEs in global value chains, such as through improving MSMEs' access to finance, supporting the skills and capability development of MSMEs (including assistance with developing their digital skills), helping them overcome non-tariff barriers, and consolidating public sector resources so that MSMEs can easily access key information.

4.3.2 Afternoon Session

Panel 1: "Human Resources Development in the Digital Age"
Panel 1[227] discussed the impact of technological development on the job market, how digital skills are changing the demand for skills requirements for workers, and how these trends impact different segments of the workforce.

Mr Nick Mowbray of Australia discussed Australia's policies for digital inclusion, and how structural transformation has led to challenges for mature-aged workers to maintain the relevance of their skills and remain in the workforce, leading to the need for general and targeted interventions to develop and match their skills to available jobs, including through public employment services, industrial and regional initiatives.

Professor Pi-Chi Han of Chinese Taipei discussed how APEC economies are responding to barriers for women in society with targeted interventions to mitigate challenges in advancing through the workforce and empower them with industry-relevant competencies and skills.

During the panel session, six "panel commentators" who were invited from APEC member economies linked the presentations themes to situations in their home economies. Panelists and panel commentators exchanged ideas and examples regarding measures to support women's economic self-sufficiency and leadership, best practices to support mature-aged workers, and measures to improve the demand responsiveness of education and training.

Panel 2: "Promoting Inclusive Trade for MSMEs"
Panel 2[228] focused on supporting MSMEs in taking advantage of and adapting to changes brought about by international trade. The panelists described how economies are supporting MSMEs in international markets. Panelists discussed a wide range of efforts, including trade promotion to support MSMEs in taking advantage of Free Trade Agreements (FTAs), supporting MSMEs' access to markets through capacity building and mentorship, measures to mitigate barriers to internationalization, and trade adjustment assistance.

Professor Arata Kuno of Japan presented on trade policy initiatives in Japan that are being utilized to boost the number of beneficiaries of globalization, with a focus on policies that are supporting the participation of MSMEs in global business.

Professor Inkyo Cheong of Korea presented on Korea's activities to develop inclusive trade through FTA negotiation, its Trade Adjustment Assistance (TAA) program, and Korean programs to support MSMEs in effectively using the benefits of FTAs.

Professor John Paolo Rivera of the Philippines discussed the various challenges faced by Filipino MSMEs as a result of increased foreign competition due to trade liberalization in the ASEAN region and the establishment of the ASEAN Economic Community (AEC). Larger companies, both foreign and local, generally dominate value chains, which makes it challenging to create effective policies that support MSMEs, which are key for employment growth and local economic development. In response, the Philippines has launched an MSME development plan with goals to create a globally competitive, resilient and regionally integrated MSME sector, with key performance indicators such as business environment factors, access to markets, productivity and efficiency.

Dr Jong Woo Kang of the Asian Development Bank then opened the panel discussion. The discussion centered around how to continue support for liberalized trade in the context of perceived negative impacts of large free trade agreements on local economies and MSMEs, as well as how to maximize the effectiveness of trade adjustment assistance to support 'losing' sectors while also promoting industrial restructuring to bolster competitiveness.

Panelists reaffirmed the importance of making strong political commitments to free and open trade while also addressing disproportionate barriers faced by MSMEs, and discussed important factors in trade adjustment programs, such as enforcing requirements for restructuring and the importance of technology.

Concluding Session
Mr Haruyuki Yada of Japan's METI presented on the key findings from the symposium (See ***Section 1.4 Key Symposium Findings***), and thanked the speakers and audience members for their active participation and sincere contributions.

HRDWG Lead Shepherd Dong Sun Park gave the closing remarks for the event, which emphasized the importance of free trade for shared prosperity and growth and APEC's commitment to ensuring that growth from trade and technological development is inclusive. He called on economies to continue international exchange on these subjects and to explore improved education, training and employment programs to support inclusion for disadvantaged groups, as well as supporting entrepreneurs and MSMEs. He noted that the symposium had identified current challenges and potential solutions, and that there is a need for further exploration of potential interventions to support inclusive, sustainable and integrated socioeconomic development in the APEC region based on international exchange and cooperation.

4.4 Detailed Speaker Presentations and Discussions

4.4.1 Emmanuel A. San Andres. APEC Policy Support Unit. "Globalisation, Digitalisation and the Challenge of Inclusion."

Background and Challenges
Mr San Andres presented on trends in the APEC region regarding the relationship between international trade growth, human resources development, and technological advancement. He noted that there has been tremendous economic and trade growth in APEC over the 30 years it has existed, and the large reduction in poverty and an increase in access to digital technology. Trade and technological change, however, have contributed to a decoupling of productivity growth from wage growth, which has implications on how the benefits of economic growth are distributed. Widening income gaps and dissatisfaction from workers that are concerned that they are not getting their fair share of a growing economy have led to increasing support for protectionist policies. Protectionism, however, has been shown to be ineffective in addressing these problems since the majority of job losses come from technological change and threaten economic efficiency by distorting markets. Structural barriers to inclusion that contribute to these trends include: lack of access to skills development; lack of access to financial services, social protection and insurance; discriminatory institutions, laws and practices, especially related to women's participation; and unfair labor practices.

Policies
Policy options to address these challenges should focus on enabling people's ability to develop their human capital (i.e., health and skills) and ensuring their access to growing economic opportunities. These measures include infrastructure development, HRD measures such as skills training, lifelong learning, and active labor market policies (ALMPs), trade and regional integration, and pursuing greater social inclusion through labor standards and fiscal policies for social protection. Some additional policies may include strengthening labor standards in FTAs, and trade adjustment policies to respond to structural changes at the domestic level.

Conclusions
Key considerations for formulating inclusive trade policies include targeting limited resources toward key challenges, monitoring and evaluation to ensure efforts are on the right track and to know what works, and developing policies that are attuned to local contexts.

4.4.2 Maria Ignacia Simonetti. APEC Priority Coordinator for Women, SMEs and Inclusive Growth (Chile); Head of the Gender Department, General Directorate of International Economic Relations Chile. "Chile´s Inclusive Trade Initiatives."

Background and Challenges
Ms Simonetti presented on various initiatives by Chile and APEC to support the inclusion of women and MSMEs. Despite many accomplishments by APEC in the past 20 years, pervasive gender-specific barriers — such as lack of access to capital and technology — still prevent women from fully participating in the economy. Ensuring equal access to digital dividends and learning opportunities is instrumental to increasing women's economic empowerment, and will require a multidimensional approach, including infrastructure capacity, digital skills education, affordability, and other areas.

Policies
Working toward equal access to opportunities is only the first step in supporting inclusivity for society's most vulnerable members. A wider focus from all stakeholders is necessary, including support for infrastructure capacity, essential skills training, and digital inclusion. These skills will enable innovation in a digital economy to flourish, and will support the underlying digital infrastructure as well.

Developing data-based policies is difficult due to the lack of sex-disaggregated statistical data, which has resulted in an incomplete picture of women's and men's economic, political and social situations in the world. Programs should be implemented to improve the production and collection of labor force statistics based on gender.

APEC activities to support inclusive growth have included the development of "Action Strategies Toolkits" to assist economies in the development and implementation of effective gender diversity strategies in fields such as transportation. In addition, Chile will explore the digital literacy gender gap among APEC economies, specifically the root causes of the gender digital divide, the demands of the workforce for digital skills on women and the role that tertiary/continuing education plays in bridging this gap.

Chile is also working to strengthen and enhance the functionality of the APEC MSME Marketplace, and to create greater awareness on Fintech's impact on access to financing for SMEs, by developing a "Fintech Digital Toolkit" that will summarize best practices and recommendations.

Regarding trade policies, Chile has extensive experience including gender-related provisions in FTAs, including with Argentina, Brazil and Canada. These provisions currently involve cooperation activities on capacity building skills efforts, financial inclusion, advancing women's leadership and developing women's networks, promoting female entrepreneurship, conducting gender-based analysis, and implementing gender equality commitments included in global conventions such as the SDGS. In addition, Chile is developing workshops, seminars, dialogues and other forums for exchanging knowledge, experiences and best practices.

Conclusions
Gender equality in trade matters, and we need to promote an inclusive trade agenda to enable women to participate in international trade. Ensuring that women have equal access to technology will require a multidimensional approach that involves infrastructure capacity, digital skills education, affordability and other measures. Increasing the visibility of women's issues through FTAs is a key measure to encourage economies to strengthen policy interventions in these areas and to facilitate international exchange on best practices.

4.4.3 Research Presentation: Capacity Building for Inclusive Trade

Background and Challenges
The presentation provided audience members with an update on the project research team's activities and timelines. The main focus of the presentation was to describe three APEC economy case studies (Australia, Japan and Singapore) that were studied to find best practices in HRD development and trade promotion.

- The Australia case focused on a sectoral adjustment assistance program and included lessons on targeting assistance based on the severity of challenges faced by workers.
- The Singapore case discussed labor productivity challenges and integrated education and skills policy interventions, discussing lessons about governance and demand responsiveness of programs.
- The Japan case concerned advanced digital skills interventions to respond to sectoral labor shortages and an ageing society with lessons on ensuring inclusion in light of rapid innovation and industrial transformation.

Policies
Measures are needed to address the above challenges for workforce adjustment amid new economic realities. Policy options include worker education, promoting labor market participation by disadvantaged groups, and other active and passive labor programs. These policy options will be discussed in more depth in the Final Report produced by the project team.

Q&A
The following topics were discussed during the Q&A session.

- Further details more about the Skills Framework program developed by Singapore, and how Singapore links education and industry to that framework. The Q&A also briefly touched on some of the shortcomings of the program, and the need for more data on the program outcomes.
- The types of funds and subsidies that the Japanese government provides to prefectural and municipal governments for employment support, such as funds targeted toward areas affected by natural disasters, low income areas, or rural regions, to respond to local challenges.
- The need for the final report to include a stronger lens on the gender gap as a key component of inclusivity.
- A suggestion for the research to include re-skilling/re-training foreign workers as a component of skills development, especially in economies like Singapore and Japan.
- A suggestion that the case studies should consider replicability of the studied programs in other economies, and which aspects of the programs could be adopted elsewhere.

The project team will reflect the above comments and suggestions from the Q&A session when developing the final report.

Conclusions
The project team presented a series of preliminary findings from the literature research, which will be further explored based on the symposium findings and the research prior to the final report. The preliminary findings from the literature research are shown in the table below.

Table 4: Preliminary Findings

Priority	Challenge	Economy	Measures
Developing Education and Skills Policies that are Responsive to Industry Needs	Mismatch between supply and demand of skills.	Singapore	Governance of education and skills training to create demand-responsive programs by involving relevant authorities and stakeholders (government, industry, unions, workers, trade associations, etc.)
		Japan, Singapore	Create skills certification programs that address key skill mismatch needs and meet global standards
		Singapore	Secure investments by foreign companies in skills development to provide citizens with advanced and internationally competitive skills
	Risk of job losses from labor-saving technologies	Japan	Implement policies to encourage digital skills development to prepare workers for a rapidly changing economy, and prepare citizens to be competitive in high-tech fields like AI
Prioritizing Inclusivity and Social Protection in Workforce Development	Challenge to support disadvantaged populations in the workforce	Australia	Active labor market policies should target assistance to workers facing the greatest employment challenges
		All	Reduce barriers to education for disadvantaged workers to increase labor force participation through creating programs that specifically respond to their needs, especially for mature-aged workers.
Supporting MSMEs in Global Value Chains through Trade Promotion and Skills Development	Pervasive barriers faced by MSMEs in benefitting from trade	Japan	Improve trade promotion public policy support mechanisms for MSMEs in global value chains, such as through improving MSMEs' access to finance, supporting the skills and capability development of MSMEs (including assistance with developing their digital skills), helping them to overcome non-tariff barriers, and consolidating public sector resources so that MSMEs can easily access key information.

4.4.4 Panel 1: Human Resources Development in the Digital Age

4.4.4.1 Introduction

Panel 1 focused on the relationship between digital skills development and inclusive trade. Rapid digitalization creates both opportunities and challenges for workers, as various segments of the workforce can access higher-paying jobs and maintain skills relevance while others may struggle to stay in their current positions or secure new work.

The panelists discussed the importance of functional digital literacy for vulnerable populations such as mature-aged workers and women, since acquiring basic digital skills can be essential in supporting their inclusion. These policies are complementary to other skills development and employment services that provide workers with interdisciplinary and industry-relevant skills, as well as job-matching support and measures to combat harmful gender-based norms.

During the panel session, six “panel commentators” who were invited from APEC member economies linked the presentations themes to situations in their home economies, including barriers to women’s employment in non-traditional roles, the precariousness of work for some aging workers, and challenges in aligning education and training curricula with emerging jobs. Panelists and panel commentators exchanged ideas and examples regarding measures to support women’s economic self-sufficiency and leadership, best practices to support mature-aged workers, and measures to improve the demand responsiveness of education and training.

4.4.4.2 Panelists' presentations

a) Nicholas Mowbray. Department of Employment, Skills, Small and Family Business (Australia). "Helping older workers to adapt in the changing labour market."

Background and Challenges
Mr Mowbray discussed current trends in Australia related to the economy, trade, employment, and human resources development. Structural changes due to exposure to international trade include growth in service sectors' employment and contraction in manufacturing employment due to productivity gains and competition from abroad. In response, effective public employment services are needed to connect people with alternative job opportunities, while skills development is needed to support workers with lower attainment. However, this is challenging to implement, since data shows that this segment of the workforce is less likely to participate in further training. Similarly, MSMEs are less likely to invest in their workforce due to a range of commercial and organizational factors.

Australia aims to support the attainment of functional digital literacy in the workforce as well as enabling more advanced digital skills. A broad range of skills are needed for emerging job opportunities, including management skills, enterprise and entrepreneurship skills, and interdisciplinary skills, such as the ability to develop and manage teams and emotional intelligence.

Policies
Mr Mowbray highlighted the "Skills Checkpoint for Older Workers" policy, which provides Australians between the ages of 45 and 70 with tailored career plans through services that match their current skills with available jobs in their region. The program includes incentives for clients to engage in future training programs.

Australia also provides support for entrepreneurs and MSMEs, such as through the "Entrepreneurship Facilitators" program, which mobilizes mature-aged workers' accumulated skills and experience toward launching businesses. The program supports participants through information, advice and links to other services.

These and other initiatives recognize that mature-aged workers possess skills and experience that are transferable to a wider range of jobs than they might realize.

Conclusions
Trade is a good source of job creation and innovation, and MSMEs that are active in the digital space can increase the employment benefits of these trends. Meanwhile, HRD policies are needed to better manage trade impacts and structural change to improve outcomes for workers.

b) Dr Pi Chi Han. National Kaohsiung Normal University (Chinese Taipei). "Chinese Taipei's policies on human resources development for the people that have been left out of digitalization."

Background and Challenges
Dr Han discussed the challenges faced by women and girls in inclusive trade, and proposed a model for women and girls as 'change agents' in economic development. Significant challenges include gender stereotypes and harmful social norms that limit women's participation, such as traditional cultural expectations that women will abandon their career development after marriage to perform domestic duties.

Policies
Dr Han proposed a model for women and girls as 'change agents' in inclusive trade, where capacity building, access to opportunities and cultivating female leadership can empower women to overcome harmful social norms. Other key elements include the importance of building the right attitude to be supportive of inclusive trade, such as by developing more accountable and responsive institutions. Chinese Taipei has implemented e-commerce support for women, programs for basic digital literacy for older women, and measures to encourage financial institutions to provide startup loans to women.

Conclusions
Dr Han suggested that measures should consider the circumstances of APEC as a whole, and that more research was needed to support her 'change agents' model, while noting the importance of women's participation in non-traditional sectors such as science and technology fields.

4.4.4.3 Panel discussion

Six experts from APEC economies participated as "panel commentators," linking the panel presentations to situations in their home economy and APEC-wide challenges in order to promote active discussion. This section contains a summary of the questions and comments made by these individuals and the ensuing discussion among the panelists.

a) Dr Ridzuan Kushairi bin Mohd Ramli, Ministry of Human Resources (Malaysia)

Dr Kushairi asked about the importance of supporting transitions for aging workers, and inquired about the success rate of Skills Checkpoint.

- Mr Mowbray discussed how Skills Checkpoint had been modified and improved based on its initial pilot. Data shows that many participants in Skills Checkpoint readily moved into new sectors and occupations. Regarding the success of the Automotive Industry Structural Adjustment Program (AISAP), 70-75% went into other employment, training or retirement, while a number experienced unemployment. Mr Mowbray noted the benefit of continuous learning and innovation for these workers.

Dr Kushairi asked Dr Han about pervasive cultural norms in Asian economies that encourage women to become housewives and not pursue career development, and how these issues might be addressed.

- Dr Han suggested that leadership development for women should begin in elementary and middle school, and encouraged attendees to promote these efforts in their own economies.
- Mr Mowbray highlighted an effort in Australia where corporate reporting arrangements were introduced to increase accountability and visibility around gender equality in enterprises, noting a cultural change and increased representation of women in non-traditional roles as a result.

b) Mr Aris Hermanto, Ministry of Manpower (Indonesia)

Mr Hermanto inquired about the impact of the digital era on labor, and which strategies or government policies are effective in facing the challenges of advanced industrial development (industry 4.0) for workers.

- Mr Mowbray noted that Australia has improved its management of industrial transformations, through a more adaptable labor market, but that the challenges and opportunities in emerging economies may be greater due in part to their different industrial and job profile. Skills shortages provide a guide for how vocational education systems can be oriented towards available jobs in the near term through collaboration between government and industry, while digital skills can respond to longer-term structural trends. Some of Australia's efforts are focusing on making the VET system as "contemporary and business-oriented" as possible.
- Dr Han described Chinese Taipei's efforts to integrate digital technology in city services and management, and to integrate digital skills in elementary school curricula.

c) Ms Phan Ngoc Mai Phuong, Vice President, Viet Nam Institute for Development Strategies (VIDS), Ministry of Planning and Investment (Viet Nam)

Ms Phuong discussed her economy's goals related to inclusive trade, digital skills development and women's empowerment. She noted challenges wherein many women are forced out of jobs by foreign

investors after they reach the age of ~35 for productivity reasons, necessitating measures in digital skills development for workforce adjustment. She related her comments to Dr Han's presentation, noting that economic self-sufficiency of women is essential to their proposed role as 'change agents.'

- Mr James Tetlow (the moderator) noted that rather than instituting policies that are reactive to challenges faced by mature-aged workers, proactive policies such as lifelong learning may better address the root causes of challenges among workers transitioning into mature-age.
- Mr Mowbray noted that public employment services in Australia are designed to encourage the unemployed to seek assistance, with financial incentives for service providers to achieve sustained job outcomes. Australia is also working on a database to better match the skills and experience of mature-aged workers with available jobs in the economy and noted how small targeted skills interventions can often make a big difference.
- Dr Han discussed the importance of family leave and labor rights for women as a measure to support their success in the workforce.

d) Mr José Tomás Lobo, City Director, Santiago, Laboratoria (Chile)

Mr Jose Tomas Lobo of Chile discussed Laboratoria, a startup in Chile, Mexico, and Peru that provides an immersive 6-month boot camp for young women to find employment in high-demand tech sectors such as web development and user-experience (UX) design. The program responds to the large gender gap related to education and employment in technology industries. The program has an 80% placement rate for graduates, who typically go on to earn much higher salaries than their cohorts in conventional higher-education systems. He asked the panel how to make universities accountable for their curricula to ensure that graduates can find decent jobs.

- Dr Han stressed the importance of faculty's professional development as a key measure in promoting curricula redesign to align education systems with the labor market.
- Mr Tetlow agreed with the importance of bottom-up faculty leadership. He presented an example where professors at the Massachusetts Institute of Technology led an initiative to provide online courses in artificial intelligence at-cost (reducing tuition from $50,000-70,000 to about $4,000) to increase inclusivity for advanced digital skills.

e) Dr Magdalena Claro, Pontifical Catholic University of Chile (Chile)

Dr Claro agreed that there was a strong disconnect between the delivery of education and labor market demand, noting a lack of dialogue between the sectors. She attributed this to educational institutions focusing on indicators not necessarily aligned with giving students needed skills to succeed in the workforce and asked the panel what type of initiatives could improve dialogue between education and the private sector.

- Mr Mowbray discussed higher education policy reviews in Australia. He stressed the importance of diversity in higher education as different institutions focus on their strengths. He noted the importance of how universities are funded, and the indicators that are used in Australia to measure higher education performance, such as graduate employment rates, teaching quality and research records.
- Dr Han reiterated the importance of faculty as a change agent and discussed the importance of collaboration among diverse faculty to increase relevance of programs and integrate interdisciplinary skills into curricula.

f) Mr Nguyen Viet Anh, APEC Division - Department of Multilateral Economic Cooperation (DMEC), Ministry of Foreign Affairs (Viet Nam)

Mr Viet Anh of Viet Nam presented recommendations from an APEC event in his economy regarding digital literacy for women and girls, including: digital literacy, skilling, upskilling and lifelong learning, addressing employment and improving social protection, safety and security of women, leveraging digital technologies to support women entrepreneurs, and promoting gender and digital inclusion to

regional and international organizations. He asked Mr Mowbray about the success factors in Skills Checkpoint.

- Mr Mowbray highlighted the importance of interventions for workers not yet unemployed but who face certain risks. Success factors in Skills Checkpoint included the skills assessment to identify workers' skills as well as hiring service providers who are knowledgeable about available jobs in the region to match to client skills.
- Mr Viet Anh responded noting that his economy would require a system for classifying what skills apply to which professions in order to implement such a program, noting that many university graduates in Viet Nam end up working in jobs that do not match their degree.
- Mr Mowbray noted the importance of establishing what skills are required for jobs, and mentioned that Australia will soon launch the Skills Match tool, a web-based application which will allow users to input their skills and see what jobs typically use those skills.

4.4.5 Panel 2: Promoting Inclusive Trade for MSMEs

4.4.5.1 Introduction

Panel 2 highlighted various efforts to empower MSMEs to take part in international trade through capacity building and market access support, as well as efforts to promote entrepreneurship to grow employment and support the inclusion of disadvantaged groups.
Panelists reaffirmed the importance of making strong political commitments to free and open trade while also addressing disproportionate barriers faced by MSMEs. They discussed important factors in trade adjustment programs, such as enforcing requirements for restructuring, as well as the importance of technology.

4.4.5.2 Panelists' presentations

a) Dr Arata Kuno. Asia University (Japan). "Policies for Increasing the Beneficiaries of Globalization: Recent Initiatives in Japan."

Background and Challenges
Dr Kuno presented on trade policy initiatives in Japan to boost the number of beneficiaries of globalization. He focused on policies that support MSMEs participating in global business.

Japanese SMEs face major challenges with outward FDI, partly due to a lack of knowledge about international business, and because it is difficult to hire staff who are capable of handling international business functions. They also face major challenges related to exports, such as finding local business partners, complying with regulations and foreign exchange risk.

While SMEs make up 99.7% of Japanese businesses and 70% of Japanese employees work for MSMEs, there are only about 6,346 MSMEs actively involved in trade. There is plenty of room to increase MSMEs' role in international trade, as about 40% of manufacturing SMEs in Japan that are not exporting are interested in doing overseas business.

Policies
Japan is actively negotiating mega-FTAs such as the Trans-Pacific Partnership (TPP) 11 and the Japan-EU Economic Partnership Agreement (EPA), which will provide Japanese SMEs with greater business opportunities through tariff reduction, protection for their investments, liberalization of the services sector, and IP protection.

Japan has launched several initiatives in the last few years to help MSMEs internationalize. The "Consortium for a New Export Nation" has strengthened the coordination among 1,000 MSME support organizations from the public and private sectors and provides SMEs with a single window service through JETRO to reduce the MSMEs' transaction costs when seeking support for activities like preparing business plans, market research, or negotiating overseas.

The “Japan Mall” project is a JETRO project to pursue the concept of inclusive trade by promoting and supporting MSMEs’ participation in cross-border electronic commerce, in collaboration with several global companies. The program is free for MSMEs and sets up partnerships with the global companies to sell the MSMEs’ products through the partner’s website. The program is designed to minimize or eliminate many of the risks that SMEs face in global trade.

The J-Startup program provides startup companies with financial and administrative support in entering global business. Investment and business leaders at major firms like Google, Amazon, and Panasonic nominate SMEs to participate in the program. Those major companies then provide the participating SMEs with support such as mentoring free of charge.

Conclusions
There is value in policies to increase beneficiaries of globalization in Japan that encourage the participation of MSMEs in cross-border digital trade, support the overseas business development of startups and establish partnerships between MSMEs and large companies or other organizations. These policies cannot be pursued without the active cooperation of foreign and domestic stakeholders in “win-win” situations so that the partners can recognize the benefits of supporting MSMEs.

b) Dr Inkyo Cheong. Inha University (Republic of Korea). “FTA Utilization Support and TAA Program for MSMEs - Case of Korea.”

Background and Challenges
Dr Cheong presented on Korea’s activities to develop inclusive trade through FTA negotiation, its Trade Adjustment Assistance (TAA) program, and Korean programs to support MSMEs in effectively utilizing the benefits of FTAs. Most SMEs (and especially MSMEs) face problems related to exporting and joining global value chains. For Korean exporters, the most difficult challenge to overcome is successfully complying with Rules of Origin.

Policies
Korea’s 2004 Presidential Directive for FTA Promotion requires the government to provide financial support for agricultural sectors that are impacted by FTAs, and to prepare countermeasures to support losing sectors to assist with post-FTA industry restructuring. This trade adjustment assistance (TAA) program has been designed to maximize the impact of financial support for companies impacted by trade, including many MSMEs.

Korea also supports MSMEs in utilizing FTAs through an FTA Information System. The system includes a call center and an integrated portal for FTA rules of origin and other information that exporting MSMEs may need, such as customs clearance, verifications, or information about global product classification codes. The program provides a high number of SMEs with personalized consultations at a low total budget cost.

Conclusions
TAA programs can support sectors that are losing from trade, while improving the political environment for active trade policies. MSMEs often lack the knowledge, resources and time to navigate complex international trading regimes, and benefit from policies to support the utilization of FTAs.

c) Dr John Paolo Rivera. Asian Institute of Management (The Philippines). “Policies for human resources development and inclusive trade - The case of the Philippines and Lessons for APEC Economies.”

Background and Challenges
Dr Rivera discussed the various challenges faced by Filipino MSMEs as a result of increased foreign competition due to trade liberalization in the ASEAN region. Larger foreign companies generally dominate value chains, which makes it challenging to create effective policies that support MSMEs, which are key for employment growth and local economic development.

Policies
The Philippines has launched an MSME development plan to create a globally competitive, resilient and regionally integrated MSME sector, with key performance indicators such as business environment factors, access to markets, productivity and efficiency. The plan prescribes measures to ease MSMEs' access to finance, such as streamlined loan processes, and helping MSMEs to access formal loans rather than risky informal loan systems. The government is also harmonizing and standardizing regulations at the local and economy-level to mitigate barriers and increase access to opportunities created by infrastructure development, FTAs and macroeconomic policies.

The Philippines aims to mobilize large enterprises to support MSMEs with capacity building on human resources through mentorship and coaching. Other programs provide access to productive technology and facilities for MSMEs through relationships with large enterprises, which has eased barriers to launching businesses and led to significant employment creation. MSMEs can also take advantage of access to market programs that create supply chain linkages, such as programs showcasing local products in urban markets.

Conclusions
The Philippines is promoting MSME development to support more inclusive value chains and grow employment, especially among youth who may be uncertain about participating in entrepreneurship due to accompanying risks. Dr Rivera described the policy framework as a series of progressive steps that aim to build knowledge, social, and human capital. Knowledge capital constitutes higher levels of knowledge and competencies resulting to growth of research capabilities of an economy that develops and innovates products and services. Social capital refers to the development of soft skills for employment and people skills can enable the better application of productive human capital skills, that can support access to business opportunities through networking and promote entrepreneurship, such as through:

- Mentorship and advisory services through local business centers
- Exploration of market access through trade fairs and other supply chain linkages
- Access to finance to launch the business
- Access to capital equipment and more advanced technology through relationships with larger enterprises
- Direct support in sales and franchising.

4.4.5.3 Panel discussion
Dr Kushairi of Malaysia discussed how the original Trans-Pacific Partnership (TPP) and similar agreements had failed to be ratified due to concerns that they would harm local economies, and asked Dr Kuno how the TPP supported Japan's local economy and MSMEs.

- Dr Kang noted that FTAs like the CP-TPP[229] have the potential to remove a number of bottlenecks to trade that disproportionately impact MSMEs, such as freight, customs clearance regulations, inspections and other technical barriers. He noted these costs are largely fixed regardless of the amount of goods being exported, meaning MSMEs must spend an outsized portion of their operating costs to export versus larger enterprises. Thus, FTAs could have significant benefits for MSMEs if their internationalization is supported through targeted supports and streamlining of regulations. If Japan were not part of the CP-TPP, then enterprises in the 10 other signatory economies would receive preferential treatment while Japanese companies would not. This would reduce Japanese companies' competitiveness and force them to focus on the domestic market.
- Dr Kuno stressed the importance of supporting MSMEs in taking advantage of FTAs as a measure in expanding the base of political support for liberalized trade, including measures such as training programs, financial supports and protection of intellectual property.

Dr Kushairi then asked about whether trade adjustment assistance programs were effective, and how to determine where jobs in the economy are being lost or created as a result of trade.

- Dr Cheong stated the importance of filling in the gaps for sectors that are harmed by international trade through TAA to support employment, while stressing that most job losses are due to technological change.
- Dr Rivera contextualized the issue in the Philippines, stating that most MSMEs there are not ready for TAA since they are still evolving to sustain themselves in the domestic market.
- Dr Kang discussed how TAA can be designed to incentivize industrial restructuring to ensure that support helps MSMEs become more resilient. This requires sophisticated arrangements for monitoring and evaluation to ensure that businesses do not take advantage of support without restructuring.

Dr Kang posed a question to the panel on what impact technological progress will have on MSMEs in terms of their business models and operations, and how this could create more opportunities.

- Dr Rivera stated that technological development for MSMEs can lead to greater opportunities but can also lead to the crowding out of other MSMEs.
- Dr Kang discussed several constraints that limit the ability of financial institutions to lend to MSMEs, such as know-your-customer (KYC) procedures, anti-money laundering, and counter-terrorism financing requirements. Advanced technologies such as blockchain and AI could ease these frictions and increase the ability of MSMEs to demonstrate their trustworthiness and credit-worthiness to formal financial institutions. He noted that technology such as the ability to process digital payments is critical for MSMEs' internationalization, since slow and expensive internet can cause challenges for them.

4.5 Key Symposium Findings

Based on speaker presentations and discussions, it is clear that economies face a number of common challenges in promoting inclusive trade. Trade and technological development lead to structural transformation, which is characterized by uneven benefits across sectors and changing skills requirements for workers, the exacerbation of challenges faced by disadvantaged populations, difficulty aligning education and training with industrial transformations, and barriers for MSMEs to participate in Global Value Chains (GVCs).

Based on these common challenges and insights from invited experts, the project team proposed the following set of preliminary findings from the symposium:

- Providing support for education and skills development to disadvantaged groups.
- Digital skills development to support workers' success in a world where advanced technology and commerce are increasingly linked.
- Importance of access to opportunities for all, including access to higher education and skills training, as well as for MSMEs to have access to opportunities in international trade.
- Active cooperation between foreign and domestic stakeholders to facilitate MSME's access to overseas market by creating 'win-win' arrangements.
- Consideration of the applicability of practices based on each economy's unique situation.
- Collaboration among ministries and agencies towards the common goal of inclusive trade and growth.
- Further research into these issues, creating frameworks for data collection and analysis, and monitoring and evaluation

The findings from the symposium have been integrated into the recommendations provided in **Chapter 1.5 – Key Findings** of this report.

5 Concluding Thoughts

Note: The key findings for APEC are provided in full in Chapter 1.5 of this report.

With the spirit of the APEC Action Agenda on Advancing Economic, Financial and Social Inclusion in the APEC Region, and furthering the goals laid out in the Boracay Action Agenda to Globalize MSMEs, this project seeks to assist APEC's efforts to ensure all persons have access to the benefits of free and open trade in the Asia and Pacific region.

Despite the challenges for inclusive growth that are presented by an increasingly globalized and digital world, APEC member economies and the APEC HRDWG are well-placed to address these challenges through cooperative efforts to build the region's human capacity. They should be optimistic about the potential for inclusive trade. The project team hopes that the symposium and the findings from this report will contribute to a deeper understanding of current policies that support inclusive trade among APEC member economies, and will provide policymakers in APEC economies with key insights to enhance the effectiveness of their trade and HRD policy initiatives and related regional cooperation activities for inclusive trade.

6 Annex A – Key Acronyms

ABAC	APEC Business Advisory Council
ADB	Asian Development Bank
AELM	APEC Economic Leaders Meeting
AFAS	ASEA Framework Agreement on Services
ALMP	Active Labor Market Policy
AMM	APEC Ministerial Meeting
AMS	ASEAN Member State
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
CBN	(APEC HRDWG) Capacity Building Network
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership
CTE	Career and technical education
EDNET	(APEC HRDWG) Education Network
HRDMM	(APEC) Human Resources Development Ministerial Meeting
HRDWG	(APEC) Human Resources Development Working Group
ICT	Information and communications technology
ILO	International Labour Organization
LSPN	(APEC HRDWG) Labor and Social Protection Network
OECD	Organisation for Economic Co-operation and Development
SOM	(APEC) Senior Officials' Meeting
TVET	Technical and vocational education and training

7 Annex B – Symposium Agenda

Symposium on Trade and Human Resources Development: Capacity Building for Inclusive Trade

– Exploring how digital skills training and other innovative approaches are making the benefits of trade more accessible and sustainable for all –

[HRD 02 2018T]

Agenda

3rd May 2019
Vergara A, Hotel Sheraton Miramar
Valparaíso-Viña del Mar, Chile

Doors open at 9:30 am.

1. Opening/Welcoming Remarks
10:00
Mr Haruyuki Yada, Director of APEC Office, METI, Japan
Mr Tsai Meng-Liang, Deputy Director General, Workforce Development Agency, Ministry of Labor, Chinese Taipei (CBN Coordinator)

2. Speeches
10:15
Mr Emmanuel A. San Andres, APEC Policy Support Unit
Presentation: "Globalisation, Digitalisation and the Challenge of Inclusion."

Ms Maria Ignacia Simonetti, APEC Priority Coordinator for Women, SMEs and Inclusive Growth (Chile); Head of the Gender Department, General Directorate of International Economic Relations Chile
Presentation: "Chile´s Inclusive Trade Initiatives."

~ (11:15) Tea Break: 20 minutes ~

3. Capacity Building for Inclusive Trade: Human Resources Development Case Studies in APEC
11:35
Presenter: Sean Chappell, Research Analyst, Washington CORE, L.L.C.
Presentation of project research on case studies on current initiatives for inclusive trade in APEC member economies.

~ (12:30 – 14:30) Lunch Break: 120 minutes ~

4. Panel Sessions
The overarching theme across the two panels will be how to 1) expand the positive effects and 2) alleviate the negative effects of globalization or free trade (e.g. how to make human resources resilient to changes while empowering the people who have been left out of those changes).

Panel 1: Human Resources Development in the Digital Age
14:30
Participants will reaffirm the importance of human resources development for digital skills to demonstrate the potential of digitalization to promote innovation.

Moderator: James Tetlow, Washington CORE, L.L.C.
Panelists:

- Mr Nicholas Mowbray, Department of Employment, Skills, Small and Family Business (Australia)
  Presentation: "Helping older workers to adapt in the changing labour market."
- Prof. Pi-Chi Han, National Kaohsiung Normal University (Chinese Taipei)
  Presentation on Chinese Taipei's policies on human resources development for the people that have been left out of digitalization
- Mr Nicolás Schubert, APEC Chile Priority Coordinator for Digital Society (Chile)
  Presentation on how the digitalization of Chile's economy has promoted inclusive growth and open trade.

~ (16:00) Tea Break: 20 minutes ~

Panel 2: Promoting Inclusive Trade for MSMEs
16:20
The discussion will aim to highlight various efforts to 1) empower micro, small & medium enterprises (MSMEs) to take part in international trade to access global market and 2) grow entrepreneurs (including women and minorities) that can compete in the global market.

Moderator: Dr Jong Woo Kang, Asian Development Bank
Panelists:

- Professor Arata Kuno, Asia University of Japan (Japan)
  Presentation: "Policies for Increasing the Beneficiaries of Globalization: Recent Initiatives in Japan."
- Professor Inkyo Cheong, Inha University (Republic of Korea)
  Presentation: "FTA Utilization Support and TAA Program for MSMEs - Case of Korea."
- Professor John Paolo Rivera, Asian Institute of Management (The Philippines)
  Presentation: "Policies for human resources development and inclusive trade - The case of the Philippines and Lessons for APEC Economies."

~ (17:30) Tea Break: 20 minutes ~

5. Concluding Session
17:50
Mr Haruyuki Yada, Director of APEC Office, METI, Japan

6. Closing Remarks
18:00
HRDWG Lead Shepherd,
Professor Dong Sun Park, President, Institute of APEC Collaborative Education (IACE), Republic of Korea

8 Annex C - Speaker Biographies

Mr Emmanuel A. SAN ANDRES *Globalisation, Digitalisation and the Challenge of Inclusion*

Analyst, APEC Policy Support Unit.
Role**:** Keynote

Mr San Andres is an analyst at the APEC Policy Support Unit (PSU). Prior to joining APEC, Mr San Andres was an Economics Officer at the Economics and Research Department of the Asian Development Bank (ADB) in Manila mainly working on poverty, inequality, food security, and social sector issues such as health, education, and employment. He also worked as a consultant for organizations such as the ADB, World Bank, and various non-government organizations where he conducted research on migration and remittances, economic development, taxation, and public policy.

Emmanuel A. San Andres holds a Master of Arts in Economics and a Bachelor's degree in Economics from the University of the Philippines School of Economics, where he is also a candidate for a PhD in Economics.

Ms Maria Ignacia SIMONETTI. *Chile's Inclusive Trade Initiatives*

APEC Priority Coordinator for Women, SMEs and Inclusive Growth (Chile); Head of the Gender Department, the General Directorate of International Economic Relations Chile
Role: Keynote

Ms Simonetti has been Deputy Editor and Director of Digital Media and Development at WOMEN ACROSS FRONTIERS (digital publication dedicated to furthering gender equality around the globe based in New York); Research and Project Manager, Observatorio Estratégico de la Alianza del Pacífico (Chile); and associate professor at Pontificia Universidad Católica de Chile. She now leads one of Chile's 3 priorities for its APEC year of 2019: Women, SMEs and Inclusive Growth.

She holds a Master of Science in Global Affairs, International Development and Humanitarian Assistance from New York University, and a Master in Pacific and International Affairs and International/Global Studies from the University of California, San Diego.

Mr Sean CHAPPELL. *APEC Trade and HRD Capacity Building for Inclusive Trade: Preliminary findings on key challenges, solutions, and next steps*

Research Analyst at Washington CORE, L.L.C
Role**:** Speaker

Sean Chappell is a research analyst at Washington CORE who conducts studies on a range of policy, business and technology topics, including micro, small and medium enterprises (MSMEs), trade through global value chains, innovation and workforce development. He was engaged in an APEC study aiming to assist Mexican MSMEs suppliers to participate in the global value chains of multinational manufacturers in the aerospace, automotive and electronics industry. He has also participated on studies for the U.S Small Business Administration related to how government can promote internationalization and export readiness of American MSMEs.

Sean holds a B.A in International Affairs from the George Washington University in Washington, DC. He is proficient in Spanish.

Mr Nicholas MOWBRAY. *Panel 1: Human Resources Development in the Digital Age.*

Director of International Strategies, Department of Employment, Skills, Small and Family Business (Australia).
Role: Panelist

Mr Mowbray manages analysis, policy development and applied projects on employment issues with counterparts in the Group of Twenty (G20) and Asia-Pacific Economic Cooperation Labour and Social Protection Network. In 2014, he managed the G20 Taskforce on Employment Secretariat under Australia's presidency, involving high-level engagement with international organizations and counterparts in other national governments. Nick also advises on domestic labour market strategies, including responses to industrial and regional developments.

His past positions include ones at the Australian Government's Department of Education, Employment, and Workplace Relations on skills and industrial strategies; the Fair Work Commission; and Department of Treasury. He holds a degree in Economics from the University of Newcastle, Australia.

Prof. Pi-Chi HAN. *Panel 1: Human Resources Development in the Digital Age.*

Associate Professor at National Kaohsiung Normal University. (Chinese Taipei)
Role: Panelist

Dr Pi-Chi Han is a scholar-practitioner in the field of intercultural Human Resources Development (IHRD). Dr Han earned her doctoral degree in HRD from the University of Arkansas, USA. She was a tenure-track faculty at the University of Missouri-St. Louis (UMSL), USA. Currently she is an associate professor at National Kaohsiung Normal University (NKNU) and also serves as a senior advisor to the APEC Skills Development Capacity Building Alliance (ASD-CBA) of Chinese Taipei. Dr Han was nominated by the Commission of Professors of Adult Education (CPAE) as the Member-at-Large for CPAE Executive Committee, and served as an Associate Editor of the International Journal of Adult Vocational Education and Technology (IJAVET). In addition, she was invited to be a visiting scholar by the Chinese Academy of Social Science in China and to conduct IHRD workshops in Spain, China, Chinese Taipei, and USA respectively.

Mr James TETLOW. *Panel 1: Human Resources Development in the Digital Age.*

Senior Research Analyst at Washington CORE, L.L.C
Role**:** Moderator

James Tetlow conducts literature research and interviews covering a variety of technically complex emerging technology fields and international trade issues. Since 2012, he has supported multiple APEC projects. His most recent role with the HRDWG was as co-lead for the preparation of an APEC HRDWG workshop in Viet Nam for a project on mutual recognition of qualifications, serving as the chair and moderator for the workshop and panel discussion. Mr Tetlow earned a Masters of Arts in Asian Studies from George Washington University in Washington, DC, and has a Bachelor of Arts in Professional Writing from Carnegie Mellon University in Pittsburgh, Pennsylvania.

Prof. Arata KUNO. *Panel 2: Promoting Inclusive Trade for MSMEs*

Associate Professor, Asia University of Japan (Japan).
Role: Panelist

Professor Arata Kuno is Associate Professor of International Economics at the Faculty of International Relations, Asia University in Tokyo, Japan. He is also a visiting researcher at the Institute for International Trade and Investment, and a collaborative researcher at the Economic Research Institute for Northeast Asia (ERINA). His main research interest includes empirical analysis of international trade, regionalism in East Asia as well as political economy of trade policy in Japan.

He has published several articles on trade policy, including “The Political Economy of Preferential Trade Arrangements: The Case of Japan”, “Beyond TPP Negotiation: Policy Proposals for Promoting FTA Utilization”, and “Estimating the Impacts of FTA on Foreign Trade: An Analysis of Extensive and Intensive Trade Margins for Japan-Mexico FTA.”

He holds a Ph.D. in Economics from Keio University in Tokyo, Japan.

Prof. Inkyo CHEONG. *Panel 2: Promoting Inclusive Trade for MSMEs*

Professor of Economics and Director for Center on Free Trade Agreement (FTA) Studies at Inha University, Incheon (Republic of Korea).
Role: Panelist

Dr Inkyo Cheong is Professor of Economics at Inha University, Incheon, Korea. He also serves as Director for Center on FTA Studies at the university, and he has been actively involving in Korea’s FTA policy formation, especially as a member of Korea’s negotiation team, and in official studies for economic feasibilities in Korea’s major FTAs such as a Korea-Japan FTA, a Korea-ASEAN FTA, a Korea-US FTA, a Korea-India FTA, etc. He has been Research Fellow for eight years in Korean Institute for International Economic Policy (KIEP), Seoul, Korea. In the context of economic cooperation, he studies issues on APEC and East Asian economic integration, and Japan.

Prof. John Paolo RIVERA. *Panel 2: Promoting Inclusive Trade for MSMEs*

Associate Director of the Center for Tourism at the Asian Institute of Management (AIM) (The Philippines).
Role: Panelist

Dr John Paolo R. Rivera is Associate Director of the Asian Institute of Management's (AIM) Dr Andrew L. Tan Center for Tourism. He is currently Visiting Research Fellow at the Ritsumeikan Center for Asia Pacific Studies of Ritsumeikan Asia Pacific University (Beppu, Japan). He is a Consultant at the Philippine Center for Environmental Protection and Sustainable Development Inc. (for the project Transforming Tourism Value Chains in Developing [Economies] and SIDS to Accelerate More Resource Efficient, Low Carbon Development) and the Economic Research Institute for ASEAN and East Asia (for the project Explicating Jakarta Framework of Moving AEC Beyond 2015).

He is currently working on a project on the "Readiness of Filipino professionals to participate in the mobility of skilled labor in ASEAN region: Lessons for APEC economies" funded by the Philippine Institute of Development Studies-Philippine APEC Study Center Network. He holds a Ph.D in Economics and MS Economics from De La Salle University (Manila, Philippines).

Dr Jong Woo KANG. *Panel 2: Promoting Inclusive Trade for MSMEs.*

Principal Economist, Economic Research and Regional Cooperation Department, Asian Development Bank (ADB).
Role: Moderator

Dr Jong Woo Kang is principal economist at the Economic Research and Cooperation Department of the Asian Development Bank (ADB). He is a seasoned economist with extensive knowledge and experiences on policy and strategic issues. He was Senior Advisor to the Managing Director General of ADB and Senior Economist at Strategy and Policy Department at ADB. He leads the annual publication of Asian Economic Integration Report. Areas of his research interest include regional integration, inclusive growth, macroeconomic and international trade policies and aid effectiveness. He published articles in economics journals such as Journal of Development Economics , Journal of World Trade and Journal of Applied Economics.

Before joining ADB, he was director at Ministry of Finance and Economy of Korea until 2006. He holds a BA in economics and MA in public administration from Seoul National University, and Ph.D in economics from University of Washington.

9 Annex D - Survey

9.1 Survey Questions

9.1.1 Main Questions

1. **Symposium Content** (Check the box that best matches your response to each item.)
(1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree 5=Strongly agree N/A=Not applicable)

I was well informed about the objectives of this symposium
1 2 3 4 5 N/A.
☐ ☐ ☐ ☐ ☐ ☐

This symposium lived up to my expectations.
1 2 3 4 5 N/A.
☐ ☐ ☐ ☐ ☐ ☐

The content of this symposium is relevant to the challenges that my economy faces in this topic
1 2 3 4 5 N/A.
☐ ☐ ☐ ☐ ☐ ☐

2. **Symposium Design** (Check the box that best matches your response to each item.)
(1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree 5=Strongly agree N/A=Not applicable)

The symposium objectives were clear to me
1 2 3 4 5 N/A.
☐ ☐ ☐ ☐ ☐ ☐

The symposium stimulated my learning
1 2 3 4 5 N/A.
☐ ☐ ☐ ☐ ☐ ☐

The pace of the symposium was appropriate
1 2 3 4 5 N/A.
☐ ☐ ☐ ☐ ☐ ☐

3. **Symposium Facilitator** (Check the box that best matches your response to each item.)
(1=Strongly disagree 2=Disagree 3=Neither agree nor disagree 4=Agree 5=Strongly agree N/A=Not applicable)

The symposium facilitator was well-prepared
1 2 3 4 5 N/A.
☐ ☐ ☐ ☐ ☐ ☐

The symposium facilitator was helpful
1 2 3 4 5 N/A.
☐ ☐ ☐ ☐ ☐ ☐

4. Are there any policies or initiatives that you learned about in this workshop that you would want to implement in your own economy?

☐ Yes

If so, please describe.

☐ No

5. Has your economy faced any significant challenges (and solutions to them, if any) that your economy has faced when implementing various policies for delivering inclusive trade? (Respond in the next page)

☐ Yes

Please describe some measures that your economy has taken to respond to these challenges.

☐ No

6. Please describe what sub-theme or policy fields you would like to see covered in future research and symposiums in the context of inclusive trade.

Please describe.

9.1.2 Background Questions

1. Organization Classification (Please select one of the following:)

☐ Government Agency
☐ Educational Institution
☐ International Organization
☐ Professional Organization
☐ Private Company & Industry Organization
☐ Others (Please specify:)

2. Policy field (Please select all that applies:)

☐ Human Resource Development (HRD) ☐ Gender

☐ Trade ☐ Education

☐ SMEs ☐ Labor

☐ Others (Please specify:)

3. Economy Name

Please describe.

4. **(Optional)** Please provide the following if it would be all right for us to contact you as we finalize the research report:

Name _____

Title _____

Organization Name _____

Contact Information _____

This survey is also available online at: https://www.wcore.com/apec-workshop/

10 Annex E – Symposium Presentation Materials

Presentation outline

APEC
Asia-Pacific
Economic Cooperation

1	Introduction • Project background • Challenges, Inclusive Trade Goals and Policy options • Notable activities in APEC	Slide 3
2	Case Study Introduction • Common labor force challenges • Case study policy themes	Slide 6
3	Case Study: Australia • Labor force challenges and Inclusive Trade goals • Measures for inclusive trade • Spotlight: & Automotive Industry Structural Adjustment Plan (AISAP)	Slide 7
4	Case Study: Singapore • Labor force challenges and Inclusive Trade goals • Measures for inclusive trade • Spotlight: SkillsFuture	Slide 12
5	Case Study: Japan • Labor force challenges and Inclusive Trade goals • Measures for inclusive trade • Spotlight: AI Strategy 2019	Slide 16
6	Conclusion • Preliminary recommendations • Next steps	Slide 20

2

1. Introduction- Project background

Asia-Pacific Economic Cooperation

#APECChile2019

APEC Context

- Support for liberalized trade and regional integration for economic growth
- APEC Action Agenda on Advancing Economic, Financial and Social Inclusion
- 2017 APEC Regional Trends Analysis

Components

- Discussion paper
  - Literature review on inclusive trade
  - Case studies on Australia, Japan and Singapore
- Symposium: share initial findings and discuss case studies among expert speakers and guests
- Final Report: combine literature and symposium outputs to identify best practices/lessons learned

3

1. Introduction

Asia-Pacific Economic Cooperation

Challenges

- Trade drives global growth and reduces poverty, but can produce inequality
- Challenges and opportunities from emerging innovations in labor-saving technology
- Trend towards more protectionist trade policies in some economies

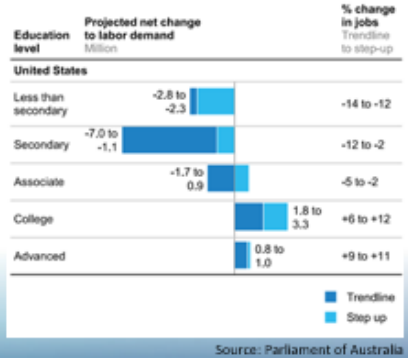
Goals

- Continue support for liberalized trade while ensuring inclusivity
- Support technological innovation and digital transformation without leaving parts of the workforce behind

Policy

- Measures needed for workforce adjustment amid new economic realities
- Options include worker education, promoting labor market participation by disadvantaged groups, and other active and passive labor programs

Net change in total employment by education required, 2016–30



Source: Parliament of Australia

4

1. Introduction- Active Labor Market Policies (ALMPs)

Asia-Pacific Economic Cooperation

Active Labor Market Policies as defined by APEC PSU

ALMP	Policy Types
Employment	• Collaboration with employers and industry groups to maintain or grow employment and reduce unemployment or underemployment
Labor market information systems	• Gathering labor market information through surveys of the labor force and firms/employers • Projecting future labor supply trends that can be used by government, employers, job seekers, workers and education providers to understand the current labor market and required skills for emerging jobs • Feedback from social protection programs
Skills development	• Improving access to primary and secondary education • Providing technical and vocational training and apprenticeships, especially for displaced workers and disadvantaged groups • Supporting lifelong learning
Social protection	• Skills matching • Job information portals • Employment assistance

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2. Case Studies: Introduction

Asia-Pacific Economic Cooperation

Case Study common elements

	Description
Labor force challenges	• Aging society and demographic transition • Alignment of skills supply with skills demand • Structural change and technological advancement
Digital skills	• Importance of digital skills for workers as well as business competitiveness • Educational reforms to align curricula with much needed digital skills • Programs to provide workers with digital skills to support career development and transitioning
Support for MSMEs	• General support provided for entrepreneurs and MSMEs using training and mentorship • Support for digital transformation of MSMEs • Trade promotion policies to support MSMEs international expansion

6

2. Case Studies: Introduction

Asia-Pacific Economic Cooperation

Case Study themes

Topics	Australia	Japan	Singapore
Trade context	Job losses from trade in specific sectors	Shortage of IT professionals to achieve domestic goals and compete in global markets	Increasing labor productivity to support inclusive growth
Policy	Unemployment support for specific sectors	Various programs for HRD of AI professionals	Integrated education/skills development for citizens
Theme	Targeting of unemployment supports based on need	Supporting workers and business competitiveness in advanced technologies	Governance of education and skills training, demand responsiveness.

7

3. Case Study: Australia

Asia-Pacific Economic Cooperation

Overview

1. **Inclusive Trade Priorities and Workforce Challenges**
   - Labor force challenges: inadequate participation rate, gender-based challenges, long-term unemployment, disadvantaged groups, structural change/technological advancements
   - Inclusive trade goals: minimize adjustment costs, mitigate barriers faced by disadvantaged populations
2. **Measures for Inclusive Trade**
   - Skills Development: reforms to better align education with in-demand skills
   - Policies for labor market disadvantage and targeted adjustment support for regions/sectors
   - Active Labor Market Policies: employment services for job seekers with varying needs
3. **Initiative Spotlight: Automotive Industry Structural Adjustment Program (AISAP)**
   - Targeted fund for retrenched automotive workers to access intensive employment services
   - Lessons on targeting of adjustment assistance

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3. Australia- Labor Force Challenges and Inclusive Trade Goals

APEC Asia-Pacific Economic Cooperation

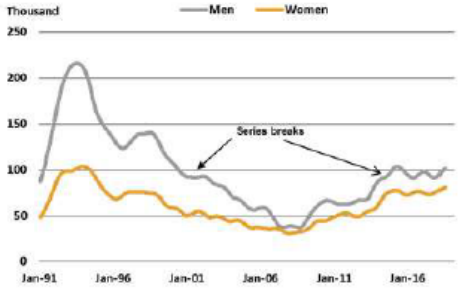
Labor force challenges

- **Ageing society**: mature-aged Australians face challenges in the labor force, leading to decreasing tax base, increased expenses on care, etc.
- **Structural change/technological advancements** lead to changing skills requirements for workers
- **Long-term unemployment** leading to the loss of skills and job readiness and long term exclusion from labor force
- **Barriers for disadvantaged populations** to acquire skills and employment
- **Indigenous unemployment** from unique barriers to employment, with inequalities more pronounced in rural areas.

Inclusive Trade Goals

- Increase worker's resilience to changes through reducing adjustment costs Targeting supports to disadvantaged populations

Long-term unemployment increasing in Australia



Source: Parliament of Australia

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3. Australia- Measures for inclusive trade

APEC Asia-Pacific Economic Cooperation

Skills Development

- Education reforms to better align curricula with in-demand skills
- Funds to support apprenticeships and training
- Vocational education reforms

Labor market disadvantage

- Policies for mature-age workers,
- Regional funds for areas undergoing structural adjustment
- Skills training and employment services for workers in sectors with large-scale redundancies

Active Labor Market Policies

Employment services for job seekers

- Referrals to education/training
- Skills matching
- Incentives
- Advisory

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3. Australia- Initiative Spotlight: Automotive Industry Structural Adjustment Program (AISAP)

Asia-Pacific Economic Cooperation

AISAP

- 2008: AISAP launched, including $50 million allocated to assist retrenched automotive workers through ~2017
- Reduced requirements to access intensive jobactive services
- Services include: résumé preparation, job applications, interview skills, training to obtain tickets or licenses, work experience provided to automotive workers through
- Connections to relocation assistance, wage subsidies, training, apprenticeships and entrepreneurship support

Program evaluation

- Generally available adjustment measures are favorable
- Assistance should be targeted towards those who face greatest employment challenges (not sector-based)
- Responding to workforce challenges with measures that consider overall cost/benefit to the economy

December 2017 advertisement on Facebook for AISAP

Source: Government of Australia

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4. Case Study- Singapore

Asia-Pacific Economic Cooperation

Overview

1. **Labor Force Challenges and Inclusive Trade Goals**
   - Education and skills development as a policy tool for economic development
   - Governance of education and skills development system designed to be responsive to industry needs
2. **Inclusive Trade Priorities and Programs**
   - Industry Transformation Program: ensure skills keep up with industrial transformation
   - Adapt & Grow program: career development support amid changing economic conditions
3. **Initiative Spotlight: SkillsFuture**
   - Lifelong learning initiative to help citizens make career choices, acquire skills and increase responsiveness of education/training to industry needs
   - Credits, grants, subsidies, education and training programs in emerging fields, sectoral planning efforts.

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4. Singapore- Labor force challenges and Inclusive Trade Goals

APEC Asia-Pacific Economic Cooperation

Labor force challenges

- **Ageing society**: declining workforce, challenges for mature-aged workers
- **Two-tier economy**: domestic industries lag in labor productivity versus export-oriented industries
- **MNCs, labor productivity and foreign workers**: reliance on multi-national corporations (MNCs) and low-skilled foreign workers has led to stagnating labor productivity
- **Skills deficiency**: upskilling of domestic workforce required to achieve productivity and growth goals

Inclusive Trade Goals

- Use education and skills training to achieve economic development goals, as well as equitable social outcomes
- Human capital as asset to attract FDI, and HRD in collaboration with investors

Singapore's employment policy objectives

Source: Government of Singapore

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4. Singapore- Measures for inclusive trade

APEC Asia-Pacific Economic Cooperation

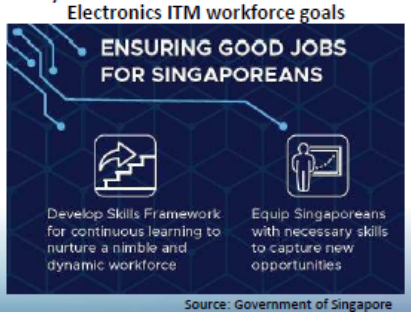
Industry Transformation Program (ITP)

- Industrial planning to ensure skills of citizens keep up with industrial transformation
- Measures for productivity improvement, innovation, internationalization and skills development
- Information on career, job roles and skills to support workers in making decisions about education and training
- Goals of ITM to be achieved by Adapt & Grow and SkillsFuture

Adapt & Grow

- Program for citizens' career development amid changing economic conditions
- Various supports to help workers find jobs that align with their skills or acquire new skills that are needed by employers
- Job placement supports and training for professionals looking to switch careers or facing redundancy

Electronics ITM workforce goals



Source: Government of Singapore

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4. Singapore- Initiative Spotlight: SkillsFuture

APEC Asia-Pacific Economic Cooperation

Goals

Lifelong learning initiative with objectives including:

- Assist citizens in making education, training and career choices;
- Education and training that is responsive to changing needs;
- Recognize employers who invest in employees' skills and lifelong learning;
- Promote a culture of lifelong learning throughout society

Planning

- Collaboration on Sectoral Manpower Development Plans (SMDPs)
- Goal: meet high demand for skilled labor, improve relevance of training, and improve talent attraction/retention

SMDP for the Biologics sector

OBJECTIVE: Attract, Develop, and Sustain a Highly Skilled and Resilient Workforce for the Biologics Manufacturing Industry

INDUSTRY KEY PRIORITY 1	INDUSTRY KEY PRIORITY 2	INDUSTRY KEY PRIORITY 3
Meet High Demand for Skilled Manpower	Improve Relevance of Training Programmes	Talent Attraction and Retention
STRATEGY 1	**STRATEGY 2**	**STRATEGY 3**
Build Pools of Skilled Talent in Technical and Management Positions	Enhance Current Training Provisions to Meet the Needs of Current and Future competencies	Profile Industry to Improve Attraction and Retention

Source: Government of Singapore

Measures

- Credits for all Singaporeans to spend on education and training
- Education and training oriented towards industry-relevant skills with linkage to employment
- Digital skills development and instruction on how to apply these to careers

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5. Case Study- Japan

APEC Asia-Pacific Economic Cooperation

Overview

1. **Trade, Skills Development and Labor Force Challenges**
   - Labor force challenges: ageing society, lack of IT talent, wages and inequality
   - Inclusive trade goals: foster inclusion through digital skills, internationalize MSMEs
2. **Measures for inclusive trade**
   - Support for disadvantaged workers
   - Employment creation subsidies
   - Social safety net programs
3. **Initiative Spotlight: Initiative Spotlight: HRD for Artificial Intelligence (AI)**
   - Shortage of IT professionals
   - Various programs and reforms to promote AI/IT proficiency among students and workers

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5. Japan- Trade, Skills Development and Inclusive Trade Goals

APEC Asia-Pacific Economic Cooperation

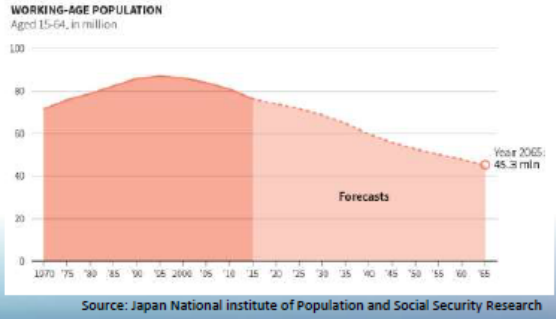
Labor force challenges

- **Aging society**: demographic pressure on sustaining economic growth
- **Labor shortage in high-tech fields**: lack of professionals to promote/implement labor-saving technologies (robotics, AI) in context of demographic challenges
- **Productivity**: productivity in Japan is low by OECD standards
- **Wages and income inequality**: labor market dualism (regular vs. non-regular workers) leads to inequality and stagnation of wages
- **Participation of women in labor market**: room to improve women's participation through accessible childcare, reduced working hours, and measures to promote equal pay

Skills Development and Inclusive Trade goals

- Society 5.0: solve social issues through technologies of the fourth industrial revolution and preparing workforce with advanced digital skills
- Growth Strategy 2018: support expansion in exports by MSMEs

Working-age population forecasts in Japan



Source: Japan National institute of Population and Social Security Research

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5. Japan- Measures for inclusive trade

APEC Asia-Pacific Economic Cooperation

Trade promotion for MSMEs to promote inclusive trade

- Japan External Trade Organization (JETRO) coordinates activities among various agencies, the Japan Bank for International Cooperation and National Tax Agency to support MSMEs
- Access to finance: public finance institutions support
- E-commerce and data analytics on consumer trends
- Support in navigating foreign business environments
- Support to enter high-risk, high-return markets to create path for others

Safety net programs and adjustment policies for workers

- **Support for vulnerable workers**: job-matching for youth, elderly, disabled and foreign workers
- **Measures for local employment**: subsidies and funds for employment creation in regions, areas impacted by natural disasters, low-income regions, etc.
- **Public vocational training**: training support for unemployed and employed workers seeking new jobs or improvement of skills
- **National Trade Skill Testing and Certification**: testing and certification of workers' skills in 126 occupations to support workers in demonstrating and developing their skills

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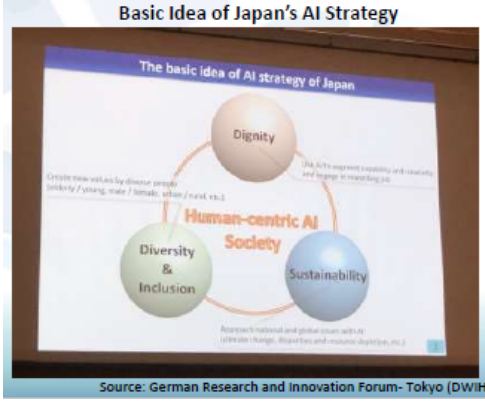
5. Japan- Initiative Spotlight: Human Resources Development for Artificial Intelligence professionals

APEC Asia-Pacific Economic Cooperation

Challenges

- Acute shortage of IT professionals (2016- 171,000; 2020- 369,000; 2030- 789,000)
- Broader challenge of declining workforce

Basic Idea of Japan's AI Strategy



Source: German Research and Innovation Forum- Tokyo (DWIH)

Four pillars of support for education in AI

- **Goal**: equip citizens with skills to thrive in a society where economic activity and services are deeply linked with AI
- **Education reforms** to incorporate IT in primary and secondary education, Massive Open Online Courses (MOOCs), etc., to prepare students for advanced IT jobs
- **Skills certifications and education for professionals**: training for work-ready young AI professionals, training for IT professionals in 'unexplored fields', funding for innovative work by young researchers
- **Coordination between industry and educational institutions**: public/private consortia on AI education

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6. Conclusion- Best Practices

APEC Asia-Pacific Economic Cooperation

Best Practices

Priority	Challenge	Economy	Measures
Developing Education and Skills Policies that are Responsive to Industry Needs	Mismatch between supply and demand of skills.	Singapore	Governance of education and skills training to create demand-responsive programs by involving relevant authorities and stakeholders (government, industry, unions, workers, trade associations, etc.)
		Japan, Singapore	Create skills certification programs that address key skill mismatch needs and meet global standards
		Singapore	Secure investments by foreign companies in skills development to provide citizens with advanced and internationally competitive skills
	Risk of job losses from labor-saving technologies	Japan	Implement policies to encourage digital skills development to prepare workers for a rapidly changing economy, and prepare citizens to be competitive in high-tech fields like AI

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6. Conclusion- Best Practices

APEC Asia-Pacific Economic Cooperation

Best Practices

Priority	Challenge	Economy	Measures
Prioritizing Inclusivity and Social Protection in Trade and Economic Policy Development	Challenge to support disadvantaged populations in the workforce	Australia	Active labor market policies should target assistance to workers facing the greatest employment challenges
		All	Reduce barriers to education for disadvantaged workers to increase labor force participation through creating programs that specifically respond to their needs, especially for mature-aged workers.
	Supporting MSMEs in global value chains through trade promotion and skills development	Japan	Improve trade promotion public policy support mechanisms for MSMEs in global value chains, such as through improving MSMEs' access to finance, supporting the skills and capability development of MSMEs (including assistance with developing their digital skills), helping them to overcome non-tariff barriers, and consolidating public sector resources so that MSMEs can easily access key information.

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6. Next steps for Capacity Building for Inclusive Trade

APEC Asia-Pacific Economic Cooperation

Thank you!

Thank you very much for your participation in this event.

The Discussion Paper and these presentation slides are available online at:
https://www.wcore.com/apec-workshop/

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A final paper will be prepared including outputs and insights from this symposium.

If you have any questions or suggestions regarding this workshop or guideline development for this study please feel free to contact at:
James Tetlow– james@wcore.com
Sean Chappell – sean@wcore.com

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[226] Presented by Mr Sean Chappell, Research Analyst, Washington CORE
[227] Panel: Mr Nicholas Mowbray, Department of Employment, Skills, Small and Family Business (Australia); Professor Pi-Chi Han, National Kaohsiung Normal University (Chinese Taipei). Moderated by Mr James Tetlow, Sr Research Analyst, Washington CORE.
[228] Panel: Professor Arata Kuno, Asia University of Japan (Japan); Professor Inkyo Cheong, Inha University (Republic of Korea); and Professor John Paolo Rivera, Asian Institute of Management (The Philippines). Moderated by Dr Jong Woo Kang, Asian Development Bank.
[229] Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), an FTA currently being implemented between 11 economies in the Asia-Pacific region: Australia; Brunei; Canada; Chile; Japan; Malaysia; Mexico; New Zealand; Peru; Singapore; and Viet Nam.