



**Asia-Pacific
Economic Cooperation**

Advancing Free Trade
for Asia-Pacific **Prosperity**

APEC Economic Policy Report 2017



**Asia-Pacific
Economic Cooperation**

2017 APEC ECONOMIC POLICY REPORT

Structural Reform and Human Capital Development

APEC Economic Committee

November 2017

NOTE:

The terms “national”, “nation” used in the text are for purposes of this report and do not imply the “political status” of any APEC member economy.

Prepared by:

*Anne O. Krueger, Emmanuel A. San Andres, and Tammy L. Hredzak**

Asia-Pacific Economic Cooperation Policy Support Unit

Asia-Pacific Economic Cooperation Secretariat

35 Heng Mui Keng Terrace

Tel: (65) 6891-9600 Fax: (65) 6891-9690

Email: psugroup@apec.org Website: www.apec.org

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35 Heng Mui Keng Terrace

Singapore 119616

Tel: (65) 68919 600

Fax: (65) 68919 690

Email: info@apec.org

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** Senior Research Professor, Johns Hopkins University; Analyst, APEC Policy Support Unit; and Consultant. Excellent research assistance from Satvinderjit Kaur Singh is gratefully acknowledged. The views expressed in this paper are those of the authors and do not necessarily represent those of APEC Member Economies.*

Table of Contents

EXECUTIVE SUMMARY	i
1. INTRODUCTION	1
Dynamic Economies and Structural Unemployment.....	2
Globalisation and structural unemployment	2
Changing technology and disruption	4
Structural Reform and Human Capital Development: Theory and Linkages	6
From low- to middle-income status	7
Middle-income economies.....	8
High-income economies	9
2. HUMAN CAPITAL DEVELOPMENT IN THE APEC REGION	11
Labour Productivity	11
Ensuring equitable access to quality education.....	12
Promoting technical and vocational education and training (TVET)	17
Labour Force Participation and Inclusion.....	20
Promoting female labour participation.....	20
Addressing youth unemployment	23
Challenges faced by elderly workers	26
Promoting entrepreneurship and self-employment	29
Supporting vulnerable and informal workers.....	31
Improving Adaptability	32
Designing effective labour market regulations	33
Improving social protection and assistance programmes.....	40
Developing effective unemployment benefit programmes	41
Active Labour Market Policies	47
A holistic approach to developing ALMPs.....	49
Labour Market Information Systems	50
Complexity, certification and coordination.....	51
Facilitating Connectivity	52
Promoting connectivity between economies.....	52

3. POLICY DISCUSSION AND THE ROLE OF REGIONAL COOPERATION	55
Insights from Individual Economy Reports.....	55
Policy challenges	55
Policy responses and regional cooperation	56
Policies for Structural Reforms, Growth and Inclusion	56
Policy priorities for low-income economies	57
Policy priorities for middle-income economies	57
Policy priorities for medium- and high-income economies	59
Policies for structural change and inclusion.....	61
Regional Cooperation.....	62
The Role of APEC	63
4. POLICY RECOMMENDATIONS.....	67
ANNEX A: Case Studies.....	76
ANNEX B: Individual Economy Reports.....	113

EXECUTIVE SUMMARY

- Globalisation and technological change have contributed to unprecedented economic growth, improvement in living standards, and poverty reduction in the past two centuries. In no other time in history have people been healthier, better informed, and more connected than in the present.
- Currently many APEC economies are wrestling with structural unemployment, which is caused by structural changes in an economy such as shifting labour demand patterns (e.g., due to affluence, capital accumulation, urbanisation, international trade or changes in technology). At the same time, economies often face a mismatch between the skills of workers looking for work and the skills required by emerging job opportunities.
- In their Individual Economy Reports, APEC economies identify skills mismatch as a key challenge in their labour markets. Young workers are not always getting the right skills to prepare them for employment in a fast-changing market, leading to high levels of youth unemployment in several economies. Meanwhile, ageing populations mean older workers need to continue working while learning new skills as there are insufficient newly trained young workers to replace them. Economies face challenges in improving skills development and providing lifelong learning opportunities to increase productivity and enhance employability. Increasing labour force participation of youth, women, minorities, and other disadvantaged groups is a continuing effort among APEC economies.
- Empirical data show some gaps in human capital development in the APEC region. About a third of APEC economies have net enrolment rates in secondary school below 60 per cent. Unemployment rates among youth aged 15-25 were greater than 10 per cent in 13 of APEC's 21 economies in 2015. Moreover, up to 30 per cent of employed workers in the region are own-account workers or unpaid family workers. Meanwhile, surveys of formal sector employers report difficulties in finding skilled workers to fill job openings, pointing to a lack of workers with adequate technical skills.
- Addressing structural unemployment and skills mismatches will depend on each economy's context and situation. Economies at different levels of income and development will need to focus on different aspects of skills training, labour market regulation, and social protection.
- Basic skills—i.e., literacy and numeracy as well as comprehension and problem-solving—are necessary for the development of a skilled workforce. Economies need to improve access to and quality of education and training, including for disadvantaged groups. However, as enrolment and completion rates for primary and secondary education approach 100 per cent, greater focus can be given to skills development and upgrading.

- Unilateral structural reforms that promote human capital development can be instrumental in overcoming these challenges. In many cases it will be optimal to reform labour market regulations and legislation to ensure greater alignment with the capabilities of employers and the needs of workers. Careful analysis and policymaking are needed to ensure that workers are compensated fairly and work in humane and safe environments while employers are not discouraged from hiring workers due to excessive costs and regulations.
- Crucial in the long run to addressing structural unemployment is the holistic development of active labour market policies (ALMPs). ALMPs are the coordination mechanism that link various aspects of skills training and development, on one hand, and job search and skills matching, on the other. The development of ALMPs would involve enhancing labour market information systems (LMIS), reforming labour market regulations, and developing skills definitions and certifications, among others. For this approach, direct engagement with the private sector—which is best informed on the skills required by the market—will be critical.
- Key to having effective ALMPs is delivering timely and accurate labour market information to the sectors that need it and having a mechanism to efficiently match workers with employers. Data on skills needed by the market can inform education and training systems on areas of skills development that need more focus. Meanwhile, employment centres can serve as a mechanism that will not only deliver social protection (e.g., unemployment benefits) but also provide information on job opportunities, incentives for job search and training, and matching with prospective employers.
- In addition to unilateral structural reforms and policy development, there are also many important avenues for regional cooperation on human capital development. Knowledge sharing and capacity building provide opportunities for economies to learn from each other and find solutions to common problems. People-to-people connectivity could be enhanced through increased efforts at labour mobility and cross-border regulatory coherence—these efforts are all the more important in light of the cross-border impacts of globalisation and digital technology. APEC economies could also consider greater cooperation on cross-border education and training exchange to enhance skills development in the region.

1. INTRODUCTION

“The natural effort of every individual to better his own condition... is so powerful a principle that it is alone, and without any assistance, not only capable of carrying on the society to wealth and prosperity, but of surmounting a hundred impertinent obstructions with which the folly of human laws too often encumbers its operations; though the effect of these obstructions is always more or less either to encroach upon its freedom, or to diminish its security.”

— Adam Smith, *The Wealth Of Nations*, Book IV, Chapter V

Writing in 1776, Adam Smith in *The Wealth of Nations* discussed how regulations and trade barriers constrain the innate tendency of workers, firms, and society to better their lot and generate prosperity. Almost two and a half centuries after the publication of his book calling for competition and liberalisation, economies are still grappling with issues of competition policy, regulatory practice, fiscal policy, and others. Frictions in the mobility and allocation of resources result in economic inefficiencies and underutilisation of resources. Addressing these frictions is the aim of structural reforms and is at the heart of the work of APEC’s Economic Committee (EC).

However, a broader view of structural reform implies not only the removal of regulations that may obstruct economic activity but also the implementation of policies and measures that can reduce frictions in resource allocation and utilisation and improve productivity. This is possible in the case of labour markets and human capital development where incomplete information, time constraints, and high adjustment costs may impede or prevent markets from reallocating labour inputs towards competitive industries. This year’s *APEC Economic Policy Report* (AEPR) on Structural Reform and Human Capital Development aims to discuss some of the issues and policies relating to skills development and labour markets in the APEC region. It analyses how generally positive economic changes—such as the growth and development process, trade and globalisation, or technological upgrading—can contribute to structural unemployment,¹ and what can be done to mitigate the impacts of these changes. It will then discuss some policy options regarding the reallocation and mobility of displaced labour, and provide some pointers for regional cooperation and integration.

In the next section, this report describes sources of structural unemployment that form the backdrop of this AEPR such as globalisation and technological change. It will then present an analytical framework relating economic growth and human capital development, discussing the drivers of growth and human capital challenges at each stage of development. Part 2 of this report describes some of the human capital issues and challenges in the APEC region, looking into achievements and areas of improvement as gleaned from literature and data. Part 3 offers some insights into needed structural reforms and policy priorities as well as opportunities for regional cooperation and the role for APEC, EC, and the Human Resources Development Working Group (HRDWG). Part 4 concludes the report with policy recommendations.

¹ Structural unemployment is defined as unemployment caused by fundamental changes in an economy, such as shifting demand patterns (e.g., due to globalization, capital accumulation, urbanization, or affluence) or changes in technology, leading to a mismatch between the skills of workers looking for work and the skills required by job opportunities.

DYNAMIC ECONOMIES AND STRUCTURAL UNEMPLOYMENT

The process of economic growth and development brings along with it continuous changes. At the start of the Industrial Revolution, when Adam Smith was writing his treatises on economy and moral philosophy, structural transformation from agricultural economies in rural villages to manufacturing-based economies in cities was starting to lead to unprecedented social and economic adjustments. New technologies such as the steam engine led to changes in the way resources were allocated between farms and cities. Likewise, transportation improvements and the opening of the Suez Canal in 1869 improved trade connectivity, resulting in greater trade and information exchange. Inevitably, these changes also led to changes in the way labour was utilised, where it was employed, and the skills required from workers—e.g., manual skills for separating cotton fibres from seeds were replaced by mechanical skills for operating cotton gins.

This process of economic dynamism and change continues today, albeit at a faster pace. Globalisation and trade liberalisation bring specialisation, but can also contribute to short- and medium-term structural unemployment. Likewise, digital technologies and automation threaten many jobs not only in manufacturing but also in skilled services such as accounting, transcription, and other back-office functions. However, historical precedent has shown us that over the long-term openness and technological change have benefitted humankind and resulted in an improvement in prosperity and living conditions. Moreover, with structural reform and good policy practice, even short- and medium-term adjustment costs can be reduced and ameliorated.

Globalisation and structural unemployment

Globalisation has contributed to an unprecedented acceleration of global GDP growth and improvement in the living standards of billions of people. Economic integration of world economies accelerated in the late 1800s due to technological advancement, lower transportation costs, and wider access to information, continuing until now albeit with the disruptions of business cycles and wars. Between 1950 and 2015, the world's output grew at an annual average rate of 3.8 per cent, which was considerably higher than the 2 per cent growth rate achieved during from 1900–1950 and annual growth of 1.3 per cent from 1820–1900.²

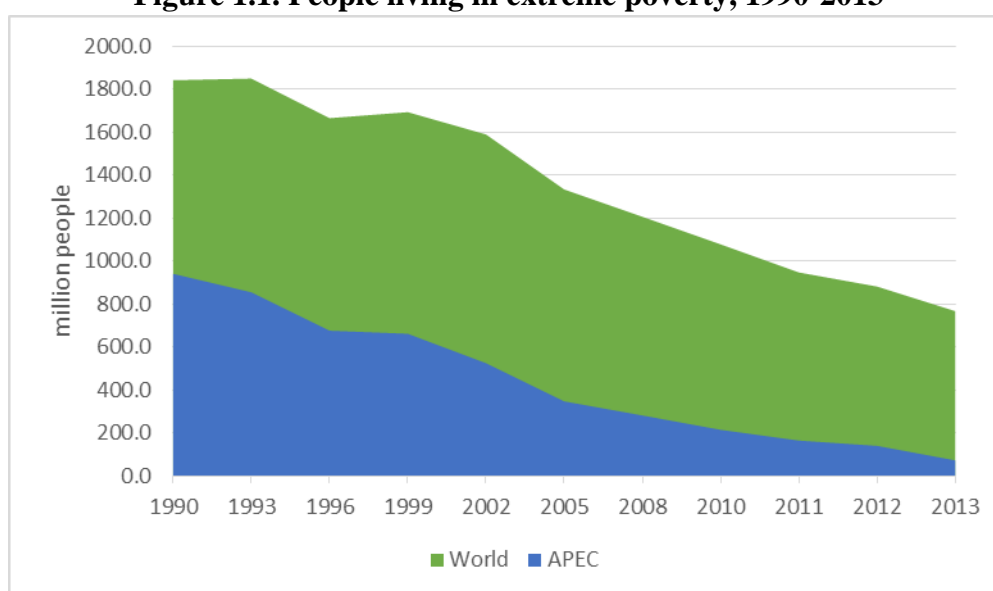
A considerable part of this economic growth was interlinked with the growth in trade. Trade acted as a catalyst of growth and vice versa.³ Demand for exports from other economies has increased production of goods and services within the exporting economy, thereby spurring greater domestic activity. Imports, meanwhile, encouraged increased productivity through competition and innovation and enabled the flow of technology and ideas while giving consumers and producers access to a wider variety of goods at lower prices. Moreover, foreign investments facilitated by globalisation have created more jobs in the economy and increased innovations and productivity. The increased participation in free trade by APEC economies has greatly contributed to GDP growth in the region.

² [Our World in Data](#), based on World Bank and the New Maddison Project Database.

³ A number of studies find a positive relationship between trade and economic growth. See for example: Frankel, J.A. and D. Romer (1999); Wacziarg, R. and K.H. Welsh (2008); Edwards, S. (1997); Gries, T. and M. Redlin (2012).

Globalisation has also contributed to poverty reduction. According to Roser and Ortiz-Ospina, the share of the world population living in extreme poverty (under USD 1 a day) had an impressive decline from 84 per cent of the population in 1820 to 24 per cent in 1990.⁴ Globalisation and trade facilitated poverty reduction through job creation, lower prices for consumers and higher wages in competitive export sectors.⁵ Panagariya (2003) found that historically no economy has been able to sustain a growth of 3 per cent or more in per capita GDP terms without increasing trade with other economies. Data on extreme poverty from the World Bank's PovcalNet indicated a decrease in the share of the world population living under USD 1.90 a day from 42.0 per cent in 1990 to 12.5 per cent in 2013. Likewise, between 1990 and 2013, 867 million people within APEC were lifted out of extreme poverty conditions (Figure 1.1). Only 3.2 per cent of the APEC population lives in extreme poverty as of 2013, which is a substantial improvement since 1990, when the share of extremely poor people was 52.4 per cent of the population.

Figure 1.1. People living in extreme poverty, 1990-2013



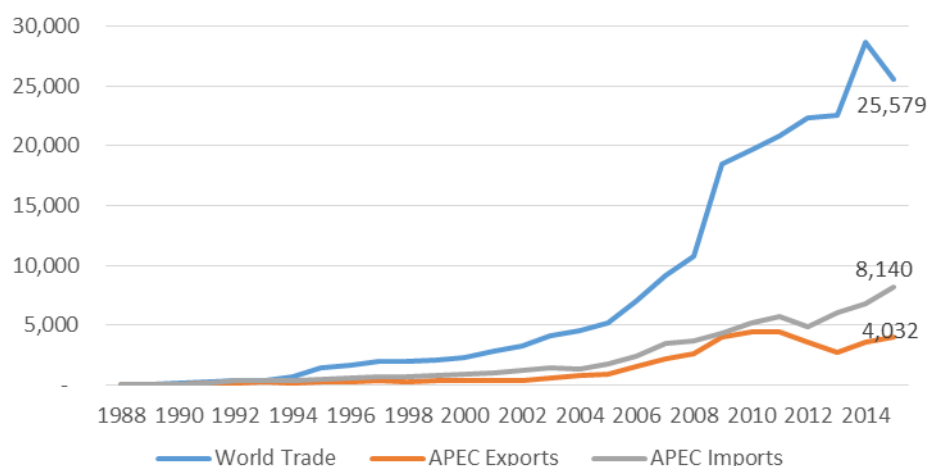
Note: Extreme poverty is defined as living on USD 1.90 per person per day (in 2011 PPP terms). Data for APEC cover Chile; China; Indonesia; Malaysia; Mexico; Papua New Guinea; Peru; the Philippines; Russia; Thailand; and Viet Nam.

Source: World Bank Povcal Net data.

Improved health outcomes through increased access to medicines, higher vaccination rates, and improved caloric intake and nutrition provide a concrete illustration of the contributions of globalisation. In the 1990s, most favoured nation (MFN) tariffs of at least 5 per cent were applied to vaccines in at least 73 economies and tariffs of at least 10 per cent were applied in 30 economies. By 2015, the tariffs had been further reduced, with only 16 economies imposing tariffs of 5 per cent or more and only one economy imposing tariffs of above 10 per cent. As a result, global trade in vaccines rose significantly in the past couple of decades (Figure 1.2). Vaccine trade grew at a rate of approximately 24.3 per cent per year between 1988-2015, multiplying 353 times and reaching USD 25.6 billion in 2015, contributing to the control and prevention of communicable diseases.

⁴ See: Roser, M. and E. Ortiz-Ospina, 'Global extreme poverty', *Our World in Data*, 27 March 2017, <https://ourworldindata.org/extreme-poverty/> (accessed 5 May 2017)

⁵ World Bank and WTO (2015).

Figure 1.2. Worldwide trade in vaccines for human use (USD million)

Source: World Integrated Trade Solution (WITS), UN Comtrade; APEC PSU calculations.

However, globalisation does not come without adjustment costs, particularly in the short- and medium-term. If trade is beneficial because economies can specialise in the production of goods and services in which they have a comparative advantage, then this also means that those economies will reduce (or not as rapidly increase) the production of goods and services they cannot competitively produce. The slowdown in output growth in the non-competitive sectors can result in layoffs of workers in the short- to medium-term if their skills are not matched to the needs of the competitive sector, resulting in structural unemployment. Indeed, in a meta-analysis of empirical research, Goldberg and Pavcnik (2007) find that globalisation tends to exacerbate inequality in developing economies, and they identify the lack of sectoral labour reallocation from non-competitive to competitive industries as the main channel for this finding. The IMF, in its April 2017 *World Economic Outlook* report, finds that the labour income share of GDP—an indicator of income distribution—has been on a downward trend since the 1990s particularly for low- and middle-skilled workers, a finding that they attribute to technology and globalisation.

As a result of changes in demand for labour or changes in demand for skills, workers might not be able to find new employment, or employment of equal quality.⁶ Changes in demand for labour result from different levels of competitiveness between sectors, which leads to the expansion of the competitive sectors and the contraction of the uncompetitive sectors.⁷ As different industries expand and participate in international trade, the demand for labour changes along with the economy's needs. A number of firms also tend to move their operations overseas or outsource the work to other economies to remain competitive. However, this can leave some domestic workers without jobs.⁸

Changing technology and disruption

Globalisation is not the only source of structural unemployment: by most estimates, changing technology and increasing productivity, rather than globalisation, are the main drivers of jobs

⁶ IMF, World Bank and WTO (2017).

⁷ Harrison, A., J. McLaren and M.S. McMillan (2010).

⁸ Levine, L. (2010).

losses in manufacturing and agriculture.⁹ The increased use of robots, digital technology, and artificial intelligence recently has led to the automation of many repetitive and routine tasks. Computers can now perform some of these tasks more efficiently and have in many cases replaced workers. A study by Frey and Osborne (2013) found a strong negative correlation between skills and an occupation's tendency to be automated.¹⁰ This means routine jobs that require low skills have a greater chance of being computerised.

Likewise, Autor and Dorn (2013) find that while technological progress improves workers' efficiency, it also explains the decline in low-skilled non-service jobs¹¹ in the US in the three decades leading up to the 2000s. On the contrary, labour hours spent on low-skilled jobs that were service-oriented¹² rose by 30 per cent between 1980 and 2005 in the US. The study also finds efficiency-related savings to be associated with the complementary relationship between technology and the task of high-skilled workers.

Digital technology has different impacts across a spectrum of jobs. The most vulnerable are workers who perform rules-based and routine activities like factory assembly, simple accounting, and data collection. On the other hand, workers carrying out non-repetitive and discretionary tasks—e.g., cleaners and hair stylists as well as programmers and doctors—will not be threatened by computerisation as their tasks are too complicated to turn into an algorithm. This leads to a phenomenon known as job polarisation, where low-skilled and high-skilled jobs will not be lost due to automation while middle-skilled jobs may cease to exist. While empirical data are still scant and preliminary, there is some evidence pointing to this trend. A European jobs monitor found the largest contributor to the 2011-2013 decline in employment rates across Europe to be from lost middle-skilled jobs (Fernández-Macías & Hurley, 2014). The two ends of the skill distribution band enjoyed high employment growth over the period, resulting in a U-shaped employment pattern.

The advent of digital technology is not all gloomy. Even as computerisation takes away jobs from some, it also creates new occupations and opportunities. A Google search of “10 jobs that didn't exist 10 years ago” shows a list of positions including cloud computing specialist, data scientist, app programmer, and social media manager that have been created as a result of technological advancements. For example, there was no app developer until the introduction of the App Store and Google Play in 2008. Similarly, cloud computing specialist became a position only after Google introduced the term “cloud computing” at its 2006 conference. The World Economic Forum made a related observation in its *Future of Jobs* report in which it indicated that the most in-demand jobs in many economies today did not exist a decade ago.¹³ Along these lines, it also predicted that 65 per cent of primary school children today will be doing jobs that do not exist yet.

While technology can indeed lead to the displacement of some jobs, it can also create new ones and increase productivity by complementing labour either directly or indirectly and by making

⁹ See, for example, Hicks and Devaraj (2015) and WTO (2017).

¹⁰ In their study, Frey and Osborne (2013) defined computerization as job automation through computer-controlled equipment.

¹¹ Examples of non-service occupations include production and craft occupations, operative and assembler occupations, mining and farm occupations, and some transportation, construction, mechanical occupations.

¹² Service occupations are jobs that involve assisting or caring for others, for example, food service workers, security guards, janitors and gardeners, cleaners, home health aides, child care workers, hairdressers and beauticians, and recreation occupations. Service occupations are distinguished from the service sector, a broad category of industries ranging from health care to communications to real estate.

¹³ World Economic Forum (2016).

work less arduous. Technology can automate some aspects of jobs, allowing labour to be deployed to higher value-added tasks. Firms can engage in more profitable activities, increase their market share and hire more workers. A report by *The Economist* (2011) gives an example of positive interaction between technology and employment. One would expect that an increase in automated teller machines ATMs would lead to a decrease in demand for bank tellers. However, between 1985 and 2002, ATMs increased by 292,000 and the number of bank tellers rose by 42,000 in the US. This shows that the ATMs did not displace bank tellers but rather freed up workers to focus on increasing banks' customer base, thereby increasing demand for bank tellers to serve new customers. Additionally, the introduction of ATMs also led to the creation of new job categories—ATM manufacturing technicians and ATM maintenance workers.

The trend towards a “gig economy” and its accompanying jobs has been made possible by digital technology. For instance, apps like Uber and Grab give people an opportunity to provide transport services and earn revenue. TaskRabbit creates a market place for freelance jobs such as painter and handyman. Among other various skill-based services, Go-Jek allows people to perform courier and food delivery services. All these apps provide job opportunities to people, especially those who are unemployed or underemployed. Hall and Krueger (2015), find that 160,000 drivers were employed by Uber by the end of 2014 from almost zero in 2012. Moreover, a market study by consultancy firm Edelman Berland (2014) found that a third of the American workforce is employed in freelance jobs.

The dynamics of the labour market have changed drastically since the invention of digital technology. As skills that are learned today may become obsolete tomorrow, the future of many jobs will depend on the pace of technological development and adoption. At the same time, many established jobs like food services, healthcare, and law enforcement are adopting technology and requiring practitioners to equip themselves with higher-level computer skills to adapt to the increasing use of digital technology in their sectors.

STRUCTURAL REFORM AND HUMAN CAPITAL DEVELOPMENT: THEORY AND LINKAGES¹⁴

Growth is a process of increasing productivity (i.e., output per person) by (1) using existing resources increasingly efficiently; (2) accumulating additional resources per person; and (3) insuring that the additional resources are allocated so that supply and demand changes are reasonably balanced.

Resources include land, usually in fixed supply (but with the potential for improvements through investment), physical capital which is accumulated through investment, and human capital which is accumulated through education, training, and experience. It is important that as physical and human capital accumulate they be efficiently used, because that determines the corresponding increase in productivity. Likewise, measures can sometimes be adopted which increase the productivity of existing resources in addition to increasing human and physical capital.

Economic efficiency, in turn, depends on having an appropriate framework and incentive system, so that these new resources are put to best use and existing resources are reallocated as

¹⁴ This section draws from the development theories of Lewis (1954), Rostow (1960), Ranis and Fei (1961), and Lewis (1979).

needed with growth. The framework within which resources are employed includes the institutions that govern economic activity such as law and order, laws governing business operations, labour market regulations, etc. That framework is beyond the scope of this paper except for the labour market, which affects human capital investment and development.

From low- to middle-income status

It is useful to think of the growth process as consisting of stages: in an early stage, most of the labour force is engaged in primary activities (i.e., farming and fishing, predominantly). Workers in the primary sector typically have fairly low productivity. People have little access to education or health care, and towns are relatively small with merchants and officials as the main off-farm workers. As some of the young workers with primary education take non-agricultural jobs, their productivity is well above that in agriculture, so growth occurs through rural-to-urban migration as well as through factor accumulation and learning.

In the first stage of development, with appropriate incentives and infrastructure, off-farm production of goods and services become increasingly profitable, and businesses have incentives to expand output. The ability to sell products made with unskilled labour in the international market, as well as domestically, enables more rapid growth as poor economies can absorb more workers into off-farm activities when goods can be sold abroad as well as domestically before moving up the value-added chain. To get appropriate incentives even at the early stage of development, reforms are often needed. The bottlenecks appear to vary from economy to economy, but agricultural pricing and distribution policies are often in need of reform. Pricing and availability of appropriate water, power, and transport infrastructure may also be in need of early adjustment or reforms.

Growth in productivity and per capita income takes place both because adults with primary education are more productive in farm activities (and in providing better health and nutrition for their young) and because those moving to off-farm jobs have higher productivity, often by a factor of two and possibly higher in developing economies, than those remaining on the farm.^{15,16} As growth of off-farm employment continues, there comes a point where the supply of relatively unskilled labour begins to increase more slowly, peaks, and finally falls. At this point reforms are required to sustain growth, both because growth itself brings about structural change to which the economy must respond.

Once the fraction of the labour force in agriculture has dropped sufficiently, there are relatively few gains in per capita income and productivity that can be achieved from people moving from low productivity rural jobs to higher productivity urban ones. Accumulating and using resources efficiently becomes even more important for both the private and the public sectors. This has been true of those economies that have moved beyond lower middle-income status and it will be even more evident as rates of population and labour force growth drop. For those economies where the labour force stops growing and even starts contracting, it is vital that reforms enable increased productivity of new, as well as of existing, employed workers.

At this early stage with a high fraction of the population and labour force in the rural areas and the population growing rapidly, considerable growth can be achieved simply because the new

¹⁵ With population growth, some off-farm movement usually needs to take place simply to prevent falling output per person on farms.

¹⁶Gollin, D., Lagakos, D. and Waugh, M.E. (2013).

cohort entering the labour force (i.e., younger workers and those in urban areas) is larger and better skilled than the older workers who are retiring. But as the share of the rural population and labour force shrinks and population growth slows, the rate of economic growth increasingly depends on capital accumulation, the increase in the quality of the new entrants and the efficiency with which they are used. Since most economies are now experiencing falling rates of population growth and in a few cases face stagnant or declining labour forces, increased quality is ever more important as a contributor to growth. It is also increasingly important that, with structural change (and the ability to replace unskilled workers with machines as wages rise), opportunities are created for workers to retrain and shift to more productive jobs.

As economies approach middle-income status, the increased potential for growth offered by an open economy assumes greater importance. In a closed economy, domestic demand for products made using unskilled labour intensively would be limited because much farming is subsistence and because a high fraction of the incomes of the poor is spent on food and shelter, leaving a very small market for other goods and services. If the economy is relatively closed (e.g., due to trade barriers), slower expansion of activities using more skills and capital per worker will be undertaken as prices of those goods are high and the expanded output of unskilled labour-intensive goods leads to drops in their relative prices, thus discouraging further expansion of these activities. If that happens, the rate at which new workers can be absorbed into the urban workforce diminishes and thus more are left behind. If too much skills upgrading is undertaken too soon, resources are allocated to new high-skill activities leaving behind too many workers in the rural sector.

Middle-income economies

In the middle-income stage of growth, per capita income growth takes place in significant part as the productivity of unskilled workers rises because the skill composition of the labour force improves, because workers acquire more experience (i.e., on-the-job training), and due to continuing capital accumulation (including improvements in infrastructure which lower the costs of doing business throughout the economy) which raises the capital-labour ratio and enables machines to replace some unskilled labour jobs. The increasing productivity of those still on the farm generally results in rising real wages for unskilled workers in off-farm employment as higher wages are needed to induce migration.

Productivity in the unskilled-labour intensive industries can be increased by the employment of more technicians and engineers for quality control; by on-the-job training for workers; by employment of trained managers to enable better inventory control and reduce wastage; and in scores of other ways. At the same time, as the supply of those with skills increases, new and more skilled-labour intensive industries can become economically feasible.

As wages rise and the supply of new entrants to the unskilled labour force diminishes, there is a shift to a higher ratio of human capital investment and efforts to improve the quality of education and training, especially at the primary level, and to expand secondary and tertiary education and training. At this stage, attention must be given to assuring a reasonable balance between the types of training and the needs of private firms. Expanding, for example, the supply of doctors with little or no increase in the supply of nurses, nurses' aides, and laboratory technicians, reduces the productivity of trained doctors as they must perform those complementary functions.

At this stage, allocation of resources and quality assurance for training programs are of critical importance. Underinvestment and inadequate capacity to train technical workers, both at the secondary and the tertiary level and in vocational as well as traditional educational facilities can slow down growth in many economies. On the other hand, overinvestment in education and training for occupations that are not needed by the labour market can result in over-education and diversion of skilled workers to lower productivity work. This can also result in highly trained but unemployed workers migrating to other economies, with a consequent loss of human capital to the source economy.

When growth is sufficiently rapid, the demand for goods produced with relatively unskilled labour-intensive techniques rises at a sufficient pace so that growth of those industries slows down but demand does not decline and workers in those industries remain employed for some time (unless productivity rises very rapidly). At a later stage, with successful development, the real wage rises enough so that industries intensive in the use of unskilled labour reduce employment and the goods are partly or entirely imported or the industries substitute capital for labour.

If an economy is to grow, structural change is necessary. As already seen, the fraction in farming and other primary occupations will decline as the number of higher productivity off-farm jobs increases. Structural change can happen for many reasons. As incomes rise, people choose to spend a higher fraction of their budgets on goods other than food, clothing and housing. As incomes rise, consumption of meat and vegetables typically increases relative to that of grains, and previously unaffordable foodstuffs enter the consumption basket. Likewise, economic growth almost always entails different rates of productivity growth in different activities. Industries with very high rates of productivity growth either expand into the export market or reduce employment as the growth rate of demand (even at lower prices) is below that of supply.

For open economies, there is another source of structural change originating from the external sector. Demand from abroad can shift for a variety of reasons: there can be a shift in tastes, a new competitor or competitors may enter the market, and technical change abroad may increase the ability of foreign firms to compete in the domestic market. However, more open economies can take advantage of global trade to smooth out macroeconomic shifts, enabling smoother adjustment. On one hand, the rate at which unskilled labour-intensive industries will have to reduce their rate of expansion as the domestic market is satisfied is reduced. And on the other hand, the international market can offset shocks in the domestic economy. Hence, it is an open question whether a particular economy will experience more abrupt or sharp shifts calling for structural change than a closed economy. While more open economies are likely more susceptible to economic shocks originating from the global economy, they also have more opportunities to adjust to both international and domestic shocks.

High-income economies

Economies that are able to make continuous structural changes and sustain economic growth can advance to the third stage: high-income economy status. By the time that stage is reached, an economy has already achieved considerable flexibility. But as growth continues and the economy becomes more complex, it becomes more important that structural reforms are designed in a way that aligns private incentives with desired policy outcomes.

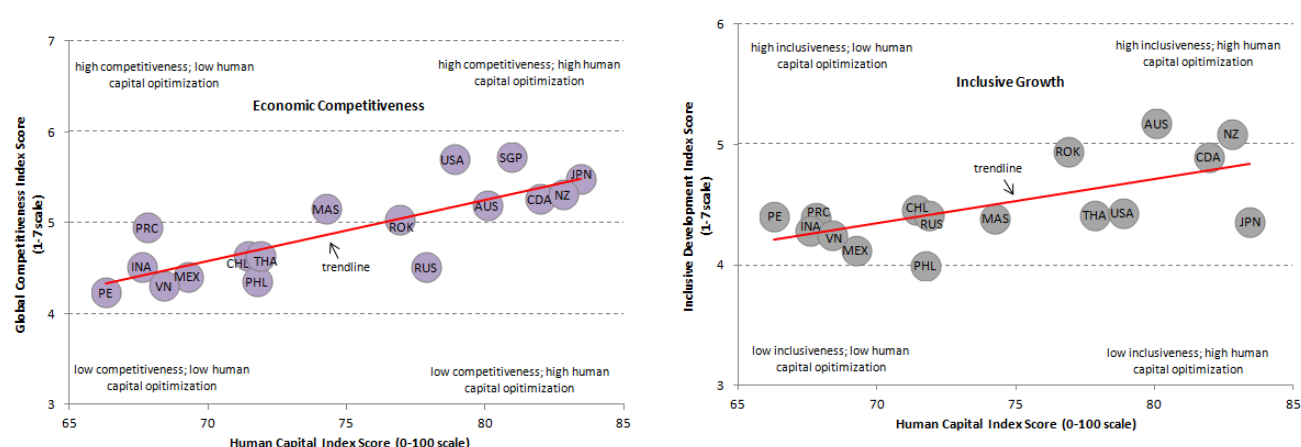
In most advanced economies, the labour force is already reasonably highly skilled, although skills tend to be more specialised. Access to basic education is practically universal, and advanced training in tertiary schooling and graduate studies is relatively accessible. There is also a relatively high capital-labour ratio, as cumulative savings and rising wages have enabled and induced substitution of human and physical capital for unskilled labour to a fair degree. In consequence, more reliance must be placed on innovation and technical change, as well as flexibility in responding to incentives, as growth proceeds.

As the supply of off-farm migrants diminishes, real wages can rise more rapidly, but the rate of change of composition of output is more rapid, and the degree to which migration can contribute to growth falls. As a result, the labour force needs to become more flexible. Moreover, required skills become more differentiated. Over time, the rate at which redundancies occur in some specialties increases. For an advanced economy, and to a lesser degree for middle-income economies, facilitating the mobility (including retraining for new skills where necessary) of workers from their former employment to new ones becomes increasingly important. Accelerating the speed with which workers can migrate and/or change skills becomes a greater source of growth; it also eases the social costs of growth and contributes to inclusion as longer spells of unemployment are avoided.

2. HUMAN CAPITAL DEVELOPMENT IN THE APEC REGION

There is a positive correlation between the human capital development and the competitiveness and inclusiveness of an economy (Figure 2.1). This indicates that skills development can contribute to ensuring long-term economic competitiveness as well as promoting inclusive growth. This section examines selected data on human capital development in the APEC region, highlights some achievements in this area and discusses some policy options and opportunities that can enable economies to increase human capital development through policies that improve productivity, participation, adaptability, and connectivity.

Figure 2.1. Human capital, competitiveness, and inclusive growth in APEC



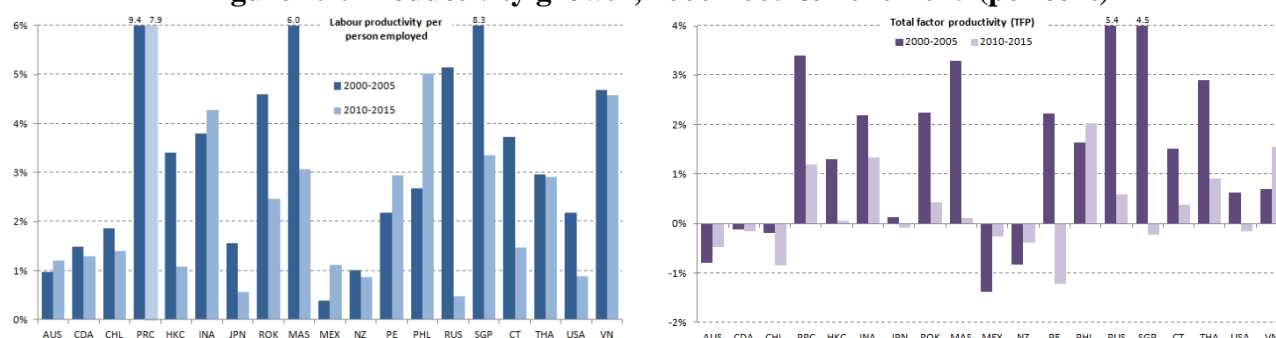
Note: Data for Brunei Darussalam; Hong Kong, China; Papua New Guinea; and Chinese Taipei is not available. Inclusive Development Index data for Singapore is not available.

Source: World Economic Forum's Human Capital Index 2016, Global Competitiveness Index 2016-2017, and Inclusive Development Index 2017.

LABOUR PRODUCTIVITY

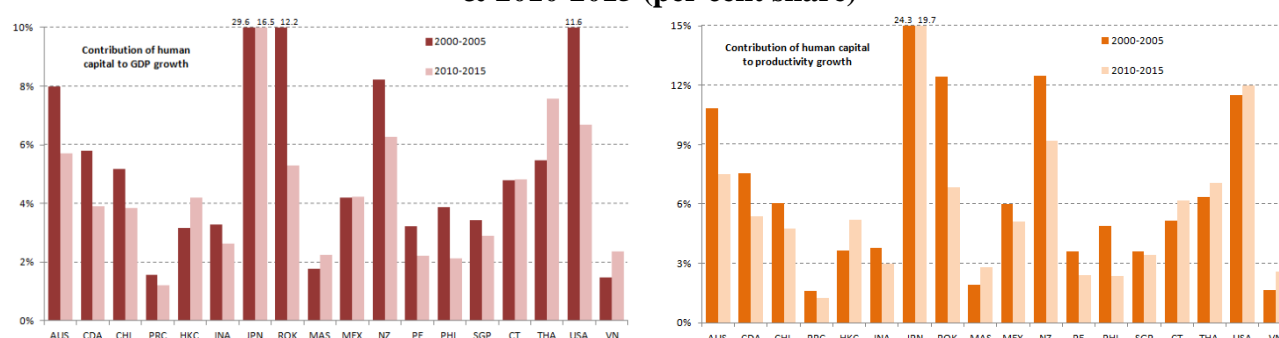
The recent decline in productivity growth has been a concern for many policymakers around the world. Apart from a few APEC economies, there has been a decline in the growth rate of labour productivity per person employed between 2000-2005 and 2010-2015, with some economies having experienced a substantial slowdown (Figure 2.2). Furthermore, with the exception of the Philippines and Viet Nam, all APEC economies experienced a slowdown in the growth of total factor productivity (TFP)¹⁷ between those two 5-year periods according to data from The Conference Board. The reasons for this are varied and depend on the specific economic circumstances in each APEC economy.

¹⁷ Total factor productivity, or multi-factor productivity, is the growth residual after accounting for the inputs to production (capital and labour). It represents how efficiently and intensely inputs are used in the production process and, under certain assumptions, can be thought of as technological progress.

Figure 2.2. Productivity growth, 2000-2005 & 2010-2015 (per cent)

Note: Growth rates shown are compounded annual growth rates based on data in 2015 US\$ (converted to 2015 price level with updated 2011 PPPs). Data for Brunei Darussalam and Papua New Guinea is not available.

Source: The Conference Board, [Total Economy Database](#) (Adjusted version), November 2016 and author calculations.

Figure 2.3. Contribution of human capital to GDP growth and productivity growth, 2000-2005 & 2010-2015 (per cent share)

Note: Percentages shown are the shares of labour quality to GDP growth and to productivity growth and are based on data in 2015 US\$ (converted to 2015 price level with updated 2011 PPPs). Data for Brunei Darussalam, Papua New Guinea and Russia is not available.

Source: The Conference Board, [Total Economy Database](#) (Adjusted version), November 2016 and author calculations.

Improvements in human capital typically contribute the smallest share to GDP growth relative to other factors of production, such as labour quantity and capital assets. For most APEC members, labour quality contributed 3 to 6 per cent of GDP growth between 2000 and 2005 (Figure 2.3). However, between 2010 and 2015, the share of GDP growth that was attributed to improvements in human capital fell in most APEC economies. Only in Hong Kong, China; Malaysia; Thailand; and Viet Nam did labour quality contribute a greater share of GDP growth between the two 5-year periods. The story is similar for the contribution of human capital to productivity growth. The share of productivity growth that was attributed to labour quality fell in most APEC economies between 2000-2005 and 2010-2015. This could imply that there is ample scope for investment in human capital to improve the quality of labour throughout the APEC region. Ensuring equitable access to a quality education and promoting vocational education and other forms of technical training is a promising starting point for better growth opportunities in APEC economies.

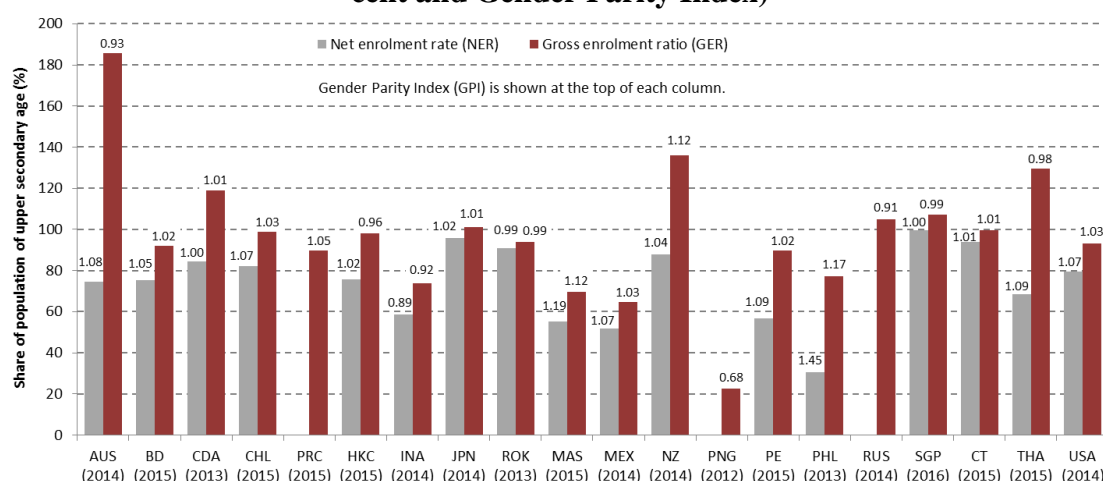
Ensuring equitable access to quality education

Ensuring access to a high-quality education will not only help economies to develop a skilled workforce, but will also allow APEC members to build more equitable and inclusive societies. For most APEC economies, access to primary and secondary schooling in APEC economies is

near-universal. Enrolment rates in upper secondary school are usually a good indicator of the ability of economies to educate young people and equip them with the basic skills needed to enter either tertiary education or the labour force.¹⁸ The net enrolment rate (NER) refers to the number of students in the age group corresponding to upper secondary education that are actually enrolled in that level, while the gross enrolment ratio (GER) shows the degree of participation (regardless of age) in upper secondary education¹⁹. Both are expressed as a percentage of the official school-age population corresponding to upper secondary education.

Most APEC economies have a high level of participation in upper secondary education as indicated by their gross enrolment ratios of at least 90 per cent (Figure 2.4). Many of the factors that contribute to the under-participation in upper secondary education in some economies are linked to other economic challenges, which can make it difficult to address this issue. For instance, in developing economies a substantial percentage of children often live in remote rural areas with limited infrastructure.

Figure 2.4. Enrolment in upper secondary education, latest available year (per cent and Gender Parity Index)



Note: Data for Singapore is for lower and upper secondary education. Data for Viet Nam is not available. Data for net enrolment rate for China, Papua New Guinea and Russia is not available. GPI is the ratio of female to male enrolment.

Source: UNESCO Institute for Statistics; Singapore's [online data portal](#); Chinese Taipei's Ministry of Education [online statistics](#).

In several APEC economies, there are also significant differences between the net enrolment rate and the gross enrolment ratio. This difference reveals the extent of under-aged and over-aged enrolment in upper secondary education and can indicate a large amount of early or late entrants as well as repeaters. GERs above 100 per cent point to delays, repetitions in the secondary school system or retraining at a later age—an indication that the quality of education may need to be improved. The OECD found that, in general, education systems with a high incidence of grade repetition may reinforce socioeconomic inequities.²⁰

¹⁸ Upper secondary corresponds to the final stage of secondary education where there are usually an increased range of subject options taught by more specialized teachers. Students entering this level are typically around 15 years of age.

¹⁹ The gross enrolment ratio can exceed 100 per cent due to the inclusion of under-aged and over-aged students at that level of education. In theory, a value of around 100 per cent indicates that an economy is able to provide an education to all of its school-age population.

²⁰ OECD (2011).

Figure 2.4 also shows the Gender Parity Index (GPI) for both the net enrolment rate and the gross enrolment ratio.²¹ With the exception of a few members, the APEC region has largely eliminated gender gaps in the provision of upper secondary education. In the World Economic Forum's most recent Global Gender Gap report, five APEC economies are ranked in first place globally, having achieved gender parity in educational attainment, while a further seven economies had a gap of 1 per cent or less.²² Note that in several economies the GPI is higher for the net enrolment rate than for the gross enrolment ratio, indicating that male students are more likely to be delayed, to repeat their secondary schooling or to return for further learning.

It is important that the education provided be of a high quality. Education quality refers to the content, pedagogy, processes, and environment of skills development; i.e., what happens in and around the classroom that contributes to a student's learning. While enrolment rates are an indicator of access, education outcomes like performance in aptitude tests are an indicator of quality. Although a minimum level of expenditure in education is essential, achieving high levels of student performance does not necessarily require higher levels of spending. Through its Programme for International Student Assessment (PISA), the OECD found that in high-income economies, once a minimum amount had been spent on education, how those resources are used is more important than how much is spent.²³ After a certain spending threshold had been reached, economies spending more on education had no discernible difference in the academic performance of their students than those economies spending less. Those with the most effective investments (i.e., those that attained the strongest performance respective of their spending) tended to spend more on teachers and prioritize teacher training over other factors such as class size.

Many APEC members exhibited a high level of academic performance on the latest iteration of PISA in 2015 (Figure 2.5).²⁴ Over half of the top ten economies in each category of science, reading, and mathematics were APEC members. In fact, Singapore had the highest score in all three categories out of the 72 participating economies. Viet Nam also showed a strong performance—ranking eighth overall in science—and outperformed many other economies that spend more on education.²⁵ The OECD Director for Education and Skills attributes Viet Nam's superior results to a focused curriculum, well-trained and accountable teachers, and committed policymakers.²⁶

²¹ A GPI equal to 1 indicates parity between females and males. In general, a value less than 1 indicates a disparity in favour of boys and a value greater than 1 indicates a disparity in favour of girls.

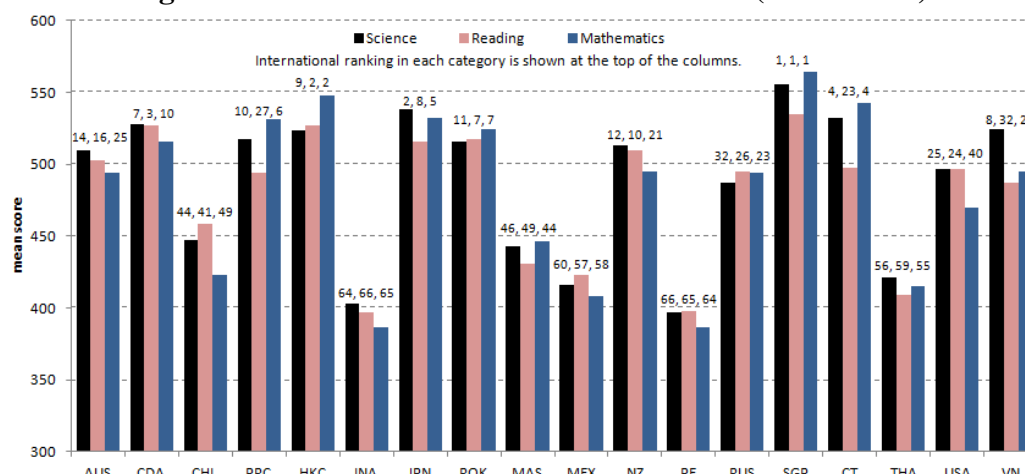
²² World Economic Forum (2016). The report covers 144 economies. The APEC members having achieved gender parity in educational attainment are Australia; Canada; the Philippines; Singapore; and the United States. Those with a gap of 1 per cent or less include Brunei Darussalam; Chile; Japan; Mexico; New Zealand; Russia; and Thailand.

²³ OECD (2012). High-income economies are considered to be those with more than USD 20,000 in GDP per capita and spending a cumulative amount of USD 35,000 to educate a student from the ages of 6 to 15.

²⁴ PISA is conducted every three years to assess the skills of 15-year-old students around the world. PISA 2015 focused on science, with reading, mathematics, and collaborative problem solving as areas of assessment.

²⁵ The PISA 2015 sample covered only 49 per cent of the total population of 15-year-olds in Viet Nam. In PISA 2012, Viet Nam had international rankings of 8 in science, 17 in mathematics, and 19 in reading. GDP per capita in Viet Nam was USD 2,111 in 2015 (Source: World Bank, [World Development Indicators](#)).

²⁶ Schleicher (2015).

Figure 2.5. APEC Performance in PISA 2015 (mean score)

Note: Data for Brunei Darussalam, Papua New Guinea and the Philippines is not available. China refers to the four participating provinces of Beijing, Shanghai, Jiangsu, and Guangdong.

Source: OECD PISA 2015 [online database](#).

High test scores are just one measure of academic performance and the quality of the education system in an economy. Different measures are required to develop and maintain a high-quality education system since educational challenges vary substantially among the APEC members. In economies where significant portions of the population lack basic skills, there may be a need to strengthen their teaching of core subjects such as literacy, numeracy, and science. On the other hand, APEC economies with high achievements in basic skills development may increase emphasis on teaching critical thinking skills and encouraging creativity. In general, well-trained and accountable teachers with the autonomy to teach relevant curricula using innovative methods that are specific to each classroom are considered to be a key component to achieving excellence in learning outcomes.

PISA 2015 also measured the impact of socioeconomic status on educational performance. Students from disadvantaged backgrounds tend to have a comparatively lower level of academic performance.²⁷ The OECD refers to “resilient students” as those in the bottom quarter of the PISA index of economic, social, and cultural status in the economy of assessment, that nevertheless perform in the top quarter of students from all economies, after accounting for socioeconomic status. Many APEC economies do well on this measure, with most having a higher share of resilient students than the OECD average of 29 per cent (Figure 2.6). Most notable in PISA 2015 is that 76 per cent of students in Viet Nam are considered to be resilient. The number of resilient students in the United States increased by 12 percentage points between PISA 2006 and 2015.

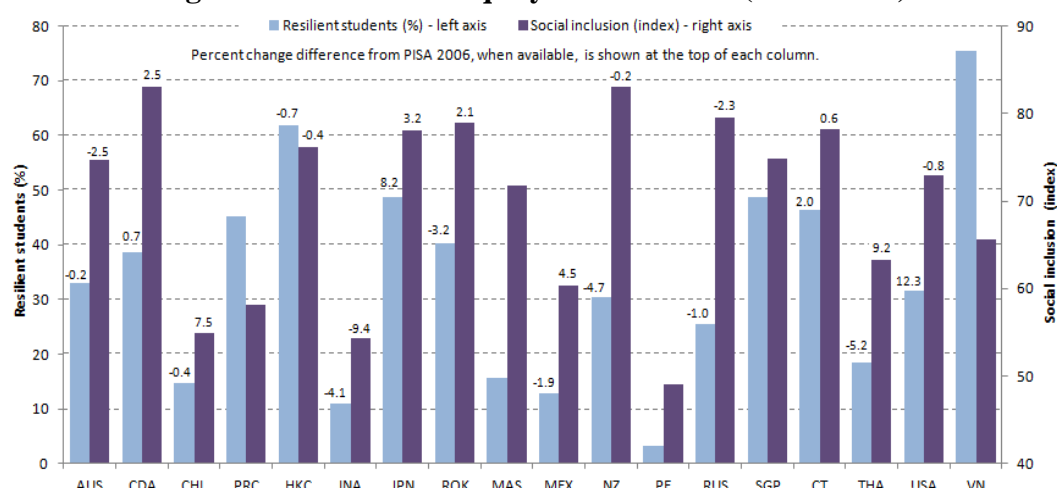
Students from disadvantaged socioeconomic backgrounds, especially those with poor academic performance, are most at risk of dropping out of secondary education. Evidence shows that students in lower wealth quintiles are less likely to complete upper secondary school than those in higher wealth quintiles.²⁸ Although data are limited for the APEC region, there is a disparity between the upper secondary completion rates of the poorest quintile and the richest

²⁷ OECD (2016b).

²⁸ Based on data from [World Inequality Database on Education \(WIDE\)](#), accessed 1 June 2017.

quintile in all APEC economies for which there are data, with some economies having wide income-based gaps in attainment levels.²⁹

Figure 2.6. Education equity across APEC (PISA 2015)



Note: Data for Brunei Darussalam, Papua New Guinea and the Philippines is not available. China refers to the four participating provinces of Beijing, Shanghai, Jiangsu, and Guangdong.

Source: OECD (2016b) [online tables](#).

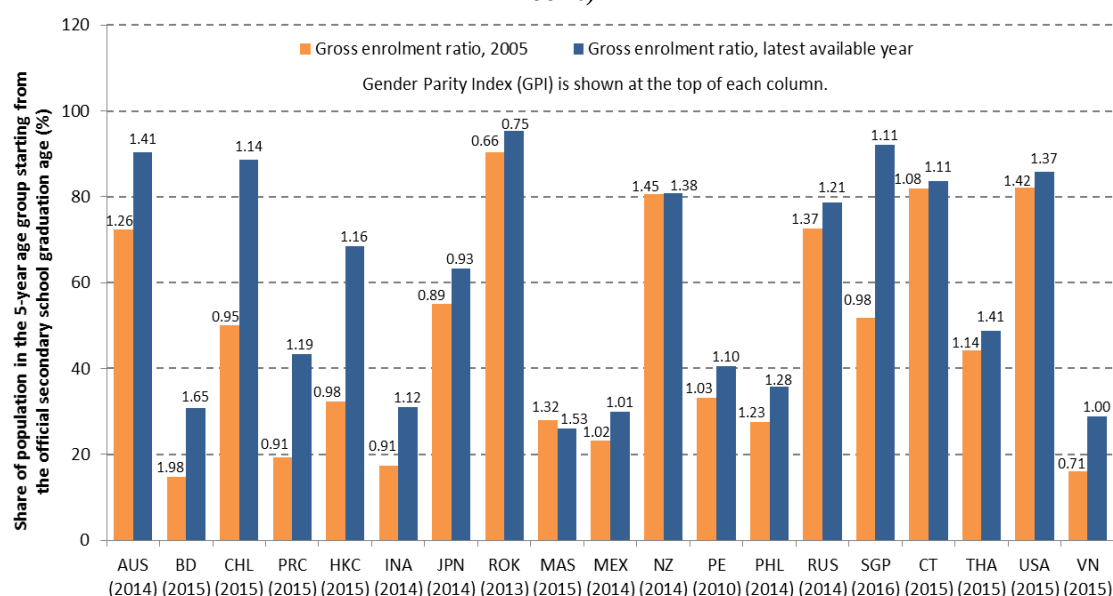
The OECD's index of social inclusion also measures the variation in socioeconomic status between schools. For example, PISA 2015 found a high level of socioeconomic diversity within schools in Canada and New Zealand: 83 per cent of the variation in the PISA index of economic, social, and cultural status was observed within schools, while the remaining 17 per cent of variation was found between schools. Conversely, 49 per cent of the socioeconomic variation in Peru was found within schools, while 51 per cent was observed between schools, indicating that, on average, there tends to be less socioeconomic diversity among students attending the same school than there is between students attending different schools. The OECD found evidence that, on average, students attending socioeconomically disadvantaged schools have lower performance outcomes than those attending more advantaged schools.

Turning to tertiary education, participation rates for youth are currently quite high in APEC economies, with many having enrolment ratios above 70 per cent (Figure 2.7).³⁰ Over the past decade, many APEC economies have made great strides in increasing participation in tertiary education, including Brunei Darussalam; Chile; China; Hong Kong, China; Indonesia; and Viet Nam. Many of these economies also previously had gender gaps with respect to female participation in tertiary education. In most APEC economies, there are currently more women than men attending a tertiary educational institution, with the notable exceptions of Japan and Korea. Furthermore, there are often large gender disparities in degree courses, with female students typically dominating teaching and nursing studies, while being underrepresented in engineering and technology courses.³¹

²⁹ APEC members with the widest disparities in upper secondary completion rates tend to also have low coverage rates of upper secondary education.

³⁰ Tertiary education builds on secondary education and provides specialised fields of instruction. It includes both undergraduate and postgraduate degree courses. The gross enrolment ratio in tertiary education is expressed as a per centage of the population in the 5-year age group starting from the official secondary school graduation age.

³¹ For further discussion, see Vincent-Lancrin (2008).

Figure 2.7. Enrolment in tertiary education, 2005 & latest available year (per cent)

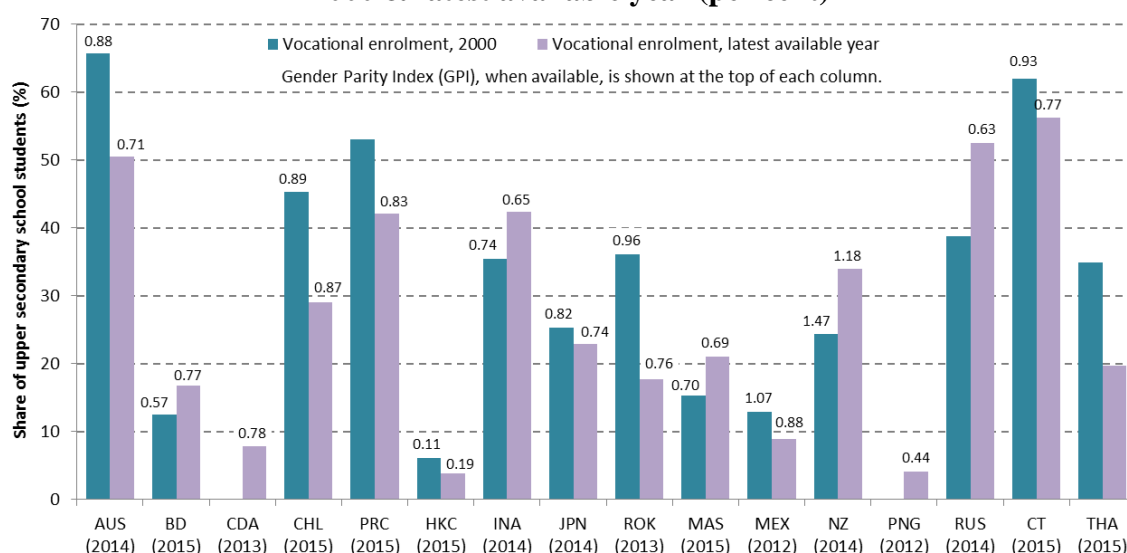
Note: Data for Canada and Papua New Guinea are not available. Gross enrolment ratio, 2005 uses data for 2006 for Indonesia. GPI is the ratio of female to male enrolment.

Source: UNESCO [Institute for Statistics](#); Singapore's [online data portal](#); Chinese Taipei's Ministry of Education [online statistics](#).

Promoting technical and vocational education and training (TVET)

Technical and vocational education and training (TVET) enables students who cannot attend tertiary education to enter the labour market directly with relevant trade or occupational qualifications. There are six APEC economies where over one-third of upper secondary school students are enrolled in vocational education (Figure 2.8). The long-term trend is mixed across the APEC region, but in many economies, enrolment in vocational education has been declining over the past 15 years. In contrast, in Switzerland—which is considered to have one of the best vocational education systems—around 65 per cent of upper secondary school students have been enrolled in vocational education each year since 2000 (OECD 2017a).

Figure 2.8. Enrolment in vocational education among upper secondary students, 2000 & latest available year (per cent)



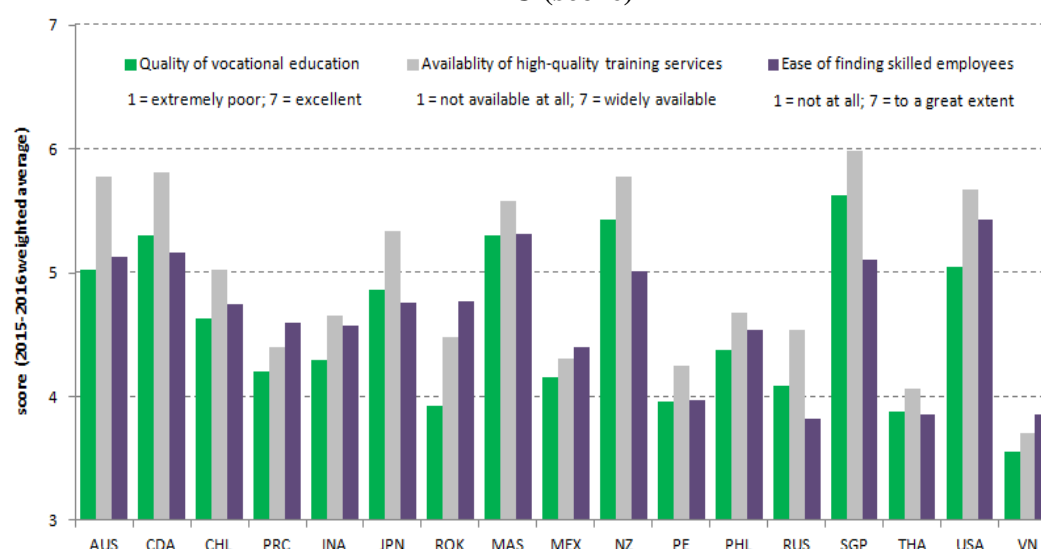
Note: Data for Peru; the Philippines; Singapore; the United States; and Viet Nam is not available. Vocational enrolment, 2000 data for Canada and Papua New Guinea is not available. Vocational enrolment, 2000 uses data for 1999 for Russia; 2001 for Hong Kong, China and Thailand; and 2002 for New Zealand. GPI is the ratio of female to male enrolment.
Source: UNESCO [Institute for Statistics](#); Chinese Taipei's Ministry of Education [online statistics](#); and author calculations.

With the exception of New Zealand, all APEC economies have substantially more male than female students studying in vocational education. A few members have improved upon this disparity over the past 15 years, most notably Brunei Darussalam, but for most other economies, the gender gap in vocational education has been increasing over time. The reasons for this vary, but may include the fact that courses traditionally taken by women, such as nursing, now often require a college degree in many economies—a reason sometimes also stated for the large increase in female participation in tertiary education.

According to the World Economic Forum's Executive Opinion Survey, the quality of vocational education and the availability of high-quality training services is somewhat low across the APEC region (Figure 2.9). Underinvestment in TVET can lead to a shortage of types of skilled labour—a situation currently occurring in many economies around the world. This is found to be true in an annual survey conducted by the staffing firm Manpower which found that 40 per cent of employers worldwide reported having difficulty filling vacant positions in 2016, with the most acute shortages in trades such as electricians and mechanics followed by IT staff such as developers and programmers.³² Three APEC members were in the top five economies reporting skills shortages: Hong Kong, China (69 per cent); Japan (86 per cent); and Chinese Taipei (73 per cent). Other APEC economies above the global average included New Zealand; Peru; Singapore; and the United States.

³² Manpower [2016/2017 Talent Shortage Survey](#).

Figure 2.9. Executive opinions on vocational education and training services in APEC (score)



Note: Scores are a weighted average based on the responses from the 2015 and 2016 Executive Opinion Survey conducted by the World Economic Forum. Data for Brunei Darussalam, Hong Kong, China, Papua New Guinea and Chinese Taipei is not available.

Source: World Economic Forum, The Inclusive Growth and Development Report 2017 [online database](#).

Investment in TVET that develops skills needed by the labour market will not only allow economies to further develop a qualified and skilled workforce, it can also provide a way for APEC members to connect disadvantaged groups in their economy with productive employment opportunities and help workers prepare for new fields of employment. Those from disadvantaged socioeconomic backgrounds and other underprivileged communities can be provided support in order to develop the necessary technical skills and qualifications that businesses require. For developing APEC economies, improved access to TVET can upgrade the skills of workers, including those in the informal sector. For developed APEC economies, vocational education can be used to help retrain workers at risk of being displaced by structural changes, those wanting to upgrade their skills to get better jobs, and older workers trying to remain in or re-enter the workforce. It is important to improve the reputation of TVET—it should be viewed as a viable career path for all people regardless of their socioeconomic background. In addition, an emphasis on lifelong learning, including through on-the-job training and apprenticeships, will improve skills development in the region. Furthermore, an interdisciplinary approach to education and training will help enable students and workers to accumulate multiple forms of human capital. This will enable workers to transition from diminishing occupations to growing sectors much quicker without spending considerable periods retraining.

TVET development requires a high degree of engagement between government and industry to ensure that skills taught are relevant to the needs of employers. Dialogue and coordination between government and the private sector, such as through advisory councils, can enable training and curricula to be designed so that students can develop the necessary skills that are required by businesses, thereby helping to reduce any skills gap in the economy. The advisory councils can help identify growing skills demands, including those that will be needed in the future, so that TVET programmes may be proactively adjusted. Business input is also important to develop national standards for assessments of skills acquisition and technical competencies and for industry qualifications, and to align these national standards with international standards whenever possible.

There are various models for public-private cooperation in TVET, such as the part-time approach that was recently adopted in Korea and Thailand which combines time spent in an educational institute or training centre with time spent in the workplace.³³ In other models, the approach is less formal with varying degrees of responsibility between educators and employers in providing initial vocational training. The informal system is more common in APEC economies. Some TVET programmes are more educator-based (such as in Singapore and the United States), while others are more employer-based (such as in Chile and Japan). In some economies (such as in China and Mexico), there is a mix between the two.³⁴ Regardless of which system is used, an effective TVET programme needs the following features: (1) strong employer engagement with regular communication between employers and TVET providers; (2) standards for assessment that are effective and understood; and (3) a qualification system that is well-established and recognized.

The private sector can also take on a greater role in building human capital by offering training, including management training programmes, and continuing education opportunities for their employees. In fact, the aforementioned survey conducted by Manpower found that over 50 per cent of employers offered training and development to existing staff in order to fill open positions in 2016—an increase from the previous year when only 20 per cent of employers reported to having done so.

LABOUR FORCE PARTICIPATION AND INCLUSION

Enabling greater participation in the labour force is an important factor in the effective utilisation of human capital and achieving inclusive growth. APEC members can raise labour force participation in their economy by reducing gender-based barriers, addressing the challenge of youth unemployment, encouraging mature-aged workers to delay retirement, supporting people with disability and reducing barriers to entrepreneurship. Bringing workers in the informal sector and other types of vulnerable employment into the formal sector will also allow members to reduce social exclusion as well as income inequality. By increasing participation in the labour force, APEC members can unlock the latent growth potential in their economy.

Promoting female labour participation

Constraints relating to maternity leave and child care, as well as the additional demands on their time, limit the ability of women to engage in full-time employment. Moreover, a gender-based disparity in childcare expectations, which is reflected institutionally through disparities in maternal and paternal leaves and benefits, puts women at a disadvantage in the labour market.

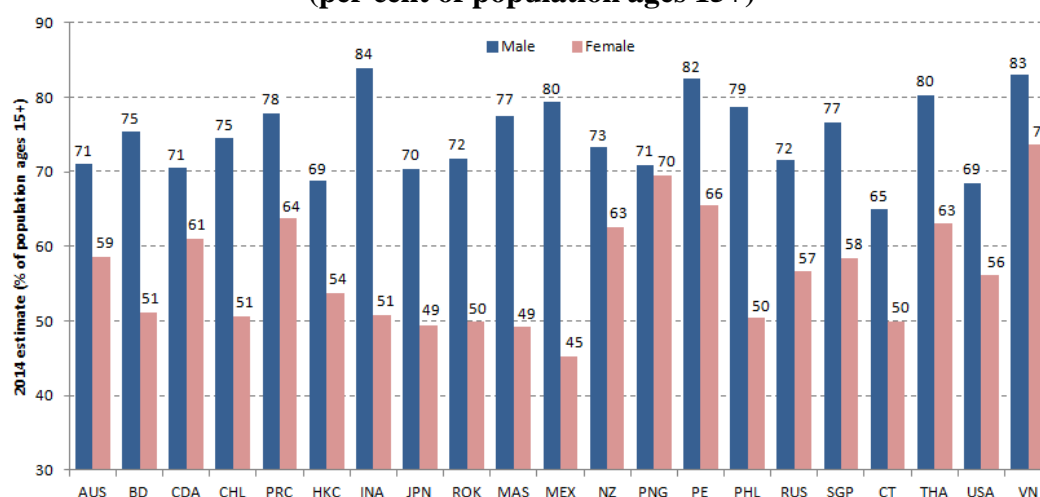
Despite often having higher levels of enrolment in tertiary education, female participation in the labour force lags behind that of males in all APEC economies (Figure 2.10). As a share of the working-age population over 15 years old, female participation is highest in Viet Nam at

³³ The dual system approach is most common in Germany, Austria, and Switzerland and relies heavily on the use of apprenticeships.

³⁴ For further discussion, see Australian National Centre for Vocational Education Research (2002) and Hawley (2007).

74 per cent, while Papua New Guinea has the smallest disparity between male and female rates of participation. Conversely, the gap is particularly large in several APEC economies where the female participation rate is less than 70 per cent of the rate for men. Although participation rates can fluctuate over time, Chile has made much progress in increasing female participation with the rate rising by 13 percentage points between 2004 and 2014, while the rate for males also rose by 1.5 percentage points.

**Figure 2.10. Labour force participation rate, 2014
(per cent of population ages 15+)**



Note: Data is ILO modelled estimates to allow for greater comparability between economies. Labour force is defined as the proportion of the population above 15 years old that are either employed or are not employed and looking for work.

Source: ILO, Key Indicators of the Labour Market (KILM) 2015 (Ninth Edition) [online database](#).

There is a clear economic benefit to increasing female participation in the labour force. One study found that if economies were to reduce the employment disparities between men and women to that of the best performer in their region, then global GDP growth could increase by an additional 1.0 percentage point per year, adding up to USD 12 trillion to global GDP in 2025.³⁵ However, women typically spend a far greater amount of time per day on household and child care responsibilities than do men. A recent analysis of time use surveys revealed that, on average among the 26 OECD members, women spend more than four and a half hours per day on unpaid work such as housework and child care compared with just over two hours per day for men.³⁶ While gender-based household allocation of labour can have complicated socio-cultural roots, a lack of good quality and affordable child care support can be an important barrier to increasing participation of women in the workforce.

The nature of child care services and the extent of availability vary across APEC economies. For instance, in some APEC economies, informal child care arrangements—often through extended family and usually unpaid in which case care givers are not counted as employed—are more prevalent than formal child care arrangements. Formal child care facilities include nurseries, pre-schools, and before- and after-school programmes. Such facilities tend to care for several children at a time and are often required to be licensed and therefore must adhere to specific rules and regulations to ensure standards of care. However, some child care arrangements are not required to be licensed, including if the care is provided in-own-home

³⁵ McKinsey Global Institute (2015). Gender disparities examined include participation, hours worked, and the sector mix of employment.

³⁶ Based on data from OECD [Gender Data Portal \(Employment Indicators\)](#).

through nannies, which is relatively common in some APEC economies. Ultimately, a shortage of dependable and high-quality child care facilities and services can constrain female labour force participation.

Most APEC members either subsidise or provide some measure of public support for child care facilities, with several offering tax deductions for child care payments (Table 2.1). However, despite such financial incentives, the cost of child care can still be quite high in some APEC economies.³⁷

Table 2.1. Snapshot of child care incentives across APEC

	Child care is subsidized or publicly provided	Child care payments are tax deductible
Australia	yes	no
Brunei Darussalam	no	no
Canada	yes	yes
Chile	yes	no
China	yes	no
Hong Kong, China	yes	no
Indonesia	no	no
Japan	yes	no
Korea	yes	yes
Malaysia	yes	no
Mexico	yes	yes
New Zealand	yes	yes
Papua New Guinea	no	no
Peru	yes	no
The Philippines	yes	no
Russia	yes	no
Singapore	yes	no
Chinese Taipei	yes	no
Thailand	yes	no
United States	yes	yes
Viet Nam	yes	no

Source: World Bank (2015).

A lack of maternity benefits can be another hindrance to the ability of women to enter and remain in the workforce. Table 2.2 provides a snapshot of the maternity benefit programmes that are anchored in legislation across the APEC region. With the exceptions of Papua New Guinea and the United States,³⁸ all APEC economies mandate some amount of paid maternity leave at the national or federal level. Many economies have mandated paternity leave, which is typically around five days and often funded by the employer. Some economies also offer parental leave schemes, which usually lengthen the amount of unpaid leave parents can take.

³⁷ For instance, OECD (2016c) found that a sole parent in the United States with full-time earnings at 67 per cent of the average wage and with a child in full-time care at a typical child care centre spends over 50 per cent of net income on child care costs after accounting for tax and other financial benefits. In comparison, a dual-earner household with full-time earnings at 167 per cent of the average wage spends around 25 per cent.

³⁸ California, New Jersey, and Rhode Island have state-level mandated paid maternity leave.

Many APEC economies with publicly provided benefits also allow for additional employer-provided benefits. Programmes in which benefits are paid by governments are often funded through employment insurance rather than through general taxation. Not all working women are covered by maternity benefit programmes if they have not yet met the eligibility requirements. Furthermore, many women that are engaged in part-time employment or employed in the informal sector are also typically outside the scope of maternity benefit schemes.

Table 2.2. Snapshot of legislated maternity benefit programmes across APEC

Economy	Length of paid leave (days)	Wages paid during leave	Provider of benefits	Length of unpaid leave (days)	Notes
Australia	126	national minimum wage	government	239	
Brunei Darussalam	91	100%	employer	14	
Canada	105	34%	government	14	there is also a parental benefit programme
Chile	126	100%	government	0	there are also paternity & parental benefit programmes
China	128	100%	employer & government	0	there is also a paternity benefit programme
Hong Kong, China	70	80%	employer	0	there is also a paternity benefit programme
Indonesia	90	100%	employer	0	there is also a paternity benefit programme
Japan	98	67%	government	0	there is also a parental benefit programme
Korea	90	100%	employer & government	0	there is also a paternity benefit programme
Malaysia	60	100%	employer	0	
Mexico	84	100%	government	0	there is also a paternity benefit programme
New Zealand	112	47%	government	0	there are also paternity & parental benefit programmes
Papua New Guinea	0	N/A	N/A	42	
Peru	90	100%	government	0	there is also a paternity benefit programme
The Philippines	60	100%	government	0	there is also a paternity benefit programme
Russia	140	100%	government	0	there is also a parental benefit programme
Singapore	105	100%	government	0	there are also paternity & parental benefit programmes
Chinese Taipei	56	100%	employer	0	there are also paternity & parental benefit programmes
Thailand	90	100%	employer & government	0	
United States	0	N/A	N/A	84	
Viet Nam	180	100%	government	0	

Note: This table refers to legislated maternity benefit programmes at the economy level. Legislated maternity benefits at the sub-economy level (e.g., states, provinces, cities, municipalities) are not included.

Source: World Bank (2015).

Women are more likely than men to be employed in part-time jobs, which typically have less job security and fewer benefits and training and promotion opportunities. Part-time employment is also usually associated with lower income—this difference in the type of employment is one of the causes leading to the income gap between men and women that is prevalent around much of the world: differences in occupation, sector, industry, as well as employment type contribute significantly to the global gender wage gap. The United Nations estimates that in most economies women earn, on average, 60 per cent to 75 per cent of the wage earned by men.³⁹ Although many APEC economies have made progress in reducing income disparities between men and women over the past 15 years, the gender wage gap remains high in several economies, particularly in Japan and Korea.⁴⁰

Addressing youth unemployment

Youth unemployment is a major concern throughout the world, including for APEC economies. High rates of unemployment among young people have a negative impact on economic growth in both the short- and long-term. Limited skills formation among young people leads to the deterioration or the failure to augment their human capital and decreased productivity.

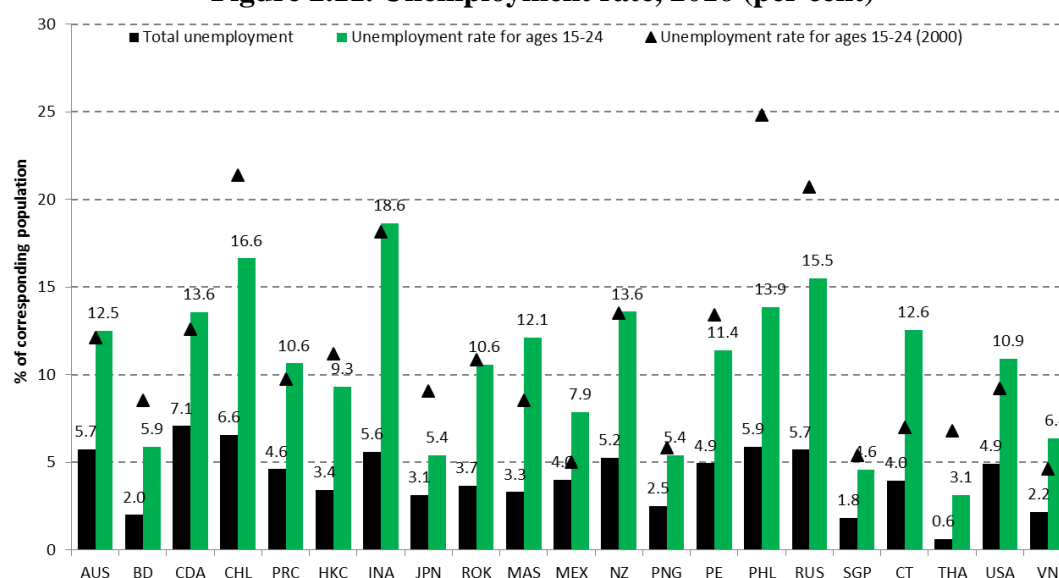
³⁹ UN Women, Facts and Figures: Economic Empowerment.

⁴⁰ Based on data from OECD [Gender Data Portal \(Employment Indicators\)](#). In 2014, the gender wage gap of full-time employees and self-employed workers (i.e., the difference between median earnings of men and women as a per centage of the male median wage) was 25.9 per cent and 36.7 per cent in Japan and Korea, respectively.

Furthermore, youth are negatively impacted by long periods of unemployment near the beginning of their careers—several studies have found this to be associated with lower lifetime earnings and more frequent periods of unemployment throughout their career.⁴¹ These long-term consequences, referred to as “scarring effects”, persist the longer the period of unemployment in early adulthood. Research has found that the wage disparities between those graduates who found employment early and those that had longer periods of unemployment were as high as 15 per cent even 20 years later.⁴²

In 2016, there were an estimated 22.6 million youths aged 15-24 years old unemployed across the APEC region. In every APEC economy, the unemployment rate is higher for those aged 15-24 than the total unemployment rate (Figure 2.11). Although in most APEC economies the total unemployment rate is lower than the global average of 5.7 per cent, many members have youth unemployment rates that are far higher than the global average of 12.8 per cent. Over the past 15 years, the Philippines has made significant progress in reducing youth unemployment with the rate declining by nearly 10 percentage points since 2000 although it still remains quite high.

Figure 2.11. Unemployment rate, 2016 (per cent)



Note: Data is ILO modelled estimates to allow for greater comparability between economies.

Source: ILO, Key Indicators of the Labour Market (KILM) [online database](#) (September 2017 Update).

Underemployment is another important issue for young people. Many recent graduates find themselves in part-time employment when they would prefer full-time work or—in the case of those that have completed tertiary education—in a role that does not require a college degree. Evidence from the United States suggests that around 45 per cent of recent university graduates—compared with about 33 per cent of all university graduates—are employed in jobs that do not require a college degree.⁴³ As a result, even young graduates who are in full-time

⁴¹ See, for example, Arulampalam, et al. (2001); Gregg (2001); and Kahn (2010).

⁴² Gregg and Tominey (2004). The wage disparity was reduced to around 8 per cent to 10 per cent if there had been fewer periods of unemployment throughout the individual's career. See also Bell and Blanchflower (2011a) who found significant wage effects even at age 50 from unemployment in early adulthood, with the effect stronger than that from more recent unemployment experiences.

⁴³ Abel et al. (2014). Data is from 2012. Although the number of recent graduates employed in jobs that do not require a college degree has historically been higher than that of all university graduates, the researchers found that there has been an upward trend since the 2001 recession.

employment may find themselves in low-skill and low-paying jobs with little opportunity for development or advancement. Compounding the problem is the fact that many of these unemployed or underemployed young people may also have substantial student loan debt. Those without university degrees or other qualifications face even more formidable challenges, further underscoring the need for greater investment in technical education and skills development.

Although there has always been a transition period between school and work, the problem of youth unemployment appears to have become more acute following the 2008 Global Financial Crisis (GFC). Research indicates that the GFC has had a disproportionately larger impact on young people, including more rapid increases in unemployment among the young relative to older workers in many economies.⁴⁴ Evidence from the United States also indicates that a greater number of young people are spending longer amounts of time unemployed.⁴⁵ Moreover, much of the research on youth unemployment indicates that the likelihood of such unemployment—as well as the magnitude of its long-term detrimental impacts—is greater for those from socioeconomically disadvantaged backgrounds.

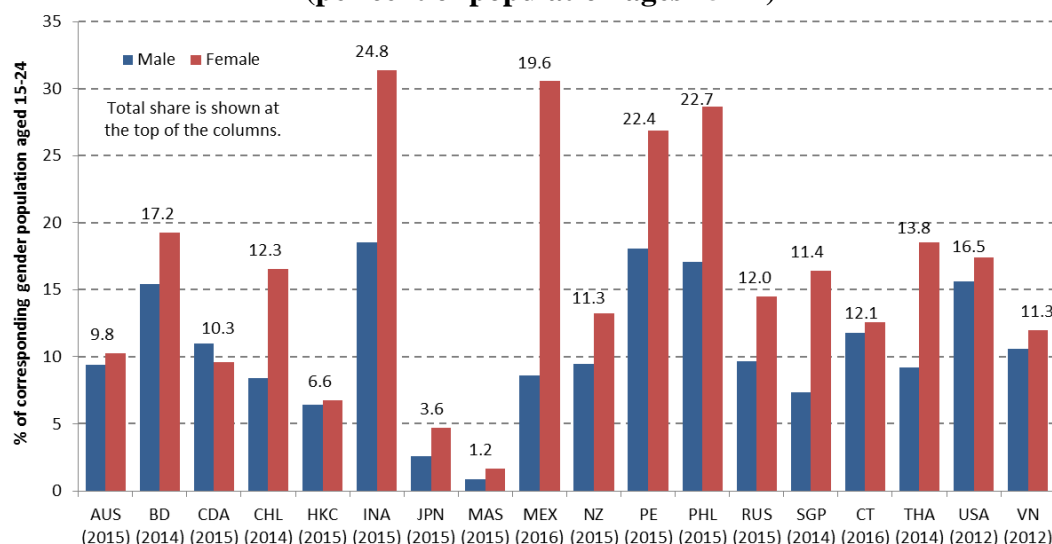
There continue to be persistently large numbers of young people, many of whom are women, who are not in education, employment, or training (NEET) in many APEC economies (Figure 2.12). Total shares of those aged between 15 and 24 that are considered to be NEET are often greater than 10 per cent across the region (for comparison, the NEET rate in OECD was 15 per cent in 2015). In some economies where the NEET rate is higher than the youth unemployment rate, it can indicate the level of discouragement among young people (i.e., those no longer even looking for formal employment).⁴⁶ Having large numbers of unemployed and unproductive young people severely limits the future growth potential of an economy. Adding to the challenge is the fact that many NEET are most likely from socioeconomically disadvantaged backgrounds. Tackling this issue will not only promote economic growth, but also prevent increasing or even reduce levels of social inequities and exclusion.

⁴⁴ Bell and Blanchflower (2011b).

⁴⁵ Jacobs and Bleiberg (2013). The researchers found that long-term unemployment rates (defined as workers looking for a job for between six months and one year) for young people in the United States peaked to historic levels during the Great Recession and remained at record high rates despite improvements in long-term unemployment for older workers.

⁴⁶ NEET rates, which include both unemployed youth as well as youth outside the labour force, are tied to youth labour force participation rates and unemployment rates. In general, a high NEET rate and a low youth unemployment rate would indicate that many young people have become too discouraged to even look for work. In their definitions of NEET, some economies also include young women who are housewives, who may not actually be looking for employment or are discouraged from doing so. This would, however, indicate the gender gap in labour participation in an economy since those economies with a high NEET rate for women would most likely also have a low rate of female labour force participation.

**Figure 2.12. Youth not in education, employment, or training, latest available year
(per cent of population ages 15-24)**



Note: Data is actual values from labour force surveys or other household surveys and therefore may not be comparable across economies since collection methods, including operational definitions and statistical coverage, are most likely different. Data for China, Korea, and Papua New Guinea is not available.

Source: ILO, Key Indicators of the Labour Market (KILM) 2015 (Ninth Edition) [online database](#); Chinese Taipei's Directorate-General for Budget, Accounting and Statistics.

There are several policy measures through which APEC members can address youth unemployment. These include labour market reforms and active labour market policies, which will be discussed later, as well as encouraging firms to hire and train young people. Strong employer involvement in TVET will also allow young people to develop the required technical skills, thereby improving their employability. Greater alignment between educational curricula and the skills demanded by industry is desirable for effective school-to-work transitions—whether from secondary school, TVET, or tertiary education—to help reduce long periods of unemployment and underemployment among young people. Research has shown that university degrees in certain subjects are associated with higher rates of unemployment or underemployment.⁴⁷ Therefore, it is important that better information on matching jobs and degree coursework is made available to students.

Challenges faced by elderly workers

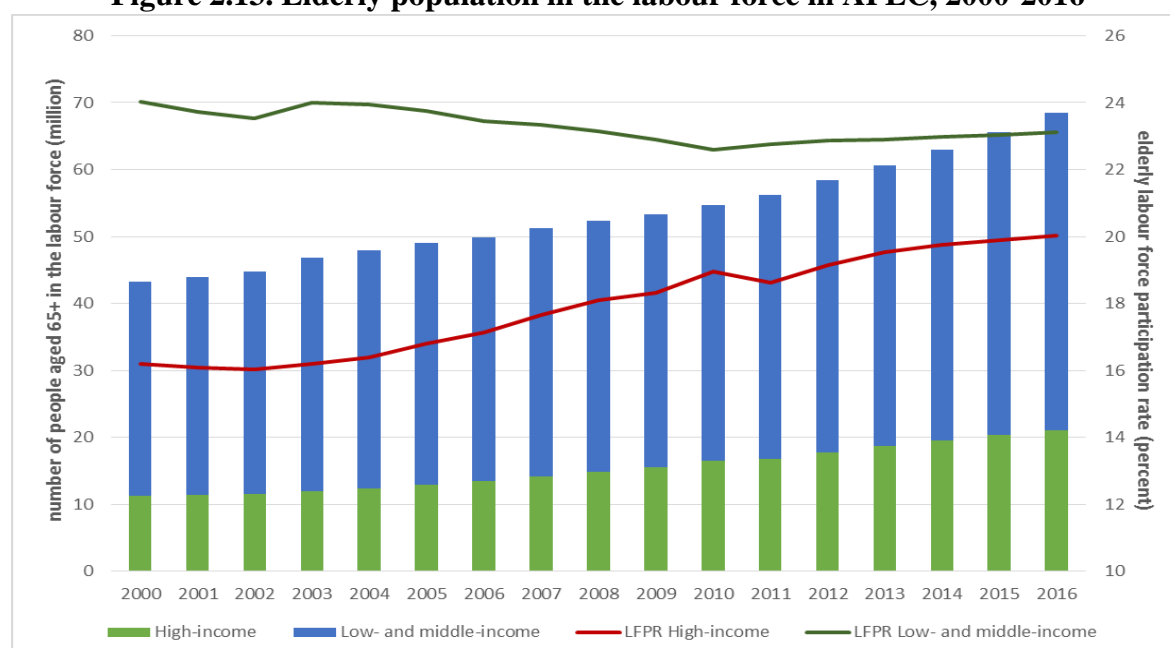
In 2016, there were 68.5 million people over the age of 65 that were in the labour force in the APEC region (i.e., either employed or not employed and looking for work); in 2000 that number was 43.2 million (Figure 2.13). Not only are there more elderly people in the region, but more of them are foregoing retirement and staying in the labour force beyond their 65th birthday. While the elderly population grew at an annual rate of 2.7 per cent between 2000 and 2016, the number of elderly in the labour force grew at 2.9 per cent.

The elderly labour force participation rate in high-income economies increased from 16.2 per cent in 2000 to 20.0 per cent in 2016. On the other hand, the elderly labour force participation rate in low- and middle-income economies decreased from 24.0 per cent in 1990 to 23.1 per

⁴⁷ Abel et al. (2014).

cent in 2013. Low- and middle-income APEC economies account for 69 per cent of the economically active elderly population in the region in 2016 (down from 74.0 per cent in 2000).

Figure 2.13. Elderly population in the labour force in APEC, 2000-2016



Note: Based on IMF classification, high-income APEC economies are Australia; Brunei Darussalam; Canada; Hong Kong, China; Japan; Korea; New Zealand; Singapore; Chinese Taipei; and the United States. Low- and middle-income economies are other APEC economies not classified as high-income.

Source: ILO Key Indicators for the Labour Market.

The increase in labour force participation among the elderly is rapid in high-income APEC economies. Between 2000 and 2016, the elderly population in high-income economies grew by 2.6 per cent per year; in comparison, the economically active elderly population grew at an annual rate of 4.0 per cent, indicating that not only are there more elderly people but more of them are entering the labour market. This reflects the challenges of demographic transition and an ageing population in high-income economies. In comparison, the elderly population in low- and middle-income economies grew by 2.7 per cent per year while the economically active elderly population grew at an annual rate of 2.5 per cent. Increasing affluence and improved pension systems may be reducing the need of elderly people in low- and middle-income economies to continue working beyond 65 years old.

Elderly workers face a set of challenges that are different from workers in other age groups. First, elderly workers may need retraining. In most cases, their most recent schooling and training was completed decades ago, which means they may face challenges adapting to technological changes or new ways of doing work. However, opportunities for reskilling and retraining may be unaffordable or pedagogically out of reach (e.g., if they are designed for younger trainees with more updated skill sets).

Second, physical and cognitive challenges of ageing mean that elderly workers are more susceptible to illnesses and injuries (Silverstein 2008). While elderly workers may have the willingness and capability to work, their physical challenges can mean the need for more flexible working arrangements and age-friendly workplace environments. For example, work areas, informational signs, and equipment that are adequate for younger workers may be inaccessible for older workers.

Third, elderly workers face a certain amount of prejudice from employers and co-workers. Attitudes of ageism among employers and younger workers can lead to discrimination and barriers to employment among elderly workers.⁴⁸ A study in New Zealand found that even older workers (i.e., above 55 years old) can harbour negative stereotypes about elderly workers (McGregor and Grey 2002).

To address these challenges, some economies encourage additional training and/or retraining, which is increasingly important as there is slower growth of the number of people of working age and in some cases, a decline in numbers. Meanwhile, some economies are incentivizing firms to hire older workers and improve their workplace conditions. Box 2.1 presents some case studies on improving employment opportunities for elderly workers in APEC, while Box 3.1 discusses policy issues relating to social protection for elderly workers.

Box. 2.1. Improving employment opportunities for elderly workers

APEC economies identify challenges related to an ageing population in their Individual Economy Reports (IERs). In this box, we examine the experiences of selected economies.

Lifelong learning in Hong Kong, China

Hong Kong, China has made provisions to encourage workers to upgrade their skills and training by establishing a Continuing Education Fund. The Fund subsidises continuing studies for those aged 15 to 64. The Fund approves individual applicants' proposed training programs. When a program is completed, the student receives reimbursement for 80 per cent of the fees paid for the training program, up to a maximum of HKD 10,000. As of May 2017, 756,000 Hong Kong, China residents had opened accounts and reimbursements for 583,000 employees had already been approved.

Hong Kong, China also established an Employee Retraining Board (ERB), which provides training and support services for about 90 training institutions. Those 15 and older who are educated to the sub-degree level are eligible to apply and can enrol full-time or part-time. Full-time courses are placement-tied. Part-time courses offer generic skills training. By May 2017, there were about 700 courses relevant to 28 industries. It was expected that there would be 130,000 places offered in 2017-18.

To help achieve their target goals for women, a Modular Certificate Accumulation Scheme was inaugurated, so that those unable to pursue courses full-time could nonetheless receive training and documentation of their qualifications. Under that program, courses can be taken part-time with flexibility in scheduling. In addition, the authorities collaborated with some private employers in a pilot program to run a "First-Hire-Then-Train" program for middle-aged women to obtain jobs in elderly homes and resort hotels. In this program, on the job training is on flexible hours.

There are also industry-specific and subject-specific training courses on a number of subjects open to youth and already-employed workers. There were to be 173,000 places in these courses in 2017-18.

⁴⁸ See, for example, the discussion in Weiner R. and S. Willborn, eds. (2011).

Employment of elderly workers in Singapore

As the rate of population and labour force growth diminishes or even becomes negative, groups with low labour force participation rates, including the elderly, become more important. In 2012, Singapore passed the Retirement and Re-employment Act (RRA), which requires employers to offer re-employment opportunities for eligible employees in the 62 to 65 age range, and the upper age was raised to 67 in July 2017. The government also began providing wage offsets in 2012 to encourage employers to hire older workers, including those not covered by RRA.

Singapore also encourages and supports employers in redesigning jobs and workplaces to be more attractive for older workers. The government, employers, and workers come together to put in place initiatives to enhance workplace practices to improve the employability and productivity of older workers.

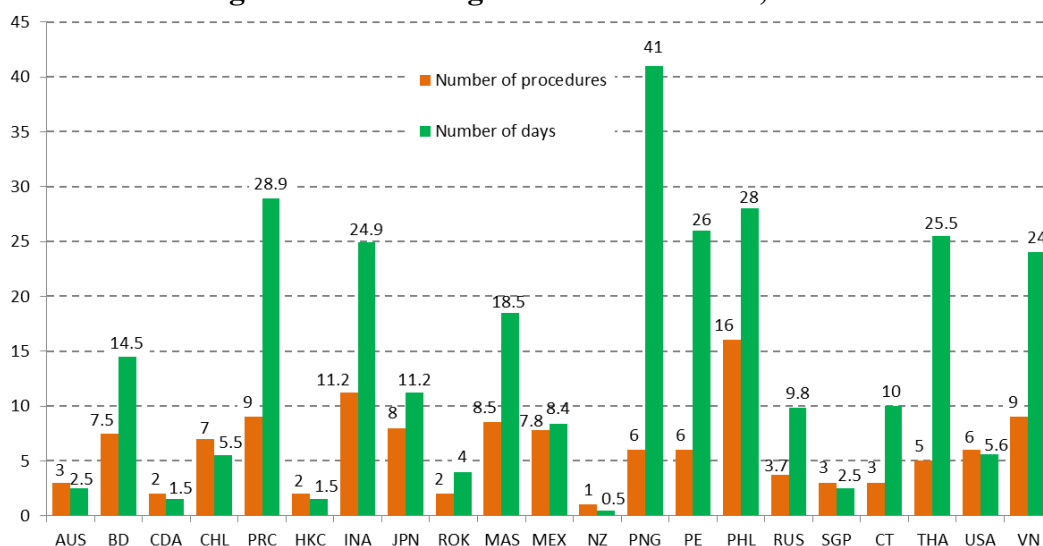
Promoting entrepreneurship and self-employment

Promoting entrepreneurship, for example through reduced bureaucracy, and better access to information and finance, is a good way for economies to increase participation in the workforce, especially since it can also have wide-ranging benefits across the economy. A comprehensive review of existing empirical studies found evidence that entrepreneurs do indeed contribute to job creation and productivity growth. They also produce high-quality innovations and have positive spillover effects on regional employment growth rates.⁴⁹ Over the past few years, there have been record numbers of new business start-ups in some APEC economies, namely Australia; Chile; Hong Kong, China; and Singapore. However, in many APEC economies, new business density either remains low or has still not recovered to its level prior to the 2008 GFC.⁵⁰ It would be beneficial for APEC members to ensure that the conditions in their economies are conducive to promoting entrepreneurship, and regulations and procedures for starting a business are not too cumbersome to discourage entrepreneurial activity.

Using the World Bank's latest *Doing Business* data, there is wide variation among APEC economies regarding the number of procedures and the number of days that it takes to start a new business (Figure 2.14). New Zealand is the best performer in the APEC region with entrepreneurs currently able to start a business with just one procedure taking half a day. Many economies have made significant improvements over the past decade, with all economies having substantially reduced the number of days it takes to start a business since 2007. Most notably, Brunei Darussalam reduced the time it takes to start a business from around four months to just two weeks over that period. However, there still appears to be quite a few obstacles that entrepreneurs must undergo before they can begin operations in many APEC economies. Those economies in which it is easier to start a business, including Australia; Canada; Hong Kong, Korea; China; New Zealand; Singapore; and the United States, tend to have much higher densities of new businesses compared to other APEC economies.

⁴⁹ van Praag and Versloot (2008).

⁵⁰ New business density is the number of new businesses registered per 1,000 working-age individuals. Based on data from the World Bank, [World Development Indicators](#).

Figure 2.14. Starting a business in APEC, 2017

Note: Data for Brunei Darussalam and Malaysia is the average numbers between men and women.

Source: World Bank, *Doing Business* online database.

In addition to reducing procedures and costs of starting a business, APEC members could also promote business start-ups in their economy through the increased provision of entrepreneurship education and training. Such programmes can be taught, not only through formal channels such as during secondary school and tertiary education, but also through initiatives such as campaigns to encourage entrepreneurship. These programmes can also be targeted to reach specific groups, such as women, in order to develop entrepreneurial capacity among those for whom participation is low.⁵¹

Encouraging self-employment is another way to increase economic participation in the labour force. IT-based platforms have significantly reduced the entry and operating costs associated with some self-employment in recent years. The so-called Fourth Industrial Revolution has brought about a wide range of opportunities for people to become economically active, including through alternative formats such as the “sharing economy” (e.g., Airbnb) and the “on-demand economy” or “gig economy” (e.g., Uber, Upwork). E-commerce platforms (e.g., Alibaba) have also made it easier for entrepreneurs and other self-employed workers—even those in rural or remote areas—to sell their products online. Young people in particular are especially primed to take advantage of the opportunities offered by these technologies given that they tend to be more IT-savvy than older workers. Women may also find that self-employment through these channels allows them the flexibility to participate in the workforce while also balancing other responsibilities.

Many of these newly-created jobs lack employee benefits as well as job security. They are typically outside the scope of coverage of most social protection programmes. There may also be limited potential for skills development and other types of career advancement. Although there are considerable challenges involved in collecting official statistics that measure this

⁵¹ Among the OECD economies, almost twice as many working men are self-employed (18 per cent) as women (10 per cent). Furthermore, self-employed men are two and a half times more likely than self-employed women to run businesses that employ others (5.4 per cent of men compared with 2.2 per cent of women). The study also found that self-employed women earned 13 to 60 per cent less than men across the OECD economies. OECD (2016d).

segment of the labour force,⁵² there has been research into how workers engage in self-employment through the digital economy. A recent study found that in June 2016, just 0.5 per cent of adults in the United States earned income through online labour platforms (e.g., Uber, TaskRabbit), and 0.4 per cent earned income through online capital platforms (e.g., Airbnb, eBay).⁵³ The researchers also found high rates of turnover on the platforms,⁵⁴ with participation in labour platforms reducing as outside employment options improve. These findings suggest that for many people such jobs are either seen as temporary solutions until better jobs can be found, or they are secondary jobs that provide supplemental income.

Supporting vulnerable and informal workers

The International Labour Organization (ILO) considers vulnerable employment to include those that are own-account workers and those that are contributing family workers.⁵⁵ Since data on the informal sector is extremely limited, the share of vulnerable workers is used as a proxy for the share of informal workers across the APEC region as both groups have significant overlap and are considered to have less formal work arrangements. These roles typically lack statutory protections (such as mandated minimum wage rates) and other employment benefits (such as paid sick leave). In addition, they are usually outside the scope of coverage of most social protection schemes, including employment injury benefits and unemployment benefits.

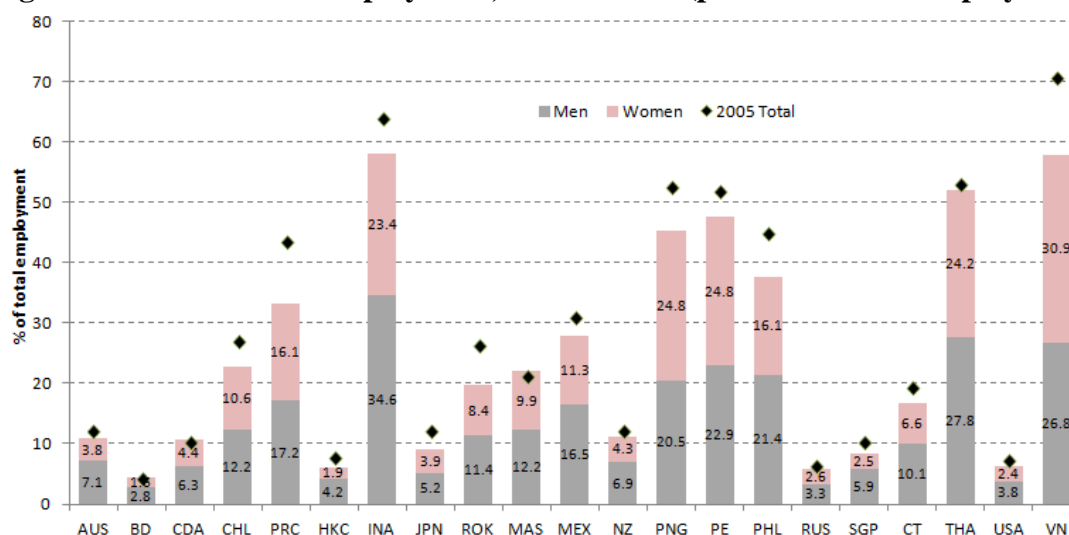
There are an estimated 453 million people—around 30 per cent of total employment—who are considered to be in vulnerable employment across the APEC region. The share of workers who are employed in vulnerable jobs varies significantly between APEC members (Figure 2.15). Women are more likely to be vulnerable workers than men: in the APEC region, 32 per cent of employed women are classified as vulnerable while this figure is 29 per cent for men. Although several members have seen reductions in the proportion of workers in vulnerable employment, the shares have remained roughly the same over the past 10 years for many economies.

⁵² Donovan et al. (2016).

⁵³ Farrell and Greig (2016). Katz and Krueger (2016) also found that just 0.5 per cent of all workers were providing labour services through IT-enabled platforms.

⁵⁴ One in six participants each month are new and more than half drop out within one year.

⁵⁵ Own-account workers are those workers who, working on their own account or with one or more partners, hold the type of jobs defined as self-employment (i.e., remuneration is directly dependent upon the profits derived from the goods and services produced) and have not engaged on a continuous basis any employees to work for them. Contributing family workers, or unpaid family workers, are own-account workers in a market-oriented establishment operated by a related person living in the same household.

Figure 2.15. Vulnerable employment, 2005 & 2015 (per cent of total employment)

Note: Data is ILO modelled estimates to allow for greater comparability between economies.

Source: ILO, Key Indicators of the Labour Market (KILM) [online database](#) (November 2016 Update) and author calculations.

It will be a challenge for APEC economies to promote skills formation and human capital development among those engaged in vulnerable employment or in the informal sector, especially since many of them are either self-employed or working in MSMEs. Evidence from other regions reveals that most of the workers in the informal sector do not have access to any skills training other than those they have acquired on the job.⁵⁶

It is difficult to reach workers in the informal sector due to lack of information and policy handles. They are often beyond the reach of any sort of worker protection or regulation, and often lack access to social assistance or insurance programmes. APEC economies will need to address the challenge of extending social protection and safety nets to vulnerable and informal sector workers.⁵⁷ Moreover, an important step for inclusiveness is to bring informal sector workers into the formal sector. Key to this objective is to find the optimal mix of labour legislation and policies (e.g., minimum wage, worker protection, workplace regulations) that balances worker welfare with the need to provide incentives for businesses to create jobs in the formal sector.

IMPROVING ADAPTABILITY

Structural unemployment calls for policy measures in order to help workers displaced by economic changes find new jobs as well as to ease labour reallocation from one sector to another. This section will discuss a number of options to help economies improve their adaptability and their ability to address the human capital development challenges they face. Each APEC member will need to decide the most appropriate balance in the flexibility of its labour market, weighed against other policy objectives, in order to determine which reforms would be most beneficial for its economy and how they can best be implemented.

⁵⁶ Walther (2011).

⁵⁷ Canagarajah and Sethuraman (2001), Barrientos and Barrientos (2002).

Designing effective labour market regulations

Labour market regulations cover a wide range of labour market institutions, such as unemployment insurance system and disability insurance, as well as labour legislation such as statutory minimum wage rates and employment protection legislation. Worker protection legislation comprises a wide range of rules and regulations, including those concerning statutory notice periods prior to dismissal, rules regarding collective redundancies or mass layoffs, restrictions on working hours, and the treatment of different categories of workers such as those on temporary contracts.

Minimum wage

Minimum wages are a common policy to protect workers from unduly low wages and reduce inequalities. Indeed, a report by the ILO⁵⁸ found that minimum wages could contribute to narrowing gender pay gaps, increasing productivity, and reducing inequality. In developing economies, increasing minimum wages generally contribute to poverty reduction, but the impacts are modest because some poor households also lose out from the policy (Gindling 2014).

On the other hand, rising minimum wages are also a cost for employers and can lead to a reduction in jobs and employment opportunity. Researchers have found that rising minimum wages have a negative impact on jobs creation especially for young and lower-skilled workers (Broecke, Forti and Vandeweyer 2017; Meer and West 2015) and reduced training opportunities for unskilled workers (Sugiyarto and Endriga 2008). In the United States, a study by Neumark (2015) estimated that minimum wages reduced the number of jobs by 100,000 to 200,000 relative to the period before the GFC, but also noted that this is “a small drop in aggregate employment that should be weighed against increased earnings for still-employed workers because of higher minimum wages.”

The effects of setting a minimum wage too high could be detrimental to growth and inclusion: overall employment is reduced; fewer young people move to seek off-farm employment; and unemployment increases. When movement to new off-farm jobs slows, so does growth. When workers are unemployed, real GDP is reduced relative to what it could be. When skilled workers are hired in part to substitute for unskilled labour, productivity is less than it could be. When expansion (or even continuation of production levels) is slowed, the overall growth rate is reduced.

Judging the appropriate level for a minimum wage depends on circumstances in each individual economy. In an economy with many workers remaining in rural areas and a relatively homogeneous pool of unskilled labour, an increase of even a few percentage points in the minimum wage that affects the majority of workers can be detrimental. Table 2.3 shows an indicator for minimum wages for APEC economies based on World Bank data.

⁵⁸ ILO. “Minimum Wage Policy Guide”.

Table 2.3. Minimum Wage* as a Percentage of Average Value-Added per Worker, 2016

Economy	Per cent	Economy	Per cent
Australia	30	New Zealand	39
Brunei Darussalam	0	Papua New Guinea	79
Canada	29	Peru	35
Chile	24	The Philippines	65
China	39	Russia	18
Hong Kong, China	18	Singapore	0
Indonesia	57	Chinese Taipei	25
Japan	27	Thailand	36
Korea	30	The United States	24
Malaysia	20	Viet Nam	68
Mexico	14		

Note: Minimum wage applicable for a cashier, age 19, with 1 year of work experience. This is used as a measure for minimum wage due to spatial and sectoral differences in minimum wage legislation within and across economies. Where there are significant differences in wage rates or minimum wage rates within economies, data for the following cities was used: Shanghai (China), Osaka (Japan), Monterrey (Mexico), and Los Angeles (USA).

Source: World Bank, 2017. “Doing Business 2017: Labor Market Regulation Data”

There are several indicators that can assist policymakers in setting the optimum minimum wage: rising or high unemployment and pronounced growth in the informal sector and, more likely in more advanced economies, a decline in the labour force participation rate.

The intent of minimum wage policies is always to protect workers, primarily the low-wage earners, from exploitation. However, setting the minimum wage too high could be counterproductive. It could also lead to a shift towards informal sector employment, which is largely untaxed and provides less protection for workers (if any at all) than in the formal sector. When the consequence is more urban unemployment and slowing migration to cities, the result is exclusion and slower growth.

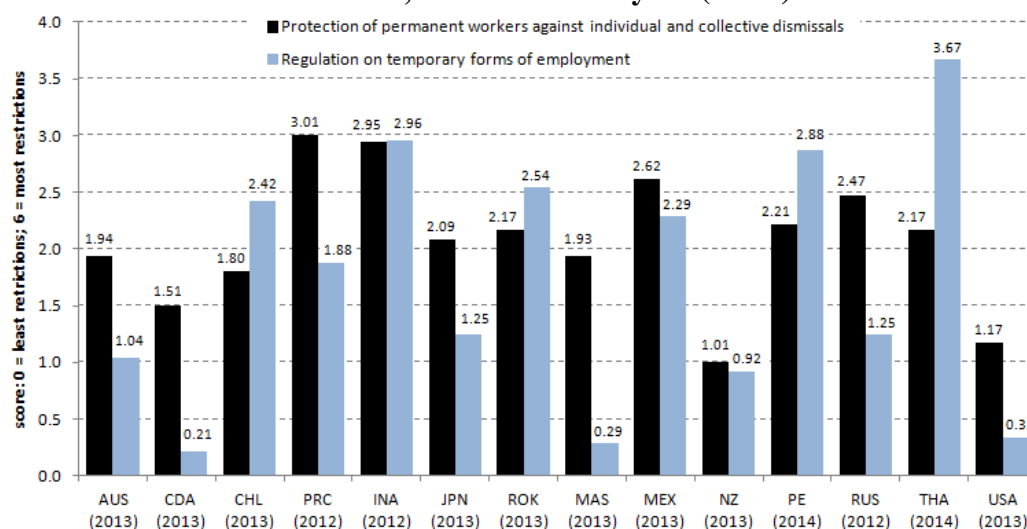
Worker protections

Labour market regulations play an important role in protecting the rights of workers. Weak labour regulations can lead to exploitation and endanger the health and safety of workers. On the other hand, overregulation can discourage job creation, reduce cross-sectoral labour mobility, and lead to market segmentation (World Bank 2017). A key policy challenge is finding the right balance between under- and overregulation of the labour market.

Although data for all APEC members is not available, Figure 2.16 gives an indication as to some aspects of the stringency of employment protection legislation across the region. Regulations concerning employee dismissal include the length of notice period and severance pay entitlements as well as any additional notification requirements or costs to employers in the case of collective dismissals. The protection of permanent workers in the case of individual and collective dismissals is weakest in New Zealand and the United States, while it is strongest in China and Indonesia. The other indicator shown in Figure 2.16 covers policies concerning temporary employment such as whether there are any restrictions on the number of times a temporary contract can be renewed (as well as its cumulated duration) and whether temporary employees and regular employees are treated equally regarding pay and working conditions. Canada; Malaysia; and the United States have relatively low levels of regulation covering

employees on temporary contracts. Many other APEC economies have comparatively much higher levels of protection, including Chile; Indonesia; Korea; Mexico; Peru; and Thailand.

Figure 2.16. Stringency of employment protection legislation in selected APEC economies, latest available year (score)



Note: Data for Brunei Darussalam; Hong Kong, China; Papua New Guinea; the Philippines; Singapore; Chinese Taipei; and Viet Nam is not available.

Source: OECD/IAB [Employment Protection Database](#), 2013 update.

Policies designed to protect workers can have unintended consequences. In most economies, labour regulations or laws covering conditions of employment are in effect. As already seen, even in low-income economies regulation of safety and other conditions is appropriate. Other worker protection measures regulate periods of apprenticeship, legislate the months or years of pay that must be given to a worker who is made redundant, set the maximum number of hours per day or per week that must be worked, establish criteria for overtime pay, and stipulate minimum holidays and vacation periods.

It may seem counterintuitive that prohibitions on firing (or large required severance payments) would discourage hiring, but on reflection, the reasons are apparent. Especially when probationary periods are short, employers may know that they cannot, in the specified time allowed, ascertain which workers will be able to provide the needed services in their firms. They may instead choose to subcontract certain activities (e.g. packaging, repair services, and production and assembly of components) to smaller firms either in the informal sector or exempt from the regulations governing industrial activity. In some cases, employers may choose to hire skilled workers to do unskilled work.

Even when worker protection takes the form of mandated severance payments, the conditions under which these payments must be made can make a difference. If, after only a few years of employment, workers are entitled to large compensation packages (especially since redundancies are most likely to occur when a business is already in financial difficulty), the attractiveness of hiring additional workers decreases. As can be seen in Table 2.4, APEC economies have a wide variation in regulations regarding hiring and firing of workers.

Table 2.4. Regulations Governing Hiring and Redundancy

Economy	Cost	Maximum Probation Period (months)	Compulsory Retraining for Reassignment?	Priority Rules for Re-employment
Australia	8.7	6	yes	no
Brunei Darussalam	0	n.a.	no	no
Canada	5	3	no	no
Chile	23.1	n.a.	no	no
China	23.1	6	yes	yes
Hong Kong, China	1.4	1	no	no
Indonesia	57.8	6	yes	no
Japan	0	n.a.	yes	no
Korea	23.1	3	no	yes
Malaysia	22.8	n.a.	no	no
Mexico	22	1	no	yes
New Zealand	0	3	yes	no
Papua New Guinea	11.4	3	no	no
Peru	11.4	3	no	yes
The Philippines	23.1	6	no	no
Russia	8.7	3	yes	no
Singapore	0	6	no	no
Chinese Taipei	n.a.	n.a.	yes	yes
Thailand	31.7	4	no	no
United States	0	n.a.	no	no
Viet Nam	24.6	1	yes	no

Notes: n.a. = not available. Cost is defined as weeks of salary that must be paid when workers have been laid off after meeting initial required hiring period. Where there are significant differences in wage rates or minimum wage rates within economies, data for the following cities was used: Shanghai (China), Osaka (Japan), Monterrey (Mexico), and Los Angeles (USA).

Source: World Bank 2017.

Labour market regulations also often cover stipulations as to the maximum number of hours to be worked, overtime, sick leave provisions, and annual leave, and a balance between under- and overregulation needs to be found. Sick and annual leave provisions that might not be too onerous for a large firm can impose significant costs for MSMEs. Stipulating that workers cannot be asked to work more than 8 hours in any 24-hour period can adversely affect service industries such as tourism (e.g., waiters cannot be asked to work lunch and dinner shifts one day and breakfast and lunch the next). There can also be issues about health and safety regulations. Clearly, there are safety issues that should be addressed in any enterprise, but regulations can range all the way from requiring appropriately spaced exits to specifications as to the number, quality and size of eating areas, toilet facilities, availability of health care services on premises, and much more. To take an extreme example, requiring at least one nurse on the premises could be very costly to an MSME with a dozen employees whereas the costs would be far less significant for firms with hundreds or thousands of employees. Labour regulations need to balance the protections afforded to workers with the ability of firms to take on the associated regulatory costs, and be flexible enough to consider the circumstances of smaller firms. This can be accomplished through a multi-pronged approach that involves not only legislation and regulations, but also informal, flexible policies and/or voluntary tools including awareness raising, codes of practice, and standards and guidelines, to help to reduce

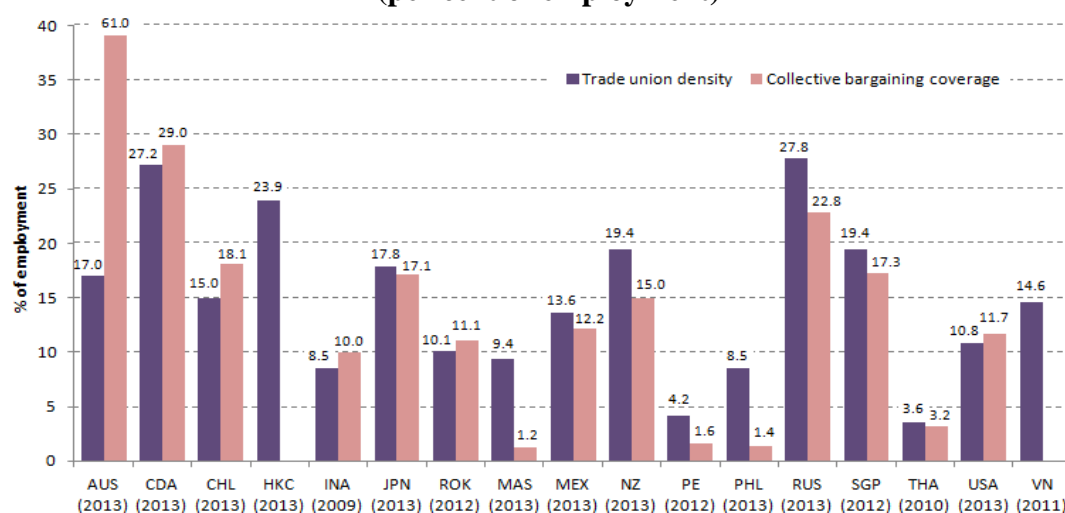
the burden of regulation on firms while continuing to improve safety and health conditions for workers.

Labour unions and collective bargaining

In almost all economies, there are laws and regulations governing labour union formation, representation, membership, and activity. These laws cover many issues: the right to organise, the determination as to what constitutes a union representing a given body of workers, the right to strike, and more. Freedom of association and the right to collective bargaining are among the ILO's four core principles concerning fundamental rights at work (Box 2.2), highlighting the importance of such rights as a central component of any strategy for broad-based and sustainable development.

Agreements reached through collective bargaining can cover many facets of the employer-employee relationship, including wage scales and employee benefits, seniority rights, access to training opportunities, and occupational health and safety standards (Box 2.3).

**Figure 2.17. Labour unions and collective bargaining, latest available year
(per cent of employment)**



Note: Data for Brunei Darussalam, China, Papua New Guinea, and Chinese Taipei is not available. Collective bargaining coverage data for Hong Kong, China and Viet Nam is not available. Collective bargaining coverage uses data for 2007 for Thailand; 2008 for Indonesia; 2010 for Peru; 2012 for Mexico; and 2014 for the United States.

Source: ILO, [ILOSTAT](#).

Labour unions can provide information on skills shortages and identify future skills needs from the point of view of their members.⁵⁹ Unions are often strong advocates for improving access to training opportunities, with an emphasis on continuous learning. In several APEC economies, labour unions may offer apprenticeship scholarships, training subsidies, or low interest education loans to support skills development among members and their families.⁶⁰ There is also some evidence to indicate that union membership has a positive impact on training opportunities: a study recently conducted in the United Kingdom found that union members were a third more likely to have received training in the previous three months than non-union

⁵⁹ For more discussion, see World Economic Forum (2014).

⁶⁰ For instance, apprenticeship scholarships are prominent features of labour unions in Canada and the United States, while the National Trades Union Congress (NTUC) in Singapore offers subsidies for training courses.

employees.⁶¹ The researchers also found that organisations with a union presence, and especially those with union involvement in training decisions, had higher overall levels of training.

Box 2.2. ILO and international labour standards

International labour standards are legal instruments that set out basic principles and rights at work. These are negotiated by ILO members and constituents (i.e., employers and workers) and may either be legally binding conventions or non-legally binding recommendations. ILO conventions need to be ratified by members to come into force.

International labour standards are created to protect workers' rights, ensure decent work, and guarantee humane working conditions. Of the 189 conventions and 6 protocols currently registered with the ILO, eight are considered "fundamental," covering four core principles or rights at work: (1) freedom of association and the effective recognition of the right to collective bargaining, (2) the elimination of all forms of forced or compulsory labour, (3) the effective abolition of child labour, and (4) the elimination of discrimination in respect of employment and occupation. The eight fundamental conventions are:

1. Freedom of Association and Protection of the Right to Organise Convention, 1948 (No. 87)
2. Right to Organise and Collective Bargaining Convention, 1949 (No. 98)
3. Forced Labour Convention, 1930 (No. 29)
4. Abolition of Forced Labour Convention, 1957 (No. 105)
5. Minimum Age Convention, 1973 (No. 138)
6. Worst Forms of Child Labour Convention, 1999 (No. 182)
7. Equal Remuneration Convention, 1951 (No. 100)
8. Discrimination (Employment and Occupation) Convention, 1958 (No. 111)

Source: ILO's [NORMLEX database](#).

Informal and vulnerable employment

Economies need to find an appropriate balance between enhancing business flexibility and protecting jobs when designing employment protection legislation. A two-tiered labour market system can arise when some employees are in highly protected jobs (e.g. those on permanent, continuous, or open-ended contracts), while others are engaged in less secure, temporary forms of employment. Workers on temporary contracts typically have fewer employment protections than those on permanent contracts. For example, they may be exempt from receiving paid sick leave and severance payments. They may also not be covered by many social benefit programmes, such as unemployment insurance and paid maternity leave. It is also unlikely that those engaged on temporary contracts receive the same amount of training as those employed on standard contracts.

The ILO reports that workers engaged in non-standard forms of employment receive less on-the-job training and that those firms with a higher share of employees engaged on such

⁶¹ Stuart et al. (2015). The study examined the period 2001-2013.

contracts tend to underinvest in training for both temporary and permanent employees.⁶² The OECD also found that those engaged in full-time temporary contracts are 20 per cent less likely to receive employer-sponsored training than those employed on standard contracts, while part-time workers are 40 per cent less likely.⁶³ This disparity in training opportunities leads to a skills gap between different categories of workers, which can then negatively impact career advancement, especially for those employed on non-standard contracts for longer periods. Therefore, a high share of employees on temporary contracts should be a cause for concern regarding both human capital development as well as the level of inequality in an economy.

The share of employees on temporary contracts is high in some APEC economies. For instance, temporary employees comprised 29 per cent of total employment in Chile and 22 per cent in Korea in 2015, while an estimated 64 per cent of employees in Peru were considered as temporary employees in 2012.⁶⁴ Young people, in particular, are more likely to have temporary employment contracts than older ones. For example, 46 per cent of workers aged 15-24 in Chile were employed on temporary contracts in 2016 (versus 27 per cent among 25-54 year-old workers), while the figure was 31 per cent in Canada (10 per cent among 25-54 year-olds).⁶⁵ This can be an acute problem for young people on temporary contracts who are unlikely to receive training and are often the first to be dismissed during economic downturns.

Recent trends point to an increase in temporary employment and other non-standard forms of employment, including part-time employment. The OECD estimates that even prior to the GFC, over 50 per cent of all jobs created among the OECD members between 1995 and 2007 were in non-standard employment (i.e., part-time and temporary workers and the self-employed). Furthermore, in the post-GFC period (i.e., 2007-2013), that share increased to 60 per cent.⁶⁶ In the United States, Katz and Krueger (2016) found that alternative work arrangements accounted for 94 per cent of net employment growth between 2005 and 2015, bringing the share of workers engaged in such types of employment to 16 per cent.⁶⁷ It should be noted that some temporary and part-time forms of employment are not necessarily problematic. Many workers prefer or need the flexibility that such jobs can provide, including those attending school or other types of training. Moreover, digital technology and the increasing number of online contractual work, for example through platforms such as Upwork or Uber, accounts for the rise in alternative working arrangements. However, these alternative working arrangements do not offer job security as employment is on an output or commission basis. Such employment contracts can also cover employers and workers in several jurisdictions. As such, precarity, casualization, and cross-border employment contracts will be emerging labour market and regulation issues in the digital age. Likewise, labour market policies and regulation will need to be adaptable to changing patterns of work and employment relationships.

It is important to implement structural reforms in order to address the changing trends in employment in an economy. APEC economies may find it beneficial to evaluate their current

⁶² International Labour Organization (2016).

⁶³ OECD (2015).

⁶⁴ Based on data from [ILOSTAT](#). Temporary employment, whereby workers are engaged only for a specific period of time, includes fixed-term, project- or task-based contracts, as well as seasonal or casual work, including day labour.

⁶⁵ Age-disaggregated data on temporary employment is from [OECD.Stat](#).

⁶⁶ OECD (2015b).

⁶⁷ Katz and Krueger (2016). The authors define alternative work arrangements as temporary help agency workers, on-call workers, contract workers, and independent contractors or freelancers. The study also found that just 0.5 per cent of all workers were providing labour services through IT-enabled platforms.

employment protection legislation in light of changing labour market conditions. This could include updating regulations in order to enhance protections across those worker classifications for which they are often lacking, including temporary workers and independent contractors. Coverage of social benefit programmes could be extended to include those engaged in alternative work arrangements on an opt-in basis, particularly in economies where such benefits are funded through contributory schemes tied to employers. Recent proposals include the development of “portable benefits” schemes, which would allow those engaged in non-standard forms of employment to more easily transfer benefits that they have accrued with one employer to a new employer.⁶⁸ Rethinking of labour regulations becomes even more important in the digital age, when employee-employer relationships can become cross-border issues and jobs become increasingly contractual and temporary.

Box 2.3. The importance of occupational safety and health and employment injury benefits⁶⁹

One of the ways in which economies can enhance labour productivity is to have occupational safety and health regulations to protect employees in the workplace. Many people around the world work in physically demanding and frequently dangerous jobs. Safety and health regulations enable them to perform their jobs more safely, which will also allow economies to have a more productive workforce.

An example of safety protection afforded to workers is the availability of no-fault employment injury benefits or workers compensation. All APEC economies have such programmes anchored in legislation. In most economies, the schemes are implemented through social insurance with mandatory contributions paid by the employer. However, several members—including Australia; Papua New Guinea; and Thailand—rely on employer liability, involving compulsory insurance, to pay the whole cost in the event of injury. Notably, New Zealand provides universal coverage through its accident compensation scheme, which also includes coverage for non-work-related accidents, and which is funded through a variety of levies.

Apart from New Zealand, not all workers in an economy are legally covered under mandatory social insurance or employer liability schemes, particularly those that are self-employed, although several members do allow for coverage on a voluntary basis. In 2014, economies with mandatory coverage rates above 80 per cent of the workforce included Brunei Darussalam; Hong Kong, China; Japan; Korea; and the United States. In contrast, mandatory coverage rates were below 30 per cent in China; Indonesia; Papua New Guinea; and Thailand.

Improving social protection and assistance programmes

Social protection and assistance programmes⁷⁰ play a crucial role in promoting human capital development. Such programmes help to address structural and cyclical unemployment by providing a safety net for those workers who are displaced by structural changes or

⁶⁸ For more discussion, see Rolf et al. (2016). See also Henrekson (2014) who discusses how decoupling social insurance from employers would increase labour flexibility, including the entrepreneurial potential of workers.

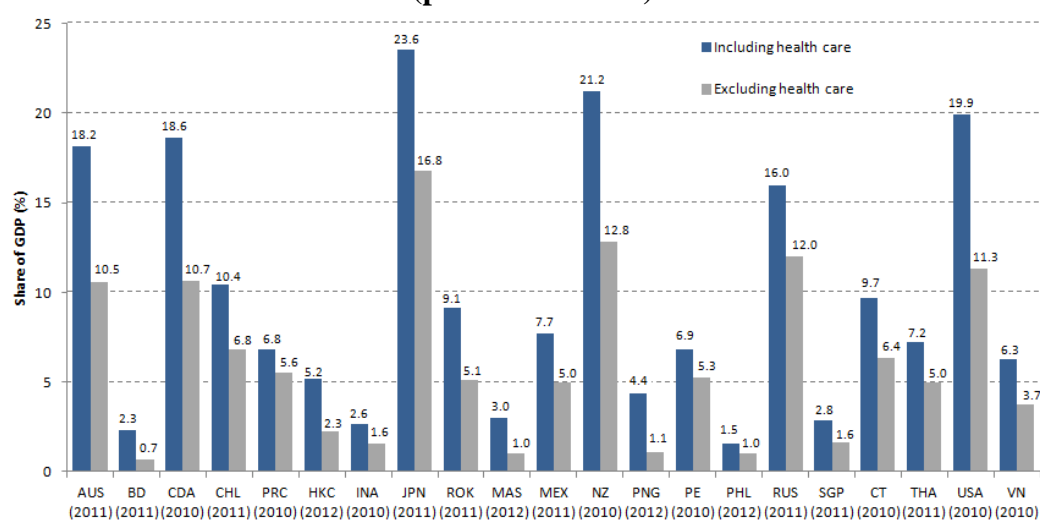
⁶⁹ Information on employment injury benefit schemes and rates of coverage is drawn from ILO (2014).

⁷⁰ Social protection and assistance programmes are policies and programs designed to reduce vulnerability to and mitigate the economic impact of negative events such as disasters, illnesses, or unemployment. While the set of social protection and assistance programmes is very broad, this report focuses on those that aim to address unemployment such as unemployment benefits and labour market assistance.

economic shocks. They should also incentivise workers to pursue retraining and focus on their job search. By smoothing consumption and reducing income uncertainty, social protection and assistance programmes can enable workers to invest in human capital through schooling or training. They also improve skills matching and utilisation by reducing job search opportunity costs. For example, by enabling unemployed workers to search for the right job that matches their skills rather than having to take the first available job.

The amount of public spending on social protection and assistance programmes varies substantially across the APEC region. Social benefit systems can include a wide range of policies such as child and family benefits, health care coverage, and old-age pensions. Using the most recent comparable data, Figure 2.18 shows that the developed APEC economies have higher levels of public expenditure on social protection programmes than the developing APEC economies. Japan has the highest level of spending in relation to GDP at just under 25 per cent, while the other advanced APEC economies are around 20 per cent. Most developing APEC economies have expenditure levels under 10 per cent of GDP, with several having levels under 5 per cent.

**Figure 2.18. Public expenditure on social protection, latest available year
(per cent of GDP)**



Note: Total annual public social protection expenditure is the sum of expenditure (including administration costs) of all public social security/social protection schemes or programmes in the economy. Nine classes of benefits are considered: medical care, sickness benefit, unemployment benefit, old-age benefit, employment injury benefit, family benefit, maternity benefit, invalidity benefit and survivors' benefit, plus other income support and assistance programmes, including conditional cash transfers, available to the poor and not included under the above classes.

Source: International Labour Organization (ILO) [Social Security Inquiry \(SSI\)](#) (updated 10 June 2014).

Developing effective unemployment benefit programmes

Income support is important to assist workers who are faced with job loss. Unemployment benefit programmes provide a safety net to lessen the impact that sudden drops in income can have on workers and their families. There are two major types of unemployment benefit schemes:

- contributory: often referred to as unemployment or employment insurance, these schemes are typically financed through mandatory contributions shared between employers and employees (and sometimes with a government contribution); and
- non-contributory: often referred to as unemployment assistance, these schemes are normally funded through general taxation.

Unemployment benefit programmes vary widely across the APEC region, with several members having no legislation that mandates the provision of any type of unemployment benefits (Table 2.5). Among the APEC economies that do have unemployment benefit programmes, most are contributory schemes (i.e., unemployment insurance) financed through mandatory contributions. Those economies without programmes anchored in legislation may have other statutory benefits that cover income support following the termination of employment, such as legislatively mandated severance payments.⁷¹ However, these entitlements are not as comprehensive as an unemployment benefit scheme which in some economies also legally requires companies to make a severance payment upon employment separation, such as in Hong Kong, China; Korea; Chinese Taipei; and Thailand.

Both contributory and non-contributory unemployment benefit programmes have eligibility requirements, which usually require the applicant to be unemployed through no fault of their own (e.g., if they were made redundant due to workforce reductions). However, Chile; Japan; and Thailand also allow for applicants who have wilfully left their job, although the amount and duration of benefits they can receive may be reduced. In addition, contributory benefit programmes typically require the applicant to contribute a minimum amount over a certain time period—for example the past 12 months—to be eligible to receive benefits. Consequently, some workers, particularly those on temporary or part-time contracts, may find that they do not have enough insured earnings to be eligible for benefits when they become unemployed. In addition, those who are self-employed (including independent contractors) may not be legally covered under many unemployment insurance programmes, and are therefore ineligible to receive benefits. While it is difficult to cover self-employed and temporary workers in unemployment benefit programmes, there are ways around this problem. An example is Canada's Employment Insurance programme, which allows self-employed workers to opt-in, albeit with different implementation arrangements and benefits compared to formal sector employees.

Unemployment benefit schemes have limits regarding the amount and duration of benefit payments, which are meant to cover only basic expenses while recipients are unemployed. For non-contributory schemes, recipients are usually entitled to a means-tested amount based on household income, which is subject to periodic reviews concerning job search progress. Under contributory schemes, most recipients receive a share of their previous salary, subject to a cap, with the duration often based on the amount of their previous contributions, limited to a maximum period. Some economies also use age as a determinant, such as Japan and Korea.

⁷¹ Severance payments, including redundancy payments and retrenchment payments, are payments made by the employer to the employee following the termination of employment. They are often payable monthly or quarterly for a period of time. The amount is typically a percentage of the monthly salary multiplied by the number of years of employment with the company and is sometimes subject to a maximum.

Table 2.5. Overview of unemployment benefit programmes across APEC

Economy	Programme type	Eligibility requirements	Benefit amount	Benefit duration	Note	Severance payment
Australia	non-contributory	unemployed and aged 22 to pension age (65 or 67); means-tested on a household basis, subject to a maximum amount of income (AUD 1,036.34 every 2 weeks) and assets (AUD 250,000/AUD 450,000 for homeowners/non-homeowners)	up to AUD 535.60 every 2 weeks	as needed; recipients must provide an update on their job search every 2 weeks	based on benefits implemented through the Newstart Allowance Scheme for a single person with no children; there is also a Youth Allowance Scheme for those aged 16 to 24 years	no
Brunei Darussalam	no programme anchored in legislation					no
Canada	contributory	insured must have at least 420 to 700 hours of employment (depends on the filer's regional unemployment rate) during the 52 weeks prior to the claim start date	55% of average insurable weekly earnings, up to a maximum amount of CAD 543 per week	14 weeks up to a maximum of 45 weeks (depends on the filer's regional unemployment rate and the amount of insurable hours accumulated in the last 52 weeks)		yes
Chile	contributory	CIC: employed for 12 months (6 months for fixed-term-contracts) prior to unemployment; FCS: 12 months of contributions during the 24 months prior to unemployment	based on the average monthly salary during the 12 months prior to unemployment, CIC: 70% for the 1 st month, decreasing each month to 30% for the 7 th and subsequent months; FCS - indefinite contracts: 70% for the 1 st month (CLP 173,477 min.; CLP 578,258 max.), decreasing each month to 30% for the 7 th month (CLP 74,347 min.; CLP 247,825 max.) FCS - fixed-term contracts: 50% for the 1 st month (CLP 123,912 min.; CLP 413,042 max.), decreasing each month to 30% for the 5 th month (CLP 74,347 min.; CLP 247,825 max.)	CIC: 1 month following re-entering employment or until the funds in the account have been exhausted if employment is not found FCS: up to 7 months for indefinite contracts and up to 5 months for fixed-term contracts; applicants can make up to 10 claims in any five-year period	programme is comprised of a savings component, Individual Unemployment Accounts (CIC), and an insurance component, Solidarity Unemployment Fund (FCS), as a complement if the CIC funds are insufficient or have been exhausted	yes
China	contributory	insured must have at least 1 year of coverage prior to unemployment	amount is set by local governments at a level higher than the local public assistance benefit, but lower than the local minimum wage	up to 1 year with less than 5 years of coverage; up to 1.5 years with 5 or more but less than 10 years; up to 2 years with 10 or more years of coverage	programme is administered at the local government level	yes

Hong Kong, China	non-contributory	means-tested on a household basis, subject to a maximum amount of income and assets	exact payment is determined on a case-by-case basis to meet basic needs	as needed, subject to periodic review	implemented through the Support for Self-reliance (SFS) Scheme, which is under the Comprehensive Social Security Assistance (CSSA) Scheme	yes
Indonesia	legislatively mandated severance payment only					yes
Japan	contributory	insured must have at least 6 months of contributions during the 12 months prior to unemployment	up to 50% to 80% of average monthly salary during the 6 months before unemployment	up to 90 to 360 days	eligibility and benefits amount and duration depend on the employee's age, how long they have been paying into the scheme, how long they were employed, and the circumstances under which they became unemployed	no
Korea	contributory	insured must have at least 180 days of contributions prior to unemployment	50% of average daily wage (calculated using the daily wage over the last 3 months of work), subject to a maximum daily wage of KRW 43,000	minimum of 90 days; up to 180 days for people under the age of 30; up to 210 days for people ages 31 to 50; up to 240 days for people over the age of 50 or who are disabled	Early Re-employment Bonus: a lump sum equal to 50% of the total unpaid benefit that would have been payable for the maximum duration of benefit	yes
Malaysia	legislatively mandated severance payment only					yes
Mexico	legislatively mandated severance payment only					yes
New Zealand	non-contributory	unemployed or not in full-time employment and aged 18 or older; means-tested on a household basis, subject to a maximum amount of income	up to NZD 212.45 (net of taxes) every week	as needed, subject to periodic work ability assessments; must re-apply after 52 weeks	based on benefits implemented through the Jobseeker Support Scheme for a single person aged 25 or older with no children	no
Papua New Guinea	no programme anchored in legislation					no
Peru	legislatively mandated severance payment only					yes
The Philippines	legislatively mandated severance payment only					yes
Russia	contributory and non-contributory	unemployed without any current income and aged 16 or older	calculated as a per centage of previous average wages and reducing at certain points through the benefit duration; RUB 850 minimum up to RUB 4,900 maximum per month	up to 12 months, then recipients must re-apply; benefits are re-assessed twice a month	programme is a mix of contributory and non-contributory schemes	yes
Singapore	no programme anchored in legislation					no

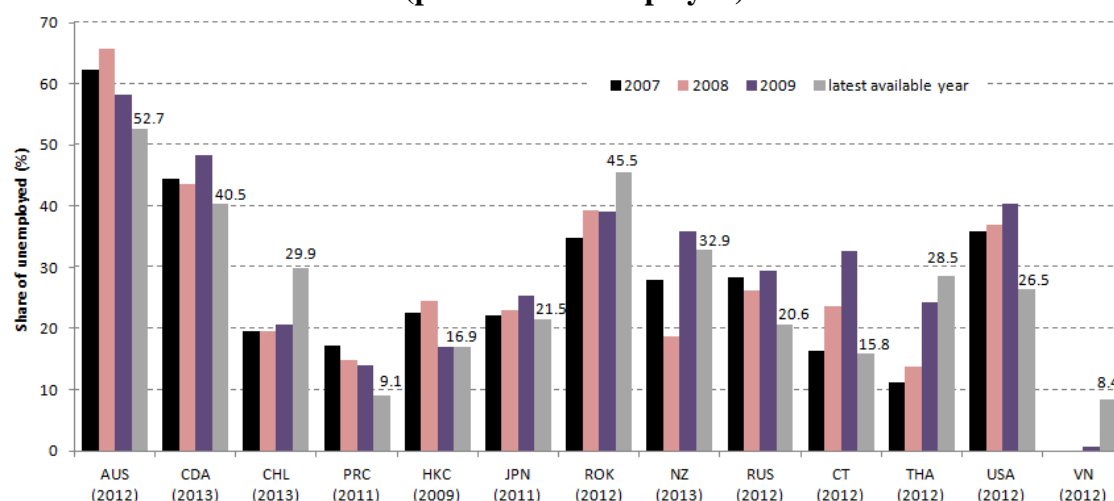
Chinese Taipei	contributory	insured must have at least 1 year of contributions prior to unemployment	60% of average monthly earnings during the 6 months before unemployment	up to 6 months; up to 3 months for a new claim within 2 years of last receiving unemployment benefits for 6 months	Early Re-employment Allowance: a lump sum equal to 50% of the total unpaid benefit that would have been payable for the maximum duration of benefit	yes
Thailand	contributory	insured must have at least 6 months of contributions during the 15 months prior to unemployment	50% of average monthly salary based on the highest 3 months earnings in the last 9 months (30% in the case of resignation), subject to a maximum monthly salary of THB 15,000	up to 180 days per year (up to 90 days per year in the case of resignation)		yes
United States	contributory	past earnings and time employed must meet certain minimum thresholds (varies by state)	up to USD 450 per week (actual amount is calculated based on past earnings)	up to 26 weeks	this is the standard scheme; schemes are implemented at the state level and can therefore vary	no
Viet Nam	contributory	insured must have at least 12 months of contributions during the 24 months prior to unemployment	60% of average monthly earnings during the 6 months before unemployment	3 months with 12 to 35 months of contributions; 6 months with 36 to 71 months of contributions; 9 months with 72 to 143 months of contributions; 12 months with at least 144 months of contributions	available to citizens with permanent contracts or employment contracts of 1 to 3 years who are employed by private and public sector organisations with 10 or more workers	yes

Note: This overview is not to be considered comprehensive. There are often detailed requirements as to who is eligible for unemployment benefits as well as exemptions and other income support programmes that may be available to the unemployed in an economy.

Source: Publicly available sources, including the ILO's [Social Security Inquiry \(SSI\)](#). (All information as at 22 May 2017.)

According to ILO data, in most APEC economies with unemployment benefit schemes, less than 40 per cent of those unemployed are covered by benefits, with some members having less than 20 per cent of unemployed persons receiving benefits (Figure 2.19). In recent years, most APEC economies have a lower share of the unemployed covered by benefits than they had between 2007 and 2009, around the time of the GFC. This probably reflects the expiration of temporary support programmes for the unemployed that were available following the GFC.⁷²

**Figure 2.19. Effective coverage of unemployment benefits, latest available year
(per cent of unemployed)**



Note: Effective coverage = per cent of unemployed that are covered by unemployment benefits. Brunei Darussalam; Indonesia; Malaysia; Mexico; Papua New Guinea; Peru; the Philippines; and Singapore do not have an unemployment benefit programme that is anchored in legislation. Coverage for Russia is underestimated since data on its non-contributory scheme is unavailable. Viet Nam established an unemployment insurance scheme in January 2009.

Source: International Labour Organization (ILO) *Social Security Inquiry (SSI)* (updated 7 June 2014).

The design of an unemployment benefit programme could ensure that vulnerable workers are not excluded from income support and assistance. For example, Canada's employment insurance programme links the duration of benefits to the recipient's regional unemployment rate, thereby targeting those workers who may be more affected by long-term structural unemployment. Notably, Chile; Korea; and Thailand have all worked to expand their unemployment benefit programmes since the GFC, while Viet Nam implemented its first scheme in 2009.

An important feature of an unemployment benefit programme is how well it incentivises unemployed workers to retrain and regain employment. Conventional wisdom has been to limit the benefit duration. Studies have shown that shorter durations of unemployment benefits do in fact result in jobseekers re-entering the workforce sooner. However, the OECD found that a targeted reduction in the duration of unemployment benefits for the long-term unemployed reduces disposable incomes for the poor and lower-middle class, while raising income for the

⁷² For instance, the United States passed the temporary Emergency Unemployment Compensation (EUC) legislation in June 2008, a federally funded programme that raised the duration of benefit entitlement by up to an additional 13 weeks. Subsequent modifications and extensions of the programme raised the duration by up to an additional 53 weeks in states with high rates of unemployment. Other programmes enacted in certain states with high rates of unemployment extended these durations by up to an additional 7 to 20 weeks. The programme expired on 1 January 2014 and was not renewed.

median household, indicating a greater level of inequality as a result.⁷³ In addition, there is some evidence suggesting that a longer duration of unemployment benefits may allow for better matching between workers and jobs.⁷⁴

The APEC region offers several examples of policy measures that can be used to incentivise unemployment benefit recipients in their job search efforts. For instance, Korea and Chinese Taipei offer re-employment bonuses—equivalent to 50 per cent of the total unpaid benefit—to those that regain employment before the expiration of their unemployment benefits. Chile's innovative unemployment insurance programme comprises individual unemployment insurance savings accounts complemented by a general fund that targets those most in need of income support and assistance. Under this scheme, workers who leave their employment for any reason can access their individual account. If that account is insufficient, or once the funds have been depleted, then they may have access to the general fund, subject to benefit amount and duration limits. Several studies have found that the use of individual unemployment insurance accounts improves the incentives to re-enter employment.⁷⁵

ACTIVE LABOUR MARKET POLICIES

For reasons earlier discussed, skills and jobs become more differentiated as economies grow, and policies supporting workers likewise become more complex. In advanced economies, one policy response has been to adopt Active Labour Market Policies (ALMPs), which refer to the coordination of the various policies and measures that governments take to enhance employment prospects and productivity of workers. These measures include consultation with employers, certification provision, information on job vacancies and skill needs and shortages, TVET and education, unemployment compensation, and so on. The gathering and provision of information about the existing composition of jobs enables the understanding of future evolution of demand through timely and accurate data from labour market information systems. Coordination enables longer periods of financial support for the unemployed on needed training programs, and the ability to ensure that the unemployed are searching for jobs. An employment centre in each area enables a counsellor for each worker to assess skills, inform workers of possible job openings, advise on training programs, and even recommend financing of travel to places where jobs are more plentiful. Bringing all these activities together is challenging but appears to offer shortened periods of unemployment, longer periods of financial support (as needed without abuse of the system), and much more. Even for economies at earlier stages of development, a long term goal to promote human capital development would be to move towards a model based on ALMPs.

ALMPs work to ensure that workers spend less time unemployed so as to maintain living standards for them and their households as well as prevent any further skills deterioration that occurs during long periods of unemployment.⁷⁶ Many programmes require recipients to be actively seeking employment in order to remain eligible for income support. However, in order to achieve better long-term results with regard to job suitability, strategies to assist jobseekers

⁷³ Causa et al. (2015)

⁷⁴ For example, Caliendo et al. (2009) found that those who enter jobs around the time unemployment benefits are exhausted receive lower wages and are significantly more likely to subsequently leave that employment compared to those with remaining/better benefits. See also Centeno (2004) and Marimon and Zilibotti (1999).

⁷⁵ See, for example, Reyes Hartley et al. (2010) and Nagler (2013).

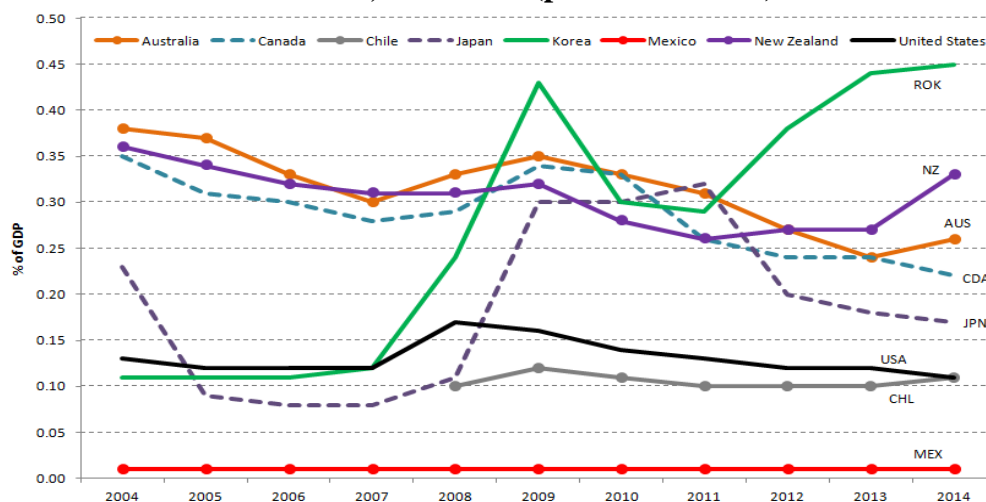
⁷⁶ Hong Kong, China and New Zealand allow for those in part-time employment, but seeking full-time employment, to receive unemployment benefits as long as their income does not exceed certain thresholds. This may help to keep recipients economically active, while also limiting their skills deterioration.

cannot focus simply on filling a vacancy. Rather, attention also needs to be given to the benefits from training and skills matching. Thus, programmes are linked to employment and training services if jobseekers need to upgrade their skills and improve their employability. Public employment services are vital resources for jobseekers, particularly those displaced workers who may be experiencing long-term unemployment and may be most in need of training. These services need to be linked with labour market information systems so they can help to better match those that are unemployed with suitable training opportunities in order to enhance their employment prospects.

A recent meta-analysis of over 200 studies found that ALMPs have a positive impact on employment two to three years after completion of the programme, with larger average gains for those that emphasized human capital accumulation (i.e., classroom or on-the-job training programmes).⁷⁷ Another recent study found that ALMPs reduce unemployment at the aggregate level, and are particularly beneficial for low-skilled workers.⁷⁸

Public expenditure on ALMPs in APEC economies for which there are data⁷⁹ ranges from 0.01 per cent of GDP in Mexico to 0.45 per cent in Korea (Figure 2.20). Spending in all APEC economies was below the OECD average of 0.55 per cent of GDP in 2014. Although there was an increase in spending on ALMPs immediately following the 2008 GFC for most economies, the level has since fallen. In fact, most APEC members spent lower amounts as a share of GDP in 2014 than they had in 2004. In Korea, public expenditures on ALMPs have risen since 2004, and Korea's spending on ALMPs (as a share of GDP) is currently the highest in the region. Given the importance of active labour market policies to assist the unemployed in accessing training opportunities and regaining employment—thereby also helping to promote inclusion—it is one area that would be beneficial to prioritise.

Figure 2.20. Public spending on active labour market policies in selected APEC economies, 2004-2014 (per cent of GDP)



Note: Data for Chile between 2004 and 2007 is not available.

Source: OECD, *Employment and Labour Market Statistics*.

⁷⁷ Card et al. (2015). The study also found that there were larger positive impacts for women and for those entering from long-term unemployment.

⁷⁸ Escudero (2015).

⁷⁹ Public expenditure on active labour market policies includes spending on public employment services and administration, training, employment incentives, sheltered and supported employment and rehabilitation, direct job creation, and start-up incentives. (Passive labour market policies include out-of-work income maintenance and support and early retirement.)

A holistic approach to developing ALMPs

Governments have an important role to play in assessing the job market and likely future demands, as well as in deciding (and sometimes supporting) which facilities and types of training are best undertaken in the private sector, and which should be provided by the public sector. Projecting future demands for different types of labour is inherently difficult and requires a skilled staff. It is clearly desirable to have data on the number of new workers graduating from training institutes, and the number of those hired—in general, this data is gathered through regular labour force surveys. Similarly, regular data gathering from firms and employers is also required so that reliable estimates can be made on the demand side of the labour market. Making information on the supply and demand of skills available through labour market information systems (LMIS) can help workers to choose paths where jobs can be found. While such estimation can never be perfect, it can serve as an important input into decisions about expansion and contraction of training facilities of different types.

As previously established, youth unemployment including those not in education, employment, or training is a concern in all APEC economies. The evidence worldwide is that a prolonged period as a NEET lowers lifetime productivity compared to similar individuals who are active in employment, education, or training. Active labour market policies, provision for training programmes (including incentives to encourage individuals to undertake them) where appropriate, and ensuring that employers are not incentivised to substitute capital for unskilled labour too much or too early are all important.

Youth need to have opportunities to enhance their skills especially in the early years of their careers. ALMPs are important in this regard. The policy framework should ensure that employers have sufficient incentives to provide training opportunities for young workers. To protect those already employed, some economies have passed legislation or regulations permitting employers to hire temporary workers with fewer rights and protections than permanent workers. These temporary workers are typically younger than the older workers. They have less job security, wherein their labour contracts only last for a specified number of years. But temporary workers typically receive less training than permanent employees. Since employers do not anticipate retaining them for a sufficiently long period, they invest less in training them. This makes their search for a next job more difficult. Finding ways to provide training for young workers is important not only for their lifetime productivity, but also for their inclusion.

A second policy challenge is to provide the appropriate incentives for the provision of training programmes of various types and for students to enrol and complete the various programmes. Providing financial support for students (especially for those from disadvantaged backgrounds or remote areas) is one possible policy. Another is the provision of incentives to employers to expand opportunities and ensure that incentives are consistent with provision of quality training and subsequent hiring of those who have completed training.⁸⁰ In both cases, it is important that those enrolled in programmes have incentives to finish them and that training is of the type and quality that induces employers to hire or retain graduates.

⁸⁰ A thorough discussion of such incentives could be found at OECD (2017b).

That leads to the third policy challenge, which is the appropriate relationship between the public and the private sectors. Policies incorporating effective consultation and decision-making mechanisms between private employers and the public sector are generally more productive than those undertaken by the public sector alone in assessing and overseeing training programmes of all types. Employers can provide information as to needed skills, prospective growth, and much more. The public sector can use resources to collect and provide information about opportunities (especially in areas distant from training facilities), increase incentives for programme completion and inclusion, and oversee the quality of training programmes.

The quality and type of training is crucial. Some employers have reported that training in vocational facilities was so inadequate that few of the graduates of these facilities could be hired. Others have reported that they need to provide almost as much training as would have been required had the new recruits not had prior vocational training. Finding appropriate means to monitor quality is a key role for the public sector. A challenge is to find ways to secure and make use of reliable feedback from businesses as to: (1) the value of the training and skills they are seeing in job applicants and new hires; (2) the types of skills that are in short supply, and (3) ways in which training could be improved.

Issues arise regarding incentives both for young persons and those already in the labour force who need or want further training. Active labour market policies can support both. There are a number of policies and measures that constitute labour market policies and these are discussed next. Very often, public labour or employment centres are established to coordinate these measures and inform employers and workers on many issues of concern to them.

Labour Market Information Systems

ALMPs require good and timely labour market data in order to function effectively. As such, labour market information systems (LMIS) are integral to efficient job-skills matching. Most APEC members do not have an overall skills shortage in their economy. Some fields or localities experience a more acute skills mismatch than others. For instance, an economy may have many university graduates with communications degrees while businesses are looking to hire graduates with engineering degrees. This skills mismatch can be reduced through the development of advanced labour market information systems, thereby also improving productivity.

An LMIS needs to take a holistic approach towards skills requirements in an economy and involves coordination between education and training providers and employers and other labour market intermediaries. Using a mix of both quantitative and qualitative data, an LMIS provides public information regarding the skills requirements for various jobs. An LMIS can provide a link between employers and applicants, thereby reducing search costs as well as resulting in higher-quality job-skills matches which help to reduce job turnover rates. Another important function of an advanced LMIS is to provide employment growth projections and seek to, as far as possible, anticipate future skills demands so that educational providers and potential jobseekers can respond accordingly.⁸¹ Australia's Labour Market Information Portal is an example of an online resource that provides easily accessible information regarding job skills requirements as well as job vacancies that is relevant for both students and jobseekers.⁸²

⁸¹ For more discussion, see OECD (2016a).

⁸² Australia's Labour Market Information Portal is available at www.lmip.gov.au.

A well-functioning LMIS is a very effective tool for reducing labour market imbalances, although the design will vary according to the needs of the economy.

Complexity, certification and coordination

The need for specific types of skills increases sharply with economic development. As economies become more complex, the skill sets employers seek become more differentiated. Providing information to workers on the needed skill sets, and to employers on the skills of workers, can be a highly productive part of human capital development. Appropriate certification of skill sets bridges this information need. By offering certificates, programme providers provide attestation to the skills that graduates have developed. Sometimes, however, employers have refrained from hiring certificate holders, usually because the training did not enable the graduates to perform the tasks the employer needed. Consultation between the public and private sectors as to the specific needs governing specific skills in different industries, and agreement on the expectations that should be fulfilled by certificate holders can enable improvements in many training programmes. This holds true not only for new labour force entrants, but also for those already in the labour force who decide to accept additional skills and training (either because they hope to find a better job with additional skills or because they need additional training so as not to be rendered redundant due to growth and shifts in demand).

A means of coordinating active labour market policies has been the establishment of employment centres in regions and cities within the economy. These centres provide information on job availability, and provide job seekers with the opportunity to consult a trained employment counsellor. The counsellor may know of jobs that the worker can apply for, or may instead be able to recommend appropriate training courses (perhaps at night if the worker is employed or during the day if the worker is unemployed). The worker can be informed if there are vacancies in other regions for workers with his or her particular skill set (in some economies there are funds available to help finance the cost of a move). In some cases, the counsellor may indicate that finding new work will be difficult without additional training, and identify training opportunities and available financing. Employers may also be asked (or required) to provide information about available job openings and about prospective redundancies (including, in some economies, the names of workers who may be displaced). A central data collection agency can receive and distribute information to individual centres as well as a LMIS to aid in policymaking. It should be noted that an appropriate classification of job skills for certification and information-gathering can be an important contributor to the success of job centres. When these skills are clearly defined, counsellors in centres can provide better-targeted training recommendations, and are better placed to identify job vacancies that fit a job seeker's skill set.

In some economies, job centres are important for workers seeking unemployment compensation until they find new work. Counsellors can certify that (if required by law) the unemployed person is undertaking appropriate training and eligible for support. In effect, counsellors are the coordinators for the various facilities that may be available, providing the needed certifications to the government and simultaneously advising the worker on opportunities and requirements. As with so many other aspects of labour market policies, unemployment compensation is a key part of the social safety net, but care must be taken that its availability does not deter workers from seeking training (if needed) and new employment as soon as possible. Combining eligibility for unemployment compensation with requirements for receiving needed training and undertaking necessary job search, especially for younger

workers, seems to balance these needs. The Danish system of Flexicurity,⁸³ established in the 1990s, wherein unemployment compensation is paid only when agreed-upon training programmes and/or job search is undertaken, is regarded as having been very successful.

In some economies, financial assistance is provided for workers whose job prospects in their present location appear dismal, whose needed training courses are located at a distance, or whose qualifications may fit the needs of employers in other places. Job centres can administer these resources in connection with their counselling activities in supporting workers in their job searches and employers in identifying qualified workers.

Successful active labour market policies contribute to the well-being of workers by shortening periods of unemployment and enabling retraining and relocation as necessary. In doing so, economic growth is enhanced (an unemployed worker is not contributing to the economy and tax base, and a worker with fewer skills is less productive). Job centres can also be important for inclusion, as the special needs of individuals in remote areas or in places where there have been concentrated redundancies can be addressed.

FACILITATING CONNECTIVITY

We live in a highly globalised and interconnected world—not only is this unlikely to change, but the pace of change in the global economy is likely to accelerate. This section will discuss how economies can help to promote skills formation and human capital development through greater connectivity between economies, including technical exchange and cooperation initiatives as well as through greater trade in services. This is all the more important given the impact that increased automation and other factors may have on labour markets in the future. Most of the structural reforms discussed in this report have to do with the domestic economy. However, it is likely that many economic and policy challenges facing the world today can only be solved through strong regional collaboration, given the increasing impacts of globalisation and digital technology.

Promoting connectivity between economies

Technical exchange and cooperation contributes to confronting the many challenges facing the global community, including persistent poverty and the effects of global warming. Such partnerships enable knowledge transfers and build capacity, thereby promoting economic growth and development. For example, Japan has made technical cooperation a central pillar of its overseas development agency. Through its projects, it has built technical expertise across a wide range of areas, including for the strengthening of educational institutions in Indonesia; Papua New Guinea; the Philippines; and Viet Nam.⁸⁴ The United States' Environmental Protection Agency has also partnered with its counterparts in many APEC economies, including China and Chinese Taipei, to share research and technical knowledge on environmental protection as well as to build capacity through training programmes in Indonesia

⁸³ See <http://denmark.dk/en/society/welfare/flexicurity> for more information.

⁸⁴ For more information, see the Japan International Cooperation Agency homepage at <https://www.jica.go.jp/project/english/>.

and Viet Nam.⁸⁵ Exchanges such as these have a direct impact on skills formation and the development of human capital throughout the region.

APEC has long been at the forefront of promoting technical exchange and cooperation with Economic and Technical Cooperation (ECOTECH) as one of its three pillars. Based on the *Framework to Guide ECOTECH Activities* endorsed in 2010, APEC has established “developing human capital through capacity building” as a medium-term, cross-cutting priority for 2015-2019.⁸⁶ Capacity building and the sharing of best practices is a staple of APEC projects. The HRDWG has been especially active in conducting capacity building projects relating to education. The HRDWG has also been working with the EC to implement the Renewed APEC Agenda on Structural Reform (RAASR). APEC could therefore reinforce its efforts to serve as a forum to facilitate and further strengthen technical exchange and cooperation, particularly through projects relating to cross-border education and skills training. Meanwhile, members could aim to remove any domestic regulatory barriers that may prevent them from participating in such technical cooperation initiatives.

Those economies facing skills shortages or acute skills mismatches may also find it beneficial to facilitate labour mobility as called for in the APEC Connectivity Blueprint and the APEC Services Competitiveness Roadmap. Governments would need to identify which industry sectors are most constrained due to a lack of domestic candidates with appropriate skills to fill roles in order to allow for more entrants from outside the domestic market. Australia and New Zealand, for example, have schemes to more easily facilitate working visas for those with in-demand skills.⁸⁷ These approaches to mitigate skills gaps through greater cross-border labour mobility require a careful analysis of the skills requirements in an economy. Thus, a regional labour market information system is an important mechanism and policy tool that can help to better understand the skills needed in an economy so as to allow for increased trade in services to fill those skill gaps.

The *APEC Economic Policy Report 2016* had as its theme Structural Reform and Services. The study found that professional services tend to face the most restrictive policies across the APEC region compared with other services sectors.⁸⁸ Based on data from both the World Bank and the OECD's Services Trade Restrictiveness Indexes, restrictions on the movement of people are large and there has been limited progress in removing these barriers over the past few years. In 2014, APEC Leaders endorsed the *APEC Connectivity Blueprint for 2015-2025* and acknowledged that “much work needs to be done to ease existing barriers to interaction and mobility, and to develop joint endeavours that will support seamless flow of people”. While there are obvious practical barriers to increasing the movement of people between economies, not least of which are language barriers, improving the regulatory environment so that candidates with in-demand skills can move more easily between economies could be an

⁸⁵ For more information, see the United States Environmental Protection Agency's International Cooperation homepage at www.epa.gov/international-cooperation.

⁸⁶ APEC SOM Steering Committee on Economic and Technical Cooperation (2010).

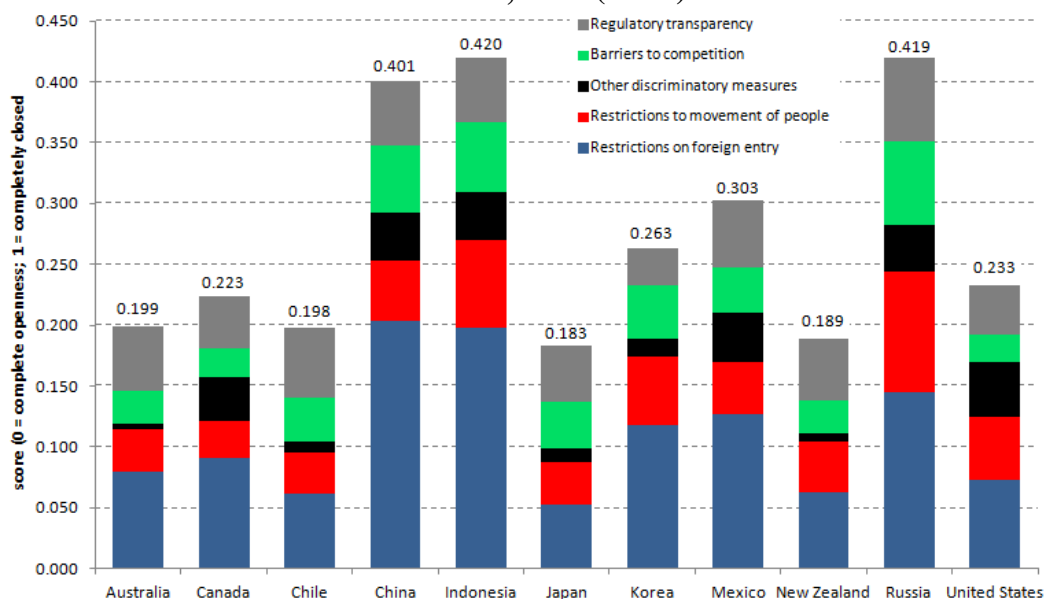
⁸⁷ Australia has the Temporary Skills Shortage (TSS) visa that is based on the Medium and Long-term Strategic Skills List (MLTSSL) (<https://www.tssimmigration.com.au/services/detail/temporary-skills-shortage-tss-visa>). New Zealand has the Essential Skills visa that is based on the Immediate Skill Shortage List (ISSL) and the Long Term Skill Shortage List visa that is based on the Long Term Skill Shortage List (LTSSL) (<http://skillsshortages.immigration.govt.nz/>). New Zealand also has the Skilled Migrant Category (SMC) visa that is based on the List of Skilled Occupations (<https://www.immigration.govt.nz/new-zealand-visas/apply-for-a-visa/about-visa/skilled-migrant-category-resident-visa>).

⁸⁸ APEC Economic Committee (2016).

important step towards enabling businesses to access needed skills so that they may become more productive.

In most APEC economies for which there are data, restrictions on the movement of people contribute the second or third highest share to overall services trade restrictiveness after restrictions on foreign entry and regulatory transparency (Figure 2.21). According to the data, regulatory barriers on the cross-border movement of people are lowest in Canada, while they are highest in Russia. One barrier to greater trade in services involves the recognition of qualifications obtained in another economy. Most APEC economies have laws or regulations that establish a process for recognising qualifications that have been gained abroad, although this varies by services sector. For example, all APEC economies (for which there are data) have a process in place to recognize foreign qualifications in engineering services, while very few have them for insurance brokers. Across the 11 APEC members for which there is data, Indonesia and Mexico have rules or regulations that establish a process to recognize qualifications earned abroad in the greatest number of services sectors.

Figure 2.21. Services Trade Restrictiveness Index (STRI) in selected APEC economies, 2016 (score)



Note: Data shown for each indicator is the simple averages of the scores across 22 services sectors.

Source: OECD, *Services Trade Restrictiveness Index (STRI)* and author calculations, accessed 1 June 2017.

There are opportunities for cooperation among APEC members in relation to qualification standards. These could take the form of information and knowledge exchange so as to develop high-quality standards, or greater recognition of the qualifications earned across the APEC region that are most relevant in particular services sectors. HRDWG's ongoing work on developing qualifications frameworks can also be pushed forward to improve people-to-people connectivity. In 2016, APEC Education Ministers⁸⁹ recognised the need for "effective and rigorous quality assurance systems, qualification frameworks and skills recognition systems" and encouraged economies to work together on knowledge sharing, capacity building, labour mobility, and cross-border education.

⁸⁹ 2016 APEC Education Ministerial Meeting. "An Inclusive and Quality Education", Lima, Peru, https://www.apec.org/Meeting-Papers/Sectoral-Ministerial-Meetings/Education/2016_education.

3. POLICY DISCUSSION AND THE ROLE OF REGIONAL COOPERATION

INSIGHTS FROM INDIVIDUAL ECONOMY REPORTS

As an integral part of the AEPR, Individual Economy Reports (IERs) were obtained through questionnaires to gather economies' insights on structural reforms in human capital development. The main aim was to identify the policy achievements, challenges and gaps, and opportunities for regional cooperation in this regard. The IER questionnaire defines structural reforms for human capital development as policies aiming to develop skills and productivity within several sectors like education, health, labour and social protection so as to make economic growth more inclusive and markets more efficient. The policies are also intended to make the economy, businesses and households more resilient to structural changes or cyclical shocks. Through education, training and access to markets, inclusive growth ensures that economic growth provides opportunities to all, irrespective of gender, background, race and disabilities. The complete list of IERs can be seen in Annex B.

Policy challenges

More than 40 per cent of the APEC economies⁹⁰ reported that they currently do not provide sufficient training and vocational education. This is in part the reason for identifying skill mismatch as a major problem. Another concern is that the needs of industry are not well aligned with educational institutions and curricula taught in schools. In response, more than half of the high- and middle-income economies are tackling the skill mismatch problem by investing in TVET programs to retrain and upgrade workers' skills. High-income economies have additionally considered other measures to prevent mismatch: for instance, advice from industry experts has been incorporated into training and education programs such that graduates are equipped to meet industry demand.

In high-income economies, an ageing population, lack of equal opportunities for women, and youth unemployment have been identified as key policy challenges. An ageing population puts pressure on the working age cohort, health care and the social security system. Youth are facing unemployment due to a skill mismatch causing them to be unprepared to satisfy industry demand. Furthermore, women struggle to balance work and family life. As a consequence, most of the economies have made attempts at increasing labour market participation among the elderly, youth, and women.

Middle-income economies have slightly different sets of issues to deal with. Poor or unstable economic conditions have, in some cases, set back efforts to improve education systems. Economies have identified access to quality education as a gap that needs to be addressed. Lack of appropriate education channels have impacted the economies' competitiveness and ability to innovate. Moreover, there is still inequitable access to human capital services like education

⁹⁰ For purposes of analyzing IERs, economies were divided into high-income and (upper and lower) middle-income economies based on World Bank classifications; there are no low-income economies in APEC according to this classification. High income economies are Australia; Brunei Darussalam; Canada; Chile; Hong Kong, China; Japan; Korea; New Zealand; Singapore; Chinese Taipei; and the United States. Middle income economies are China; Indonesia; Malaysia; Mexico; Papua New Guinea; Peru; the Philippines; Russia; Thailand; and Viet Nam.

and healthcare in some middle-income economies, putting poorer segments of the population at a disadvantage. Improving equity in access to and quality of human capital services remains a policy challenge for some middle-income economies.

Policy responses and regional cooperation

To address the challenges of an ageing population, some economies are offering opportunities to retrain and upskill older workers so that they can be rehired. Lifelong learning programmes can also help older workers to adapt to an ever-changing economy. Vocational training, job search assistance services and ensuring greater collaboration between industry and educational institutions are aimed at improving the employment chances of youth. Targeted programs that provide training and financial support can increase both the ageing and youth population's participation in the labour force and entrepreneurship. In this regard, economies are making it easier to start small businesses. More than 70 per cent of economies seek to empower women and provide better opportunities through improved parental leaves, child care facilities, and internships and funding programmes targeted to women.

Implementing structural reforms while promoting inclusive growth is a priority for most APEC members. Economies seek to ensure greater opportunities for the women, youth, the poor, indigenous peoples, immigrants, the disabled, and other marginalised groups. Some high-income economies have introduced or intend to introduce changes to the labour market framework in terms of providing minimum wages and adopting flexible work styles to benefit disadvantaged groups. They have also invested in improved data collection and analysis to better understand their challenges and respond to them. Some middle-income economies are shifting resources towards improving health care (see Case Studies, Annex A). Better healthcare will increase productivity and possibly improve competitiveness.

Over 80 per cent of economies consider sharing of best practices and experiences to have the greatest potential for gains from regional cooperation. Cross-border exchange in apprenticeships and internships is also considered as a potential benefit from regional cooperation by majority of economies. Also, many middle-income economies identify cooperation on labour mobility as an important opportunity in that regard.

POLICIES FOR STRUCTURAL REFORMS, GROWTH AND INCLUSION

Experience throughout the world strongly indicates that facilitating the shift toward the “sunrise” industries (i.e., new and emerging industries) through measures that maintain a level playing field and provide appropriate incentives is far more successful a policy both for growth and for inclusion than measures that bottle up workers and capital in “sunset” industries. Moreover, when workers do become redundant, it is virtually impossible to identify which ones were made redundant because of changing patterns of trade, which ones were made redundant because of economic growth, which ones were displaced by new technologies, and which ones lost jobs because of inefficient management in their former companies. Policies to facilitate the transition of redundant workers to new and more productive employment are desirable regardless of the reason for redundancy. For this reason, in the rest of this section the need for policy adaptation is considered without regard to the factors contributing to that need.

Some policies are important throughout the growth process, while others become more important at later stages of development. There is a labour market even in early stages of

development, in which individuals seek off-farm work, work as labourers on farms owned by others, compete for government jobs, and so on. As development progresses, the importance of the labour market, its complexity, and its functioning increases as workers are increasingly migrating, seeking jobs off-farm, and seeking better jobs after their initial employment. As already noted, more differentiated types of skills are needed as the economy develops. Skills become more differentiated, and the need for information about demand and supply for skills for different types and levels increases. This is true both for workers seeking employment and for employers looking for employees with the skills that they need.

Policy priorities for low-income economies

At early stages of growth, the crucial policies relate to education, and especially primary education. Estimates of real social rates of return to expenditures on primary education in developing economies range from 10 per cent to 60 per cent (Psacharopoulos and Patrinos 2002). Those unable to read or perform basic arithmetic functions are ill-equipped even for many unskilled off-farm jobs (and are, in many cases, also less productive in rural employment). For both inclusion and growth, increasing the number of persons with primary school attainment is perhaps the most urgent policy objective.

Of course, the quality of education always matters and capacity must gradually increase for secondary and tertiary education. It is important to upgrade teacher training at this stage. However, this cannot come at the expense of basic education. In many economies, the rate of expansion of primary school has been slower than it might have been as too much of the available budget has been allocated to secondary and tertiary education at too early a stage of growth. University graduates have difficulty finding employment and when they do, their productivity can be relatively low, as the supply of support staff (e.g., nurse, laboratory technicians, and nurses' aides) is limited and professionals' (e.g., doctors) time is taken performing those functions.

As primary enrolment and completion rates increase, the fraction of educational resources that can be allocated to secondary and tertiary education can likewise increase. Policymakers must decide the appropriate rate of increase, based in part on feedback from labour markets. If employers report that they cannot, for example, meet quality standards for exports because of a shortage of engineers, and engineers' salaries are seen to be rising rapidly, that is a clear signal to expand capacity for engineering education. Likewise, if data indicate that a particular skill group, say nurses, are having difficulty finding jobs, the rate at which spaces in nursing schools increase should slow down.

At this early stage of development, it is important that available and very scarce government resources are allocated efficiently between the public and the private sector and between physical capital (i.e., infrastructure and expansion of non-farm activities) and human capital (i.e., building and expanding schools and other training and health facilities as well as investing in teacher training). A vital prerequisite for inclusion is that access to primary education be expanded for all, especially girls, minorities, and vulnerable groups.

Policy priorities for middle-income economies

Most APEC economies are beyond the stage where the major impetus to growth can occur through creating a healthier and more literate labour force and through migration from

agricultural to non-agricultural employment. Rates of primary school completion are generally high in the APEC region. It is always important, of course, to continue to improve the quality of education and training. Teacher and/or student absenteeism, inadequate teacher training, and poor classroom facilities (especially supplies such as textbooks) can substantially reduce the achievements and employability even of students who have completed primary and secondary school. Moreover, inequality in the quality of education—when elite schools can compete with the best in the world while schools in poorer communities can barely teach basic numeracy—reduces the effectiveness as well as inclusiveness of the educational system.

As wages rise and the supply of new entrants to the labour force diminishes, a higher fraction of investment in human capital shifts to efforts to improving the quality of education and training, especially at the primary level, and to expansion of secondary and tertiary education and training. At this stage, increasing attention must be given to assuring a reasonable balance between types of training and the needs of private firms. Stories of skills mismatch—for example unemployed lawyers alongside shortages of engineers and scientists—are all too frequent and indicative of resource misallocation.

With middle-income status, it becomes very important to encourage formal sector employment and avoid policies that can discourage jobs growth. At the same time, active labour market policies take on increasing importance as growth continues. Hence, in addition to continuing attention to education and training, there are a number of policies that can enhance growth, but there are also pitfalls to be avoided. For example, setting minimum wages too high and over-regulation of the workplace can discourage investment and entrepreneurial activity in certain sectors (Boudreaux and Palagashvili 2016). On the other hand, setting minimum wages too low or under-regulation of labour conditions can endanger workers' welfare and decrease productivity. The art of policy is to find the appropriate trade-off between expanding opportunities and productivity of the labour force and protection of workers in the formal sector.

Occupational safety and health regulations should aim to meet minimum ILO standards. As labour productivity grows, there will be an opportunity to improve regulations and protections beyond the minimum. The World Bank's *Doing Business 2017* reports on the time and effort required for employers to hire a worker. Workers' safety and health need to be guaranteed using the right mix of regulations and other worker protection tools while avoiding the imposition of undue costs on businesses, especially on MSMEs, which can discourage entrepreneurship and formal sector job creation.

Ensuring that regulations and other tools meet international labour standards is critical from an early stage. At later stages of development, active labor market policies become more critical to ensure labour market flexibility. These are policies that enable more flexibility within the labour market by identifying and encouraging the training of the appropriate types and skills for workers, improving the flow of information to workers and employers, and otherwise contributing to the smooth functioning of the labour market. As previously mentioned, primary education is a high priority for low-income economies, while middle-income economies need to avoid policies that can contribute to the middle-income trap. But, at this stage, a start can be made in developing and improving active labour market policies, although they become more crucial as they advance to becoming high-income economies.

Box 3.1. Social safety nets: disability and old age

While this report is focused on human capital development and structural reform for growth, brief mention should be made of cross-cutting issues that are important for inclusive growth such as social safety nets for the disabled and the elderly. At an early stage of development, a large part of the population lives in rural areas or is otherwise outside the reach of formal institutions. Initially, social protection floors/social safety nets can only be extended to civil servants and employees of large formal sector enterprises. For the majority in such economies, the social safety net must be the family.

But as urbanisation continues and the tax base and capacity of the government to reach its people increases (for purposes of providing services such as education and health as well as for taxation), the desirability and affordability of extending the social safety net increases, including with regard to disability and old age.

As more and more of the population are urban and without familial support, the need for disability insurance increases. Some support can and should be provided either by employers directly for their workers or by financing provided by employers used by the government to support those in need. Here, as elsewhere, there is a need find the right balance: if disability payments are very high relative to wages, the risk is that some of those who could work will instead declare disability. Measures to enforce reasonable standards for disability eligibility are necessary, and, of course, compensation cannot be disproportionate to prevailing wages for those who are employed.

For old age pensions, the considerations are somewhat different. A major concern is determining the age of eligibility. Here there are issues especially in economies where life expectancy is increasing and the rate of population and labour force growth is dropping or even declining. Prospects for labour force capacity, the dependency ratio and the future funding of old-age insurance must be evaluated when determining the age of retirement and the size of pensions. To the extent that pensions are very generous, more may choose to retire early (if eligibility permits) leading to a reduction in experienced members of the workforce just as new entrants are declining. Likewise, the generosity of pensions must be linked to the prospective increase in real wages. If pension costs rise disproportionately, funds may be diverted from public investment in human and physical capital to the detriment of growth (and those young who are excluded from the training and education they might otherwise receive).

Policy priorities for medium- and high-income economies

For high-income economies, the possibilities for growth through the greater productivity of new entrants to the labour force are much smaller than at earlier stages of growth. As already seen, growth potential through migration of workers from low productivity rural jobs to higher productivity urban jobs necessarily diminishes as the fraction of rural population falls. This means that raising productivity of new entrants to the labour force through their training process is crucial. But so is the speed and the degree to which workers who become redundant can find new and productive employment.

Active labour market policies are the policies designed to enable the productive engagement of the labour force through training, retraining, information provision, and other means. They are important in any economy and can serve to support workers whose employment has been or will be terminated (or who want further training to get a better job) as well as new entrants to the labour force. As skills become more differentiated and real wages rise, unskilled labour-intensive activities become less profitable and employers substitute capital (e.g., machines, robots, computers, or forms of technology) for unskilled labour. Enabling a smooth transition of workers who were employed in “sunset” industries or occupations not only benefits the workers but also supports more rapid economic growth.

As universal primary education is achieved and secondary enrolments reach high levels, there continues to be a need to make further improvements to the overall quality of the education system. But it is also increasingly important to determine what type of education (in schools) and training (in TVET) are most needed by young people, and what forms of retraining should be available for experienced workers who have become redundant. Critical issues are finding the appropriate role for TVET, including finding the right balance between traditional educational facilities and TVET; types of TVET for different skills; incentives and arrangements for apprenticeships, on-the-job training, and lifelong learning; and the relationship of the private sector to the government in providing TVET.

Turning first to TVET, the needed types of technical training and education vary and increase as economic growth proceeds. If training is of the wrong type, the wrong amount, or of poor quality, resources are inefficiently used. The training staff and facilities are clearly important; but so, too are the time and efforts of trainees. Some types of training are better undertaken in businesses by companies cognizant of their needs, while others are better undertaken in stand-alone facilities.

As economic growth continues, changes in the skill requirements of the labour force occur more quickly. Needs for education and training are of two basic types: learning how to learn (often called “adaptability”)—i.e., how to take on new information within one’s skill set, including learning different components of a given type of skill— and learning a new skill altogether. These different needs can be illustrated with auto mechanics. Clearly, some basic skills (e.g., literacy and numeracy) are needed. Then comes learning about how to address a given problem (e.g., engine malfunction). Even more specific learning can focus on particular makes of automobiles, or on particular auto components. Of course, auto mechanics trained in the 1970s, for example, learned little about digital technology or programming. More recently-trained mechanics had an easier time adapting when those technologies were introduced into cars.

Technological advancement is also changing what skills need to be taught and how they are taught. Digital technology has lowered the costs of accessing information, but it is still left to the worker to distinguish reliable information from misinformation and to utilise information productively and creatively. Employment in the digital age requires basic cognitive skills, such as literacy and numeracy, but in a fast-changing economy a well-equipped worker also needs skills that are easily transferable across jobs and occupations. A worker needs to be adaptive and flexible, being quick to learn new skills as they are required by the job market. As the World Bank (2016) puts it, workers in the digital age require higher-order cognitive, socioemotional, and technical skills (Figure 3.1).

Figure 3.1. Skills needed in a digital economy

Source: World Bank (2016).

Important questions also include where and how these skills should be taught, and to whom. There is general agreement that basic literacy and numeracy are essential for virtually all jobs, even at the entry level for unskilled factory workers. These abilities are much the same in all fields of endeavour and can, therefore, usually best be taught in primary schools available to all as discussed above. Beyond the requirements for basic entry-level jobs, various approaches are possible. Some technical schools can teach software development for many uses, while some large firms (such as Google and Microsoft in the United States) have their own “universities.” Other types of skills may be best taught in apprenticeship programmes. Some apprenticeships are offered within firms, and others are offered jointly with continuing education, where students attend classes part of the time and receive on-the-job training by employers as well.

Economies need to find the right balance between apprenticeships, apprenticeships with schooling, technical training institutes, and other types of TVET. Balance is important so that the supplies of various types of skills grow roughly in proportion with demand; that the training is of the type needed by employers; and that the allocation of resources to various types of training programmes is appropriate. On one hand, this requires recognition of the needs of existing employers, particularly those involved in exporting goods and services to stay competitive. On the other hand, an attempt should also be made to anticipate future skills needs for businesses. Policy makers need to find the right balance of access and incentive compatibility for TVET provision, with focus on maximizing the role of the private sector in providing and funding training that is relevant to their needs. A robust policy framework and incentive structure allows the private sector to both contribute to and benefit from workers’ training.

Policies for structural change and inclusion

Most of the topics covered in this report on structural reform in human capital development promote inclusion. NEETs are typically disproportionately found among those from disadvantaged homes, regions or groups. Educational opportunities are, of course, key to providing a stepping stone to a more productive life. When access to primary school is not available or when the young do not attend, the chances of their becoming NEETs rise sharply.

More rapid growth is needed to expand opportunities and provide the fiscal space to implement policies that promote inclusiveness. Greater growth enables more resources for education and training and more employment opportunities. The role of active labour market policies is to incentivise and assist people to take up opportunities, and advise them on how to take advantage of them.

It should be remembered that support of MSMEs can enhance inclusion, both because MSMEs provide jobs and accelerate growth, and because policies that discourage MSME establishment and development mean that there will be less chance for their growth to encompass those left behind in remote areas and in rural settings.

Care should be taken to ensure that policies do not inadvertently favour the economically included, for example by pouring too many resources into additional vocational training (for those who by definition have completed their primary education), while others remain unschooled. Skills of literacy, numeracy, and comprehension that are learned in primary and secondary education are the bedrock and prerequisite of further skills development in tertiary education, TVET, or apprenticeship.

In the longer run, overall living standards will improve if economic growth enables all groups to benefit from increased human capital and openness. Policies that ensure inclusiveness will be more readily achieved in a more rapidly growing economy, which in turn implies an economy open to international trade and investment.

REGIONAL COOPERATION

There are numerous opportunities for cooperation among APEC members. In some instances, there may be groups of members finding cooperation useful, while in other cases, all APEC members may wish to participate. Opportunities include information collection and sharing, developing shared training facilities, setting up exchange programmes (in training and work experience), and establishing credential standards for different types of skills that can be mutually recognized and accepted.

The desirability of appropriate collection and dissemination of information on types of skills, skill qualifications, job availability and the like through labour market information systems has already been mentioned. Developing an LMIS for Asia Pacific would enable a regional view of skills gaps and aid policymaking and policy coordination in addressing these gaps. This is an area where a further exchange of information could be beneficial to many APEC members and could lead to further cooperation.

An initial step could involve improving information exchanges on skill shortages and surpluses in member economies. One way of achieving this is through further development of the APEC Labour Market Portal, which provides an initial resource by hosting data and reports on labour market conditions and workforce skills using economy-specific classifications.⁹¹ Relevant international organisations, such as the ILO, OECD, or Asian Development Bank (ADB), could also potentially facilitate further exchanges.

⁹¹ The APEC Labour Market Portal is available at: <http://skillsmap.apec.org/>

An important longer term step might be to agree on skill categories and classifications, perhaps taking advantage of a classification system used by ILO or by one or more members of APEC. Agreeing on skill categories and classifications, on the abilities entailed in various certificates of completed training, and mutual recognition of skill certificates in certain sectors could be beneficial for all economies in the region. Members with well-established statistical reporting services could be consulted as to good practices by those where improvements are deemed desirable. Within each economy, it would be essential to ensure that employers are consulted and actively involved in these efforts.

Some more ambitious members may wish to consider developing exchange programmes, under which there could be mutual flows of trainees and instructors. This would be especially beneficial in areas where the number of workers needed in a given skill category is limited but where training is specialized somewhere else. Skill sets might be identified in which training is needed but where the required number of trainees in any one location is relatively small. For example, in the United States not every university has a veterinary college. Exchange programmes are sometimes negotiated whereby students from a state without a veterinary programme receive training in a state that has one, and the other state reciprocates with a specialised programme that it possesses. A similar programme could be envisaged in the APEC region in terms of cross-border educational exchanges not only for tertiary and graduate studies but also for TVET and teacher training. It might be possible to identify situations where each member's skill training needs are not expected to be large, and then work to identify cross-border training opportunities. Especially for more specialised skills, there could be considerable benefits to pooling training facilities (especially as otherwise the teacher-student ratio in each economy would be very high).

The Role of APEC

Although APEC's focus has historically been on cross-border economic issues such as trade and investment liberalisation, issues of inclusiveness and human capital development have always been in the forefront of the region's agenda. Inclusiveness was discussed as early as 1994 as part of the Bogor Goals Declaration, when Leaders stated their goal to "attain sustainable growth and equitable development of APEC economies, while reducing economic disparities among them, and improving the economic and social well-being of our people".⁹² The Human Resources Development Working Group (HRDWG) was established in 1990—just one year after APEC itself was founded—to discuss issues and implement initiatives relating to education and training, employment and labour markets, and capacity building.

Although the Economic Committee (EC) has not traditionally focused on human capital development issues, Leaders and Ministers have increasingly included structural reforms in labour markets and issues of inclusiveness as part of its work. The APEC New Strategy on Structural Reform (ANSSR), implemented in 2010-2015, called for structural reforms that promote (1) labour market opportunities, training, and education; (2) sustained SME development and enhanced opportunities for women and vulnerable populations; and (3) effective and fiscally sustainable social safety net programs. This is reiterated in the Renewed APEC Agenda on Structural Reform (RAASR), which was endorsed during the Structural Reform Ministerial Meeting (SRMM) in Cebu in 2015 and defines the focus of EC's

⁹² APEC, *1994 Leaders' Declaration*, Bogor, Indonesia, http://www.apec.org/Meeting-Papers/Leaders-Declarations/1994/1994_aelm.aspx.

current work. RAASR aims to promote balanced, inclusive, sustainable and innovative secure growth through structural reforms guided by the following pillars:

- (1) more open, well-functioning, transparent and competitive markets;
- (2) deeper participation in those markets by all segments of society, including MSMEs, women, youth, older workers and people with disabilities; and
- (3) sustainable social policies that promote the above mentioned objectives, enhance economic resiliency, and are well-targeted, effective and non-discriminatory.

Pillars (1) and (2) directly relate to structural reforms in the labour market to promote efficiency as well as employment among disadvantaged groups. Pillar (3) has implications with regard to reforms for social protection and safety net programmes. EC initiatives focus on making markets more open, improving labour market opportunities through training and education, and initiating programmes to empower vulnerable groups through capacity building and training. More open and competitive markets help reduce economic distortions, thereby facilitating local trade-related and other adjustments. Structural reform in human capital development can contribute to making education and labour markets more efficient, reducing frictions in the movement of workers from one sector to another.

While structural reform issues are EC's main mandate, human capital development issues are the focus of HRDWG's work. Cooperation between the two fora in the area of structural reform and human capital development has great potential to generate synergies and improve coordination of initiatives. Important guideposts for HRDWG's human capital development work are the APEC Human Resources Development Action Plan 2015-2018, which aims to promote people-to-people connectivity and quality employment in the region; the APEC Education Strategy 2016, which aims to have a cohesive education community that supports sustainable economic growth by 2030; and the 2017 APEC Framework on Human Resources Development in the Digital Age, which fosters research and cooperation to address the changes and disruptions due to digital technology. The aim is for APEC economies to be better equipped to provide human resources with the skills needed by labour markets. HRDWG is also in the forefront of knowledge sharing and capacity building on ALMPs, LMIS, labour mobility, cross-border education, and social protection programmes.

Table 3.1 summarises some possible areas for collaboration and future initiatives for EC and HRDWG to progress work on structural reform and human capital development in APEC.

Table 3.1. Possible work areas for EC and HRDWG

	EC	HRDWG
Human capital and skills development	<ul style="list-style-type: none"> - Regulatory reform to increase private sector participation in skills training including TVET apprenticeship programmes - Regulatory reform to increase competition in the education and training sector - Policy reform to incentivise firms to provide worker 	<ul style="list-style-type: none"> - Alignment of training to industry needs as well as digital skills - Establish systems to minimise skills gaps and mismatches - Cross-border education exchange, including TVET and apprenticeships - Cross-border teacher training and development

	EC	HRDWG
	training, especially for disadvantaged groups - Liberalisation of education and training services	
Labour, employment, and entrepreneurship	<ul style="list-style-type: none"> - Use/apply regulations, standards and other instruments as appropriate to best achieve sought outcomes on labour standards and protections, with emphasis on inclusion of vulnerable workers in the informal sector - Use/apply instrument choice to best achieve sought outcomes on occupational safety and health, with emphasis on inclusion of vulnerable workers in the informal sector - Policy reform to incentivise hiring of disadvantaged and vulnerable workers (women, youth, elderly, minorities, disabled) - Modernisation of labour market regulations to cover jobs through digital platforms (i.e., the gig economy) - Regulatory reform to facilitate business processes, with emphasis on barriers faced by MSMEs - Regulatory reform to improve access to credit among MSMEs and disadvantaged groups 	<ul style="list-style-type: none"> - Knowledge sharing on needs and requirements of disadvantaged and vulnerable workers (women, youth, elderly, minorities, disabled) - Further development of the APEC Labour Market Portal and comparable resources, including by publishing further information on skills gaps and mismatches and investigating options to improve the consistency of data collections and skills classifications. - Capacity building to collect accurate and timely data from supply and demand side of the labour market - Knowledge sharing on the economic costs and benefits of labour mobility and the impact of barriers to mobility - Promoting labour mobility and connectivity, including work on increasing mutual recognition agreements in the region - Capacity building and knowledge sharing on implementing effective and cost-efficient ALMPs - Capacity building and knowledge sharing on accreditation and skills recognition, with focus on developing an APEC regional qualifications framework - Capacity building and knowledge sharing on policy responses to structural change

	EC	HRDWG
Social protection and safety nets	<ul style="list-style-type: none"> - Policy reform of social protection programmes, with emphasis on sustainability - Reforms to modernise insurance and pension systems to account for digital technology and the gig economy 	<ul style="list-style-type: none"> - Knowledge sharing on portability of benefits, with emphasis on implications of labour mobility and the gig economy - Knowledge sharing on implementing social protection and safety nets, with emphasis on implications of labour mobility and changing employment relationships

In addition to cooperation between APEC economies and across APEC fora, APEC could also work with other international organisations and multilateral institutions to advance structural reform and human capital development in the region. APEC can leverage on the body of research and experience by organisations such as ASEAN, ILO, OECD, PECC, and UN, for example, to learn about priorities and trends. One possibility would be for the EC and the HRDWG to hold formal policy dialogues or periodic informal meetings to share experience and work related to improving the outcomes of structural change. This would increase coordination and enable the two bodies to avoid duplication of effort in this area. Finally, there is a lot to learn from field experiences and studies by multilateral development banks such as AIIB, ADB, EBRD, IsDB, and WB to learn what works—and what does not—on the ground.

4. POLICY RECOMMENDATIONS

The following policy recommendations are proposed for APEC economies to consider, where relevant and appropriate:

1. ***Improve access to and quality of education and training.*** This is especially important for excluded groups and regions. Improving the quality of education should be a continuing process and intensify once 100 per cent enrolment in primary school has been achieved. Expansion of capacity in secondary schools and lifelong training programs should be accelerated as primary enrolment gets to 100 per cent. Categories of expansion should be coordinated with apparent and forecast skill requirements and geared towards inclusion (in coordination with an ALMP plan as discussed below).
2. ***Develop labour and educational reforms with a view to reaching appropriate active labour market policies (ALMPs).*** ALMPs coordinate all aspects of skills and employment and the policies suggested below could each be a part of a fully functional AMLP. Coordination of various policies and actions on skills development and employment—e.g., training and education, unemployment compensation, job vacancies, job search and matching, retraining for redundant workers, and training to upgrade skills—can improve labour productivity, allocation, and utilisation while contributing to inclusive growth.
3. ***Involve the private sector in training and skills development.*** The private sector has an important role to play in skills development of the workforce and is the best informed on their labour market needs. Advisory committees could advise officials on skills abundance and shortages, needed additional training facilities, expectations on growth areas, course content, etc. Where appropriate, apprenticeships could be encouraged with financial support for workers, and perhaps even for businesses that hire and retain those they train.
4. ***Reform labour market regulations and protection as needed.*** APEC economies have committed to ensuring worker protections and rights; thus, in line with these commitments, reforms need to be pursued in accordance with internationally agreed and recognised fundamental principles of rights at work. Nevertheless, economies should be mindful not to over-regulate their labour market. For example, policy reforms may be established to ensure that minimum wages, employees' rights to leave, hours of work, and other labour regulations guarantee fair compensation and safe working conditions. Yet, economies would want to structure these reforms so as not to induce shifts to the informal sector or discourage job creation.
5. ***Develop and improve data on all aspects of the labour market.*** Developing timely and accurate data on the labour market is an important step toward effective ALMPs. In addition to data from labour force surveys, data on job vacancies and redundancies from employers, data on qualification and standards that can be shared and disseminated, and other data will need to be regularly collected to inform policymakers, educators, and labour markets.
6. ***Develop definitions of skills and appropriate certification mechanisms.*** Having common definitions of skills is crucial so that employers and employees can be better informed as to job matching needs and as an input to ALMPs. These definitions are also an important input for education and training systems so they can develop appropriate curricula and pedagogies and issue certifications that are relevant to labour market needs.

7. ***Enhance social protection and safety nets for all, with an emphasis on inclusion.*** Social protection and safety net programmes play a crucial role in helping workers and households adapt to cyclical and structural unemployment. They also provide opportunities for unemployed workers to search for appropriate jobs and invest in human capital. Social protection and safety nets need to be enhanced while taking into account both the benefits and the costs. Linking unemployment benefits to job search and training or retraining as needed, in economies where these benefits exist, can improve outcomes for workers, employers, and the economy. To remain sustainable and responsive, programmes need to be adaptable to changing technologies, employment relationships, and demographic trends.
8. ***Establish employment centres, especially in areas where information is poor and where exclusion is a significant issue, and provide support for displaced workers and those at risk of displacement due to structural unemployment.*** This should be coordinated as a significant step toward a full ALMP, with unemployment benefits conditional on job search or retraining as agreed with a counsellor. Information from employers can be disseminated through employment centres. With better information flows, periods of unemployment post-training or after redundancy can be significantly reduced, with simultaneous benefits to inclusion and economic growth.
9. ***Improve people-to-people connectivity through cross-border training exchange, labour mobility, and regulatory coherence.*** Economies can consider upgrading cooperation on people-to-people connectivity in line with current commitments. As globalisation and digital technologies are increasingly making labour markets international, cooperation on labour mobility and employment regulatory coherence becomes vital. APEC economies could also consider cooperation on cross-border education exchange—including for TVET, apprenticeships, and teacher training—to enhance skills development capacity building in the region.

REFERENCES

- Abel, Jaison R., Richard Deitz, and Yaqin Su (2014). Are Recent College Graduates Finding Good Jobs? , *Current Issues in Economics and Finance*, Vol. 20, No. 1, January 2014, United States Federal Reserve Bank of New York.
- APEC (1994), *1994 Leaders' Declaration*, Bogor, Indonesia, 15 November 1994, para. 8, http://www.apec.org/Meeting-Papers/Leaders-Declarations/1994/1994_aelm.aspx.
- APEC SOM Steering Committee on Economic and Technical Cooperation (2010). *2010 APEC Senior Officials' Report on Economic and Technical Cooperation*, November 2010, APEC Secretariat, Singapore.
- APEC Economic Committee (2016). *APEC Economic Policy Report 2016: Structural Reform and Services*, November 2016, APEC Secretariat, Singapore.
- 2016 APEC Education Ministerial Meeting. *An Inclusive and Quality Education*, 5th -6th October, Lima, Peru, https://www.apec.org/Meeting-Papers/Sectoral-Ministerial-Meetings/Education/2016_education.
- APEC Labour Market Portal, <http://skillsmap.apec.org/>.
- Arulampalam, Wiji, Paul Gregg, and Mary Gregory (2001). Unemployment Scarring, *The Economic Journal*, Vol. 111, No. 475, November 2001, pages 577-584.
- Keating, J. (2002). *Comparative Study of Vocational Education and Training Systems: National Vocation and Training Systems Across Three Regions Under Pressure of Change*, Australian National Centre for Vocational Education Research, Leabrook SA.
- Australia Labour Market Information Portal, www.lmip.gov.au.
- Autor, David H. and David Dorn (2013). The Growth of Low-Skill Service Jobs and the Polarization of the US Labour Market, *American Economic Review*, Vol. 103, No. 5, August 2013, pages 1553-97.
- Barrientos, A. and S.W. Barrientos (2002). *Extending Social Protection to Informal Workers in the Horticulture Global Value Chain*. Social Protection Discussion Paper Series No. 0216, June 2002.
- Bell, David N. F. and David G. Blanchflower (2011a). *Youth Unemployment in Europe and the United States*, Institute for the Study of Labour (IZA) Discussion Paper 5673, April 2011.
- Bell, David N. F. and David G. Blanchflower (2011b). *Young People and the Great Recession*, Institute for the Study of Labour (IZA) Discussion Paper No. 5674, April 2011.
- Boudreaux, D.J. and L. Palagashvili (2016). *An Economic Analysis of Overtime Pay Regulations*. Mercatus Working Paper, Mercatus Center at George Mason University, Arlington, Virginia.
- Broecke, S., A. Forti and M. Vandeweyer (2017). The effect of minimum wages on employment in emerging economies: a survey and meta-analysis. *Oxford Development Studies* 45(3): 366-391.

Caliendo, Marco, Konstantinos Tatsiramos, and Arne Uhlenborff (2009). *Benefit Duration, Unemployment Duration and Job Match Quality: A Regression-Discontinuity Approach*, Institute for the Study of Labour (IZA) Discussion Paper No. 4670, December 2009.

Card, David, Jochen Kluve, and Andrea Weber (2015). *What Works? A Meta Analysis of Recent Active Labour Market Programme Evaluations*, NBER Working Paper No. 21431, July 2015.

Causa, Orsetta, Alain de Serres, and Nicolas Ruiz (2015). *Structural reforms and income distribution*, OECD Economic Policy Papers, No. 13, April 2015, OECD Publishing, Paris.

Centeno, Mário (2004). The Match Quality Gains from Unemployment Insurance, *The Journal of Human Resources*, Vol. 39, No. 3, Summer 2004, pages 839-863.

Chinese Taipei's Ministry of Education online statistics, <http://english.moe.gov.tw/>.

Canagarajah, S. and S.V. Sethuraman (2001). *Social Protection and the Informal Sector in Developing Countries: Challenges and Opportunities*. Social Protection Discussion Paper Series No. 0130, December 2011.

Denmark.dk: The official website of Denmark, <http://denmark.dk/en/society/welfare/flexicurity>.

Donovan, Sarah A., David H. Bradley, and Jon O. Shimabukuro (2016). *What Does the Gig Economy Mean for Workers?*, February 2016, Congressional Research Service, Washington, DC.

Edelman Berland (2014). *Freelancing in America: A National Survey of the New Workforce*, Nationwide Survey, http://fu-web-storage-prod.s3.amazonaws.com/content/filer_public/c2/06/c2065a8a-7f00-46db-915a-2122965df7d9/fu_freelancinginamericareport_v3-rgb.pdf.

Edwards, S. (1997), *Openness, productivity and growth: what do we really know?*, Working paper, Cambridge, MA: National Bureau of Economic Research.

Escudero, Verónica (2015). *Are active labour market policies effective in activating and integrating low-skilled individuals? An international comparison*, ILO Research Department Working Paper No. 3, February 2015.

Farrell, Diana and Fiona Greig (2016). *The Online Platform Economy: Has Growth Peaked?*, JPMorgan Chase Institute, November 2016.

Fernández-Macías, E. and Hurley, J. (2014). *European Jobs Monitor 2014: Drivers of Recent Job Polarisation and Upgrading in Europe*, Dublin: European Foundation for the Improvement of Living and Working Conditions.

Frey, Carl Benedikt and Michael A. Osborne (2013). *The Future of Employment: How Susceptible are Jobs to Computerisation?*, Oxford University, September 2013.

Frankel, J.A. and D. Romer (1999), *Does trade cause growth?*, American Economic Review 89, no. 3 (June 1999): 379–99.

Gindling, T.H. (2014). *Does increasing the minimum wage reduce poverty in developing countries?*. IZA World of Labor 2014: 30. <https://wol.iza.org/uploads/articles/30/pdfs/does-increasing-the-minimum-wage-reduce-poverty-in-developing-countries.pdf>.

Goldberg, P.K. and N. Pavcnik (2007). Distributional Effects of Globalization in Developing Countries. *Journal of Economic Literature* 45(1), pp. 39-82.

Gollin, D., Lagakos, D. and Waugh, M.E. (2013). *The Agricultural Productivity Gap*, NBER Working Paper Series, Cambridge, November 2013.

Gregg, Paul (2001). The Impact of Youth Unemployment on Adult Unemployment in the NCDS, *The Economic Journal*, Vol. 111, No. 475, November 2001, pages 626-653.

Gregg, Paul and Emma Tominey (2004). *The Wage Scar from Youth Unemployment*, CMPO Working Paper Series No. 04/097, February 2004.

Gries, T. and M. Redlin (2012), *Trade openness and economic growth: a panel causality analysis*, Working paper, Paderborn: University of Paderborn, Center for International Economics.

Hall, J.V. and Krueger, A.B. (2015). *An Analysis of the Labor Market for Uber's Driver-Partners in the United States*, Working paper No. 587, Princeton University, January 2015.

Harrison, A., J. McLaren and M.S. McMillan (2010), *Recent findings on trade and inequality*, Working Paper, Cambridge, MA: National Bureau of Economic Research.

Hawley, J. (2007). *Public Private Partnerships in Vocational Education and Training: International Examples and Models*, World Bank.

Henrekson, Magnus (2014). *How labour market institutions affect job creation and productivity growth*, IZA World of Labour 2014, May 2014.

Hicks and Devaraj (2015). *The Myth and the Reality of Manufacturing in America*, Ball State University, June 2015.

International Labour Organization (ILO). *Minimum Wage Policy Guide*, Geneva, http://www.ilo.org/wcmsp5/groups/public/---ed_protect/---protrav/---travail/documents/genericdocument/wcms_508566.pdf

International Labour Organization (ILO) (2014). *World Social Protection Report 2014/15: Building economic recovery, inclusive development and social justice*, International Labour Office, Geneva.

International Labour Organization (ILO) (2016). *Non-standard employment around the world: Understanding challenges, shaping prospects*, International Labour Office, Geneva.

ILO, ILOSTAT.

ILO, Key Indicators of the Labour Market (KILM) online database, <http://www.ilo.org/global/statistics-and-databases/research-and-databases/kilm/lang--en/index.htm>.

ILO, NORMLEX database, <http://www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:1:0::NO::>.

ILO, Social Security Inquiry (SSI), <http://www.social-protection.org/gimi/gess/ShowTheme.action?id=10>.

IMF, World Bank and WTO (2017), *Making Trade an Engine of Growth for All: The Case for Trade and for Policies to Facilitate Adjustment*, Policy paper, Washington, DC: IMF.

International Monetary Fund (IMF) (2017). *World Economic Outlook: Gaining Momentum?*, IMF, Washington, DC.

Jacobs, Elisabeth and Joshua Bleiberg (2013). *Addressing Long-Term Unemployment for America's Next Generation of Workers*, The Brookings Institution Op-Ed, March 2013.

Japan International Cooperation Agency, <https://www.jica.go.jp/project/english/>.

Kahn, Lisa (2010). The Long-Term Labour Market Consequences of Graduating from College in a Bad Economy, *Labour Economics*, Vol. 17, Iss. 2, April 2010, pages 303-316.

Katz, Lawrence F. and Alan B. Krueger (2016). *The Rise and Nature of Alternative Work Arrangements in the United States, 1995-2015*, NBER Working Paper No. 22667, September 2016.

Levine, L. (2010), *Unemployment through layoffs and offshore outsourcing*, Washington, DC: Congressional Research Service.

Lewis, W. A. (1954). Economic Development with Unlimited Supplies of Labour. *The Manchester School* 22: 139–191.

Lewis, W. A. (1979). The Dual Economy Revisited. *The Manchester School* 47: 211–229.

Manpower (2016). “2016/2017 Talent Shortage Survey”, <http://manpowergroup.com/talent-shortage-2016>.

Marimon, Ramon and Fabrizio Zilibotti (1999). Unemployment vs. Mismatch of Talents: Reconsidering Unemployment Benefits, *The Economic Journal*, Vol. 109, No. 455, April 1999, pages 266-291.

McGregor, J. and Gray, L. (2002). Stereotypes and older workers: the New Zealand experience. *Social Policy Journal of New Zealand* 18:163-177.

McKinsey Global Institute (2015). *The power of parity: How advancing women's equality can add \$12 trillion to global growth*, September 2015.

Meer, J. and West, J. (2015). Effects of the Minimum Wage on Employment Dynamics, *The Journal of Human Resources*, November 2015.

Nagler, Paula (2013). *How unemployment insurance savings accounts affect employment duration: evidence from Chile*, IZA Journal of Labour & Development, Vol. 2, No. 9, December 2013.

Neumark, D. (2015). *The Effects of Minimum Wages on Employment*. FRBSF Economic Letters 2015-37, <http://www.frbsf.org/economic-research/publications/economic-letter/2015/december/effects-of-minimum-wage-on-employment/>.

New Zealand Immigration, <https://www.immigration.govt.nz/new-zealand-visas>.

OECD (2011). *When students repeat grades or are transferred out of school: What does it mean for education systems?*, PISA in Focus, No. 6, OECD Publishing, Paris.

OECD (2012). *Does Money Buy Strong Performance in PISA?*, PISA in Focus, No. 13, OECD Publishing, Paris.

OECD (2015). *In It Together: Why Less Inequality Benefits All*, May 2015, OECD Publishing, Paris.

OECD (2016a). *Getting Skills Right: Assessing and Anticipating Changing Skill Needs*, April 2016, OECD Publishing, Paris.

OECD (2016b). *PISA 2015 Results in Focus*, Programme for International Student Assessment, December 2016.

OECD (2016c). *Society at a Glance 2016: OECD Social Indicators*, October 2016, OECD Publishing, Paris.

OECD (2016d). *Entrepreneurship at a Glance 2016*, September 2016, OECD Publishing, Paris.

OECD (2017a). *Education at a Glance: OECD Indicators*. OECD Publishing, Paris.

OECD (2017b). *Financial Incentives for Steering Education and Training, Getting Skills Right*, OECD Publishing, Paris.

OECD Employment and Labour Market Statistics, <https://data.oecd.org/>

OECD Gender Data Portal (Employment Indicators), <http://www.oecd.org/gender/data/>.

OECD/IAB Employment Protection Database, <http://www.oecd.org/employment/emp/oecdindicatorsofemploymentprotection.htm>.

OECD PISA 2015 online database, <http://pisadataexplorer.oecd.org/ide/idepisa/>.

OECD Services Trade Restrictiveness Index (STRI), <http://www.oecd.org/tad/services-trade/services-trade-restrictiveness-index.htm>.

OECD Statistics, <http://stats.oecd.org/>.

Panagariya, A. (2003), *Miracles and debacles: do free-trade skeptics have a case?*, Policy paper.

Psacharopoulos, G. and Patrinos, H.A. (2002). *Returns to Investment in Education: A Further Update*, Policy Research Working Paper, The World Bank, September 2002.

Ranis, G. and Fei, J.C.H. (1961). A Theory of Economic Development. *American Economic Review*, 51: 533-565.

Reyes Hartley, Gonzalo, Jan C. van Ours, and Milan Vodopivec (2010). *Incentive Effects of Unemployment Insurance Savings Accounts: Evidence from Chile*, Institute for the Study of Labour (IZA) Discussion Paper No. 4681, January 2010.

Rolf, David, Shelby Clark, and Corrie Watterson Bryant (2016). *Portable Benefits in the 21st Century: Shaping a New System of Benefits for Independent Workers*, Future of Work Initiative, June 2016, The Aspen Institute.

Roser, M. (2017). *Economic Growth*, Our World in Data, based on World Bank and the New Maddison Project Database, <https://ourworldindata.org/economic-growth>.

Roser, M. and E. Ortiz-Ospina (2017), *Global extreme poverty*, Our World in Data, 27 March 2017, <https://ourworldindata.org/extreme-poverty/> (accessed 5 May 2017).

Rostow, W.W. (1960). *The Stages of Economic Growth: A Non-Communist Manifesto*, Cambridge University Press: Cambridge, England.

Schleicher, Andreas (2015). *Viet Nam's 'stunning' rise in school standards*, BBC News, 17 June 2015.

Silverstein, M. (2008). Meeting the challenges of an aging workforce. *American Journal of Industrial Medicine*, 51(4): 269-80.

Smith, A. (1776), *The Wealth of Nations*, Book IV, Chapter V.

Singapore's online data portal, <https://data.gov.sg/dataset/combined-and-gross-enrolment-ratio-for-primary-secondary-tertiary-education>.

Stuart, Mark, Danat Valizade, and Ioulia Bessa (2015). Skills and training: the union advantage, Centre for Employment Relations, Innovation & Change, Research paper 21, May 2015.

Sugiyarto, G. and B. Endriga (2008). *Do Minimum Wages Reduce Employment and Training?*. ERD Working Paper Series No. 113. <https://www.adb.org/sites/default/files/publication/28371/wp113.pdf>

The Economist (2011). "Are ATMs stealing jobs?". <https://www.economist.com/blogs/democracyinamerica/2011/06/technology-and-unemployment>

The Conference Board, Total Economy Database., <https://www.conference-board.org/data/economydatabase/>.

UNESCO Institute for Statistics (UIS) online database, <http://data.uis.unesco.org/>, accessed 20 April 2017.

UNESCO World Inequality Database on Education (WIDE), <http://www.education-inequalities.org/>, accessed 1 June 2017.

UN Women. *Facts and Figures: Economic Empowerment*, <http://www.unwomen.org/en/what-we-do/economic-empowerment/facts-and-figures>, accessed 1 June 2017.

United States Environmental Protection Agency, www.epa.gov/international-cooperation.

van Praag, C. Mirjam and Peter H. Versloot (2008). *The Economic Benefits and Costs of Entrepreneurship: A Review of the Research*, Foundations and Trends in Entrepreneurship, Vol. 4, Iss. 2, pages 65-154, 2008.

Vincent-Lancrin, Stéphan (2008). *The Reversal of Gender Inequalities in Higher Education: An On-going Trend*, Higher Education to 2030, Volume 1, Demography, OECD Publishing, Paris.

Wacziarg, R. and K.H. Welsh, *Trade liberalization and growth: new evidence*, The World Bank Economic Review 22, no. 2 (2008): 187–231.

Walther (2011). *Building Skills in the Informal Sector*, Background Paper prepared for the Education for All Global Monitoring Report 2012, UNESCO, Paris.

Weiner R. and S. Willborn, eds. (2011). *Disability and Aging Discrimination: Perspectives in Law and Psychology*, Springer: New York.

World Bank (2015). *Women, Business and the Law 2016: Getting to Equal*, Washington, DC.

World Bank and WTO (2015), *The Role of Trade in Ending Poverty*, (Geneva, WTO, 2015), 19–25.

World Bank (2016). *World Development Report 2016: Digital Dividends*, Washington, DC: World Bank.

World Bank (2017). *Doing Business 2017: Equal Opportunity for All*, 14th edition, Washington, DC: World Bank.

World Bank Doing Business 2017: Labor Market Regulation Data, <http://www.doingbusiness.org/data/exploretopics/labor-market-regulation>.

World Bank Doing Business online database, <http://www.doingbusiness.org/data>.

World Bank PovcalNet, <http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx>.

World Bank World Integrated Trade Solution (WITS), UN Comtrade, <http://wits.worldbank.org/>.

World Bank World Development Indicators, <https://data.worldbank.org/data-catalog/world-development-indicators>.

World Economic Forum (2014). *Matching Skills and Labour Market Needs: Building Social Partnerships for Better Skills and Better Jobs*, Global Agenda Council on Employment, 22-25 January 2014, Davos-Klosters, Switzerland.

World Economic Forum (2016), *The Future of Jobs: Employment, Skills and Workforce Strategy for the Fourth Industrial Revolution*, Geneva, January 2016.

World Economic Forum (2016). *The Global Gender Gap Report 2016*, October 2016, Geneva.

Schwab, K. (2016). *The Global Competitiveness Report 2016–2017*, World Economic Forum, Geneva.

World Economic Forum (2017). *The Inclusive Growth and Development Report 2017*, January 2017, Geneva.

World Economic Forum Human Capital Index 2016, <https://widgets.weforum.org/human-capital-2016/>.

World Economic Forum Inclusive Development Index 2017, <https://widgets.weforum.org/inclusive-development-index-2017/>.

World Trade Organization (2017). *World Trade Report 2017: Trade, technology and jobs*. WTO, Geneva.



**Asia-Pacific
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Annex A

OVERVIEW OF 2017 AEPR CASE STUDIES

The following case studies by Viet Nam and Indonesia are highly pertinent. Viet Nam's Case Study focuses on reform of the education and health sectors, as well as access to water and information. Indonesia's case study focuses on the reform of its social security system, particularly in the areas of health and employment. This overview introduces the case studies, describes briefly the policies and structural reforms that were introduced and their impact, and highlights some lessons learned and challenges going forward with respect to structural reform and human capital development (HCD).

1. Overview of Viet Nam Case Study

Introduction: Viet Nam's transition from an agricultural to a modern, industrialized economy and from central planning to a more market-based system began in earnest in 1986 with the Doi Moi (renovation) reforms. Since then, well-being as measured by Viet Nam's score in the UN's Human Development Index (HDI) has risen continuously, reaching the upper end of the medium category in 2014. Viet Nam's social protection and poverty reduction system was based primarily on (i) social insurance, with policies to extend access to health and pension insurance for poor and near-poor individuals; (ii) geographically targeted development and anti-poverty programs as well as budget equalization mechanisms to channel resources to poor provinces and poor districts, and (iii) household-targeted anti-poverty and social assistance programs. However, due to the introduction of user fees and privatization and liberalization of some service sectors, by the early 1990s the quality and quantity social services provision (as measured by e.g. school enrollments and utilization of health services) no longer matched the pace of economic growth. The Viet Nam Case Study focuses on social services such as pensions, education, health and health insurance, and access to clean water and ICT services.

Policies and Impacts: To improve basic education Viet Nam passed the 2010 Education Law which gave priority to the poor, ethnic minorities, and economically disadvantaged areas and provided universal education from age 5 to the lower secondary level. Additional measures included subsidizing meals for students at schools and boarding schools and support for tuition fees for poor or minority students. Partly as a result of the reforms, Viet Nam has a high enrollment rate through junior high school, and social equity in education has improved as of 2015. Second, to improve Primary Healthcare, in 2013 the government adopted the National Strategy on the protection, caring and promotion of people's health for the 2011-2020 period, and implemented a series of domestic targeted programs related to health and community healthcare in areas such as disease prevention and reproductive healthcare. Viet Nam's Health Insurance Law, which came into force in 2009, increased coverage and provided a convenient

new health card for many categories of members. By 2015, nearly 75 per cent of Vietnamese were beneficiaries of health insurance, of which 78 per cent received coverage or support from the State. Third, to improve clean water access, especially for rural and underserved communities, the Prime Minister approved the National Strategy on clean water supply and sanitation in rural areas to 2020 and a domestic targeted program on clean water supply and sanitation in rural areas from 2012-2015. Targets for this program were met. Fourth, policies promulgated in 2011 and 2012 increased investment in ICT infrastructure and reduced the “information gap” for people in rural and remote areas, improving economic prospects and contributing to HCD.

Lessons Learned and Challenges Going Forward: Viet Nam’s experience of implementing reforms highlights the importance of a well-defined and evidence-based strategy with clear targets. While social outcomes have improved, many people in Viet Nam are near poor or risk falling back into poverty, and significant gaps remain. Social benefits are good for those in the formal sector, but very limited social assistance is available for the poorest and members of the ‘missing middle’ - the near-poor and those employed in the informal sector. Viet Nam’s challenges include consolidating its fragmented system of social assistance transfers. Due to fiscal constraints, Viet Nam will have to proceed cautiously as it extends health coverage, focussing on the most needy. Policies to improve the viability of Viet Nam’s generous pension system (VSS) could include raising the retirement age and increased co-payments. Viet Nam sees HCD reforms as being central to efforts to respond to the challenge of an ageing population and move to a sustainable economic model based on increasing productivity rather than high levels of capital investment.

2. Overview of Indonesia Case Study

Introduction: Indonesia’s Case Study focuses on its Social Security System in Health and Employment (Sistem Jaminan Sosial Nasional or SJSN). A vast economy of over 260 million people and more than 17,000 islands, Indonesia faces enormous HCD challenges. Despite being severely affected by the Asian Financial crisis, it has made great strides in social well-being in recent decades and now ranks in the medium category in UN’s Human Development Index (HDI, at .698). Indonesia has a decentralized governance system. Prior to the reform four state-owned enterprises provided healthcare and employment insurance, which covered only a limited portion of the population working for government or the formal private sector.

Policies and Impacts: The regulatory umbrella law for the SJSN, introduced in 2004, restructured health and employment programs into a single-payer program run by the state. Salaried workers pay a percentage of salary, non-salaried workers pay a flat rate and services for the poor are subsidized. However, political resistance and economic challenges delayed

implementation of the reforms. An important first step was to move away from unconditional cash transfers and especially fuel subsidies that were eating up a large portion of the state budget.

The government has opted for a staged approach in rolling out social security reforms, with biannual evaluations to ensure benefits are matched to contributions. Laws passed in 2011 created BJPS Health, which runs a National Health Insurance program (effective 2014) and BPJS Employment covering the benefits of old-age, pension, death and workplace accidents (effective 2015). Health coverage under BJPS is growing quickly, in part thanks to a convenient new health card and a cashless referral-based process.

In the short period since BJPS Health, there has been a large increase in access to healthcare by Indonesian citizens – especially of the poor and vulnerable - and increased awareness of the importance of having health insurance.

Lessons Learned and Challenges Going Forward: The first lesson from Indonesia's HCD reforms is that plans that only target the poor tend to be financially unsustainable, and are vulnerable to demand swings following economic shifts. Second, it is important to evaluate health and employment insurance contribution levels in light of macroeconomic objectives and make periodic adjustments. Third, partnerships with business and local governments are critical. Finally, it was important to manage demand shocks as they arose following the rollout of BPJS Health in Indonesia – a referral-based system for accessing health services can help in this regard. Remaining challenges include addressing the quality of services, which varies by area in Indonesia. Economic volatility and lack of confidence in the future inhibits participation in social security by individuals and businesses. Fiscal sustainability will be a primary challenge as the government seeks to expand social security coverage to all Indonesians while expanding the scope and improving the overall quality of health and employment services.

Common Lessons

The two case studies demonstrate the commitment of these APEC economies to improving the HCD of their populations. Rather than continuing with a patchwork approach to service delivery or opting for privatization, both economies have chosen comprehensive, coordinated reform approaches and have taken steps to get buy-in from workers to improve coverage, inclusion and effectiveness. For both economies, fiscal constraints are a major challenge to expanding social security and services. Indonesia's decision to end fuel subsidies enabled it to reallocate funds to health and other services. The case studies highlight the importance of innovation and careful planning in HCD reforms. Both economies are reviewing social protection policies to find efficiencies, and both have introduced electronic cards for health services. The two case studies show that structural reforms in HCD are an important complement to macro-economic policies. They are also critical to the well-being of people, through greatly improved coverage and quality of social security and services, and by preparing workers for more productive employment and making them more resilient to economic shifts/shocks.

INDONESIA: SOCIAL SECURITY REFORM IN HEALTH AND EMPLOYMENT¹

I. Introduction

Indonesia is among the most dynamic economy of Southeast Asia. With over 250 million population, over 60% of whom are in the working age of 15-64, good planning to enhance human capital development is imperative. In fact, human capital development is among the priority programs of the Government of Indonesia. In the administration, there are 3 dimensions of development priority:

- a. Human development, covering education, health, housing, mentality/character building
- b. Quality sector development, covering food sovereignty, energy and electricity sovereignty, maritime and fishery, tourism and industrial development.
- c. Bridging development across regions within Indonesia, across villages, remote areas, the outer islands and the Eastern part of Indonesia.

The case of structural reform in Indonesia's national social security system is worth noting as a best practice for APEC in which an emerging economy undergoes layers of fundamental transformation in the management and financing of its social security programs to broaden access of basic health and employment benefits to all citizens and workers. In the era where a lot of uncertainty follows a commitment to integration to global economy, being an emerging economy has been seen as a challenge to committing to such reform. But Indonesia sees this as an opportunity to invest in the well-being of human capital. This case suggests that reform to expand social security may go hand in hand just fine with the efforts to sustain stable macro economy and growth.

The regulatory umbrella for Indonesia's structural reform in social security system is Law No. 40/2004 on The National Social Security System (referred to throughout as *Sistem Jaminan Sosial Nasional*, or SJSN). The law restructures the management and the financing of social security programs on health and employment (pension, old-age, death and work accident benefits). The

¹ The Case Study was prepared by Arisman (Senior Lecturer at Faculty of Economics and Business, UIN Syarif Hidayatullah) and Dinna Wisnu (Associate Professor at Atmajaya Catholic University), Both of them is Senior Researcher at Center for Southeast Asian Studies (CSEAS), Indonesia.

spirit of the law is to create a single payer system that is state-based, providing quality affordable care to all which is financed by the contribution of workers and their employers (if they are in the salaried-workers) at the percentage of their reported salary. The non-salaried workers pay their own protection at a flat rate. Meanwhile, the poor, those living below poverty line, gets subsidy of their protection premium from the state budget (at national level and in some areas also from the local government). The social security contribution is managed using the principle of social insurance. Under the new system, the Government of Indonesia abandons the usual strategy to improve people's purchasing power through fuel subsidy by investing in the healthcare security contribution of the defined poor. The implementation of the Law in the healthcare security started in January 1, 2014 and in the employment security started in July 1, 2015.

This is a significant departure from the social security system that has been in operation since 1968 (for healthcare security) and 1977 (for employment security). Under the old system there are 4 State Owned Enterprises (SOEs) managing the contribution of civil servants, military and police officers and formal sector workers. The government did not provide any contribution to the social security provision of non-civil servants and non-military or non-police officers. Part-time workers in government offices, the self-employed, seasonal workers and the poor were un-insured. The principle for delivering benefits for formal sector workers was as saving, a provident fund system, meaning one only gets benefits as much as they contribute to their own saving account.

The case study elaborates the transformation process at the institutional (state) and individual levels. It sheds light on the key elements of structural reforms that the Government of Indonesia plans and the reality at hand that any government needs to consider when running a nationwide human capital development program. Indonesia is a fascinating case study for APEC due to the following reasons:

- Indonesia's SJSN aligns with the desire of the government to accelerate poverty alleviation, especially learning from the challenge during the Asian Financial Crisis of 1997 where the size of people falling under poverty line increased while the government capacity shrank.
- Indonesia is the world's largest archipelago and among the most populated economy; people live in over 17,000 islands that spread over three-time zones or over 5,150 kilometers from the Indian Ocean in the West to the Pacific Ocean in the East and from 6°04'30" NL to 11°00'36" SL under a system of decentralized governance at the district

level. Such physical distance could be a deterrent factor to reforming social security but it was not.

- Indonesia is an economy that adopts a democratic system with decentralized policy-making authorities at the district levels. It implies dynamic interaction among governments at various levels, especially in anticipation and during the election cycle.
- Indonesia is known to depend on *ekonomi kerakyatan* (people-based economy), among which is its large informal sector workers. While this factor keeps the economy resilient during global economic shocks, reform in social security needs to cater to the ability to reach out to workers in this sector.

The decision to deepen reform in social security is not without controversy, at the early stage of policy implementation and in the later stages. The national framework for poverty reduction as documented in the National Medium-Term Development Plan (known as *RPJMN*) 2015–2019 is relevant to this reform, mandating growth process to be more inclusive. The plan aims at closing the growing gap in consumption per capita between different income groups and regions while also reducing the incidence of hardcore poverty. Over the next 5 years, the government aims to boost the growth rate while fostering greater equity in opportunity and incomes between villages, border areas, and the economy's western and eastern regions. It also aims to open the economy to opportunities offered by the Association of Southeast Asian Nations (ASEAN) Economic Community and beyond.

Health was a priority in the earlier medium-term development plan of 2010-2014 and remains a priority in the current plan. The Indonesian Government recognized that the poor were often unable to use health facilities and risk catastrophic health expenditures, requiring a major initiative to ensure access. The objectives therefore are to increase communities' wellbeing to the highest possible so everyone can lead healthy and productive lives. In general, the low health status of poor and vulnerable people is due to the lack of financial resources to access health services.

Better health does not have to wait until the economy improves. In fact, investing in healthcare has been argued as leading to better health outcomes, which benefits the economy. This is the political commitment that went across administrations: improving healthcare access and quality for all.

In the employment front, the government of Indonesia focused on creating job opportunities. Of Indonesia's 258.6 million population, 125.44 million is in the workforce, 94% are employed, 6% unemployed and about 30 million or 12.5% of the total population is considered poor (BPS 2017).

To create job opportunities, the government is improving the investment climate for labor-intensive industries and small business through fiscal and non-fiscal measures, from providing tax incentive, access to soft-loan credits and improving services to cut down the time and cost of running business. In 2011, a master plan for infrastructure development was introduced to accelerate economic growth across the economy. This project continues and is enhanced significantly, namely to spur connectivity for people across places and support economic activity

and sustainable livelihoods in rural and border areas. By 2017 the total budget spent for infrastructure reached Rp. 387 trillion. There are 35 spots decided as strategic to boost the economy from tourism, special economic zone, to boost growth in border zones, urban as well as rural areas. This investment in infrastructure, according to the Ministry of Finance, is a way to anticipate the slowing down of global economy.

Investment in human development is a strategic target for Indonesia. Indonesia's Human Development Index value for 2015 is 0.689, which is categorized as medium category (UNDP 2016). The vastness of Indonesian region requires that any policy at the national level, especially any structural reform, interact and engage with local governments.

The SJSN provides this engagement across levels of government. Not only the national government is increasing the resources available to local governments for the provision of basic services, cutting back out-of-pocket costs that an individual must bear alone usually, stimulating improvement of the delivery of basic social services such as education and health to the poor and vulnerable in the regions, it also inspires local governments to take part in improving the well-being of their constituents. Tailoring social security schemes to attract and maintain various stakeholders, including greater use of conditional cash transfers² is a contrast to the earlier mode of intervention where the government chose to depend on subsidy of gasoline and disburse unconditional cash transfer every few months to the poor.

II. Pre-reform Situation

A major inflection point occurred following the Asian financial crisis of 1997. The lesson was to avert the worst possible social crisis emerging from prolonged economic crisis. The idea to reform the nation's social security system emerged, was incubated until a team of SJSN in 2001 was formed. A series of political process that give birth to the SJSN Law followed (Wisnu, 2012, p.99-128). The law now becomes the "mother" of subsequent reforms of social security across Indonesia.

The original idea of the reform was to create a single payer state-led system at the national level that would provide all kinds of social security benefits for all people, including for foreigners working in Indonesia for at least 6 months, but along the way there has been adjustments and moderation. Stages were created as a series of transition to allow for smoother institutional transformation and sensible fiscal adjustments (Wisnu, 2012, p.140-163).

The depth of reform can only be understood by knowing the pre-reform format of social security provision. In Indonesia, the right to social security is enshrined in the Constitution. It forms the social contract between the state and society, aimed at guaranteeing that every Indonesian citizen can live a dignified life. The constitution guarantees decent job and education, healthy living and

² Asian Development Bank, 'Indonesia 2016-2019: Towards a Higher, More Inclusive and Sustainable Growth Path', *ADB Country Partnership Strategy*, August 2016.

equal opportunity by all under the law. The foundation of the nation, *Pancasila*, also guarantees social justice for all Indonesians. All imply the right to social security and the duty of the state to guarantee it.

Not long after the independence, in 1952, Indonesia formed regulations on healthcare protection requirements for workers followed by obligations to companies in 1957 to provide allowance during workers' illness, take maternity-leave and when workers die. These rules continues to be revised until the formation of Law on Manpower (*Undang-Undang Ketenagakerjaan*) No. 14/1969 secured the rights of workers. Legally State Service Companies (*Perusahaan Umum* abbreviated as *Perum*) that seek no profit were formed to servicing the provision of Employment Insurance: *Perum ASTEK* providing health and employment benefits for private sector workers, *Perum Taspen* providing old-age and pension benefits for civil servants, *Perum ASABRI* providing old-age and pension benefits for military and police personnel, and *Perum ASKES* providing healthcare benefits for civil servants, military and police personnel. These providers in 1990s were transformed into state-owned companies (*Perseroan Terbatas* or *PT*) aimed at generating income and profits for state-led activities in health and employment sectors, which at that time solved the problem of income generation for providing protection for workers. *Perum ASTEK* becomes *PT Jamsostek*, while *Perum ASKES*, *Perum ASABRI* and *Perum Taspen* becomes *PT ASKES*, *PT ASABRI* and *PT Taspen*.

Under this plan, social security provision was fragmented and only covered a limited number of people who are either working for the government or in the formal private sector. The Asian Financial Crisis awakened the nation that Indonesia depends a lot on micro, small-medium enterprises rather than on large businesses. The poor don't stay idle, instead they take on informal employment such as subsistence informal jobs, secondary jobs and seasonal jobs. In fact, informal employment statistics suggest that the informal sector workers are not just those displaced from the formal sector, they include those who cannot be absorbed in the formal sector (BPS-Statistics Indonesia & ADB, 2010). In fact, companies also contribute to the growth of informal sector workers, e.g. by sub-contracting certain task, no wonder in nearly all sector of industry the informality grows. By nature, the existing social security programs are challenged to outreach to these group of workers because they are not registered workers or only work occasionally, often with unwritten contract and they don't have regular income.

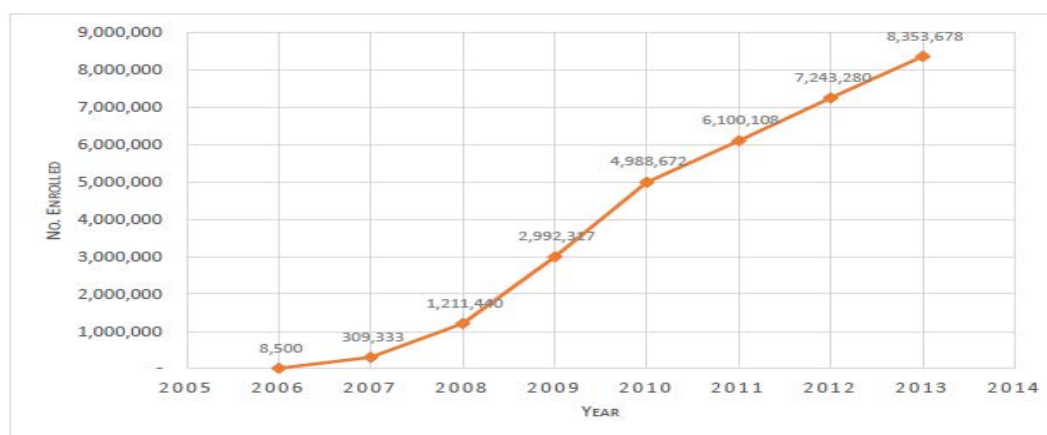
The social security reform wanted to accelerate the inclusion of all Indonesian in the social security programs, including these informal sector workers. This is a tough homework which generates an agreement that the right for social security must be provided, which was why the SJSN Law as an umbrella law for transforming the nation's social security system was adopted in 2004, but there are different ways of testing what is the best way to do so.

No wonder, there were years of inaction on the SJSN Law (Wisnu, 2012, p.129-163) where the government, chose to focus on poverty alleviation programs by disbursing social assistance, unconditional cash transfers and conditional cash transfers programs. This was the years where

fuel subsidies were eating up the national government's budget and limiting options for social spending, the competitiveness of a number of labour-intensive industries were declining, and the industrial relations environment was testing (Wisnu, Basri & Arya, 2015, p.327).

It was during this time when Regional Healthcare Protection (*Jaminan Kesehatan Daerah* or known in its abbreviation *Jamkesda*) bloomed across the 34 provinces and 514 districts across Indonesia, each model of financing and benefit packages vary depending on the will and local budget available. This blooming of *Jamkesda*, while debated at legal level, has increased access to healthcare; see figure 1 on the increased number of persons enrolled in *Jamkesda* from 2006-2013 (Center for Health Economies and Policy Studies Universitas Indonesia, 2014). Not only that, the provincial and district governments together have spent 56.1 trillion IDR – more than three times the national spending of that time – with the district share of that spending being 74.8% of total sub-national spending (Center for Health Economies and Policy Studies Universitas Indonesia, 2014, p.8).

Figure 1. Number of persons enrolled in *Jamkesda* from 2006-2013



Source: Center for Health Economies and Policy Studies Universitas Indonesia, 2014, p.4

In 2005, the government also launched *Askeskin* or medical assistance program for the poor, paid for and planned by the Ministry of Health, which is then transformed into *Jamkesmas* with some adjustments to planning, payment and monitoring process. But the critique to this program is that it does not quite develop a sustainable program that could help reduce dependence to state budget. Noting the fact that poverty rate may fluctuate during economic crisis and *Jamkesmas* cannot quite cover the near-poor who may also fall into poverty because of the crisis.

Indeed, the provision of healthcare benefits is the leading experimentation to improve basic protection for all people, which later, following the controversial adoption of Law No. 24/2011³ mandates the formation of BPJS, becomes the first national program to operate under SJSN Law with BPJS Health as executing agency. Effective per January 1, 2014 the BPJS Health runs the National Health Insurance program with a target to have universal health coverage by 2019 for all workers in any sectors including non-citizens who work in Indonesia for at least 6 months.

Meanwhile, the other social security program undergoing transformation according to Law No. 24/2011 is the employment benefit programs run by BPJS Employment covering the benefits of old-age, pension, death and work accident for all workers, effective per July 1, 2015. The exception of membership under BPJS Employment are the military, police and civil servants who are still served by *PT ASABRI* and *PT Taspen* until these schemes are integrated under BPJS Employment management by 2029.

III. Policy Response

Since 2014, deeper social security reform was done despite the web of economic, political and social challenges in doing such structural reform. The first commitment was to make permanent leave to the economy's dependence on gasoline subsidy to improve purchasing power, invest in infrastructure development, enhance conditional cash-transfer programs rather than the unconditional cash-transfer programs, and pressure the two BPJSs to expand memberships and evaluate its management for sustained acceleration towards social protection for all.

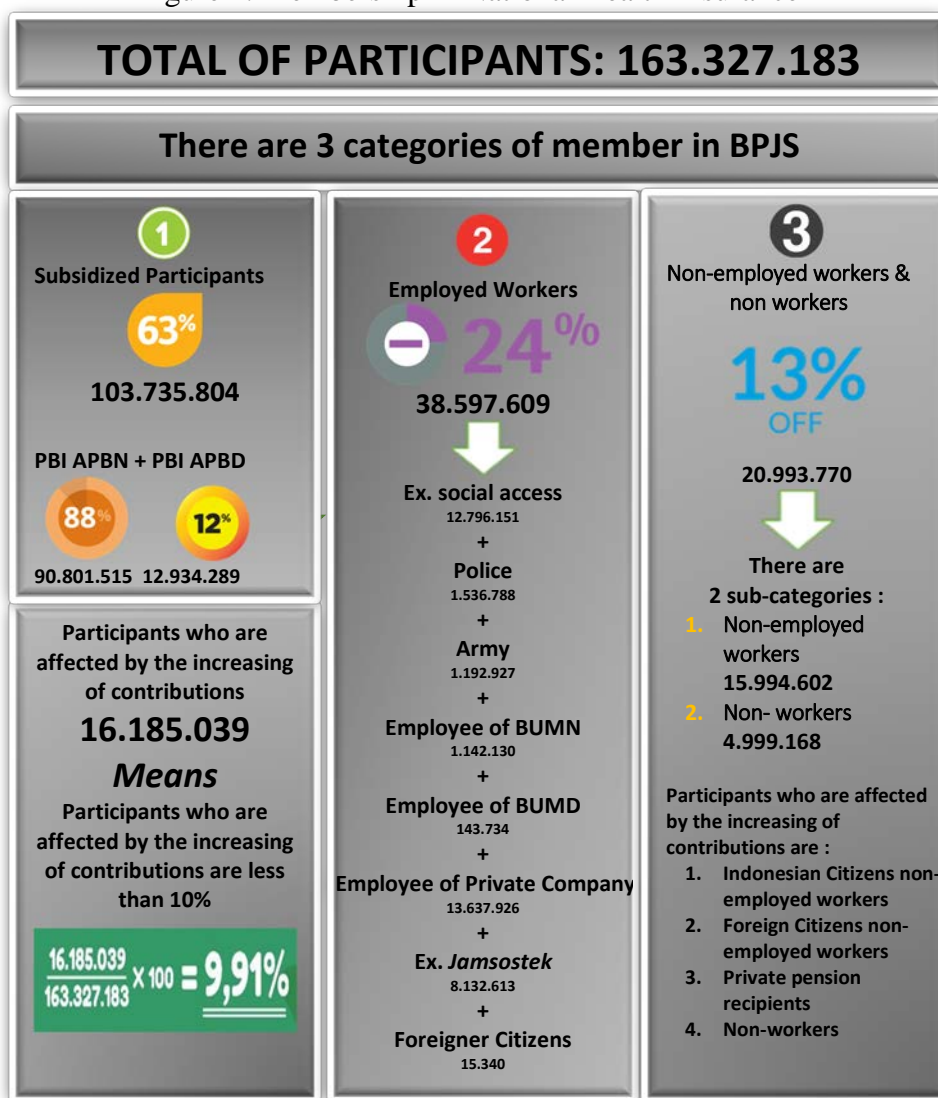
In implementing the National Healthcare System operated by BPJS Health, the government wants to increase the popularity of the program by promoting it as Indonesian Health Card (*Kartu Indonesia Sehat*). The administration also expands the number of subsidized participants in the National Healthcare System, or the so-called *Penerima Bantuan Iuran (PBI)* paid for by the national government using the national state budget (*APBN*), from 86.4 million people in 2014 to 92.4 million people in 2016. When President Joko Widodo was a Governor of Jakarta, he also initiated the integration of Jakarta's *Jamkesda* to the National Healthcare System, making all participants of *Jamkesda* participants of the National Healthcare System and adds more subsidy to the poor Jakartans. Some other local governments follow suit doing the same: subsidizing the poor in their area using the local state budget (*APBD*).

The National Healthcare System contributes to more people getting affordable access to healthcare services. If in the past most Indonesians paid out of their own pocket for their healthcare spending, or relied on private health insurance as provided by their employer or self if they can afford it. Now private sector workers whose employer are registered as legal to operate in Indonesia are required to enroll in the National Healthcare System. Those who are self-employed and working in the informal sector are given flat-rate scheme to pay independently for their own affordable

³ A. Suryahadi, Vita Febriany and Athia Yumna, *Expanding Social Security in Indonesia: The Processes and Challenges*, Working Paper 2014-14, United Nations Research Institute for Social Development: Switzerland.

healthcare service. The poor gets subsidy from the government. The number of Indonesians enrolling in the National Healthcare Insurance is captured in Figure 2.

Figure 2. Membership in National Health Insurance



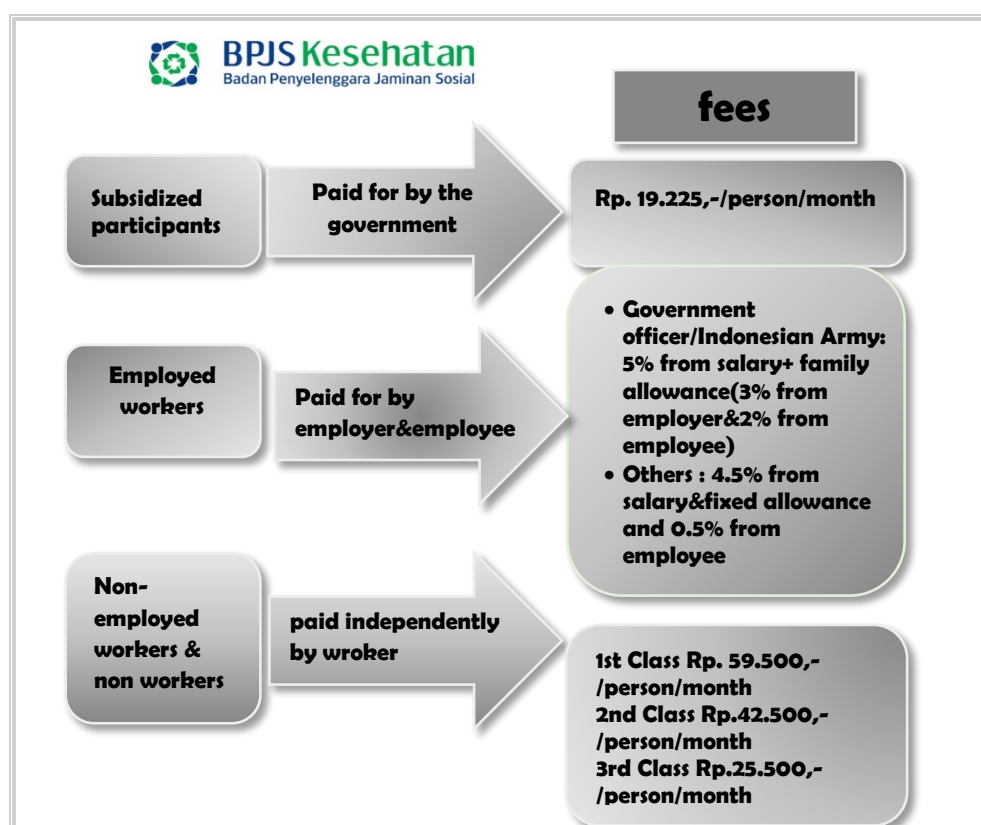
Source: <https://bpjs-kesehatan.go.id/>

In terms of benefits, the National Healthcare Insurance program offers comprehensive coverage to cure nearly all kinds of illness, from light to catastrophic illness such as cancer, bypass surgery, dialysis, etc. The idea is to reduce the past tendency of people dying of illness without getting any treatment. With the National Healthcare Insurance, a referral system is used to deter moral hazard and patients must first follow the regionalization of healthcare facilities, meaning that patients must first go to the primary care, then to secondary care nearby their residence before going to the tertiary care centers where specialists and sophisticated medical equipment for illness complications can be accessed. In every step, the patient only needs reference letter and diagnose from physicians in charge; it is a cashless process, which has been appreciated by

those in need. These benefits can be availed from both public and private care units accredited by the Ministry of Health and having cooperation with BPJS Health.

The National Healthcare Insurance program is a contributory scheme, meaning that one can avail all benefits if she pays monthly premium to BPJS Health. The rate of premium is differentiated by wage rate (for formal sector workers) and by desired level of room standard in in-patient care (for self-paying workers). The service provided is equal for all rate – all treated until cured. The list of rates is captured in figure 3.

Figure 3. List of Rates to avail benefits in National Health Insurance Program



Source: <https://bpjs-kesehatan.go.id/>

For monitoring and evaluation, the government of Indonesia is developing an integrated monitoring system with a dashboard, which is hopefully can connect all ministries and agencies relevant to the implementation of the National Health Insurance program. The example of data that is being built to be updated on regular basis in this dashboard is the membership data.

As per July 1, 2015 BPJS Employment is in operation covering the benefits of old-age pension, death and work accident for all workers, either paid by their employer or self-paid. The programs, run by BPJS Employment, is obligatory for all companies operating in Indonesia. The BPJS

Employment also develop programs for the informal sector workers called *PERISAI (Penggerak Asuransi Jaminan Sosial)* which act as a recruitment agent to attract informal sector workers as members. It also generates a movement called *Gerakan Nasional Peduli Pekerja Rentan* which is a movement to collaborate with companies to allocate its corporate social responsibility fund to finance the membership of vulnerable workers who cannot afford self-paying the premium for certain period of time. By June 2017 there are 3,000 workers protected through this movement scheme with over 18 companies agreeing to contribute to it.

As of 2016 BPJS Employment has active membership of individuals and companies as listed in table 1.

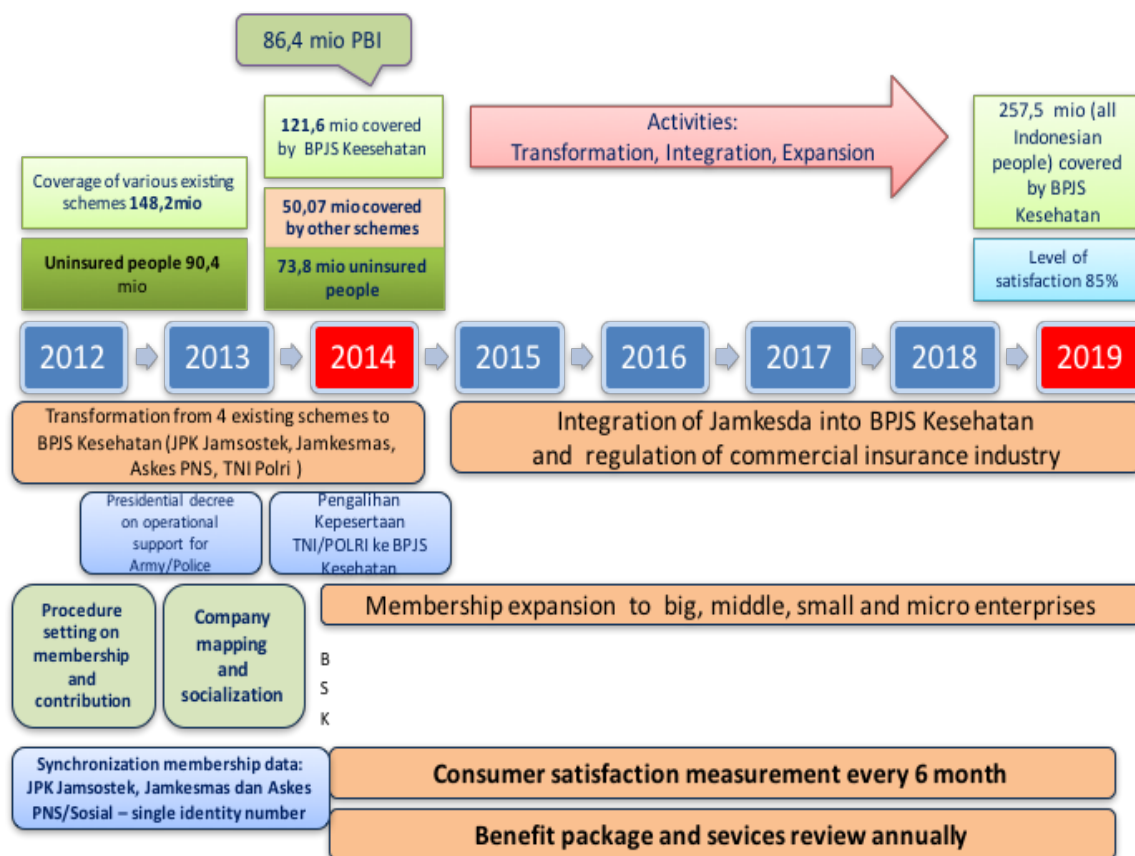
Table 1. Active Membership of BPJS Employment

DESCRIPTION	REALIZATION IN APRIL 2016
Additional Employers	48.239
Additional Workforce	
Wage Earner	1.757.204
Non-Wage earner*	278.788
Construction services*	2.471.365
Active Employers	334.638
Active workforce	
Wage Earner	13.892.318
Non-wage Earner*	359.785
Construction Services*	5.006.029
TOTAL CONTRIBUTION	Rp14,05 Trillion

Source: <http://www.bpjsketenagakerjaan.go.id/page/Laporan-Kinerja/Active-Membership.html>

Both BPJS Employment and BPJS Health is building the reform bloc by bloc. Every two year there is evaluation for contribution rate against the benefit rate. At this point BPJS Employment is looking at improving the ability of participating members to avail the benefits of work accidents even if all through live they never experience work accident. The reform blocs is reflected in the roadmaps (Figure 4 for BPJS Health and Figure 5 for BPJS Employment).

Figure 4. Roadmap to Universal Health Coverage (UHC)



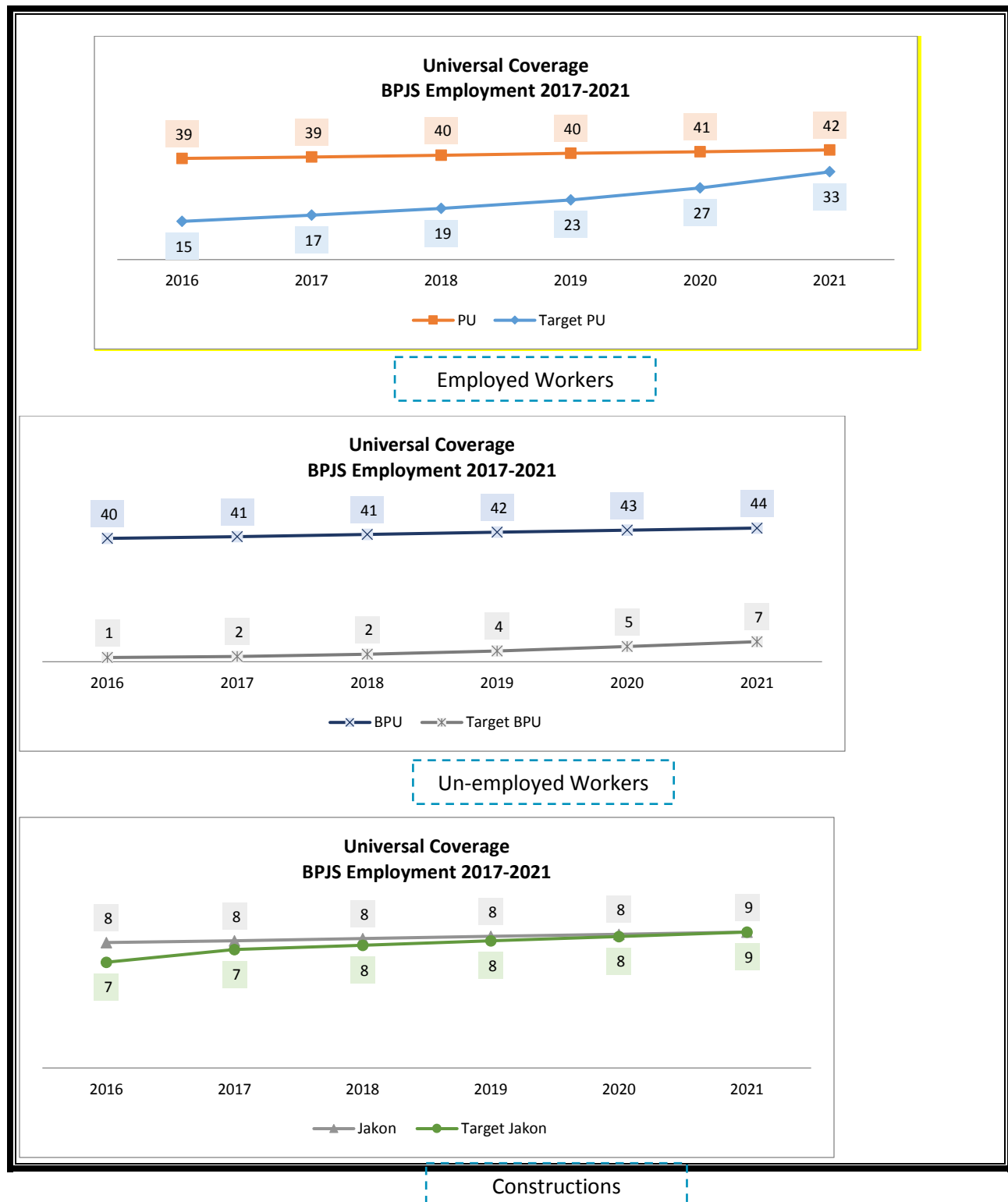
Source: National Social Security Council

BPJS Employment adopts a roadmap that would improve the participation and benefit coverage of employment protection programs. As captured in the Presidential Regulation No. 109/2013 there are stages in expanding membership, starting from all formal sector workers (beginning with large enterprises to smaller sized enterprises), construction workers, foreign workers working at least 6 months and then the informal sector workers. All workers who were members in *PT Jamsostek* becomes automatic participants of BPJS Employment. Membership expansion will start from the most populated areas and industrial/business zones, working together with the Coordinating Body of Investment (*BKPM*) and the Ministry of Law and Human Rights to track operating businesses and in collaboration with banks and information technology companies to ease the process of registration and payment. BPJS Employment is also campaigning the better rate of investment (up to 2% higher) for old-age by enrolling in the program than depositing money in banks. Numerous TV and radio programs and advertisement have been created to attract participation.

In this first steps, BPJS Employment adopts persuasive measures but eventually a stricter measure will be applied as allowed by Government Regulation No. 86/2013 which is to impose

administrative sanctions to enterprises failing to enroll their workers, from sending them note to stop giving them the public service. The roadmap for BPJS Employment is captured in Figure 5.

Figure 5. Roadmap of Employment Social Security, BPJS Employment



Source : www.bpjsketenagakerjaan.go.id. Note: PU = Penerima Upah, or salaried workers; BPU = Bukan Penerima Upah, or non-salaried workers; Jakon = construction service

The contribution rate for BPJS Employment is affordable. For salaried workers, the table of contribution rate is the following table 2, paid regularly before day 15 in the month. The non-salaried workers, such as street and market vendors, physicians, lawyers, artist should pay and register self at a flat rate of 1% of reported regular salary (to avail the work-accident benefit), Rp. 6,800,- for the death benefit and 2% of reported regular salary (to avail the old-age benefit).

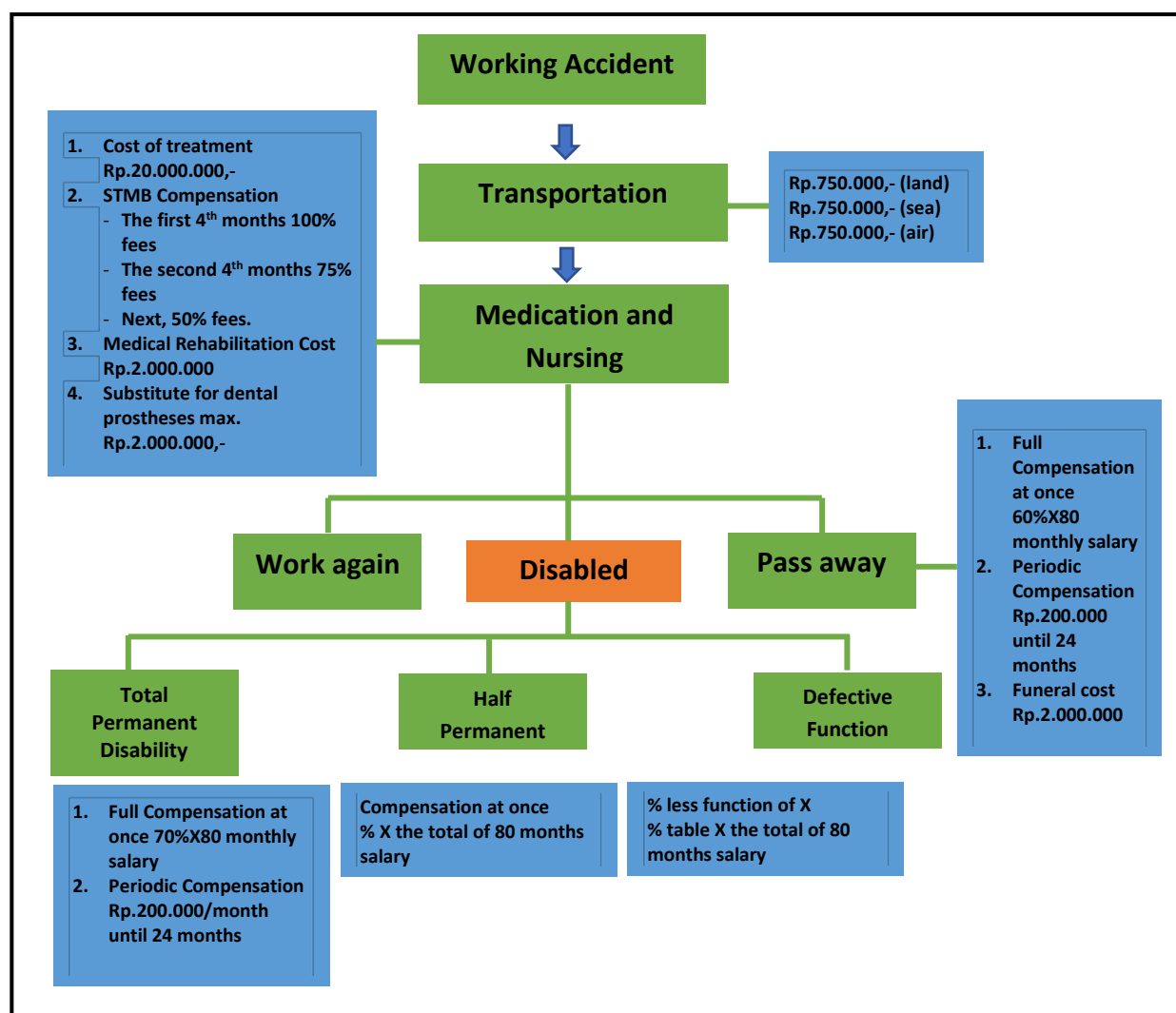
Table 2. Contribution rate in BPJS Employment for salaried workers

Programs	Paid by Employer	Paid by Worker
Old-age protection	0.24%-1.74% depending on risk level of work environment	-
Death protection	0.30%	-
Pension	3.70%	2%

Source : www.bpjsketenagakerjaan.go.id

The benefits for BPJS Employment is captured in Figure 6.

For old-age benefit, the lump-sum cash can be availed by pension age, which is 55 years old or if she dies before pension age, experienced permanent disability, changed work to become civil servants/military/police, foreign workers who completed the duty and not coming back to Indonesia, or get laid off after enrolling for at least 5 years in BPJS Employment program. The waiting time for the laid-off workers who wish to cash in the old-age benefit is 1 month. For work accident benefits, it must be claimed within 2 years counting from the day the accident happened. When work accident happens, the worker will get any medical treatment and cure as needed, also flat-rate cash allowance to reimburse the cost of transporting the sick, to replace income during the months of illness, and when disabled the worker will also get certain percentage of their monthly salary as a lump-sum. BPJS Employment also provide “Return to Work” benefit, which includes all sorts of treatment and rehabilitation service that can bridge the worker to get back to work. Some education allowance for the children of the ill worker is also provided, up to Rp. 12 million per worker if the worker experience permanent disability due to work accident.

Figure 6. Benefits of Work Accident Insurance of BPJS Employment

Source : www.bpjsketenagakerjaan.go.id

IV. Impact

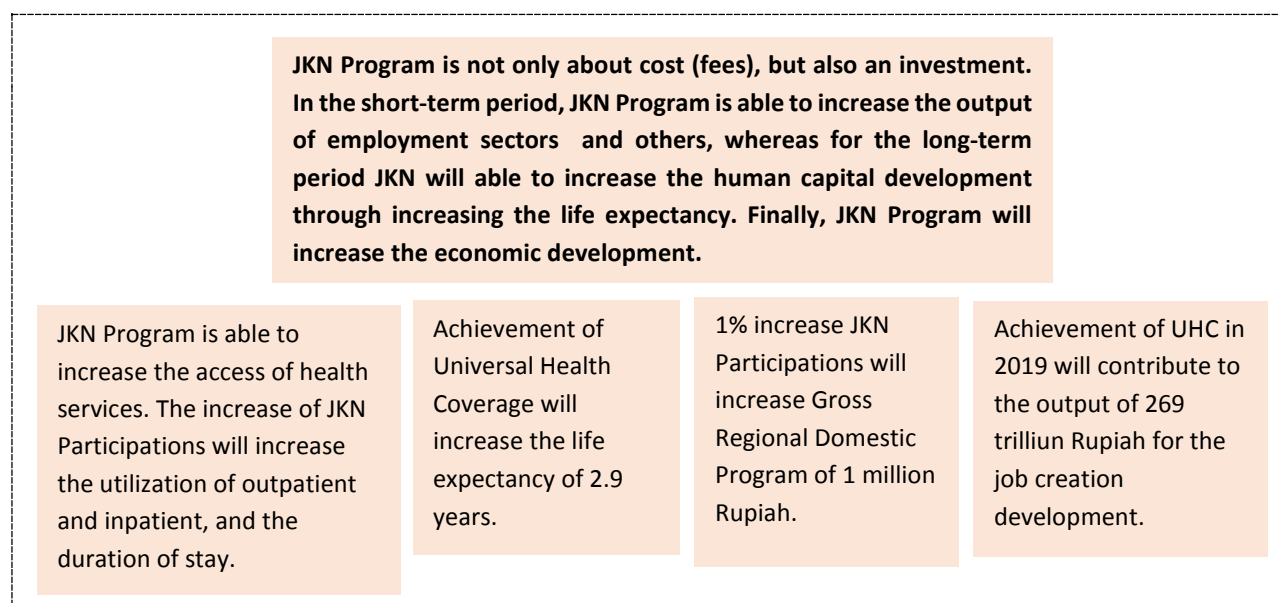
In any structural reform changes do not happen overnight. In fact, the need for structural reform implies the presence of structural problems needing serious commitment for averting the worst scenario. In that context, the case of Indonesia's reform in social security system is a reminder that any substantive shift of policy needs time. The approach across the board is to enhance monitoring and evaluation mechanism for generating feedback that could improve the service and benefits to participants.

In the field of healthcare, the implementation of National Health Insurance is only less than 5 years. In this relatively short period there are the following achievements:

- a. Increased access to healthcare to Indonesian citizens, especially the vulnerable ones.
- b. Increased awareness on the importance to have healthcare insurance.

The claims for National Health Insurance benefits is recorded high (in 2016 as claims paid reached a value of IDR 58 trillion). Just as predicted years earlier, the implementation of this program would significantly increase the usage of health facilities. Consequently, challenges to providing comprehensive healthcare benefits are being revealed and evaluated, such as the need to review the rate of contribution and to add healthcare facilities. And this is a process that the Indonesian government accept as a reality that follows a commitment for such structural change.

Figure 7. The impact of National Health Social Security(JKN) to Economic Growth




Source: Research is conducted by LPEM FEB UI, December 2016

At the macro level, the social security reform has provided positive impacts to the Indonesian economy. To date the National Health Insurance System have contributed 152.2 trillion IDR to the economy and is expected to continue growing by 289 trillion IDR by 2021 (LPEM FEB UI, 2016). Sectors positively affected by the National Health Insurance System is the healthcare service (hospitals and primary care units), pharmacies, medical equipment, also food and beverages. It creates jobs (up to 1.45 jobs in 2016 and may increase to 2.26 million by 2021) and demands important to push economic growth up. The breakdown of the contribution to the economy is available on table 3 and 4. In the longer run, the impact will be in the human capital development: healthier workforce, longer-living ones with higher productivity and life-expectancy.

Table 3. The Contribution of National Health Insurance to Indonesian Economy (2016-2021)

**THE CONTRIBUTION OF NATIONAL HEALTH INSURANCE TO
INDONESIAN ECONOMY
(2016-2021)**

	2016 (Rp)		2021 (Rp)
Government Health Services	57.9 trillion		110 trillion
Pharmacy Product Industry	10.1 trillion		19.1 trillion
Food and Beverages Industry	17.2 trillion		32.6 trillion

Source: LPEM FEB UI

Table 4. The Contribution of National Health Insurance to Employment Creation in Indonesia (2016-2021)

THE CONTRIBUTION OF NATIONAL HEALTH INSURANCE TO EMPLOYMENT CREATION IN INDONESIA (2016-2021)			
	2016 (person)		2021 (person)
Government Health Services	864.000		1.35 million
Pharmacy Product Industry	27.200		42.500
Food and Beverages Industry	34.100		53.200

Source: LPEM FEB UI

No less important is the impacts of the reform to the individual levels. BPJS Health and BPJS Employment are among talks of the day when Indonesian citizens experience illness, work accident and death, or entering into pension age. Seeking medical treatment is now better-known by Indonesians, which in the past prefer to contact uncertified midwives for delivering baby, *dukun* (traditional psychic) and herbal cure. The top case-based groups for in-patient treatment using BPJS Health is captured in Table 5. Awareness-raising on prevention of illness such as vaccines, nutrition, hygiene and physical exercise are commonly found in mass-media news and coverage, which helps the implementation of both the health and employment protection programs. In employment protection program, prevention to work accident becomes more broadly known across work-sectors.

Table 5. Top 10 Case-based groups for in-patient treatment using BPJS Health (2014-2016)

No.	CBG's Code	Description	2014	
			Case	Rp
1	2	3	4	5
1	O-6-10-I	CAESAR LIGHT SURGICAL OPERATION	251.240	1.178.796.166.460
2	O-6-13-I	VAGINAL DELIVERY OF LIGHT	163.755	374.181.473.161
3	K-4-17-I	ABDOMINAL PAIN & GASTROENTERITIS MISCELLANEOUS (LIGHT)	163.740	467.902.151.802
4	A-4-14-I	INFECTIOUS DISEASE BACTERIA AND PARASITES OTHER LIGHT	148.703	486.931.884.903
5	K-4-18-I	DIAGNOSIS OF OTHER DIGESTIVE SYSTEM (LIGHT)	146.322	480.187.534.894
6	A-4-13-I	NON INFECTIOUS BACTERIA LIGHT	117.898	299.891.942.804
7	I-4-17-I	LIGHT HYPERTENSION	70.218	270.409.264.397
8	W-4-16-I	INTERRUPTION OF LIGHT ANTERPARTUM	66.288	158.621.326.616
9	W-I-11-I	DILATATION, CURETTAGE, INTRAUTERINE AND CERVICAL PROCEDURE LIGHT	65.115	204.777.155.811
10	D-4-13-I	INTERRUPTION OF RED BLOOD CELLS APART CELL ANEMIA SICKLE CRISIS LIGHT	62.133	175.218.081.070
Total			1.255.412	4.096.916.981.918

In the longer run, BPJS Health expects the National Health Insurance program to reduce poverty rate, reducing out-of-pocket cost for healthcare and increasing cashless transaction. To date in 2017, there are over 171 million people covered by BPJS Health and 117 million of them have availed benefits from the schemes. Nearly all healthcare facilities have handled BPJS Health patients and the number of hospitals and primary healthcare accredited to cooperate with BPJS Health have increased over time. The use of case-based group (INA-CBGs) to pay healthcare facilities helped control the price of healthcare. Doctors can no longer arbitrarily determine treatments, frequency of lab checks or types of medicines; there are case-based groups by disease that must be used as reference. The quality of medicine and service are monitored by this method.

BPJS Employment also reach out to younger children of elementary schools to raise awareness on the importance of safety and health in occupation. The Ministry of Manpower is also undergoing an evaluation of claims on work accident to improve service and to coordinate claims with BPJS Health. Both BPJS Health and BPJS Employment are doing regular monitoring of customer satisfaction survey to track service quality.

V. Challenges and Way Forward

The challenges for implementing the expansion of social security coverage to the entire population as mandated by the SJSN Law are not to be overstated or undermined, for that matter. Indonesia's vast geography, big population with large vulnerable workers, large informal sector workers, diverse availability of healthcare facility and infrastructure implies that the implementation of SJSN to cover the entire population requires continuous innovation and collaboration with various stakeholders. Government to business cooperation is one thing, but a cooperation between central government and local government is also necessary.

It should proceed very cautiously and involve all stakeholders, including the local governments, employers, employees and the implementing agencies (BPJS Health and BPJS Employment) as well as service providers. For example, to avoid confusion, it is important to make sure that the roles of local governments in social security provision are stipulated in further details. The Ministry of Health could bridge this cooperation.

To anticipate the problem of supply side availability, coordination between various levels of government and multiple agencies needs to be clearly designed. It is also critically important to assess the fiscal sustainability of the system on regular basis, which requires a political commitment to ensure this. Since universal coverage would also have an impact on the demand side, managing the demand shocks, especially at the first stage of implementation, will be very critical, particularly in the health program. To achieve this aspect, the government needs to develop a clear and strong referral system and make sure that the system works efficiently.

REFERENCES

- Badan Perencanaan Pembangunan Nasional (BAPPENAS). 2014. *Perlindungan Sosial di Indonesia: Tantangan dan Arah Ke Depan*. Jakarta: Direktorat Perlindungan dan Kesejahteraan Masyarakat BAPPENAS.
- Badan Pusat Statistik. 2017. *Statistical Yearbook of Indonesia*. Jakarta: BPS-Statistics Indonesia.
- BPS-Statistics Indonesia & ADB. 2010. *The Informal Sector and Informal Employment in Indonesia*. Philippines: Asian Development Bank.
- Center for Health Economics and Policy Studies. 2014. “Final Report: Supporting Indonesia’s DJSN to Develop National Guidelines for Implementing a National Social Health Insurance Program by 2014”, a report supported by USAID, DJSN and University Research Co.
- INFOBPJS Kesehatan. 2016. “Kontribusi JKN-KIS 2016 Mencapai Rp 152 Triliun”. *Media Eksternal BPJS Kesehatan Edisi 43 Tahun 2016*. Jakarta.
- Janis, Novijan. 2014. *BPJS Kesehatan, Supply, Demand, Terhadap Layanan Kesehatan*.
- Kartika, Dwintha Maya. 2015. *Does Indonesian Health Insurance Serve a Potential for Improving Health Equity in Favour of Workers in Informal Economy?*, MPRA Paper No. 72112.
- Lembaga Penyelidikan Ekonomi dan Masyarakat (LPEM) Fakultas Ekonomi dan Bisnis, Universitas Indonesia (FEB UI). 2016. *Dampak JKN terhadap Perekonomian Indonesia*.
- Pisani, Elizabeth, Maarten Oliver Kok and Kharisma Nugroho. 2016. ‘Indonesia’s Road to Universal Health Coverage: A Political Journey’. *Oxford Health Policy and Planning*, Vol. 32, No. 2.
- Ramadhan, Alfian. *Pengaruh Badan Penyelenggaraan Jaminan Sosial (BPJS) Kesehatan Terhadap Tingkat Indeks Pembangunan Manusia (IPM) di Indonesia Tahun 2015*.
- Rolindrawan, Djoni. 2015. ‘The Impact of BPJS Health Implementation for the Poor and Near Poor on the Use of Health Faculty’. *Procedia-Social and Behavioral Sciences*, Volume 211, 550-559.
- Suryahadi, Asep, Vita Febriany and Athia Yumna. 2014. *Expanding Social Security in Indonesia: The Processes and Challenges*. Working Paper 2014-14. Switzerland: United Nations Research Institute for Social Development.
- Sumarto, Sudarno and Samuel Bazzi. 2011. *Social Protection in Indonesia: Past Experiences and Lessons for the Future*. Paris: Paper presented at the 2011 Annual Bank Conference on Development Opportunities (ABCDE) jointly organized by the World Bank and OECD.

- UNDP. 2016. *Human Development for Everyone: Briefing Note for Countries on the 2016 Human Development Report*. Human Development Report 2016.
- Widjaja, Muliadi and R. A. Simanjuntak. 2009. “Social Protection in Indonesia: How Far Have We Reached?”, in Asher, M. G., S. Oum and F. Parulian (eds.), *Social Protection in East Asia – Current State and Challenges*. ERIA Research Project Report 2009-9, Jakarta: ERIA.
- Widowati, Karina. 2017. *Indonesia Aims for Universal Health Coverage by 2019*. HackLOG.
- Wisnu, Dinna. 2012. *Politik Sistem Jaminan Sosial*. Jakarta: Gramedia Pustaka Utama.
- Wisnu, Dinna, Faisal Basri & Gatot Arya Putra. 2015. “Ambitious but Inadequate: social welfare policies under Yudhoyono”, in *The Yudhoyono Presidency* edited by Edward Aspinall, Marcus Mietzner & Dirk Tomsa. Singapore: ISEAS.
- World Health Organization, Regional Office for South-East Asia. 2016. *WHO Country Cooperation Strategy 2014-2019: Indonesia*. India: WHO Library Cataloguing-in-Publication data.

VIET NAM

1. Introduction

Viet Nam has made remarkable achievements in human development and inclusiveness since the launch of Doi Moi (Renovation) in 1986. The most fundamental change over the last 30 years was a shift of employment from the agricultural sector to wage employment in manufacturing, construction and services. During recent decade, Viet Nam has experienced rapid economic growth¹ (Figure 1), which has brought the economy to its middle income status in 2010 and has contributed to a fast decline in poverty, from 37.4% in 1998 to 7% in 2015 (Figure 2). Those achievements have been associated with substantially increasing in labor productivity, from VND 21.4 million/person in 2005 to VND 84.5 million in 2016, almost 4 times bigger after 10 years and average growth of 3.89% per annum (VNPI, 2016). In addition, GDP per employed person more than doubled between 1990 and 2010 resulting from improvement of agricultural efficiency employment shift from low productivity industry to higher productivity industry.

Figure 1: GDP growth rate, 2005-2016 (%)

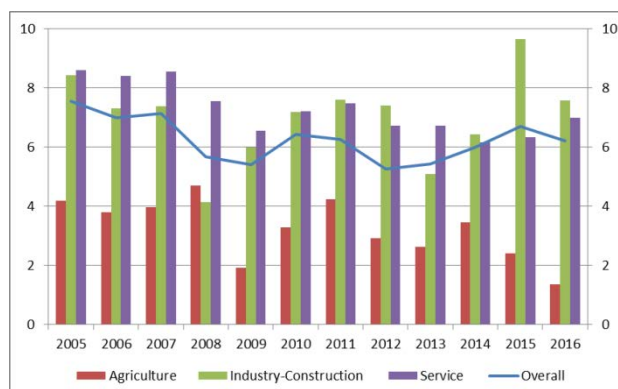
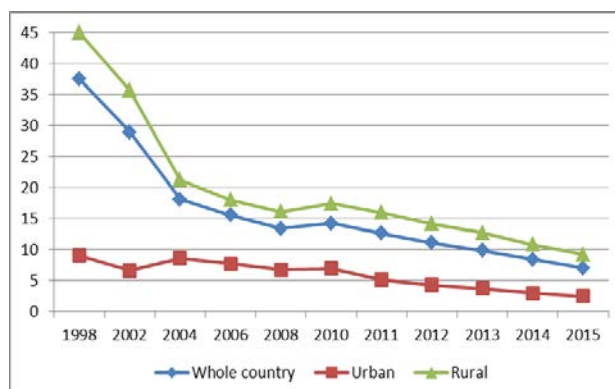


Figure 2: Poverty rate by rural/urban



Source: General Statistics Office.

Inclusive and equitable economic development aims at rapid and sustainable growth that leaves no one behind, ensuring that all people achieve their potential, live in dignity, and enjoy prosperous and fulfilling lives. It promotes opportunities and active participation in the economy by all groups of people and that achieves both accelerated growth and an equitable distribution of benefits (UNDP, 2016). The Agenda 2030, which agreed by all United Nations Member States, commits to leaving no one behind, and makes equality a central principle. Among its 17 interlinked Sustainable Development Goals (SDGs), Goal 8 calls for “promot(ing) inclusive and

¹ Data from GSO showed that average growth was 6.32% per annum in 2006-2010, and lowered to 5.91% in 2011-2015.

sustainable economic growth, employment and decent work for all,” and specifies “inclusive and sustainable economic growth” as the pathway to end poverty and hunger, in its all dimensions.

In Viet Nam, there are three policy areas contributes to an inclusive growth strategy, including (i) delivering productive employment opportunities; (ii) provision of quality social services (particularly education and health care); and (iii) securing access to effective social protection.

In terms of productive employment, the share of agricultural employment decreased rapidly (from nearly 80 per cent during the initial years of Doi Moi down to just 44.3 per cent in 2015), with the labor force moving to industrial and service sectors. Within the agricultural sector, positive structural change, with increased shares for more productive and higher income sub-sectors were recorded. The share of formal employment also increased, from 28.2% in 2007 to 33.7% in 2014. As a result, Viet Nam successfully reduced its relative gap in labor productivity vis-a-vis other countries in the region, although the absolute gap remained significant.

Health and education are among key components of human development, and central to livelihoods and the economy. Better educated and healthier workforces are equipped with capabilities that allow them to seize opportunities and become more productive. Viet Nam performs well in both areas on aggregate measures such as the Millennium Development Goals (MDGs). The noteworthy achievements included high enrolment and completion rates in primary education, and gender parity in primary, lower secondary and upper secondary education, however, the economy also need to take into consider issues related to quality, coverage and equity of provision because of the emergence of serious disparities. Moreover, pre-primary schooling, vocational training and higher education are fundamental for inclusive growth, yet there is evidence of social stratification and exclusion at these levels.

In terms of health, Viet Nam compared very favorably with most countries of similar per capita income levels. Life expectancy, a key component of HDI, increased from 67.6 years in 1980 to 75.9 years in 2013. Similar disparities can be seen in different income group’s abilities to manage catastrophic health expenditures, with the poorer groups faring badly. In short, the performance on healthcare targets in MDGs was generally positive, particularly the reduction in child and maternal mortality rates, tuberculosis control and malaria prevention. There are also major geographical variations in the supply and quality of education and health services.

Like education and health, social protection fosters the equity, efficiency and resilience of growth and development. It provides for the poorest, ensuring they do not fall beneath a minimum standard of living. It also offers middle-income groups, who may have attained only a tenuous level of income security, a hedge against vulnerability. Social protection enables families to invest in their futures, which provides a boost to the wider economy.

In the field of social protection, there were also significant achievements. Viet Nam Social Insurance (VSS) had 11.4 million contributory members and provided pensions to 2.2 million

retirees. Nearly 1.6 million people of 80 years of age and older were provided with monthly social support from the State budget. By 2015, nearly 75 per cent of Vietnamese were beneficiaries of health insurance. Nearly 800,000 disabled people with no working capacity received monthly social assistance. Hundreds of thousands of other vulnerable people – elderly, orphaned children and children in difficult circumstances and persons living with HIV – were provided with cash assistance and social care. Poor households and ethnic minority households and their children were provided with cash assistance, exempted from school fees, given assistance to promote productive activities and received vocational training.

The Human Development Index is a summary measure for assessing progress in three basic dimensions of human development: a long and healthy life, access to knowledge and a decent standard of living. A long and healthy life is measured by life expectancy at birth. Knowledge level is measured by mean years of education among the adult population, which is the average number of years of education received in a life-time by people aged 25 years and older; and access to learning and knowledge by expected years of schooling for children of school-entry age, which is the total number of years of schooling a child of school-entry age can expect to receive if prevailing patterns of age-specific enrolment rates stay the same throughout the child's life. The standard of living is measured by Gross National Income (GNI) per capita expressed in constant 2011 international dollars converted using purchasing power parity (PPP) conversion rates.

Viet Nam's HDI has risen continuously over the past 24 years. In 2014, the economy ranked 116th out of 188 countries; it is at the upper end of the medium human development category. Improvement has been uneven, however. During 1980 and 1990, the HDI rose on average a weak 0.26 percent per year, then accelerated to 1.92 percent per year between 1990 and 2000, before slowing to 1.33 percent per year in 2000-2008 and further to 0.69 percent per year since 2008.

Table 1: Viet Nam's HDI trends

	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP\$)	HDI value
1990	70.5	7.8	3.9	1,410	0.477
1995	72.0	9.3	4.6	2,020	0.531
2000	73.3	10.6	5.4	2,615	0.576
2005	74.3	11.3	6.4	3,423	0.617

2010	75.1	12.0	7.5	4,314	0.655
2011	75.3	12.2	7.6	4,513	0.662
2012	75.5	12.3	7.8	4,707	0.668
2013	75.6	12.5	7.9	4,899	0.675
2014	75.8	12.6	7.8	5,098	0.678
2015	75.9	12.6	8.0	5,335	0.683

Source: UNDP, 2016

Table 1 shows that Viet Nam's 2015 HDI of 0.683 is above the average of 0.631 for countries in the medium human development group and below the average of 0.720 for countries in East Asia and the Pacific. From East Asia and the Pacific, countries which are close to Viet Nam in 2015 HDI rank and to some extent in population size are Philippines and Thailand, which have HDIs ranked 116 and 87 respectively. Selected sub-indexes of HDI have been improved over years.

It can be said that the transition from central planning to a market economy, started in 1986 with Doi Moi (renovation) reforms, is much advanced, but not yet complete. The economy has been in transition from an agricultural to a modern, industrialized economy. Human capital, in Viet Nam, has been counting on one of its biggest assets – its abundant young workforce. However, Viet Nam is at a demographic turning point, facing a slowdown in the growth of the labor force and a sharp expansion of the old-age population. The old-age dependency ratio—a common measure of the age structure of the population—has been roughly constant for decades in Viet Nam but will climb from 10 to 22 between 2015 and 2035 and continue to rise in the following decades (World Bank, 2016). In other words, Viet Nam will soon have many more old-age people to support for every person of working age. Moreover, as the economy is moving up the development ladder of becoming an upper-middle income economy, it will be likely for Viet Nam to expand their social protection systems to respond to the demand of a growing middle class.

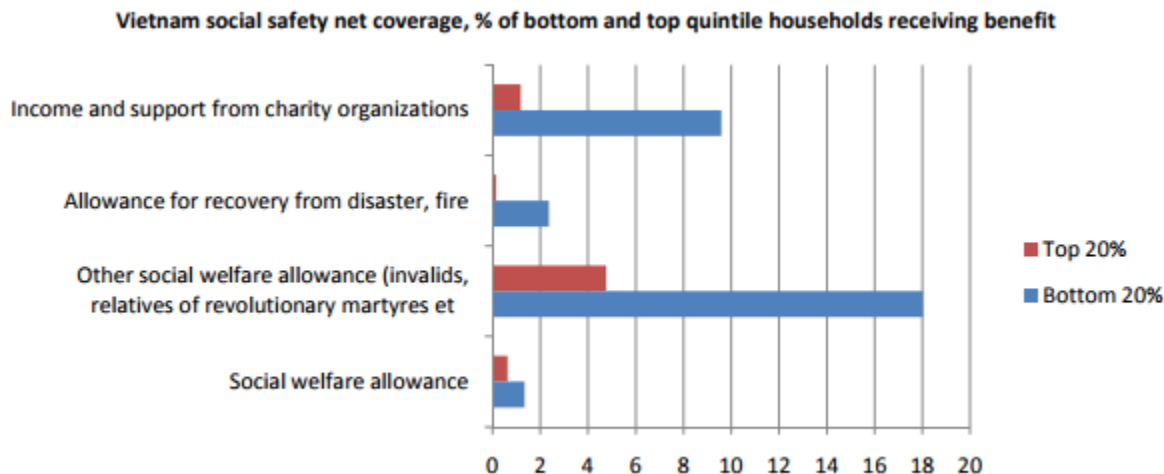
In this context, it is also of necessary to ensure the basic access to social services for people at the bottom of the pyramid, i.e. people living in poverty, in disadvantaged and remote areas, people with disabilities, etc. As a case study, this paper will focus on the access to basic social services, as one component of the social protection system in Viet Nam, in order to seek out how reform implemented, which policy responses during that process and its impacts on human capital development, as well as to find out challenges and way forward for the system.

2. Pre-reform situation

During the initial period of reform, the social protection and poverty reduction system in Viet Nam is based broadly on three mechanisms: (i) social insurance, with policies to extend access to health and pension insurance for poor and near-poor individuals; (ii) geographically targeted development and anti-poverty programs as well as budget equalization mechanisms to channel resources to poor provinces and poor districts, and (iii) household-targeted anti-poverty and social assistance programs. In the early 1990s, the quantity and quality of social service provision showed signs of deterioration both in terms of quantity and quality indicators. With regards to education, this was evident in the falling of school enrollments, particularly in the secondary level, falling by around 20 percent (World Bank, 1997). And at high school level, enrollments fell even more sharply by almost 50 percent from 0.93 million in 1987 to only 0.52 million in 1991. The explanation for this decline must lie in some change in the determinants of school enrollment. The full private costs of education to the family includes not only the schooling costs that are formally passed on in terms of official fees, but also the hidden costs of unofficial parental contributions, learning materials, uniforms and transportation, plus the opportunity costs of time associated with school attendance. When costs were too high, the poor family could not afford for their children to continue in school.

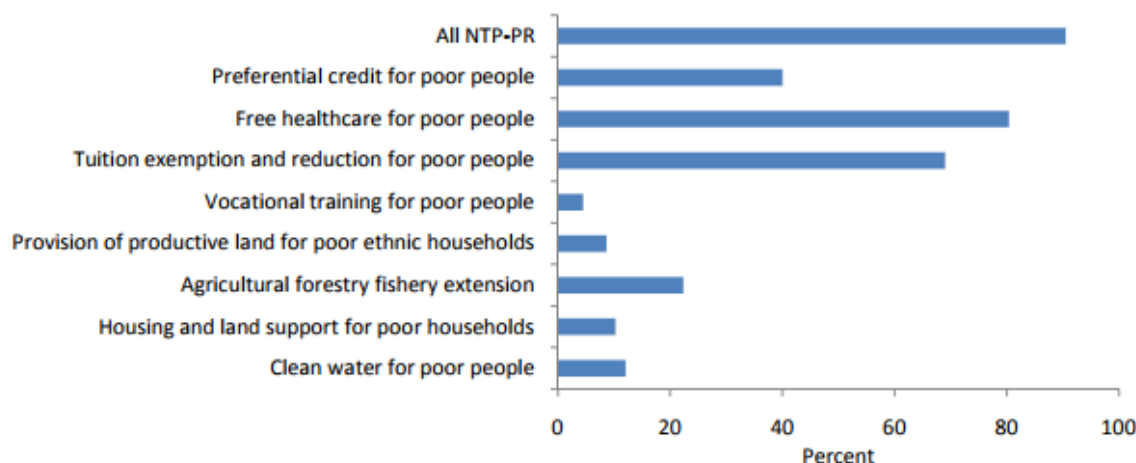
In the healthcare sector, the utilization of health services has also fallen. The outpatient consultations has fallen from an annual rate of around 2.1 visits per capita in 1987 to 0.9 per capita in 1993. The inpatient admission rate also dropped sharply during this period, falling from about 105 per 1,000 persons in 1987 to 68 per 1,000 in 1990 (World Bank, 1997). The access by poor people was much worsen both in the frequency of medical treatment and self-treatment. These developments have occurred in parallel with major changes in the provision and financing of social services. As part of Viet Nam's ambitious program of structural reform, user fees were introduced for publicly-provided education and health services and private sector provision was liberalized in both sectors in 1989. The decline in utilization rate was attributed to the deterioration in quality of government health services resulting from the compression of public expenditures in the late 1980s.

The Government of Viet Nam also promoted the enforcement of social protection through access to basic social services such as education and healthcare, particularly for the poor in this period. The social protection scheme also provided cash transfer programs for people at the lowest quintile. However, according to a report by the World Bank, the coverage of those programs was severely limited (Figure 3), which only covered 1.3% of the poorest quintile in 2006.

Figure 3: Coverage of cash transfer in Viet Nam

Source: World Bank, 2010.

Household targeted programs were enormous during this period, either under national targeted programs for poverty reduction, including preferential credit, free healthcare, exemption/reduction of tuition fee, clean water, housing and land support,... or separated programs targeted to poor and disadvantaged ethnic minority households living on agriculture and forestry to provide them with land, housing and clean water. The coverage rates of eligible households (through the selection of beneficiaries and on the poor list certified by the community) under those programs appeared to be high (Figure 4).

Figure 4: Coverage of national targeted programs

Taking into account these results with targeting to effectiveness, the Government of Viet Nam continued to pursue policies on ensuring access to basic social services for all people, and

considered it as one of most important goals in the social security system of Viet Nam. Those basic social services included education, health care, housing, clean water and access to information, which have been adjusted (in terms of enforcement) and incorporated in the consequence national targeted programs and national strategy on social protection.

Policy response

Being considered as national system and an engine for socio-economic development, a Social Protection Strategy 2011-2020 has been formulated by the Ministry of Labor, Invalids and Social Affairs. According to it, social protection in Viet Nam includes three main pillars: (1) labor market; (2) social insurance and social health insurance; and (3) social assistance. These three pillars aim to deal with various risks. For instance, the labor market policies are to prevent risks; social insurance and social health insurance policies aim to mitigate risks once they occur; while social assistance policies help people overcome their risks if they are unable to cope by themselves.

In general context, social protection embraces not only social transfers but brings into a consistent and comprehensive framework labor market policies, social insurance policies, health-care policies, social welfare/assistance, poverty reduction programs and access to public social services, which comprises of four basic policy group:

- (i) policy for ensuring minimum income and poverty reduction: participation in labor market;
- (ii) policy on social insurance;
- (iii) policy on social assistance; and
- (iv) policy on basic social services,

With regards to the focus of the paper, the following section will provide some analysis on policy response to ensuring basic social services under social protection scheme in Viet Nam.

Policy on ensuring basic education

For ensuring the access to basic education by marginalized population, this policy group targeted at (i) improving the quality of preschool education for children aged 3-5 years; (ii) universalizing primary and lower secondary education, improving the quality of general education, vocational training and university/college education; and (iii) reducing the educational disparities for the poor, ethnic minorities and disadvantaged children. Current policy response includes:

- The 2010 Education Law identified educational development as a top prioritized national policy, giving priority to the poor, ethnic minorities, and economically disadvantaged areas and universalizing preschool education for 5-years-old, primary and lower secondary level

- Decision No. 239/QD-TTg of the Prime Minister on 9 February 2010 reaffirmed the target of universalizing preschool education for 5-years-old children by 2015.
- The universalization of primary education level stipulates that children at the age of 6 must starting primary school and pupils of public elementary schools do not have to pay tuition fee.
- Exemption, reduction of tuition fee and other preferential treatment for children of poor households, ethnic minorities and marginalized children, including Decree 74/2013/ND-CP of the Government on 15 July 2013 regulating the provision of tuition fee for public kindergarten, general education, vocational training and university; Decision 12/2013/QD-TTg of the Prime Minister dated 24 January 2013 on supporting policies for pupils at upper secondary schools in disadvantaged and special difficulty areas; Decision 36/2013/QD-TTg of Prime Minister dated 18 June 2013 on supporting rice for pupils at disadvantaged schools; Decree 49/2010/ND-CP of the Government dated 14 May 2010 regulating the exemption and reduction of tuition fee for poor and nearly poor households.
- Supporting meals for students: Decision 12/2013/QD-TTg on January 2013 supporting lunch for targeted children at the age of 3-4; Decision 85/2010/QD-TTg of the Prime Minister on supporting meals and accommodation for full time and part-time boarding schools; Decision 239/QD-TTg on supporting meals and accommodation for children of poor households attending boarding schools in special difficulty communes.

Policy on ensuring primary healthcare

Aiming at (i) ensuring that all people enjoy primary health care services, especially for mothers and children; (ii) implementing universal health insurance; (iii) broadening access to and use of quality health services; and (iv) ultimately, ensuring people's living in a safe community with better development of both physical and mental aspects, reducing morbidity, improving physical fitness, increasing and improving the quality of population, the following policies have been promulgated, including:

- National Strategy on the protection, caring and promotion of people's health in 2011-2020 and vision to 2030 approved under Decision 122/QD-TTg on 10 January 2013.
- A series of national targeted programs related to health and community healthcare has been implemented, including national targeted programs on prevention of communicable and non-communicable diseases; national injection program, reproductive healthcare and improving child nutrition program; national targeted program on food hygiene and safety; national targeted program on HIV/AIDS prevention and control; and
- Some measures have been carried out for improving the quality of health treatment as well as socialization of financing and provision of healthcare services

Health Insurance Scheme

The Health Insurance Law came into force on July 1, 2009 with the initial target of implementing universal health insurance by 2014. As regulated by Law and in other consequence guiding documents, of which free medical insurance cards are being granted to persons with meritorious services to the revolution and/or their relatives, persons serving in the armed forces and/or their relatives, and children under 6 years of age, old people, poor households, and nearly poor households (Decision 705/2013/QD-TTg of the Prime Minister on increasing the level of support for health insurance premiums for nearly poor households; Decision 538/QD-TTg on 29 March 2013 of the Prime Minister approving the Roadmap of implementing universal health insurance for the period 2012-2015 and to 2020). In addition, the State contributed partly to the health insurance premiums for pupils, students in farming households with lower middle income

Policy on ensuring clean water for people

This policy group, ultimately, aims at fundamentally improving the use of clean water by people, especially in the rural areas ethnic minorities, disadvantaged and mountainous areas and minimizing adverse impacts caused by poor conditions of water on health. Therefore, the Prime Minister approved national strategy on clean water supply and sanitation in rural areas till 2020 and national targeted program on clean water supply and sanitation in rural areas during 2012-2015 with three component projects: (1) supply of water and rural environment; (2) rural sanitation, and (3) capacity building, communication, monitoring and evaluation. In addition, the Prime Minister promulgated Decision 134/2004/QD-TTg on some policies to support production land, residential land, housing and clean water for poor ethnic minority and disadvantaged households. Specific support included (i) providing common water supply for ethnic people in the hilly and rocky mountainous areas; and (ii) providing concessional credit for constructing water supply and sanitation system for rural people.

Ensuring information access for poor people and poor communities

With an aim of improving information access to and shortening the gap of information for people living in rural, mountainous, remote and island areas, the Government has promulgated some following regulations:

- Decision 119/QD-TTg on 18 January 2011 of the Prime Minister approving the project on development of rural communication and information in 2011-2020, aiming at developing the telecommunication system, post office, information center, television channel and internet for improving production and business in rural areas, contributing to poverty reduction and improving intellectual level of rural people.
- On 5 September 2012, the Prime Minister issued Decision No. 1212/QD-TTg approving the national targeted program of providing information to remote, mountainous, border and island areas during 2012-2015 in order to shorten the information gap between

regions, to improve the cultural life and spirit of people. The program comprised of three components: (i) Secondment of information and communication officers to these areas; (ii) Improving facilities for information and communication systems for these areas; and (iii) Enhancing the contents of information and communication provided.

3. Impact

With regards to ensuring basic access to education, the nationwide education network has been strengthened. By the end of 2015, there were 14,513 kindergartens, 15,254 primary schools; 10,909 junior high schools and 2,788 high schools in the economy. There are also 305 full-time boarding schools and 569 part-time boarding schools for ethnic minorities.

Viet Nam has completed the universalization of primary education in 2000 and of secondary education in 2010. By 2015, the rate of children attending kindergarten at the age of 5 years reached 99.2%, primary schools of 97.8%, junior high schools of 85.5% and high schools of 54.4%. The percentage of children with disabilities attending school was 60.4%. The ratio of students per ten thousand people reached 56.1 and the literacy ratio of people aged 15 and over was 98.25%.

Social equality in education has improved, in particular in increasing the educational opportunities for girls, ethnic minority children, children of poor families and children with disabilities. Education in ethnic minority areas, remote areas has made remarkable progress.

In terms of primary healthcare, a report by Ministry of Health showed that some remarkable achievements have been made in some recent years. By 2015, the ratio of fully injected infants (<1 year of age) were over 90%, mortality rate for less than one year was below 14.3% and for under 5-years-old was 22.1%; malnutrition rate among under 5-years-old children 14.3%, the prevalence of tuberculosis was reduced to 215 people per 100,000 people. At the same time, 97% of pregnant women received tetanus vaccination; 85.4% of pregnant women received 3 or more antenatal care; some gastrointestinal diseases (typhoid, bubonic plague), meningitis, infectious diseases, especially vaccinated preventive diseases (diphtheria, pertussis, encephalitis) were significantly reduced; the average life expectancy increased up to 73.3; the number of HIV infections gradually decreased and more than 60% of HIV/AIDS patients receiving ARV treatment.

Through the implementation of Health Insurance Law and its guiding documents, by 2015, the coverage health insurance scheme increased to 77% of total population (while that figure for 2001 was 13.4%), and the State supported health insurance for 78% of participants, particularly, the support ratio for ethnic minorities attained 83% (MoH, 2016).

The objectives of the national targeted program on clean water supply and sanitation in rural areas for 2011-2015 have been met. By 2015, the number of rural people using clean water was 86%; 65% households having access to hygienic toilets; 93% of schools and 96% of communal

health stations having clean water and sanitation facilities. The communication activities have contributed significantly to raising awareness of rural people on the use of clean water, hygienic latrines, hygiene practices and environmental protection. Sanitary practices and behaviors of rural people have improved.

For the information access policy, there were investment in the infrastructure and facilities for information and communication. A total of 529 communal radio stations, 64 broadcasting stations, 56 sets of operational equipment have been set up and upgraded. Another 370 sets of signal receivers, audio-visual equipment and auxiliary equipment have been procured and provided to community of remote and disadvantaged areas. Information gap has been shortened between regions through the broadcasting of 4,195 radio and television programs; providing thematic books; distribution and dissemination of various publications to commune.

4. Challenges and Way forward

Viet Nam is facing new challenges. The pace of economic growth and the reallocation of jobs away from agriculture have slowed in the wake of structural problems in the enterprise and banking sectors and macroeconomic turmoil in recent years. Capital investments, and not productivity, have become the main source of economic growth. This is not a sustainable model for ensuring continued rapid economic growth. While the size of its workforce is still expanding, its youth population is shrinking. This means that Viet Nam cannot continue to rely on the size of its workforce for continued success; it needs to focus on making its workforce more productive and alleviating skills barriers to labor mobility. Looking ahead to the context by 2020, challenges arisen:

- Viet Nam will soon become a middle-income economy by 2020
- Entering a period of demographic bonus but also aging population
- Reducing the financial sustainability of current Social Security Fund
- More dynamic labor market development: moving from rural to urban, agriculture to non-agriculture and labor export
- International economic integration will speed up the development of a dynamic social protection system

Initiative on Social Protection Floor for all

Modernizing the social protection system in Viet Nam is fundamental to fostering more inclusive development, which then ensures more jobs are created and higher productivity, and all people are capable of taking advantage of these opportunities. Social protection is, therefore, playing an important role in enhancing resilience to risks and eradicating poverty.

According recent World Bank's report, there has been 40% of Vietnamese people living in or being vulnerable to poverty and a further 40% having inadequate and insecure incomes. Those people are struggling with crisis and shocks, that could, at any time, bring them back to poverty.

The report also reaffirms a large share of Vietnamese people do not enjoy social protection coverage, in spite of being guaranteed by the National Constitution on the right of accessing to social protection system.

Viet Nam has a basic system of social protection covering many stages of the human life cycle. But currently, the scheme still showed large gaps, which significantly divided between relatively generous social insurance for those working in the formal sector and very limited social assistance for the poorest. A ‘missing middle’ encompasses the near-poor, those with insufficient incomes and the lower-middle-income group who are employed in the informal sector. They are not eligible for social assistance and cannot access to social insurance scheme, leaving them highly vulnerable to reversals of well-being. Furthermore, social assistance coverage is still low for people living in poverty, working-age people with disabilities and elderly people.

The social protection in Viet Nam lacks a well-defined and evidence-based strategy for which goals and targets are set. The Resolution 15/NQ-TW on some issues of social policies for 2012-2020 (passed by June 2012) had set out wide ranges of social protection and basic social services agenda. However, its coverage was quite broad and in shortage of specific vision for social protection in linkage with national strategy on social protection.

Viet Nam’s key challenge, as in many other middle-income countries, is to build on past lessons and move towards more inclusive social protection. The overall way forward for the system to focus on assisting the poorest to sustain minimum living conditions and to aim at preventing vulnerable middle-income groups from falling into poverty and helping them to stay at the lower middle level and move up. In other words, a fundamental shift for social protection system is urgently needed. This should aim at greater levels of coverage and adequacy to eradicate poverty and build resilience among the many people who remain vulnerable to poverty. Some policy direction can be listed as follows:

Universal health insurance

The expansion of health insurance should continue focus on the poor and poorest, however, as mentioned earlier; it should also focus on the “missing middle” – especially the most vulnerable such as the near poor, the elderly and groups affected by diseases that are public health priorities (HIV and tuberculosis). The expansion is also a challenge to reaching uncovered middle-income people who are working in the informal sector. To this extent, the more expansion of the scheme is the more investment from state budget it requires. The World Bank has estimated that if the coverage rate was 60% in 2010, it would require an additional 0.8-1.7 percent of GDP for reaching full coverage. Given the current budget constraints, it should be more feasible to expand the health insurance to the near poor, middle-income people working in the informal sector and to give attention to vulnerable groups.

In addition, incentives should boost participation in health insurance and careful policy measures facilitate expansion of social insurance, while a basic package of social assistance should cover the human life cycle, particularly birth and childhood, disability and old age. Greater coherence of the key pillars of social protection system would increase coverage and efficiency. While these measures will require additional resources and/or a reallocation of funds, financing should be viewed in terms of social protection as an effective public investment with high economic and social returns.

Towards a fully-funded social insurance

VSS is facing a challenge of financial imbalance, affecting long-term sustainability and fiscal status of the State Budget (being guarantor of the Fund). Currently, VSS's pension scheme is evaluated as generous compared to contributions, and retirement ages remain low in the context of an aging population and increasing life expectancy. Projections suggest that a pension-tested elderly social pension at the level of the poverty line for 6+ years of age would cost about 0.7% of GDP for the remainder of the decade, rising over 2020-2035 as the number of elderly rises sharply (Giang 2014). Policy directions towards a fully-funded social insurance and to ensure balanced management of the VSS Fund in the next decade include (i) gradually increasing official retirement age, as being identified in the 2016-2020 Socio-Economic Development Plan; (ii) equalizing the retirement age for men and women; and (iii) accelerating the matching of pension benefits with contributions. These actions, aimed at setting a self-sufficient financial status for VSS, will lay a solid foundation for financial viability and sustainable expansion over a longer term.

Expansion of social assistance schemes

Social assistance transfers are generally too low and spread over many small and fragmented schemes, especially those targeting the poor and poverty reduction programmes, to make much of a difference. While Viet Nam's public expenditure on social protection overall accounted for 2.8% of GDP in 2013, social assistance only accounted for around 0.4% of GDP in the same year. Recently, the Prime Minister has approved Master Plan for Social Assistance Reform, creating a foundation for comprehensive social assistance programs which integrating to a more inclusive social protection scheme. The Master Plan has specified the consolidation of social assistance transfer schemes, addressing the fragmentation and defining a coherent framework for the implementation. Furthermore, there should be more consideration on the selection of beneficiaries on a vigorous assessment, gradual shift in resource allocation for National Targeted Programs.

References

- Giang, T. L. (2010), 'Social Protection in Viet Nam: Current State and Challenges', in Asher, M. G., S. Oum and F. Parulian (eds.), *Social Protection in East Asia – Current State and Challenges*. ERIA Research Project Report 2009-9, Jakarta: ERIA. pp.292-315.
- GIZ and ILSSA (2013), *Developing Social Protection System in Viet Nam by 2020* (in Vietnamese),
- Scott, N. (1997), *Poverty, Social Services and Safety Nets in Viet Nam*, World Bank Discussion paper 376.
- UNDP (2016), *Growth That Works For All: Viet Nam Human Development Report 2015 on Inclusive Growth*, Social Sciences Publishing House, Ha Noi 2016.
- World Bank (2010), *Viet Nam: Strengthening the social safety net to address new poverty and vulnerability challenges*, Policy Note, November 2010.
- World Bank (2013), *Skilling up Viet Nam: Preparing the Workforce for a Modern Market Economy*, *Viet Nam Development Report 2014*, November 2013.
- World Bank and Ministry of Planning and Investment (2016), *Viet Nam 2035: Toward Prosperity, Creativity, Equity and Democracy*.



**Asia-Pacific
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Annex B

AEPR 2017 Individual Economy Report (IER) Questionnaire: Structural Reform and Human Capital Development

This year's AEPR will discuss the linkages between structural reform and human capital development, with a focus on making economic growth, trade, and investment more inclusive. As an important aspect of the AEPR, the Individual Economy Reports (IERs) provide an opportunity for economies to identify ways forward for structural reform in human capital development. The IERs will contribute to developing a broader picture of the lessons, gaps and challenges, and opportunities in implementing structural reform in human capital development in the region. It will also contribute towards finding a way forward for individual APEC economies as well as avenues for regional cooperation and capacity building.

For the purposes of this questionnaire, we define structural reforms for human capital development as policies in the education, health, employment, labour, or social protection sectors whose ultimate aim is to improve skills and productivity, making labour markets more efficient and inclusive, and making economies, industry sectors and households more resilient to economic shocks and market shifts. Furthermore, we define inclusive growth as a pattern of economic growth that provides greater opportunities for economic participation and employment for women and youth, and among underprivileged segments of society such as the poor, indigenous peoples, minorities, people living with disabilities, the underemployed, and those who have difficulty accessing global markets or who work in industries or sectors that may be adversely impacted by international competition.

Please limit responses to a maximum of four pages in total.

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

AEPR 2017 Individual Economy Report (IER) Questionnaire: Structural Reform and Human Capital Development

Australia

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

The Higher Education Participation and Partnerships Program (HEPPP), implemented in 2010, is a particularly effective human capital development reform. The HEPPP aims to ensure that Australians from low socioeconomic status (SES) backgrounds who have the ability to study at university have the opportunity to do so. It provides funding to assist universities to undertake activities and implement strategies that improve access to undergraduate courses for people from low SES backgrounds, as well as improving the retention and completion rates of those students.

The HEPPP consists of three components, each with specific objectives and funding arrangements:

- **Participation:** supports students from low SES backgrounds to access higher education and support them in their studies.
- **Partnerships:** supports development of outreach activities to build the capacity of people from low SES backgrounds to participate in higher education.
- **National Priorities Pool:** provides funding for projects that support the more effective implementation of HEPPP nationally and at the institutional level.

University enrolments of students from low SES and other disadvantaged backgrounds have increased at a greater rate than the growth in total student numbers since introduction of the HEPPP in 2010 and the demand-driven system of higher education in 2012. A key reason for the HEPPP's effectiveness is its whole of student lifecycle approach:

- **Pre-Access:** outreach to schools and communities to shift the perceptions of low SES people, including those as young as in primary school, and their families and communities, regarding the feasibility of attending university, and improving their ability to undertake higher education through targeted academic support.
- **Access:** improved pathways and admissions procedures that extend existing university activities and initiate new measures to encourage low SES students into higher education.
- **Participation:** support for low SES students during their studies contributes to increasing their participation, retention and completion rates.

The HEPPP was evaluated in 2016. The evaluation found that overall the HEPPP is positively influencing the quantity and rigour of higher education equity activities and policies. The

evaluation also found that the number of low SES individuals applying for, being offered a place at, commencing at and enrolling in university has increased considerably. Growth on each of these measures is higher in the low SES group than the medium and high SES cohorts. This growth has seen the share of higher education students from low SES background increase from 14.8 per cent to 16.1 per cent and the proportion of low SES individuals from the Australian population in higher education increase from 2 per cent to 2.5 per cent over 2010-2015.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

Australia faces a mix of challenges in making economic growth more inclusive and support greater job creation so that more Australians can benefit from work. The three most important challenges to inclusive growth in Australia are:

- 1) **Boosting Labour Force Participation** - Population ageing poses a challenge to many advanced economies, including Australia. The labour force participation rate for people aged 15 years and over is projected to fall to less than 63 per cent by 2054–55, compared with around 65 per cent today. Improving workforce participation rates for groups with potential for higher participation is not only a pathway to boost Australia's productive capacity, but can improve equity and opportunity for all Australians. For example, Australia has a gender gap in labour force participation, while Indigenous Australians, mature age Australians and people with disability also have much lower participation rates than the general population. Young people are particularly vulnerable to unemployment during periods of economic and labour market softness, as they tend to have less education, skills and experience. The youth unemployment rate in April 2017 was 12.8 per cent, more than double the national rate. Improving youth participation in employment, education or training is therefore a priority for the Australian Government. Australia achieved a substantial decline in long-term unemployment by the time of the Global Financial Crisis, reaching 15.3 per cent April 2008. Since then, the number of long-term unemployed has risen to stand at 24.1 per cent in April 2017.
- 2) **Skills and Training** - Over recent decades, growth in demand for skilled labour has outstripped growth in demand for unskilled labour, both in Australia and in most other developed economies. The growing use of automated systems is increasing the complexity of tasks and requiring higher skill levels for entry-level positions. The consequence is likely to be a raised skills and education bar for entry into many professions and occupations. The shift from manufacturing and agriculture to a service economy in Australia implies growth in demand for adaptable and skilled workers (including in regards to teamwork and creativity). Early childhood education and basic schooling remains essential to foster economic growth, as a workforce with a high level of foundation skills (such as literacy and numeracy) is better able to adapt to the dynamic shifts in the demand for skills that are typical of a modern economy. Investing in higher-level skills is also essential, to foster productivity growth and support the strong service and primary industries Australia needs into the future.

- 3) **Job Creation** - Job creation was slow following the Global Financial Crisis, with Australia's unemployment rate reaching almost 6 per cent. This partly reflected the challenge of managing structural change between industries with varying labour requirements. Strengthening job creation will require a strong commitment to boosting economic growth and opening up employment opportunities through innovation and new forms of work. Investment in education, skills and training are essential to ensure existing and new entrants to the workforce are able to adjust quickly to changing labour market demands. Job creation for indigenous Australians and populations in regional areas continues to remain a challenge. For example, unemployment rates in Australia tend to increase outside of capital cities and in regions. Stimulating long-term economic growth and delivering sustainable employment to regions is a priority for the Australian Government.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Reforms to increase and streamline the collection of education data

The Australian Government is committed to working collaboratively to build a world-class education system that equips all Australians to succeed. Improved access and a greater ability to link and analyse key education data could enhance the quality and scope of the domestic evidence base that can be used to monitor educational outcomes and assist with future policy development. The Australian Government has allocated AUD \$130 million over three years to build its capacity to improve policy and program implementation and expenditure through improved data capabilities in early childhood and care, schools, vocational education and training and higher education.

Increasing apprenticeship commencements and completions

Australian apprenticeship commencements and completions began declining in 2012. Improving these is a key focus for the Australian Government. The proportion of apprentices and trainees completing their training remains steady at 58.3 per cent according to the National Centre for Vocational Education Research. Investing in tailored support services to help employers recruit and retain apprentices, and assist apprentices to complete their training are key policy focuses for the Australian government. The government is undertaking a range of measures to achieve this including, providing loans that assist eligible trade apprentices with the day-to-day costs of living, learning and completing an apprenticeship; providing substantial incentive payments to employers who take on an apprentice in key occupations; and establishing a fund which will support state and territory governments to implement projects focused on improving apprenticeships and traineeships in high demand occupations.

Measures to encourage more students to study STEM

The Australian Government is committed to encouraging the study of STEM from an early age through engagement with children, families and the whole community to build an understanding of the importance of science. The majority (70 per cent) of employers in Australia characterise employees with STEM skills as the most innovative, and 75 per cent of the fastest growing occupations require STEM knowledge and skills. Education in STEM will equip all Australians

with the knowledge to navigate critical activities and challenges ranging from health and medical care and the environment, to the digital economy and life-long learning.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

Australia takes a holistic approach to addressing issues relating to inclusive growth and labour market disadvantage. The Australian Government works to address all of these issues through policies, programmes and anti-discrimination regulations.

The Australian Government is boosting labour force participation through the following measures:

- Public employment services that promote stronger workforce participation by people of working age, and enable more job seekers to move from welfare to work.
- The Australian Government is committed to tackling youth unemployment through the Youth Employment Package, which was announced in the 2016–17 Budget. This package includes the new \$763 million Youth Jobs PaTH (Prepare-Trial-Hire) Program, for job seekers aged under 25 and registered with an employment service provider. This measure also includes a wage subsidy of up to \$10,000 and measures to encourage entrepreneurship.
- The Australian Government is boosting female participation by investing \$37.3 billion in childcare to help ease the cost of living pressures for around one million Australian families. The Government has also invested \$263 million to expand the ParentsNext program to assist parents of young children, who may be at risk of long-term welfare dependency, to plan and prepare for employment by the time their children are at school.

The Australian Government continues to implement a range of measures to boost skills and training and enhance job creation. These include:

- Quality Schools, Quality Outcomes is the Australian Government’s evidence-based approach to schools’ reform and improve learning outcomes for all Australian students regardless of their school or background. It sets out evidence-based priority reforms to help support improved outcomes for students and schools by focusing efforts towards five key area (1) boosting literacy, numeracy and STEM performance, (2) improving the quality of teaching and leadership, (3) Preparing students for a globalised world (4) Increasing public accountability through improved transparency (5) focusing on low socioeconomic students. In the 2017-2018 Budget, the Government committed to providing an additional \$18.6 billion in funding for schools for the period to 2027, to implement a new needs-based funding model for schools which delivers a consistent Commonwealth approach for all schools in all States and Territories
- A new \$1.5 billion Skilling Australians Fund announced as part of the 2017-18 Budget. This will support up to 300,000 apprentices, trainees, pre-apprentices and higher-level skilled Australians, many of whom will be young people entering the workforce for the first time.

- A \$220 million investment in the Regional Jobs and Investment Packages (RJIP), to help regions in Australia diversify their economies, stimulate long-term economic growth and deliver sustainable employment.
- Investment of \$112 million under the National Innovation Science Agenda initiative to inspire Australians of all ages to engage with STEM in society and participate in further study.
- A \$55.7 million Closing the Gap Employment Services package announced in the 2017-18 Budget to increase the number of Indigenous Australians engaged in the labour market and build the capacity of employment services to better connect Indigenous job seekers to jobs.
- Vocational Training and Employment Centres provide support for Indigenous Australians to enter employment. These centres connect Indigenous job seekers with guaranteed jobs, and bring together training and other support services to prepare them for long-term employment.
- Tailored Assistance Employment Grants support activities that help Indigenous Australians to overcome disadvantage in the labour market and connect them to employment. These grants also help job seekers gain experience and skills to build work readiness, and can assist employers to build a more diverse workforce through supporting cultural awareness activities.
- The Australian Government is also working with large employers through the Employment Parity Initiative to increase the number of Indigenous Australians employed in the private sector, with a target of 3 per cent of participating companies' employees being Indigenous by 2020 reflecting that Indigenous Australians are 3 per cent of the population. The initiative aims to get 20,000 more Indigenous job seekers into jobs by 2020.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

APEC economies have achieved rapid economic growth and prosperity in the last two decades; however, this has not been shared equally. To foster inclusive growth, member economies need integrated sets of policies that place people and jobs at centre stage. Effective international cooperation at bilateral, regional and multilateral levels can help to ensure the processes of globalisation and technological change can result in better jobs and reduce poverty, persistent inequalities unemployment and informal work. Further regional cooperation to enhance inclusive growth in the APEC region could look at:

- The need to foster adequate skills, especially foundational skills and those required in the digital economy that prepare people for changes in the labour market over their working life. APEC should encourage the implementation of the APEC Education Strategy and the APEC Framework on Human Resources Development in the Digital Age.
- Policy frameworks for the future of work that support innovation and inclusive growth and fundamental principle of rights of work.
- Projects aimed at developing an improved knowledge of employers' human resource requirements in a form that would be useful for education and training programme planners. Additionally, projects aimed at assisting developing economies build their

capacity to drive reforms that reduce the structural barriers blocking human resource development in their economies.

- A regional perspective on skill shortages by encouraging greater regional cooperation on sharing data on the APEC Labour Market portal.
- Strengthening efforts to reduce gender gaps in labour force participation and improving the quality of female employment.
- The role of apprenticeships in integrating young people into the labour market.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Brunei Darussalam

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Best Practices from the Oil and Gas Sector in Brunei Darussalam

Local Business Development (LBD)

As part of the effort to facilitate the sustainable development of capacities, competencies and competitiveness in the oil and gas sector, Brunei Darussalam through the Energy and Industry Department, Prime Minister's Officer (EIDPMO), have formulated directives on Local Business Development and also the Local Business Development Framework (LBD Framework) for this particular industry. One of the key components contained in this framework is the formulation of a Local Content Opportunity Framing report for major reports / contracts / agreements. This framing report aims to identify opportunities to increase local content and also local employment opportunities. In relations to human capital development, the directive seeks that oil and gas, midstream and downstream operators, their contractors, sub-contractors and suppliers operating within the oil and gas industry in Brunei Darussalam to adopt and undertake the following:

1. Formulation of a Local Business Development (LBD) Management System to include Local Training and Development Programs
2. To produce an LBD Performance report which includes the number of local employment and the amount of local content
3. To provide a conducive environment for the employment of locals by implementing measures as set and issued by EIDPMO from time to time, such as, but not exclusive to, minimum wage, career development plan and employment security.

Establishment and implementation of the Energy Industry Competency Framework (EICF) and its expansion into the non-energy sectors.

EICF was established in July 2013 through joint collaboration between the EIDPMO, the Ministry of Education and Energy Industry players. The EICF provides a pathway for groups in the Secondary School and below demography to receive training that meets industrial standards and for them to have the right competency to start work once they have completed their training through the COE Principle (Conditional Offer of Employment). The core objective is to generate an industry ready workforce that are aligned to the industry demands. Apart from that, it is a pathway for upskilling opportunities for individuals to continue from vocational training to higher education. Since its establishment in July 2013, the EICF has churned out 1,536 graduates and 1,201 (78%) are currently employed.

With the success of the EICF and under the steer of the Manpower Planning Council (MPC), the EICF Governance has now been replicated to a number of selected sectors and now called the Industry Competency Framework (ICF).

Establishment of the Manpower Planning Council in 2016

Brunei Darussalam has also established a Manpower Planning Council (MPC) in April 2016. The council's vision is to drive development and planning of the local workforce and also to build a pipeline of skilled Bruneians. Under the council, 11 priority actions have been endorsed towards skilling Bruneians and to reduce unemployment in Brunei Darussalam.

Formation of JobCentre Brunei and Mandatory Registration into the JobCentre Brunei Portal

One of the priority actions under the council is the mandatory usage of JobCentre Brunei system for local job seekers and job vacancies.

Starting 2nd August 2016, registration to the system was made mandatory with the objective to centralize available vacancies in the private sectors and to also gather real time data on job seekers. Initially only 397 companies and 4957 jobseekers are registered to the system. As of May 2017, the system have recorded 12,984 jobseekers, 3,409 companies and 5,088 vacancies posted. Since the policy roll out, the numbers of registrations have drastically increased, enabling collection of valuable job seeker real time data and also the showcasing of large number of vacancies in order to facilitate the job matching process.

Such collected data is critical for policy analysis and introduction of new manpower strategies including profiling of job seekers and targeted interventions, reviewing of current courses and trainings through industry driven manpower planning in order to close the gap between the current manpower supply and the economy's demands.

To complement the policy roll out, the JobCentre Brunei (JCB) was set up which began its operations on 1st January 2017. JCB strives to be a "One-Stop Career Centre" where local jobseekers may utilize available services to help improve their employability and marketability in the job market through the following services:

1. Information Centre of current vacancies in the market and an avenue for job applications
2. Career consultation on potential opportunities
3. By making available a selection upskilling and reskilling programs
4. By providing services that helps to increase the employability of job seekers including CV writing tips, interview skills and digital literacy courses.

The JobCentre aspires to promote the development, competitiveness, inclusiveness, and employability of all levels of the workforce. It is also set up to facilitate the job matching process for local job seekers and to provide support to companies in their efforts to search for local talent.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

In the recent years, Brunei has been impacted by the falling of oil prices. In relation to this, structural reforms to depart from the hydrocarbon-dependent development are critical to enhance productivity and to sustain economic growth. The three most important challenges in making economic growth more inclusive are as follows:

i. High unemployment number

At the moment, Brunei is facing an unemployment number of 12,984 jobseekers (as of 19th May 2017), whereby 46% are male and 54% are female. Majority (37%) of the jobseekers are secondary school leavers and below and the second majority group is of the Technical and Vocational background. Youth unemployment (18-29 year old) is also high at 79% of the unemployed. Therefore, to make this group job-ready, various reskilling and up-skilling strategies and programs are required.

ii. Limited supply of skilled locals to Foreign Direct Investment Activities

A number of job opportunities have been identified to be generated by Foreign Direct Investment (FDI) in Brunei Darussalam. At the moment, the recruitment opportunities for locals are secured via proactive engagements with the companies to ensure commitment to provide the job opportunities and development for the local job seekers. The number of locals acquiring the skills and experience required for a number of specific roles and occupation groups by these companies are currently limited.

iii. Courses offered in institutions are not aligned to industrial need

The MPC secretariat have identified several areas of study with high record of surplus against industry needs.

Several initiatives to tackle this issue have been taken. At the moment, the Manpower Policy and Planning Unit (MPPU) serving as the secretariat agency to the MPC is working closely with the Ministry of Education specifically Higher Education Institutions and Institute of Brunei Technical Education (IBTE) in reviewing current courses and determining relevant new industry driven courses with the purpose to reduce manpower surpluses. In addition, various inter-governmental collaboration with other agencies are on-going whereby MPPU serves as the centralized data provider, in its first step towards systematic policy analysis and formulation.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

In the current situation, the three biggest policy gaps with respect to structural reform in human capital development are as follows:

iv. The absence of an industry-driven manpower framework

The absence of such framework, policy makers and other relevant agencies are still unable to systematically plan and cater to the industries' manpower requirements. In most cases, it is found that there is a limited number of suitable local job seekers for a number of specific occupation types and job levels required by the industry. As such, in order to meet the business needs, these jobs are currently being filled by foreign workers.

v. No minimum wage currently in place

The Energy & Industry Department, Prime Minister's Office (EIDPMO) has issued a Reasonable Wage Guideline. This guideline was introduced as part of the efforts to enhance the Local employment in the oil & gas industry in Brunei Darussalam and to ensure that all lower qualified Local Employee(s) working in the Industry are accorded a Reasonable Wage (RW) for the essentials of life and to allow a reasonable standard of living, all oil and gas upstream, midstream and downstream operators and their contractors and sub-contractors, within Brunei Darussalam.

At the moment, Brunei Darussalam does not implement any mandatory minimum wage. Similar to a few other developed economies, the level of wages in Brunei Darussalam are left to the market forces, to be negotiated freely and agreed with between the employers and employees. Under the ILO's Minimum Wage Fixing Convention, 1970, the elements that need to be taken into consideration in determining the level of minimum wages should, so far as possible and appropriate in relation to national practice and conditions, include the needs of the workers and their families taking into account the level of wages in the economy, cost of living, social security benefits and relative living standards of other social groups. Current practice ensures that wages are competitive, based on qualifications and takes into account the affordability of companies to employ workers, sustain and grow business operations to employ more of the existing job seekers in the labour market. Initial work towards establishing a minimum level of salary for workers in the private sector is currently in progress. Extensive and in-depth work is required to ensure a minimum wage level that is balanced and well accepted by all stakeholders in the economy.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

Since the formation of the MPC, several short term and medium term priority actions have been endorsed to address a number of these challenges and gaps. The priority actions are as follows:

Short-Term Priority Actions

1. Mandatory usage of www.jobcentrebrunei.gov.bn for Job Vacancies and Job Seekers.
2. National Level Job Fair which is to be an annual iconic event.
3. Centralized Database to consolidate data pertaining to manpower planning.
4. Labor market reforms strategies including reviewing and refining of the labor quota policy which is now known as the foreign workers permit, introduction of the Progressive Wages, local content policy directive and a levy system in the non-oil and gas sectors.
5. Enhancement of the Career Unit Function across education institutions.

6. Expansion of the Energy Industry Competency Framework (EICF) to other sectors and now called the Industry Competency Framework (ICF).
7. Identification of Job Types for Job Creation (Industry Driven Manpower Planning).
8. Review and refining the IBTE (Institute of Technical Education Brunei Darussalam) Function and collaboration with RTOs in alignment with ICF aspirations.

Medium-Term Priority Actions

9. Facilitation of Economic Growth from a manpower supply perspective.
10. Creating better career path awareness for better transition from School to Work-Life.

Long-Term Priority Actions

11. Introduce Education Strategy with emphasis on mid-career up-skilling support through lifelong learning.

MPC is still in its first year of its establishment. Since the formation of the council, one of the key directive for the implementation of these strategies is to adopt and ensure a whole of nation approach. At the moment, several agencies lack inter-organizational collaboration whereby agencies are mainly focused on their own core business. Collaboration needs to be further strengthened and a whole of nation approach is required for better coordination and monitoring of initiatives and programs in order to achieve the council's set objectives.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

In the face of such challenges and policy gaps, Brunei Darussalam are taking initiatives to address the various aspects of the Human Capital Development in the economy. Brunei Darussalam seeks further collaboration through regional cooperation and international organizations through the following ways:

- vi. Sharing of Best Practices.
- vii. Sharing of information and data particularly in policy formulation, as an international benchmarking exercise.
- viii. Sharing of experiences, particularly from more advanced nations and from nations or international organizations of similar demography with Brunei Darussalam.
- ix. Knowledge sharing by experts including sharing of competency frameworks and international/regional placements or internships.

At present, Brunei Darussalam is working closely with TalentCorp, Malaysia via the APEC Youth Connect program. Through short-term working opportunities in various APEC member economies, the program aims to encourage skills and technology transfer and connectivity among APEC youth while creating a network of global talent with skills, knowledge and work experience in APEC economies.

Aside from that, Brunei Darussalam is also interested in the competencies framework project proposed in APEC HRDWG such as Data Analytics Raising Employment in order to strengthen the local human capacities.

Moreover, the government is also in collaborations with the International Labour Organisation (ILO) in various projects which aims to enhance the labour market information and other labor market strategies.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Canada

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

With regards to structural reforms in human capital development, Canada has been most effective in ensuring collaboration between different levels of government and the private sector through specific mechanisms such as the Forum of Labour Market Ministers. This, among other forms of intergovernmental collaboration, has enabled us to develop structural reform initiatives to support post-secondary education and skills training, strengthen labour markets and increase support to low-income families. This experience could be relevant for other APEC economies. Initiatives to address ongoing human capital development challenges and efforts to promote greater inclusion are described under the appropriate headings below.

The Government of Canada believes that a growing economy that works for all Canadians starts with equal opportunity to good, well-paying jobs. At a time when innovation and advances in technology are changing the way that Canadians work, the best way to ensure that all Canadians are prepared for the jobs of the future is to provide ongoing opportunities to learn new skills. This means continuing to break down the barriers to full participation in Canada's society and economy.

Forum of Labour Market Ministers

As human capital development is a broad area with shared responsibilities among Canada's provincial, territorial and federal levels of government, one of the key aspects to the success of recent and ongoing work to improve labour market policies is the collaborative work undertaken in partnership with provinces and territories (PTs) through forums such as the Forum of Labour Market Ministers (FLMM), created in 1983. For example, in July 2015 Ministers in the FLMM endorsed the creation of a Labour Market Information Council to improve the timeliness, reliability and accessibility of labour market information to facilitate decision-making by students, workers, job seekers, employers and policy makers, in support of a flexible and efficient labour market.

Labour Market Transfer Agreements

Another example of successful collaborative efforts include Labour Market Transfer Agreements, where the Government of Canada transfers nearly \$3 billion in annual funding to provinces and territories to design and deliver a range of programs, from skills training to career counselling to job search assistance, to help unemployed and underemployed Canadians access the training and employment supports they need. Following broad-based consultations, the Government of Canada will work with provinces and territories to reform the Labour Market Transfer Agreements to provide increased flexibility to meet the needs of local labour markets and address emerging trends. The Government is also providing additional funding of \$2.7 billion over six years, starting in 2017-18, to boost training and employment supports under the agreements. There will be ongoing work with provinces, territories, and other relevant actors through the FLMM to further enhance the agreements, such as supporting an inclusive labour market, increasing innovation and strengthening performance measurement.

Skills Development and Lifelong Learning

As recommended by Canada's Advisory Council on Economic Growth, as well as the FLMM, new approaches are needed to address skills gaps and support lifelong learning throughout Canadians' working lives. To that end, the Government of Canada will invest \$225 million over four years, starting in 2018-19, and \$75 million per year thereafter, to establish a new organization to support skills development and measurement in Canada. Working in partnership with provinces and territories, the private sector, educational institutions and not-for-profit organizations, this organization will identify skill gaps with employers, explore new and innovative approaches to skills development and share information to help inform future skills investments and programming.

Through extensive research, the Government of Canada, along with other national and international agencies, identified and validated key literacy and essential skills that are used in nearly every job throughout daily life. For example, the Government of Canada's Office of Literacy and Essential Skills, founded in 2006, supports English as a Second Language (ESL), literacy and other kinds of programs. This helps Canadians, particularly those further from the labour market, to improve their job skills. The program aims to provide 13,000-17,500 Canadian with essential skills training or supports in 2017-2018.

Employment Insurance

To help more unemployed Canadians receiving Employment Insurance (EI) get the training they need to get a good, well-paying job, the Government of Canada will make better use of existing flexibilities within the EI program that allow EI beneficiaries to pursue self-funded training and maintain their EI status. For example, unemployed workers receiving EI can return to school for training without fear of losing their EI benefits.

Targeted Employment Strategy for Newcomers

The Government of Canada also fosters inclusive growth by providing opportunity and

assistance to Canadians with distinct needs. For example, once in Canada as permanent residents, highly skilled newcomers can face barriers that limit their employment opportunities. To ensure that newcomers to Canada are able to put their skills to good use and maximize their contribution to the economy, Budget 2017 announced a Targeted Employment Strategy for Newcomers, with three components: 1) improved pre-arrival supports, so that newcomers can begin the foreign credential recognition process before arriving in Canada; 2) a loan program that will assist newcomers with the cost of having their foreign credentials recognized; and, 3) targeted measures to test innovative approaches to help skilled newcomers gain Canadian work experience in their profession. The Targeted Employment Strategy for Newcomers will help reduce barriers and support newcomers as they put skills to work in the Canadian labour market.

Youth Employment

To support a more inclusive labour market for youth, the Government of Canada's Youth Employment Strategy (YES), inaugurated in 2003, helps young Canadians between the ages of 15 and 30 to get the information, skills, job experience and abilities they need to make a successful transition to the workplace. Through three complimentary streams of programming, the YES reaches a wide variety of youth, including vulnerable youth (e.g., Indigenous youth, young persons with disabilities, recent immigrant youth), post-secondary graduates and students seeking summer employment who intend to return to school in the following year. Budget 2017 proposed to invest an additional \$395.5 million in the YES over three years, starting in 2017–18. The additional funds from Budget 2017 combined with Budget 2016 measures, will help more than 33,000 vulnerable youth develop the skills they need to find work or go back to school; create 15,000 new green jobs for young Canadians; and provide over 1,600 new employment opportunities for youth in the heritage sector.

Post-Secondary Education

Post-secondary education is increasingly necessary for full participation in Canadian society and the global economy. The Government of Canada currently works in partnership with the provinces and territories to ensure that post-secondary education remains accessible and affordable to all Canadians. The Government of Canada's key efforts to ensure Canadians can afford a post-secondary education are the Canada Education Savings Program (CESP) and the Canada Student Loans Program (CSLP). The CESP provides the Canada Education Savings Grant to all Canadians who save for their children's education through a Registered Education Savings Plan, and it provides additional supports to low-income Canadians via the Canada Learning Bond. The CSLP provides Canada Student Loans and Grants to eligible students, as well as repayment assistance measures for student loan borrowers.

Education Support for Low-Income Families

The Government of Canada also recognizes that lower-income Canadians often face additional barriers to academic and labour market success, which is why it invests in Pathways to Education Canada. Pathways to Education is a charitable organization that provides a comprehensive set of academic, financial and one-on-one supports to youth from lower-

income community to help them graduate from high school and successfully transition into post-secondary education, training or meaningful employment.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Two areas for further improvement with regards to structural reform and HCD are:

- 1) fostering greater inclusion, and
 - 2) preparing Canadians for the changing nature of work, and helping them to cope with adjustments related to globalization and technology.
- Addressing these areas is part of an inclusive growth strategy.

Today, the evolving nature of work means that people may find that they change jobs many times over the course of their working life. This could lead Canadians to make difficult choices about where to live, what kind of post-secondary education and training paths to follow, and the types of jobs to pursue. Compounding this evolution are labour market adjustments associated with increased globalization and trade, which further the need for flexible and lifelong skills development.

The government is implementing targeted measures to address barriers to inclusive growth, including through enhancements to student financial assistance and skills training programs and support for lifelong learning, and modern infrastructure that facilitates access to education, social and work opportunities. Such measures will specifically focus on addressing important challenges faced by vulnerable groups such as:

- 1) Women and youth
- 2) Indigenous peoples and communities
- 3) Low-income families

To address some of the challenges outlined above, the Government of Canada has:

- Reduced child poverty. With the introduction of a more generous and better targeted Canada Child Benefit, approximately 300,000 fewer children will be living in poverty in 2017 compared with 2013, representing a reduction of about 40 per cent in overall child poverty.
- Increased income support for vulnerable seniors. Due to enhancements to the Guaranteed Income Supplement, 750,000 seniors now receive more money each month - an increase of up to \$947 per year for Canada's most vulnerable seniors. This will help to lift 13,000 seniors out of poverty.
- Focused on women and gender issues. This had been accomplished by systematically

requiring gender-based analysis for Memoranda to Canada's Cabinet, making better use of data to inform decision-making, and by better engaging Canadians in the policy-making process. For example, Canada's 2017 Budget includes a first ever Budget Gender Statement, an analysis of the ways in which the policies put forward impact women and men in different ways.

- Made post-secondary education affordable and accessible to all Canadians. By introducing a pilot project on the Canada Learning Bond, the Government of Canada aims to improve awareness of and access to this federal education savings incentive for low-income families. Complementary to that, the Government of Canada has committed to a number of measures that will increase eligibility to Canada Student Grants and Loans for different types of learners (e.g., Indigenous, adult, people with disabilities, low-income) throughout their lives.
- Made historic investments totalling \$11.8 billion to support Indigenous communities. This increased funding will lead to better-quality education for on-reserve First Nations youth, improved access to healthcare on reserve and improved health outcomes for First Nations and Inuit, improved living conditions in First Nations and Inuit communities, and economic development support for Métis.
- Removed barriers to education for lifelong learners. This includes a three-year pilot project to test new approaches to make it easier for adult learners to qualify for Canada Student Loans and Grants; and, expanding eligibility to Canada Student Grants for students with dependent children.
- Continued to work in partnership with Indigenous communities and organizations to support skills development and job training, which contributes to improved employment outcomes. This year, approximately \$390 million is being invested in Indigenous organizations which provide Indigenous people with a full continuum of services, from pre-employment training (e.g., literacy, numeracy and acquisition of other essential skills) to more advanced training-to-employment for skilled jobs.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

Addressing issues associated with the changing nature of work and adjustments due to globalization requires global dialogue on best practices. As such, the Government of Canada is committed to working with international partners in this area. This includes APEC, the OECD, and others, in which Canada can share insight and best practices on gender inclusion, life-long learning, the changing nature of work, flexible government services and other human capital development considerations.

While gender equality and the avoidance of discrimination based on gender is one of many elements that Canada has pursued during trade negotiations, notably via language regarding

the elimination of employment discrimination in our Labour chapters, more recently we have sought to include more gender-related elements in our FTAs. One of the most recent examples is the inclusion of a Trade and Gender chapter in the modernized Canada-Chile Free Trade Agreement. The new Trade and Gender chapter, which is based on the Chile-Uruguay FTA signed in October 2016, is now a first in terms of Canadian FTAs. The chapter acknowledges the importance of incorporating a gender perspective into economic and trade issues to ensure that economic growth can benefit everyone. The Chapter also establishes a Trade and Gender Committee that will oversee cooperation activities and share experiences in designing programs to encourage women's participation in national and international economies. We intend to continue placing an emphasis on incorporating gender-related provisions in future FTAs.

International education can strengthen bilateral and regional commercial and political relations. It also plays an important role for Canada's economy because of its impact on Canada's ability to acquire the skills to perform in a fast-changing competitive environment. The international education export sector has a significant impact on the Canada's prosperity, with international students spending over \$12 billion in Canada (larger than exports of wheat, lumber or financial services), and it is the single largest service export to China. International students bring in global knowledge, different perspectives, and enhanced research strength. The Government of Canada is committed to ensuring that young Canadians receive the education and training they need to prepare for the jobs of today and tomorrow, such as providing innovative and abundant research opportunities. Employers are increasingly looking to hire graduates with global experiences, such as studying or partaking in work-integrated learning (WIL) opportunities abroad, as these experiences enable students to develop sought-after competencies (e.g., intercultural skills, problem-solving, adaptability, flexibility) that better prepare them for the workplace. In this regard, regional cooperation and international organizations can play a role in supporting increased student mobility between countries, such as through reciprocal academic and WIL mobility agreements and partnerships.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Chile

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Over the past years there has been many policies being discussed and implemented regarding human capital development, one of the most notorious was focused on education; Promulgated on May 29, 2015, the “Ley de Inclusión” (Inclusion Law) mandated three changes to pre-college education:

(i) No profits in schools that receive public financing. Vouchers schools may not generate profits and must allocate in full any revenues for educational purposes.

(ii) Free education in voucher schools. Voucher schools that continue to accept public financing must phase out any tuition and fees required of parents. For the 2015-2016 school year, these copayments are capped at the prior year rates. In future years, the schools must decrease the copayments as they receive increased subsidies from the Ministry of Education. In addition, schools may not require parents to pay for any study materials as a condition for attendance at the school.

(iii) No discriminatory practices in admission processes. Voucher schools cannot consider an applicant's prior school performance or socioeconomic background (including education level, marital status, or parent finances) or require parent interviews as part of the admissions process. Partial exemptions exist for academically demanding schools (e.g., “emblematic” schools) and schools that require early specialization (e.g., trade schools). In order to ensure objective, fair and transparent admission processes, the law outlines requirements and shared responsibilities between Ministry of Education and schools that necessitates a common enrollment system.

These reforms have been effective so far, and are under constant evaluation, aiming to achieve objectives such as:

(i) Restoring Constitutional rights to education. In presenting the Law to the Senate and Chamber of Deputies, the Ministry of Education stressed that the law intended to protect the right to education for all students, as required by the 1980 Constitution. Enshrined in the Constitution is also parents' right to choose the educational establishment for their children. Voucher schools' admission requirements and parental copayments can be seen as both a failure of the State to provide free education to all children and an infringement of parents' right to

choice. By requiring payments, many poor parents have no choice but to send their children to municipal schools.

(ii) Ensuring equal opportunity to all students. The elimination of copayments and discriminatory practices is meant to open voucher schools to all students. It creates greater equality of opportunity. No longer will low-income families be locked out of voucher schools due to copayments that exceed their meager means nor will the children of divorcees be rejected from Catholic voucher schools.

(iii) Encouraging greater social integration. As parents take advantage of the greater access, diversity in the student body will increase, and the schools will transform into inclusive spaces where children encounter others from diverse socioeconomic, cultural, ethnic, and religious backgrounds. A provision of that law, which requires 15 percent of seats in any schools that conduct lotteries to go to low-income students, intends to ensure vulnerable students are represented in a greater variety of schools.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

There has been a consensus among different political and social sectors of the society defining a common ground when it comes to assess the variety of challenges to tackle in the long run. This priority areas are grouped as follows: (i) Improve the quality of public policy in strategic services; (ii) Enhance the conditions to boost productivity growth: innovation and diversification, and (iii) Enhance labor productivity and reduce labor market segmentation;

(i) Improve the quality of public policy in strategic services

Improve the quality of education. Despite Chile's progress in educational attainment and achievement, it still lags in quality. High-quality education will be critical for Chile to move to a more knowledge based, technology intensive economy. Improving the quality of education is at the forefront of the government's agenda and has been widely recognized as a key priority for long-term economic growth and equity. Chile's 2014 education reform, as highlighted in the previous question, is aimed to guarantee equal opportunity to access quality and well-financed education at all levels. Through these reforms the government can provide those from the most disadvantaged backgrounds the tools necessary to be highly productive and thus earn higher wages. Thus, ensuring the correct implementation of these reforms will be crucial to ensure long-term gains for both equity and productivity. Chile should also focus more on improving the quality of vocational and technical education, as having a strong basis allows workers to better adapt to changing labor conditions and the use of new technologies.

Improve health care regulation and financing to ensure quality of health care provision and equitable access to affordable health insurance. Chile's health financing remains inequitable. Chile's insurance market could improve its regulation with differentiating premiums, particularly for women and the elderly. Chile's health system would benefit from stronger regulation of its private insurance market, standardization of benefits and regulation of

premiums. Overall significant efficiency gains can be achieved through improvements in the clinical effectiveness and efficiency in addition to the management of hospital care services.

(ii) Enhance the conditions to boost productivity growth: innovation and diversification

Boost innovation. If Chile is to achieve sustainable productivity growth, it must close the technology and innovation gap, increase spending on R&D, and boost entrepreneurship. Chile has developed a strong base of entrepreneurs and new business formation is accelerating in response to regulatory improvements and government programs, including measures to start a new business (2011, 2013), a bankruptcy law (2014), and, the Start-Up Chile program (2010) and related support, including SME credit access facilitation and increased expenditures in Corfo to support entrepreneurship. Nonetheless, program scale and take-up has not been large enough yet to have a substantial impact. Chile's spending in R&D has not increased substantially, with most of it concentrated in the publicly funded university sector. To further boost innovation, programs should be reviewed and designed such that they can be adequately evaluated to ensure they are cost-effective.

Promote export diversification. Trade diversification both geographically and in the product space by upgrading value chains, removing barriers to competition, and encapsulating processes in services is needed to move toward an economic model that is more knowledge and technology intensive. The goal of Chile's Productivity, Innovation, and Growth Agenda is precisely to move from an economy based on natural resources to a knowledge-based economy. This will require an improvement in the quality of human capital and the incidence of innovation. Chile could draw upon its comparative advantage in copper mining, but make further progress in moving up the mining value chain as well as entering the markets for mining services. Service exports need to be further boosted and transport sector can be further liberalized to strengthen competitiveness.

(iii) Enhance labor productivity and reduce labor market segmentation

Enhance education-labor market linkages. Skill mismatch is associated with lower labor productivity. Thus, if skills are to translate into growth, these must be efficiently allocated and be used effectively across the economy. A third of Chilean workers that have completed tertiary education have jobs that require less skills than their academic preparation. High level of skill mismatch may be a result of low quality tertiary education or Chileans leaving the education system without the skills employers want and need to boost productivity. As an initial step, the government has created a network of public technical training centers to focus tertiary education on growth enhancing value added services in each region.

Evaluate the adequacy of the labor market structure and regulation. Economies often face trade-offs between promoting labor market flexibility and increasing labor market rigidity. On the one hand, labor market flexibility allows the private sector to adapt more rapidly to changing conditions (an important asset for a small open economy) and thus enhance productivity gains, whereas labor market rigidity could become a drag on productivity growth. On the other hand, however, labor market flexibility transfers some of the risk from the employer to the employee, leaving some workers more vulnerable to shocks. In addition, current Chilean legislation

provides strong protection for employees with indefinite contracts, whereas workers in nonstandard contracts have little or no security, implying a segmented market. Labor market segmentation is one of the economy's key binding constraints to achieve more inclusive growth.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

(i) The quality of education is lagging in Chile given the economy's level of development; achieving universal secondary education skills may increase growth by 0.6 percentage points per year. Chile's scores in reading, mathematics, and science in the Program for International Student Assessment (PISA) position it globally as lagging despite substantial improvements over the past decade. While attaining universal access in Chile by 2030 would boost the growth rate by 0.1 percentage points per year, improving the quality of schools so that all students would achieve Level 1 would increase the growth rate by 0.5 percentage points per year. If both scenarios are combined, the growth boost is 0.6 percentage points, implying that real GDP would be 8.5 percent greater by 2030.

(ii) Chile also spends below what it is expected on R&D and lags even regional peers. Chile spends only 0.4 percent of GDP on R&D compared with 2.4 percent in the OECD and even below the Latin America and Caribbean average of 0.8 percent. Moreover, most R&D activity in Chile is done outside firms, mainly in state-financed universities. For this reason, Chile ranks low on the global competitiveness index on company R&D spending. Similarly, the economy has only 350 full-time equivalent R&D researchers per million people, well below the 4,700 in the United States, the 3,200 in the euro area, and the 500 in the region.

(iii) Chile has been unable to diversify its export sector. Its export basket has barely shifted over the past decade. This experience contrasts with the experience of Canada, New Zealand, and Norway, which are major exporters of mining products, but have nonetheless also developed a sound manufacturing base. While these developments did not preclude strong economic growth in Chile, suggesting an example of income convergence without a strong manufacturing base in the core of the product space, it made the economy more vulnerable to changes in external conditions.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

Since 2014 the government has announced many measures that are still under discussion, including reforms of the labor market, the constitution and infrastructure, there are some others that have a clear program or are already passed by the Congress. In particular, the tax and education reforms, and the infrastructure plan within the broader "Productivity, innovation and growth Agenda" that started being implemented in the 2014 and at the beginning of 2015. To name a few, some of the measures that are currently being discussed are the following:

Transportation and telecommunication. The agenda aims at strengthening urban and intercity connectivity and port infrastructure (including through the construction of a large port in the central area of the economy), by direct investment and by incentivizing the direct involvement of the private sector, through new and expedite procedures for public-private partnership (PPP). For telecommunication, the agenda aims at boosting internet access, data transmission, and coverage of the fiber optic national network.

Increasing female labor market participation. This would not only increase the labor force but also boost productivity. First, in aggregate, the increase in female labor supply, especially of more highly educated women, can help boost structural change. Second, the employment of women enables companies to draw from a larger talent pool increasing productivity by reducing mismatches between worker skills and occupations. An increased presence of women in entrepreneurial activities can raise the average talent of entrepreneurs.

Income tax. To help finance the cost of the reforms the authorities completed a fundamental tax reform in September 2014, which changed Chile income tax system. The new tax law introduced several changes, including: i) gradually increasing corporate tax rates, and ii) offering firms the choice between an integrated tax system which is less generous than the old one. In both new regimes, marginal tax rates on capital will increase. While matching the increase in outlays with new permanent revenues is prudent, higher taxes on capital income might have a dampening effect on corporate savings and investment.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

Certainly, economies could benefit from international cooperation in many ways depending on its level of integration and openness. Best practices on different strategic policies seems to be the first approach, although the mobility of economic factors are an important feature, especially when facing the issue of labor markets and the exchange of knowledge among economies. Political integration also appears to drive the convergence. Institutional forces outweigh market forces in bringing national economies closer together. Economic arguments can show freer trade and factor mobility from integration allow less-developed members to grow faster than more-developed ones. Factor price equalization further supports this convergence scenario.

APEC has a strong track record of partnership with many multilateral organizations. The breadth and magnitude of the challenges presented not only by one economy but also in coordination with others should encourage further collaboration among international organizations as they support governments in their efforts, keeping in mind that national governments have the primary responsibility for implementing their own agendas.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

People's Republic of China

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

In China, structural reform has played important role in human resource development since 2012. Chinese government has focused on deepening comprehensive education reform, improving institutions and mechanisms for promoting employment and entrepreneurship, establishing a more equal and sustainable social security system, and deepening the reform of medical and health system. Among these reforms, **improving institutions and mechanisms for promoting employment and entrepreneurship** has made great success. It includes improving government's institutions accountable for employment, regulating the system of employing people, streamlining preferential policies to encourage entrepreneurship, establishing total-life-circle professional training mechanism, setting special fund to help the people who lost jobs due to excess capacity alleviation, and arranging government budget to build up public practical training bases, etc. Thanks to these institutions and mechanisms, 52.58 million citizens found jobs and new employees per year are more than 13 million from 2013 to 2016, and unemployment rate maintained around 5% in 31 major cities. In recent years, 13,000-15000 new enterprises get registered every day on average. It cultivates new industries and new type of business efficiently, pushes forward economic transformation and upgrading, and creates a favorable environment for accumulating human capital and improving the quality of human resources. As a result, inclusiveness of economic development has been improved.

The reform of Chinese institutions and mechanisms for improving employment and entrepreneurship can be valuable reference for APEC economies. **Firstly, it fits in the policy priority on employment and labor market.** Nowadays more economies attach importance on employment target, and make policies according to labor market fluctuation. China has the same

practice and regards the employment as the most essential indicator of people's livelihood. **Secondly, it's beneficial for enhancing inclusive development.** In recent years, anti-globalization ideas rise around the world since some social groups can't share the bonus of globalization and technical innovation. Improving employment policies could enhance labor participation as a whole, and more vulnerable groups could share the achievements of reform and development. **Thirdly, it meets practical demand of accelerating economic transition.** In digital economic period, rapid technical innovation and industrial change provides both challenges and chances for economies' transition. China's structural reform of institutions and mechanisms for improving employment and entrepreneurship can help unemployed people get re-employ opportunities by taking training, and increase the amount of skilled labor necessary for industrial development.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

During rapid economic growth, China implements the innovation-driven development strategy, deepens supply side structural reform, and makes great efforts to promote quality and benefit of economic development in order to enhance inclusiveness. However, China still faces some problems which are unfavorable for inclusive economic development.

The first challenge comes from the large gap between rich and poor. China's Gini Coefficient is going down; the income gap is narrowing between town and rural areas, as well as between different groups. However, owing to the rapid growth of asset prices like house price, the gap between rich and poor is enlarged and influences the social equity. **The second challenge comes from the opportunity inequity.** Owing to the large population and regional disparity, opportunity inequity problems exist in education and health care. For example, rural education conditions are poorer than that in cities; in outstanding universities, the proportion of students coming from rural area is quite low. The inequity of education resources brings negative effects on human resource development and social mobility. **The third challenge comes from insufficient social security system.** China has built a wide safety net. However, regulation is insufficient, financing is weak and business insurance is less developed due to imperfect

mechanisms. China has become an aging society; UNDESA predicts that Chinese aged people will account to 17.5% by 2020. Rapid population aging will weaken families' risk resistance capacities, and bring negative effects on human capital accumulation and inclusive development.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Considering the reality of rapid population aging and new normal economy, China's structural reform of human capital development has spaces for improving in the following aspects.

Firstly, encourage and normalize preschool education. With the implementation of policy which allows each family to have two children and rapid development of preschool education industry, laws and policies normalizing preschool education become insufficient, resulting in disunity of industry standards and lesser fair all kinds of opportunist behaviors. It also leads to insufficient supervise on service providers and insufficient protection for consumers' interests. The quality of preschool education is unsatisfactory.

Secondly, develop senior human resources moderately. For getting used to aging society, China has carried out plans of delayed retirement, but policies to develop senior human resources are in absence. There are policy gaps in old people's job market, professional training, rights protection, health service and so on. For instance, China doesn't have special employment policy for aged people, and there is no specific employment guidance system for aged employees. Besides, there are some system obstacles to senior human resources development, because of inadequate endowment system, undeveloped sanatoria industry and lack of protection for old people's rights.

Thirdly, improve overall quality of professional education. China pays high attention to increase input on professional education. However, due to the traditional idea that good students should choose university education instead of professional education, the effort to cultivate high-quality skilled labor has been weakened. Furthermore, professional education has some

weakness, etc., poor infrastructure, absent regulating systems and unpractical training lessons. Professional education can't match the need of industrial transformation and development.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

Based upon challenges and policies' gaps in developing human resources, Chinese government will accelerate structural reform in the following areas.

First, deepen income distribution reform, and accelerate regional development in a well-coordinated manner. China will strengthen wage determination and increasing mechanism, minimum wage mechanism, wage payment guarantee system, and collective wage negotiation system. China will improve income distribution controlling system and policies, establish personal income and property information system, and take effort to narrow the income distribution gap between different areas and different occupations. Furthermore, China will use diversified policy tools for well-targeted poverty alleviation, etc., industrial policies, educational policies, health care policies, ecological policies and other measures. Besides, China will control housing price to avoid financial bubbles, and guide financial resources to support the real economy.

Second, innovate educational resources supply methods and improve opportunity equity on education. China will improve funding system for students who have financial difficulties, establish efficient mechanisms with IT method to expand coverage of good educational resources, and narrow gaps among regions and groups step by step. China is also supposed to push forward standardized public school construction, communication and exchange of principals and teachers. What's more, school union, outstanding schools running branch campus and so on will be encouraged. China will improve opportunity equity through equal allocation of compulsory educational resources in a whole between urban and rural areas.

Third, improve the quality of social security. China would accelerate to establish multilevel social security system which includes supplementary pension, occupational pension, business

insurance and etc. More state-owned capital would be input into social security funding. By 2020, the rate of contribution to public finance from state-owned capital gains would increase to 30%, which would be used for improving people's livelihood. China would also push forward the marketisation and diversification of social insurance funds.

Fourth, improve institutions and supporting policies for senior human resources development. The government will introduce policies aiming at old-age people employment, set up targeted employment guidance information broadcasting and professional training systems. Systems and industries specific for serving old-age people would also be developed.

Fifth, strengthen linkage between education and industrial development to improve quality of professional education. The government will require large enterprises to provide professional training for employees, provide internship and occupations for students and teachers in professional schools. According to current tax laws, enterprises' justifiable, income-related costs for providing internship could be exempted when calculating taxes. Enterprises are supported to build public training bases which have both productive and educational functions.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

Since China has become a typical aging society, China's key issues in human resources development include getting used to aging trend, developing senior human resources moderately, strengthening professional education to train high-skilled labor urgently needed by industrial development. Therefore, China would communicate and cooperate with APEC economies in how to react to aging society, developing "silver-haired economy", developing professional and preschool education, and improving social security system. At the meantime, China would accelerate opening up service sectors such as medical care, education, and sanatoria through regional cooperation, which will improve related industries and achieve win-win result in APEC regional cooperation.

AEPR 2017 Individual Economy Report (IER) Questionnaire: Structural Reform and Human Capital Development

Hong Kong, China

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

As a small open economy with no natural resources, human capital is undoubtedly one of the most important assets of Hong Kong, China (HKC). In this connection, the Government always accords high priority to enhancing the productivity of the labour force with a view to achieving sustainable economic growth and continued improvement of people's livelihood. Not only in the five recent years but also many years in the past, the Government has been endeavouring to encourage and facilitate the labour force to enrich their skill sets to cope with the international competition. Indeed, the sustained improvement in education level of our workforce, as well as labour productivity growth that contributed to HKC's continued economic upgrading, have vividly reflected the effectiveness of the Government's policy in this regard. In particular for continuously equipping our workforce with the latest skill sets, HKC's major initiatives include:

- Operated by HKC, the Continuing Education Fund (CEF) subsidises continuing studies for Hong Kong residents aged between 18 and 65. On completion of an approved course, eligible applicants would receive reimbursement of 80 per cent of the fees paid, at the maximum amount of HK\$10,000 per person. No means test is required. As at end May 2017, a cumulative total of over 756 000 HKC residents have opened CEF accounts and about 583 000 CEF reimbursement claims have been approved.
- Set up under the Employees Retraining Ordinance, the Employment Retraining Board (ERB) is a statutory body providing market-driven training and employment support services through about 90 appointed training bodies. People aged 15 or above with education attainment up to sub-degree level may enrol in ERB's full-time, placement-tied courses and half-day or evening generic skills training courses. As at May 2017, there were around 700 courses covering 28 industries. ERB plans to offer 130 000 training places in 2017-18. To support women as one of its target groups, ERB launched the "Modular Certificates Accumulation Scheme" for specific courses (e.g. courses on post-natal care worker training) to encourage women and homemakers who are unable to pursue ERB courses on full-time basis due to family commitments to make flexible study arrangements and acquire recognised qualifications. It also collaborated with specific employers to run the "First-Hire-Then-Train" pilot programme to assist (middle-aged) women and homemakers to land on jobs in elderly homes and

resort hotel. On-the-job training and other related support measures (e.g. modified working hours and leave arrangements) are provided to cater for the trainees' needs and encourage them to stay in employment. The Vocational Training Council (VTC) also offers vocational training, namely industry-specific and subject-specific training short courses to youngsters and practitioners in various industries. VTC plans to offer 173 000 vocational training places in 2017-18.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

The two important challenges facing HKC are population ageing and an expected decline in labour force participation rate over time, which would weigh on our long-term economic vitality and competitiveness for an extended period if not properly addressed. The ageing trend would also bring about significant structural changes in the economy and the labour market, and those who cannot readily adjust to the new environment, such as the lower-skilled and underprivileged, could feel left out of the society.

Ageing Population

As a result of the longer life expectancy, the relatively low birth rate and the post-war baby boomers entering retiring ages, HKC is facing an acute population ageing issue. According to the 2014-based population projections, the proportion of elderly population aged 65 or over in HKC is projected to rise markedly in the decades to come, doubling from about one-sixth in 2016 to more than one-third in 2060s.

Decreasing Labour Force Participation Rate

The greying of our population together with the relatively low fertility rate would result in a decrease in persons of prime working age and hence total labour force. According to the 2014-based labour force projections, our labour force is expected to peak soon and then dwindle over the following decades. As a result, it is anticipated that the overall labour force participation rate would fell from around 60% in 2016 to around 50% in 2060s.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Taking into account the two challenges as pointed out in Question 2, it is necessary to offer incentives and facilitation to groups with special needs, such as youth, women, new arrivals, ethnic minorities, persons with disabilities, low-income persons, elderly, middle-aged persons, to enhance their economic participation and employability by broadening their skill sets through various training and re-training schemes with a view to addressing the manpower need of a sustainable economic development.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

The following major initiatives are being / will be undertaken by HKC to address the challenges and policy gaps identified above:

- HKC launched the Low-income Working Family Allowance Scheme in May 2016. Its objective is to relieve the financial burden of non-Comprehensive Social Security Assistance low-income working families to encourage self-reliance through employment, with a focus on supporting families with youths and children to ease intergenerational poverty.
- HKC has earmarked about HK\$147 million to implement a Navigation Scheme for Young Persons in Care Services, providing care service placements for young people in elderly and rehabilitation service units, and subsidies for them to pursue a relevant two-year part-time course. It provides a total of 1 000 training places in several years starting from the financial year of 2015-16.
- To remove the barriers for women to enter or stay in employment and to respond to the demand for child care services, HKC has earmarked about HK\$134 million for strengthening child care services, which include increasing by phases from the financial year of 2015-16 onwards the provision of Extended Hours Service by about 5 000 places at aided child care centres and kindergarten-cum-child care centres in districts with high demand, about 1 200 of which have been provided since September 2015.
- HKC implements various initiatives to cater for the employment needs of ethnic minority (EM) job seekers, including engaging staff proficient in EM languages to provide employment services for EM job seekers; employing young EM trainees of the Youth Employment Training Programme to undergo on-the-job training at job centres; and staging thematic job fairs for EM job seekers. HKC also provides free services for open employment to job seekers with disabilities. The Work Orientation and Placement Scheme encourages employers to employ persons with disabilities and provides them with coaching and support through the provision of an allowance. In September 2016, a two-year pilot scheme was also launched to provide professional psychological and emotional counselling to job seekers with disabilities in need of this service.
- HKC is committed to encouraging employers to adopt “employee-oriented” good people management measures so as to create favourable conditions for employees (including women and mature persons) to keep a balance between work and personal life, and remove the barriers for them to enter or stay in employment. ERB also provides dedicated training and employment support to young people, women, new arrivals from the Mainland, ethnic minorities, people with

disabilities, people who have recovered from work injuries, and rehabilitated former drug abusers and former offenders.

- HKC proposes to inject an additional HK\$1.5 billion into CEF in the financial year of 2017-18, and would consider various measures to enhance the operation of the Fund to encourage continuous learning.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

Regional cooperation and international organisations such as APEC could play a pivotal role in addressing the challenges identified above. Initiatives under APEC, such as exchange of knowledge and best practice sharing, may give APEC member economies choices of feasible solutions which will be highly useful for tackling their own challenges.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Indonesia

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Indonesian government is truly committed to structural reforms in human capital development. In the last 5 years, many programmes have been implemented to improve the quality of human resources, one of them is social security, which will be highlighted in this report.

The Indonesia National Social Security System (referred to as *Sistem Jaminan Sosial Nasional*, or SJSN) is a transformation of a number of social security plans that had been introduced in the past, and restructures the existing scattered programs on social protections covering health and employment. The goal of the SJSN is to develop eventually a single payer system of social security in Indonesia, servicing the entire population with an integrated system at the national level.

Social protection was the mandate of the Constitution of Republic Indonesia. The constitution was implemented by:

- Law number 40 of 2004 about National social protection system
- Law number 24 of 2011, as the basis for the establishment of Social Security Administering Agency (BPJS) of health and Employment. BPJS administered social protection programme for labour and employee covering the work accident insurance, death insurance, and pension plan.

The top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.

1. The SJSN integrated scattered social security plans into a single national social security plan that covers health and employment benefits
2. The SJSN also integrated the national and local social security plans.
3. There is an increase awareness and confidence to join the social security programme.
 - There is a significant increase in the member of employment protection (covering work accident insurance, death insurance, pension plan, and pension insurance), from 16.791.397 people in 2014 to 19.275.061 in 2015. In 2016, the active member became 22.633.082. The average growth is 17% per year in the 3 last years.
 - The increasing participants of companies from 216.593 in 2014 to 361.972 companies in 2016, showed the stability of business field and job opportunity development in Indonesia, as well as the increasing of the companies' confidence to participate in employment protection system.

- The increase of collected premi fee by BPJS by 26% on average per year or IDR48,52 billion in 2016. In the same year, the overall claim paid was IDR 20,06 million. From the fee gathered, overall, BPJS has invested IDR260,54 billion and earned IDR22,5 billion. The good company performance has increased the confident of costumers to join the program.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

1. Demography and Geography

Indonesia is one of the biggest populated countries in the world (236 millions) and grew about 1.3% during the last 15 years, projected to be 283 millions in 2025. This big population occupy an archipelago economy that consist of thousands of big and small islands, provide challeges in term of logistics, connectivity and job opportunity that cause disparity between income groups, regions and between urban and rural areas across the nation. Of Indonesia's 258.6 million population, 125,44 million is in the workforce, 94% are employed, 6% unemployed and about 30 million or 12.5% of the total population is considered poor (BPS 2017). This unemployed and the poor have limited access to participate in the social security programmes.

2. Informal Sector Worker

Indonesia depends much on "people-based economy", among which is its large informal sector workers. This was among the factors that keep the economy resilient despite global economic shocks. Yet at the same time managing an economy with large informal sector requires certain approaches in policy adjustments. The social security program has targeted this group however further arrangement is needed to cover more people of this group.

3. Decentralization

Indonesia is a economy that adopts a democratic system with decentralized policy-making authorities at the district levels, which means that the national programs interact with local government policies and the dynamic of the election cycle, which could be challenging at times. However, it is worth noting the determination of the national government to make the reform a sustainable one across administrations. Eventhough policy adjustment has been made to integrate various social security program at national and local level, regulatory and institutional transformation are still a big deal.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

1. Assessment of contribution rate and benefit

There is a need to integrate the evaluation of contribution and benefits of both healthcare and employment security against the overall macro-economic condition in Indonesia. Indonesia does not have that yet given that the reform has only been implemented in less than 5 years but soon such evaluation must be done.

2. The quality of services varies across areas depending on geographic location and response from the local stakeholders. In Eastern part of Indonesia, especially in the islands, accessibility of benefits remain a challenge even if the government chose to subsidize the participation of workers and poor people in the area because the social security agency receiving claims and the hospitals or primary care remains distant from many remote villages.
3. Fiscal sustainability is an issue that encompass all economies integrated to the global market. While commitment to invest in human capital development is high, the uncertainty of the market often raise doubts among corporations and workers that what they invested would last longer than their age. Such reality cannot be solved alone at the domestic level; it requires cross-economy cooperation as part of sustained collaboration on economic development.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

The short plan of Indonesia to address the gap is to conduct bi-annual evaluation on the contribution rate and benefits of both healthcare and employment security. The government also invests significantly in building infrastructures across cities and improving ports that could connect islands. While the impacts may only be seen in the longer run, at least concrete steps are taken to bridge remote areas to the better-facilitated areas.

The medium-term plan of Indonesia is to improve the management of BPJS Health and BPJS Employment, also to identify ways to connect local government initiatives with the national social security schemes.

Role of Regional Cooperation. *What role can regional cooperation and international organisations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

APEC has been a window of opportunity for Indonesia as an economy to connect with the dynamic economies of Asia Pacific. All along most efforts and attention have been directed to increasing access to trade and economic cooperation but little has been discussed on human capital development. The case of Indonesia investing in human development through social security reform should encourage APEC economies to direct attention to ways to facilitating more and more people to contribute actively in the economy, that is by first providing them with social security benefits that would allow for improved productivity and awareness on standards for labour protection in global economies.

Further cooperation to enhance human development in the APEC region may include:

- Common tools to connect measurement of economic growth with investment of reform in human capital development
- A regional perspective on social security as facility to improve economic growth

- Projects aimed at empowering APEC members to drive economic growth through mobilization of informal sector workers
- Projects aimed at enhancing knowledge on social security reform to enhance workers' productivity

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Japan

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

An Effective structural reform regarding human capital development in Japan is women's empowerment.

Since the inauguration of the second Abe Cabinet in December 2012, Prime Minister Abe has consistently promoted women's empowerment. He led to compile the Growth Strategy of which positioned women's empowerment as one of the cores in population ageing and low birth rate in April 2013. In December 2015, the Fourth Basic Plan was approved by the Cabinet. In addition, the Act on Promotion of Women's Participation and Advancement in the Workplace went fully into force in April 2016, and it requires national and local government entities and large companies which have more than 300 employees to devise and disclose action plans with numerical targets and to announce data on women's participation and advancement. At the same time, another major initiative under the Act is the allocation of additional evaluation points for public procurement to companies which promote work-life balance to incentivize companies to pursue women's advancement and work-style reforms.

In parallel with above measures, Prime Minister Abe himself requested to the economic associations twice to promote women to board members and managerial positions proactively in all listed companies, to appoint at least one female as a board member to begin with, and to promote to disclose the information regarding the appointment of women. Other various measures also have been implemented such as requiring companies to record the ratio of female board members in their financial statements in order to promote "visualization" of women's empowerment since before requirement of information disclosure regarding women's participation by the Act.

In the result, during four years under the Abe administration, while labor force population further decreased, the number of employed women has increased by 1.5 million and the employment rate among women of child rearing age 25-44 increased 5% to approximately 73%. The percentage of women who continue to work after the birth of their first child has exceeded 50% for the first time. Regarding the proportion of women in leadership positions, the number of female board members in listed companies has doubled.

There are some reasons why these measures have an effect on promoting women's empowerment in Japan such as:

- a) Not only positioned women from a perspective of human rights as vulnerable and to be protected, but also positioned women's empowerment as one of the cores of the Growth Strategy.
- b) Not only encouraging private companies to make independent and voluntary efforts through such as devising and disclosing action plans with numerical targets and information disclosure, but also implementing the allocation of additional evaluation points to companies which promote work-life balance to incentivize companies through public procurement by the Act.
- c) Established the foundation of enabling women to keep on working while raising children through "The Plan to Accelerate the Zero Childcare Waiting List Project", which promote to secure the capacity of childcare facilities for 500,000 children in five years up to the end of FY 2017.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

While there several challenges toward inclusive growth, the challenges Japan prioritize are (1) to create "a society in which all citizens are dynamically engaged" through enhancing childcare supports and social security, (2) to achieve "work style reform," which includes correcting unreasonable disparities between regular and non-regular workers and reducing working long hours, and (3) to expand talent pool toward increase in the number of female leaders.

First, to tackle the structural issue of the declining birthrate and aging population which is at the root of the obstacles in economic growth, we create "a society in which all citizens are dynamically engaged" where everyone can play active roles.

We aim for "the desirable birthrate of 1.8" (which is based on data indicating the percentage of single young people willing to get married is approximately 90% and the number of children desired by a couple is approximately 2. The current birthrate in Japan is as low as 1.44 (2016) because of some backgrounds such as a "childcare waiting lists" problem where parents cannot find spaces in childcare centers or "After-school Kids' Clubs" and the problems of employments and working conditions of youths). We also aim for "no one forced to leave their jobs for nursing care" (approximately 100 thousand people leave their jobs annually to provide nursing care, which is partly caused by the unavailability of nursing care services). That is why we now enhance childcare supports and social security.

We build a society where young people can get married and give birth as they desire, and people can provide nursing care while keeping on working. We will consequently realize "a Japanese-style inclusive society" which is participated by all citizens, whether they are women or men, the elderly or youths, people who have experienced a failure, people with disabilities and people fighting an illness.

Second, We work on "work style reform" as cross-sectional themes in realizing "a society in which all citizens are dynamically engaged."

For example, while non-regular workers account for 40% of all workers in Japan and there are many women who voluntarily choose to engage in non-regular employment from the latter half of their 30s for various reasons, such as because they get married, or to have more time to raise their children, there are irrational gaps in the treatment of two different work styles of “regular” workers and “non-regular” workers.

And, while the practice of long working hours makes it difficult for us to balance work with family life, the number of working hours of full-time workers has almost remained unchanged for 20 years.

By tackling these problems, we build a society where everyone can choose various work styles.

Thirdly, it is necessary to increase women in leadership positions in order to achieve inclusive growth. For achieving it, it is required to increase recruitment of women and give them many opportunities to get experience for increasing female leaders’ candidates in the future, but it can’t possibly be achieved overnight and we need to continue making steady efforts.

Policy Gaps. *Considering your economy’s current situation, what are your economy’s three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

While there are some policy gaps about the structural reforms of human capital development, Japan prioritizes reducing education gap, receiving re-education of people in the labor market, and resigning jobs by women due to their childcare.

There are young people who cannot receive desirable education because of their household economic conditions. (The rate of high school graduates who go on to universities by household income level is as follows; more than ¥10 million: 62.4%, ¥4 million or lower: 27.8%) As seen above, there are examples of excellent students who give up advancement to the next step of education due to their financial difficulties despite of high academic interest. It could be said that social mobility is prevented by a cycle of poverty and consequently economic disparity is being widen.

Many working people wish to receive re-education, but it is difficult for them because of the practice of long working hours and the high cost of re-education. (Students with full-time job at 25 yrs. old or older who participate in a baccalaureate degree program: 18.1% (OECD average), 1.9% (Japan))

Many women, who were formerly regular employees and once resigned for their childcare, have very few choices but to work as non-regular workers such as part-time workers. (The rate of women who resigned from companies due to child birth or child care: Approximately 50% / who once resigned as regular and get re-employed afterward as non-regular among them: 88%). It is also a problem with respect to increase in labor productivity.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

The short- and medium-term plans to address the above challenges and policy gaps are as follows: the Japan's Plan for Dynamic Engagement of All Citizens, the Action Plan for the Realization of Work Style Reform and reducing education cost of households. In addition, we aim to compile a basic design of human resource development with a policy package scheduled for release in the first half of 2018.

The Japan's Plan for Dynamic Engagement of All Citizens. (Cabinet Decision, on June 2, 2016)

A long-term (a target period of ten years) plan formulated in order to build "a society in which all citizens are dynamically engaged" with policies including

- improvement in the environment for childcare such as additional childcare arrangements and improvement of working conditions of childcare providers
- improvement in the environment for nursing care such as additional nursing care arrangements and improvement of working conditions of nursing care providers
- enhancement of financial supports to students such as founding grand-type scholarship, enabling qualified students to receive interest-free scholarship without exception and significantly relaxing scholastic requirements imposed on children from low-income families.

The Action Plan for the Realization of Work Style Reform (The Council for the Realization of Work Style Reform Decision, on March 28, 2017)

A long-term (a target period of ten years) plan formulated in order to realize "work style reform" which enables everyone to choose various work styles and at the same time improve labor productivity, with policies including

- formulating the direction of legal revision on improvement in the working conditions of non-regular workers such as by providing equal pay for equal work
- enhancement of training and education benefits and education classes to enhance recurrent education. (the education for working people in universities, which will contribute to improvement in their job performance skills)

We are promoting to equip an environment where excellent students showing high academic interest do not have to give up advancement to the next step of education due to their financial difficulties and can study free from anxiety, as well as to realize a society where all citizens can engage dynamically. In concrete terms, based on the Japan's Plan for Dynamic Engagement of All Citizens, we are currently working on creating a grant-type scholarship scheme and accelerating the trend from interest-bearing loans to interest-free ones. Moreover, we have policy to drastically strengthen human capital investment in the whole society

including higher education. Obstacles that we might face during policy implementation are difficulties to build social consensus on increase of investment to young generation and to implement the reform to enhance quality of education.

Furthermore, we place human resource development as the utmost important issue for Japan and as the crux of realization of a society in which all citizens are dynamically engaged. We aim for a society in which any child can endeavor towards his or her dreams regardless of their family's economic situation, and a society in which anyone can return to study at any age and can take on new challenges.

This August, Prime Minister created a new position of Human Resources Development and set up the "Council for Designing 100-year Life Society" headed by Prime Minister himself. In this council, themes such as ensuring educational opportunities that are open to all people, reforms of higher education, and promotion of recurrent education for adults who want to resume their education will be discussed. We will compile an interim report by the end of 2017, followed by a basic design with a policy package scheduled for release in the first half of 2018.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

We expect regional cooperation and international organizations including APEC to share best practices to address the above challenges and policy gaps.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Republic of Korea

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

In the past five years, the Korean government has introduced several structural reforms for human capital development and achieved remarkable success. Among them, the “Work-Learning Dual System (2013),” a Korean model of work-based learning methodology, has been the most effective reform program.

This program was introduced to solve the problem of skills mismatch, which is prevalent in Korea's job market despite the government's heavy investment in human resource development. Korea's total expenditure on private education for school age children amounted to 17.8 trillion won (equivalent to 16 billion USD) in 2015 while the college entry rate reached 70.8 per cent in 2016. Nevertheless, the business sector has experienced shortages in skilled workers. According to a 2013 study from the Korea Employers Federation, the average company spends 18.3 months and 59.6 million won (equivalent to 53,000 USD) in training a newly-hired graduate.

The key concept of the “Work-Learning Dual System” is to provide hands-on job experience to trainees and enable them to apply the technical knowledge they have learned from school to their actual work. Participating trainees can attend classes at schools that teach this concept and simultaneously receive on-the-job training (OJT) at a company, which allows them to combine theory and practice. Participating schools and companies also receive financial support for creating a favorable training environment.

The program has received enthusiastic responses from both employers and trainees. The level of satisfaction was reported as 4.0 from employers, 4.08 from trainees, and 3.97 from OJT trainers (with full mark being 5 points). Respondents were in favor of this program as it helped both students find jobs and companies reduce spending in training.

The program has delivered encouraging results owing to the following three factors. First, the program was implemented in close and effective collaboration with the relevant players, including vocational schools, universities, and Micro, Small, and Medium Enterprises (MSMEs). Second, there was a general consensus in developing the program, which would ease the financial burden of both job seekers and MSMEs in their recruiting process. Third, sharing successful cases of work-based learning enabled program directors to gain insight on how to better manage the program.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

The three most important challenges Korea is facing in terms of inclusive growth are the dual structure of the labor market, youth unemployment, and the shortage of decent jobs for middle-aged workers.

First, the gap in training opportunities has deepened disparities in work skills between employees of large companies and MSMEs, and also between regular workers and non-regular workers. There was a great discrepancy in 2015 between companies with 300 or more employees and those with less than 300 employees in the rate of employees participating in training, which were 27.8 per cent and 11.5 per cent, respectively. The proportion of employees with professional training experience was 62.6 per cent for regular workers and 45.6 per cent for non-regular workers as of August 2016.

Second, youth unemployment is severe especially among those born between 1991 and 1996, the offspring of second-generation baby boomers. They are struggling with the lack of jobs available in the labor market amid prolonged low growth. Moreover, during periods of unemployment, young jobseekers are being deprived of opportunities to accumulate job experience as many of them are stuck with low-quality jobs, most of which are part-time.

Lastly, middle-aged retirees, who are pressured to retire early, are also facing difficulties as they fail to get a new job and end up either self-employed or with a low-quality job. These tendencies may be attributed to various reasons including reemployment support programs.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

The biggest challenge for the Korean government in reforming human capital development policy would be the wide gap between declared targets and reality. This is most prominent in the following three areas: reducing working hours, enhancing productivity, and raising the economic participation rate of women.

First, long working hours have become the norm in Korea. In 2010, the Korea Tripartite Commission of labor, management, and government has agreed to cut down the working hours per year to around 1,800. Despite subsequent efforts, however, results have been unsatisfactory, Korea ranked second among OECD member countries for longest working hours, with 2,113 hours per year. According to OECD, as of 2015, the average working hours per year of its member countries was 1,691.

Second, Korea's labor productivity per hour (measured in US dollars) records a meager 29.9, while the US, Japan, and Germany are 56.9, 36.2, and 50.9, respectively, according to the Korea Productivity Center. The figure for Korea is expected to fall as the working-age population is shrinking, due to low birth rate and aging population.

Lastly, women's economic participation rate in Korea stands at 57.9 per cent, far below the OECD average of 67.5 per cent. To address this issue, it is vital to make childcare support and infrastructure more accessible to female workers. Even for those who are guaranteed parental leave and employment after pregnancy, many women find it difficult to rear children and have a career at the same time, due to Korea's long working hours and the widespread perception viewing parenting primarily as the mother's duty.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

The Korean government has been implementing several programs to overcome challenges hindering inclusive growth and to achieve policy goals for human capital development, which are as follows.

First, the government attempts to narrow down the disparity of workers' skills in large companies and MSMEs by providing more training opportunities to employees in MSMEs. The government helps them improve their skills by providing professional training courses and reforming the National Key Strategic Industries Program to not only enhance workers' creativity and productivity, but also prevent industries from facing manpower shortage.

Second, facing the advent of the fourth industrial revolution, the government is making efforts to develop in-demand human capital. The process of creating an ecosystem for vocational education and training in the new era includes fostering pioneers in emerging industries such as big data and smart manufacturing, enhancing the competence of vocational trainers, and developing smart education and training platforms.

Third, to tackle the problem of youth unemployment, the government is working on improving training programs and currently providing financial support to young jobseekers. In a bid to support the prompt employment of youth, the government is presently implementing reforms in areas concerned with vocational training, such as OJT training and career guidance. This would address the mismatch between MSMEs and young jobseekers. Among these youth, for those who have worked for MSMEs over two years, the government also provides financial subsidies, with the intention of not only helping them save up a lump sum as they embark on building their career, but also supporting MSMEs to retain young talents.

Fourth, the government is striving to raise the low economic participation rate of women. The government encourages fathers to share parenting duties and is gradually increasing financial benefits given to workers on parental leave. Employers are also encouraged to allow employees with infants or young children to cut down their working hours during periods of infant/child care or opt for flexi-time arrangements.

Lastly, the government attempts to improve the environment for middle-aged retirees facing sparse job opportunities. It has promoted the use of job matching services for middle-aged workers to facilitate their reemployment. In line with the recent trend of early retirement, efforts are being made to strengthen the social safety net, including employment insurance.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

Regional cooperation among APEC economies is crucial in addressing challenges and policy gaps that the government is now facing, such as skills mismatch and youth unemployment. As mentioned in the APEC Framework for Youth Education, Employment, and Entrepreneurship adopted in HRDWG, August 2016, enhanced regional cooperation is one of the driving forces for APEC Economies in achieving better employment outcomes. In this context, APEC can contribute to economies' structural reforms for human capital development in the following ways.

First, it should promote economies to share best practices on enhancing employment and entrepreneurship through various means, such as holding policy dialogues among stakeholders. Sharing these best practices will benefit APEC economies in devising effective human resource development strategies.

Second, APEC should play an active role in facilitating the mobility of youth in pursuit of career opportunities across the Asia-Pacific region. To this aim, it should promptly consider consolidating a qualifications recognition framework through the leveraging of existing activities and working with relevant domestic agencies. The enhanced mobility of students, researchers, and faculties will promote cross-border education and increase interaction among higher-education institutions across APEC.

Lastly, APEC should promote collective efforts for skills development of youth in the region by engaging with the APEC Business Advisory Council (ABAC) and identifying capacity building projects to help economies improve policies and infrastructures for vocational education and skills training. It should also encourage collaboration with not only the APEC Scholarship and Internship Program, but also the private sector, such as ABAC and multinational recruitment agencies, which will stimulate the exchange of information on job vacancies, internship opportunities, and job descriptions.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Malaysia

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Malaysia has made good progress through its implementation of the tenth Malaysia Plan (2011-2015), in which the Government introduced a range of measures to improve the labour market and transform its education system. Key achievements include the creations of 1.8 million new jobs that contributed to a decline in the unemployment rate from 3.3% in 2010 to 2.9% in 2015, which is considered full employment. The government also implemented the minimum wage that has benefitted 1.9 million wage earners. In education, there was an increase in enrolment across all levels. Annual intake in Technical and Vocational Education and Training (TVET) also grew from 113,000 in 2010 to 164,000 in 2013. Major strategy documents were developed to chart out the clear transformation of the human capital ecosystem such as:

- Malaysia Education Blueprint 2015-2025 (Preschool to Post Secondary);
- Malaysia Education Blueprint 2015-2025 (Higher Education); and
- Talent Roadmap 2020.

At present, Malaysia is currently implementing the 11th Malaysia Plan, which puts emphasis on Structural Reform on Human Capital through its Strategy: *Accelerating Human Capital Development for an Advanced Nation*. As such, there is continuous commitment by the Government to develop industry-ready graduates, which is in line with Malaysia's efforts to ensure that structured programmes are organised in order to help investors obtain knowledge-intensive manpower in highly demanded skilled-based jobs. The top three effective outcomes which have been achieved from the 11th Malaysia Plan are:

1. The change in mindset and increase of awareness of various Education Institutions of the need to match the current technical requirements required by Industries.
2. The establishment of the Human Capital Council, which is chaired by the Prime Minister. The objective is to enhance the governance of Human Capital Development through the establishment of the Industry Skills Committee (ISC), which is co-chaired by the Ministry of International Trade and Industry and Malaysian Employers Federation.
3. The establishment of the Critical Skills Committee (CSC) which focuses on key initiatives such as to construct Critical Occupation List (COL) that will be evidence-based and reflects the most sought-after occupations by industry, which may also be hard-to-fill positions. The

COL will serve to become the primary instrument to promote more effective coordination of human capital policies aimed at upskilling the workforce, guiding TVET and higher education teaching programme; retaining skilled Malaysians while also enticing returning Malaysians; and attracting foreign talent.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

The three most important challenges in making economic growth more inclusive are:

1. **Vulnerable Group**

Having largely eliminated absolute poverty through a relatively equitable development path, Malaysia's focus has turned to the vulnerable group. This calls for reforms with respect to access to quality education, healthcare, social protection, labour force participation among vulnerable such as the B40, women and older persons. It is a major challenge for Malaysia to ensure job opportunities, access to healthcare services and education, and a reliable social safety net for the vulnerable group to have the opportunity for a better life. Allowing the B40 households to remain in their current socio-economic status will create social costs for all Malaysians. Upskilling and providing job opportunities to the 2.7 million B40 households will increase the nation's skilled workforce and reduce inequality which will be passed on to future generations.

In 2015, women made up 48.7% of our total population, and formed 61% of total graduates enrolment in Malaysia. Female labour force participation rate rose significantly from 46.8% in 2010 to 54.1% in 2015, although lower than most neighboring ASEAN countries. Raising female participation rate to increase inclusiveness is one of the strategies in enhancing labour market operation to maximize efficiency and effectiveness. They are an important component in addressing the talent gap in Malaysia, and in achieving our socio-economic development objectives.

The proportion of the elderly (above 60 years) has increased, from 7.9% in 2010 to 8.8% in 2014. This figure is expected to grow to 10.6% by 2020. Better quality of life and advances in healthcare has resulted in longer lifespan. Many of our senior citizens are thus in a position to continue contributing to the society even in their golden years. Employees Provident Fund (EPF) data indicates that 80% of 54-year old members would not have enough savings to live above the poverty line if they retire at age 55, while half of all retirees exhaust their saving within five years. Thus, concerted efforts need to be undertaken to enhance the quality of life of the elderly.

2. **Youth unemployment**

In 2015, over 90% of those unemployed were aged between 15-29 years old. While aggregate unemployment in Malaysia stands at 4%, youth unemployment is around 10.7%. Hence, it is a challenge to produce rounded and balanced graduates who meet the needs of industry, which will help to reduce the skills mismatched and boost employment among the youths.

3. **Global Economic Slowdown and the weakening of Malaysian Ringgit**

The global economy has affected many economies across the globe. In Malaysia's case, it has affected investors the manufacturing activities which is one of Malaysia's key economic activities where fewer jobs are created and offered. On the currency exchange, the fluctuation of the exchange rate and weakening Malaysia Ringgit have led to a fall in international reserves, affecting Government expenditure thus causing slower economic growth.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Among the policy gaps for structural reform for human capital development include:

1. The need to formulate and implement policies that are able to **address the rapid changes and needs of industries** as the pace of technologies accelerate with each generation of discoveries and applications;
2. The challenges in **mapping the workforce analytics** and drawing insights from workforce data and projection;
3. According to OECD, Southeast Asian Economic Outlook 2013: Structural Policy Notes-Malaysia report, **employers' over-reliance on unskilled and cheap labour** has led to inadequate growth of skilled workers in the labour market. As a result, only 25% of Malaysia's labour force is composed of highly skilled workers, as compared to significantly higher percentages in Singapore, Chinese Taipei and Korea. This has become the main obstacle to business operations and growth.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

Identified Action Plans to Address the Policy Gaps:

Efforts and strong emphasis on up-skilling and upgrading the workforce are also being prioritised. There have been significant investments, at both the national and sectoral level, in continuously upgrading and up skilling human capital. Several initiatives were recently undertaken to improve the quality of training in order to produce a highly-skilled workforce.

1. Industry-Academia-Cooperation (IAC).

- The IAC is one of the Government's initiatives which identifies priority clusters/sectors by engaging with selected companies, which encourages industries to participate in developing the curriculum for internship programmes and industrial training that would complement their specific talent/ skill set requirements of the industries and investment.
- The initiative has seen a total of 14 leading employers, partnering with nine public universities, which will address skill gaps within seven key technology clusters in the

E&E industry. These cover Integrated Circuit Design, Embedded System, Wireless Communications (Radio Frequency), Wafer Fabrication, Opto/LED, Solar and Advanced Manufacturing.

2. Gearing up Malaysian Industries for the Fourth Industrial Revolution

- Under the 11th Malaysia Plan, industries will be encouraged to increase productivity through automation. Greater automation and technology utilisation will be promoted to reduce the reliance on low-skilled foreign workers. The scope of existing financial assistance will be expanded to include acquiring of technology, training, reskilling and upskilling for the purpose of operation and maintenance of machinery.
- Measures towards automation and higher productivity will be supported by enhancement of industry-led skills training through greater collaboration with industry experts and training institutes. The measures to be undertaken are aligned with the shift towards technical and vocational education and training (TVET).
- Encouraging local manufacturers to collaborate with skills development centres to equip and upgrade the training facilities with up-to-date equipment and machinery to ensure workforce readiness; and promoting re-skilling and up-skilling of skilled workers to upgrade their level of competency and to acquire high-paying jobs.

3. Talent-Related Initiatives and Structured Programmes for Graduates

a) International Internship Programmes

MyAPEC Youth Connect

- In APEC, Malaysia has initiated MyAPEC Youth Connect programme which sets to promote development of skills, cultural exchange and closer ties between Malaysia and APEC economies by allowing citizens of these economies to undergo internship in Malaysia and vice versa.

MyASEAN Internship

- At the ASEAN forum, Malaysia is leading the MyASEAN Internship initiative in which Malaysian students from local and overseas universities will get the opportunity to undertake their internships at various ASEAN countries. This programme is also open to interested students from ASEAN countries that are currently studying in Malaysia.

b) Apprenticeship

- This is a tripartite collaborative effort between Malaysia's Investment Development Authority (MIDA), Human Resources Development Fund (HRDF) and Skills Department to address the issue of skills gaps as well as the shortage of skilled workers, particularly in the technology sector. This programme will enable employers to be effectively involved in training apprentices which are selected amongst high school leavers. Under this scheme, the training conducted is a combination of theoretical, (off-the-job) syllabus conducted at the approved training centres; as well as practical training (on-the-job) exposure at the premises of the sponsoring employers. Upon completion of a combination of modules at the training

centres, apprentices will undergo a practical training at the premise of sponsoring employers, in-order to reinforce the theoretical concepts learnt.

c) Graduate Employability Management Scheme (GEMS) 2.0.

- The main thrust of the Graduate Employability Management Scheme (GEMS) is to enhance graduate employability with the aim to reduce talent shortages in the key areas of economy by 2020. It will equip fresh and unemployed graduates with skills required by industries. Under the purview of TalentCorp, GEMS has been revived to be more sector focused and demand driven. GEMS aims to:
- equips unemployed graduates with industry-relevant skills and experience via a place-and-train methodology; and
- focus on demand-driven from leading employers in selected key industries.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

APEC can play a significant role by:

- Providing a platform for APEC economies to collaborate and discuss the future needs of human capital;
- Providing engagement sessions between business community/industry and APEC economies to map out human capital demands in the APEC region;
- Improve procedures to facilitate better mobility of highly skilled talents among APEC economies; and
- Capacity building and sharing of experience on the success of best practices in human capital development among APEC Economies.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Mexico

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

In 2012, the Mexican government started to promote a set of structural reforms in order to face the different challenges. Therefore, 11 structural reforms were approved in the first 20 months of this administration.

This set of reforms pursue overall, raising the productivity in order to boost growth and economic development of Mexico. Among this reforms were the amendment to the Federal Labor Law, commonly known as Labor Reform, which was published in the Official Gazette of the Federation on November 30, 2012 and entered into force on December 1st same year.

As part of these amendments, several provisions were incorporated to emphasize that the guiding principle in labor relations should be the labor productivity, and training of workers is the way to achieve higher productivity and better working conditions. In addition, the reforms encouraged training programs and certification of labor competencies for workers.

In that regard, the STPS designed a package of programs, tools and incentives in training and productivity, aimed to improve productivity in the work centers, as follows:

- Between January 2013 and March 2017, 227,822 workers were trained by free through the training programs offered by the Secretariat of Labour and Social Welfare (STPS), an increase of 179% compared with the people trained between 2006 and 2012.
- In 2013 in the guidelines of the Productivity Support Program (PAP) was added a new stimulus to certify labor competencies. As a result, between January 2013 and March 2017, 10 thousand 550 workers working in the industrial, commercial and services sectors of the economy were evaluated and obtained a certificate of labor competency issued by the authority in the matter, the National Council for Standardization and Certification of Labor Competencies (CONOCER), of the Ministry of Public Education.
- A new advisory program was undertaken for employers to comply with the obligation to train all their workers and the STPS has the function of recording the lists of certificates of competencies or labor skills that support this training. As a result, during 2016, 3.4 million trained workers were added to the Qualified Workers' Registry, a figure that represents an increase of 949,311 workers compared to those trained in 2015 that is 38% more.
- The first website specialized in labor productivity, the Training and Productivity Portal, was established with the aim of making available productivity tools for the workers. Furthermore, a self-learning guide known as PROLAB was also designed in digital format

and included in the website, aimed at micro and small companies and with the purpose of provide them with elements that facilitate the implementation of programs to increase the productivity of their workers. <http://productividadlaboral.stps.gob.mx>

- The National Labor Award (PRENAT) is aimed to recognize the developing and implementation of labor good practices in the working centers This award consists in a public recognition and an monetary fee for the workers. In the actual sexennial period, there were 1,126 labor practices interested in participating in PRENAT and 342 workers have been rewarded.

These actions are part of the Labor Reform, and have contributed to the development of human capital in Mexico, in order to increase the productivity in the workplace.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

1. Develop relevant competencies:

Improve the level of competencies of students in compulsory education.

Increase access to higher education while improving the quality and relevance of competencies developed in higher education.

2. Activate the supply of skills:

Eliminate barriers in the area of supply and demand in order to activate skills in (formal) employment.

Promote the activation of skills of vulnerable groups.

3. To use more effectively the competencies of the people:

Improve the use of skills at work.

Support the demand for greater skills in order to boost innovation and productivity.

The fulfillment of the three objectives could reduce, various asymmetries that are present today in the labor market and in many cases cause some social groups or individuals not to be included in the formal labor market, with the costs for those who are excluded from the benefits of formality.

The intention is to design a short, medium and long-term action plan to address these challenges in an inter-institutional way, as a state policy. Inclusive growth means people with the necessary employability to enter the formal labor market, high productivity jobs and, in turn, to develop relevant skills in people and that these skills are used in productive activities for which they were developed.

Note: For further information on the subject, it is suggested to review the following electronic link of the Organization for Economic Co-operation and Development (OECD):

<https://www.oecd.org/mexico/Diagnostico-de-la-OCDE-sobre-la-Estrategia-de-Competencias-Destrezas-y-Habilidades-de-Mexico-Resumen-Ejecutivo.pdf>

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

As in many of the emerging countries, one of the main problems in Mexico has been insufficient economic growth to generate sufficient formal employment (decent employment), which is demanded by the large number of young people and women entering the labor market every year. This additional pressure on the labor market, which has been generated for decades for different reasons - currently explained more by the demographic bonus - has found a way out of informal employment, which has led to a large proportion of employment is generated in jobs of low quality and productivity, as well as greater inequality.

In this sense, the gaps that have been identified, and in which the Government of Mexico is putting its efforts to close them, are:

- The gender gap (access of more women to the labor market under conditions of equal opportunities and remuneration)
- The skills gap of the workforce (equipping workers with the necessary skills to insert, adapt and remain in the labor market).

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

Beginning in 2015 and in coordination with the OECD, the Government of Mexico started the necessary work to design a Life Skills Training Strategy that contributes to the development of the economy's human capital.

During 2016, several works were carried out in which the Secretariat of Labor and Social Welfare participated actively. The result of these works was the integration of the document entitled "OECD Skills Strategy Diagnostic Report: Mexico 2017", which was made publicly known on January 10, 2017 during the First Ordinary Session of the National Productivity Committee (CNP).

At that session of the Consultative Body, two agreements were adopted concerning this strategy:

- 1) The OECD's diagnosis of the competence, skills and abilities strategy of Mexico is received. The CNP will continue to work with the OECD in the development of an Action Plan.
- 2) Subcommittees are instructed to develop recommendations with matrices of commitments and performance indicators for a Lifelong Skills Training Strategy, using as input the work developed in collaboration with the OECD.

Under these agreements, the CNP will develop the Action Plan of the Strategy of Formation of Abilities.

The works of design the Action Plan will involve different dependencies and entities of the Federal Public Administration, as well as international organizations such as the Inter-American Development Bank, the World Bank and the International Labor Organization.

The aim of the action plan is to generate a profound change in the different aspects inherent to the way public programs are designed and operated in the areas of human capital development: planning, programming, budgeting, the exercise of resources and evaluation and control of results.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

For Mexico, international cooperation has proven to be an efficient mechanism for identifying innovative measures and good practices with positive results in promoting solid, sustained and balanced growth, which results in benefits for all, particularly in an unfavorable international economic context.

One of the central elements of international cooperation is the exchange of concepts, ideas and proposals, which contribute to the design of public policies to address the diverse challenges, both nationally and internationally, always considering the diversity of national scenarios and regional.

Therefore, STPS participation in the international labor scenario has been consolidated through frank and open dialogue, through close collaboration with other countries and with various regional and international organizations.

Currently, under the APEC Vietnam presidency, the STPS has participated in the exchanging of good practices and the dispatch of experts in two projects:

- "Project DARE (Data Analytics Raising Employment)", in which we are part of the Project Advisory Group that directs the analysis of competencies required by the labor force in the APEC region, in order to support with this the sustainable growth and prosperity of the economies part.
- "APEC Symposium on Promoting the Employment of Persons with Disabilities", which outlined the main actions implemented by the STPS for the inclusion of persons with disabilities in the labor market.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

New Zealand

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

New Zealand's human capital settings are relatively strong and perform well for the majority of individuals. However, there are segments of the population that continue to experience poor outcomes, including long-term welfare dependency. To get better long-term results for people with needs that are not being met, New Zealand is applying rigorous and evidence-based investment practices to social services.

This social investment approach aims to improve the lives of New Zealanders and increase government effectiveness through a focus on understanding what improves long-term outcomes for different population groups. Social investment aims to put the needs of people who rely on public services at the centre of decisions on planning, programmes and resourcing by:

- Setting clear, measurable goals for helping those people.
- Using information and technology to better understand the needs of people who rely on social services and what services they are currently receiving.
- Systematically measuring the effectiveness of services, so we know what works well and for whom, and then feeding these learnings back into the decision-making process.
- Purchasing outcomes rather than specific inputs, and moving funding to the most effective services irrespective of whether they are provided by government or non-government organisations (NGOs).

New Zealand first applied investment approach principles to the welfare sector to support an increased focus on supporting people back into employment. Each year an actuarial valuation of the lifetime cost of the current beneficiary population is produced. The actuarial valuation has helped to understand where best to target support to those who are capable of working, but are most likely to become long-term welfare dependent without additional assistance. It can also be used to chart the impacts of policy and service changes to identify which interventions will make the biggest difference to different cohorts. The Ministry of Social Development produces an annual report into the performance of the benefit system. The 2015 report (<https://www.msd.govt.nz/about-msd-and-our-work/publications-resources/evaluation/investment-approach/2015-index.html>) uses changes in the valuation, as well as other data, to evaluate the performance of employment assistance services in supporting people into sustainable employment.

Early intervention is at the heart of an investment approach. This is reflected in the recent establishment of the Ministry for Vulnerable Children, Oranga Tamariki as a new stand-alone ministry. The creation of the new Ministry signals a ‘whole of sector’, child-centred approach which establishes the new Ministry as a single point of accountability for ensuring vulnerable children and their families get the services they need. This will ensure that government agencies work together to provide coherent and complete services to these children, young people and their families.

The Government is also applying a number of the investment approach principles in the education system. In devolved and complex systems, like the education system, applying investment approach principles depends on reinforcing a focus on understanding the impact of services at all levels of the system. The range of education reforms outlined below (under ‘Action Plans’) are focused on improving the impact of the early learning and compulsory education sectors on long-term outcomes. The aim is to achieve better social and economic outcomes for learners, including those in the tertiary sector, by using improved information about outcomes to support smarter investment and encourage providers to improve the relevance and quality of their services.

While social investment is still developing, it has the potential to be effective in lifting human capital stocks for the following reasons:

- Focusing on outcomes – this means targeting resources to where they can make the biggest difference to improve living standards particularly for those that are the most disadvantaged.
- Role of data – a key part of social investment is the application of rigorous and evidence-based investment practices to social services.
- Evaluation – a key element of social investment is a focus on evaluation and feedback loops for decision makers on the performance of interventions and services.
- The impact of these insights also depends on developing better mechanisms and incentives to shift existing less effective or well aligned resources and models of care. This includes improving commissioning practices and considering devolved or collective impact models.

Challenges to Inclusiveness. *Considering your economy’s current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

Social inclusion ensures that all New Zealanders benefit from increasing the economy’s prosperity. It is about removing the significant barriers to social and economic participation for the minority of New Zealanders who face challenges living the lives they value. Some challenges faced to improve social inclusion include:

- Improved provision of government services – The government spends a significant amount of money on social services for New Zealanders. Improving the outcomes achieved from these services has the ability to contribute to improved living standards

and enhanced productivity and growth. This is encompassed by the social investment approach (referred to above).

- Housing affordability – The affordability of quality housing has implications for: people's ability to purchase a home; household debt; educational attainment; health outcomes; and consumption of other essential goods (e.g. medical care and food). More affordable, quality housing would likely result in a range of positive well-being and social outcomes for communities.
- Lifting the participation of Māori and Pasifika in the workforce – The Māori and Pasifika populations are rapidly growing and tend to be younger than other ethnicities so will become an increasing proportion of the future New Zealand workforce. Raising achievement in Māori and Pasifika education and employment will help ensure that individuals, families and communities can fully contribute to and share in New Zealand's future economic success.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

New Zealand's human capital outcomes remain strong by international standards. New Zealand has high rates of participation and performance in school and tertiary education. This, combined with flexible labour market settings, has enabled high labour market participation and relatively low unemployment. Labour productivity, however, remains below the OECD average. Policies will need to ensure New Zealand has a flexible and highly skilled workforce in the future to manage the effects of technological changes in the labour market and maintain and improve labour productivity performance. The main focus areas for policymakers in New Zealand with regard to human capital development are:

- Policies to improving the levels of educational achievement for younger New Zealanders. Qualification attainment levels of young New Zealanders are increasing over time but not at the same rate as in other countries. New Zealand has a lower proportion of tertiary educated young people than the OECD average and a higher proportion of young people without upper secondary qualifications many of whom end up not in employment, education or training. There was also a decline in performance for New Zealand students in the OECD's Programme for International Student Assessment (PISA) across the achievement distribution between 2009 and 2012, in maths and science in particular. In 2015, performance appeared to stabilise.
- Policies to address barriers for disadvantaged groups. Socio-economic background has more impact on educational attainment in New Zealand than in most other OECD countries and fewer students from disadvantaged backgrounds go on to study at a higher level after completing schooling. Building the capability and resilience of the Māori and Pasifika labour force is a key challenge. There remains a persistent gap between the incomes and unemployment rates of Māori and non-Māori households. Pacific peoples face similar challenges. Ensuring social policy interventions, including in the education,

training and welfare systems, can address these issues will be increasingly important as the population and labour force become more diverse. For example, between 2013 and 2038, those who identify as Māori are projected to increase from around 16 percent to almost 20 percent, Asian from 12 percent to 21 percent, and Pacific from eight percent to 11 percent.

- Policies to improve the responsiveness of the education system to the labour market. Despite New Zealand having a highly qualified labour force compared to other countries, a significant proportion of employers report that workers lack the skills that employers require and one of the results is that skill shortages persist in many occupations. Employers report both a lack of non-cognitive skills, and a disconnect between tertiary providers and business.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

Improving educational attainment in schools

In order to address issues related to education attainment in schools, New Zealand has embarked on an extensive education reform programme, including a review of the primary legislation. Many of the reforms apply investment approach principles to improve outcomes for all learners, particularly those most at risk of not achieving. Key reforms underway or recently implemented include:

- Communities of Learning | Kāhui Ako provide additional investment to collaboratively lift student progress and achievement and offer new career pathways for teachers and leaders. The reform is principally focused on supporting education providers (including early learning, schools and tertiary providers) to collaboratively address common achievement challenges they identify, which often focus on disadvantaged learners. About two-thirds of schools have joined a Community of Learning since the policy was launched in 2014.
- A broad review of education system funding, exploring how the funding system can best support student progress and equitable student outcomes. This includes reviewing the mechanisms used to target additional funding to mitigate the impact of disadvantage.
- A new centrally-funded professional learning and development system, in place since early 2017, to better target national priority areas and schools' capability needs.
- Supporting the system to maximise the opportunities of digital technology.
- Reforms to lift the entry standards and quality of initial teacher education.
- A review of learning support to improve access to services for students with additional learning needs including disabilities and strengthen investment information about what works for whom
- Education strategies focused on improving the education system for Māori and Pasifika students.

These reforms are supported by legislative changes and publicly announced education targets that aim to strengthen education providers' and the public sector's focus on learning outcomes. The targets are:

- An increase in the proportion of 18-year-olds with NCEA level 2 (upper secondary qualification) or equivalent qualification to 85% by 2017. This is on track to be achieved. (In 2016, 85% of all 18 year olds achieved NCEA level 2, including 80% for Pasifika and 75% for Maori)
- 98% of children starting school will have participated in quality early childhood education by 2016. This will largely be achieved: the early childhood education participation rate was 96.7% for the 12 months to September 2016.
- A new set of targets focused on primary school attainment levels by 2021, to ensure learners have the foundational numeracy and literacy skills to enable them to progress in their learning (80% of year 8 students are achieving at or above the National Standard in writing and mathematics).

The educational impact of many of the reforms is dependent on the effectiveness of their implementation. Careful regulatory design, education sector engagement, and impact evaluation are therefore key. While very early days, the new focus on vulnerable children is also expected to develop a more cohesive and proactive approach to addressing some of the out of school barriers to full participation and learning.

Improving tertiary educational attainment

The Government has a public target to increase the proportion of 25 - 34 year olds with advanced trade qualifications, diplomas and degrees (at Level 4 or above) to 60%. Specific actions include:

- Extending vocational pathways for students, including additional funding for apprenticeships and a range of other vocational and trades training programmes, including those focused on Maori and Pasifika peoples.
- Supporting schools, tertiary providers and industry training organisations to collaborate.
- Expanding fees-free foundation education to students of all ages. Basic foundation skills equip people to go on higher levels of education and training that offer have better employment outcomes.

Improving the responsiveness of the education system to the labour market

New Zealand is strengthening the careers information and education available to students by providing accessible information on the employment and earnings outcomes of study choices. This includes:

- initiatives to help students make more informed study and career decisions, including: smartphone apps and online tools with information on career prospects for selected occupations; vocational pathways that guide students' study choices to match their career interests; and publishing information on graduates' employment outcomes comparing different providers and different fields of study.
- the merger of the national careers advice agency into the tertiary education funding agency to provide better careers information to schools, and coordinate with schools, tertiary providers and employers on the skill needs of the labour market.

New Zealand has established three new ICT graduate schools operated by consortia of universities, polytechnics and industry. These offer programmes designed with employers to fast-track the supply of people with advanced ICT qualifications and connect them more effectively with industry.

The New Zealand Productivity Commission report new models of tertiary education was released in March 2017 <http://www.productivity.govt.nz/inquiry-content/2683?stage=4>. It proposes a series of changes to increase flexibility and innovation in New Zealand's tertiary education system so it can respond to emerging trends in technology, internationalisation, population, and the demand for skills. The government is currently considering the report and is likely to respond later in 2017.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

Regional cooperation, such as through APEC, provides the opportunity to share experiences on the lessons learnt in improving human capital development. Understanding the broad range of experiences and challenges faced by APEC economies allows economies to learn from situations that are similar to their own.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Papua New Guinea

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Papua New Guinea's Technical Vocational Education and Training (TVET) system has been undergoing reform in recent years to keep up-to-date with social and economic challenges. Today, national priorities are seen differently as in the past, with the structural challenges associated with unemployment, poverty and inequality stimulating and refocusing the thinking of policymakers and citizens.

The Government's Vision 2050 sets out key strategies and priorities for PNG's development, with an emphasis on TVET. Key aspects of the recent TVET reforms include:

- rationalising trade skills in most provinces based on the demands of economic and industry growth within the district;
- trialling a technical secondary school concept to provide an alternative pathway for students;
- ongoing professional development and relevant qualification upgrading of vocational teachers;
- accrediting TVET institutions into offering National Certification Level Courses under the National Qualifications Framework;
- linking vocational training course programs to technical colleges;
- an ongoing 'Enterprise Oriented Training Education' with the Small Business Development Corporation to promote self-reliance and an entrepreneurship culture;
- institutions introducing short courses for the community, especially for women and girls; and
- offering scholarships to Papua New Guineans to study at the Australia-Pacific Technical College.

TVET reform has been effective because:

1. public awareness has been conducted for parents and students to understand the education pathways and routes to employment;
2. Government has increased funding to the sector; and
3. the TVET curriculum has been revised to be more competency based.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

Three key challenges that Papua New Guinea faces in making growth more inclusive are the:

1. low level of human capital development within the economy;
2. lack of technical capacity building; and
3. lack of infrastructure and support mechanisms and systems to develop human capital.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Three of the biggest structural reform policy gaps that Papua New Guinea faces are:

1. the lack of a structured way in rolling out implementation, including a lack of effective coordination and the fragmented way in which programs are delivered;
2. suboptimal alignment between the supply and demand aspects of human capital development, for example, no direct link between TVET courses to industry and workforce needs; and
3. significant gaps in research and data collection to inform policymaking.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

A range of strategies are being adopted to address structural reform challenges and policy gaps in Papua New Guinea.

For example, the National Education Plan 2015-19 and TVET Strategic Plan 2010-20 call for TVET to provide a more seamless system with easier-to-understand and more accessible vocational options and pathways, with the aim of developing and promoting a less complex system that allows parents and students to more readily understand the certification pathways while seeing direct links to work skills and further training. The TVET system will be underpinned by the National Qualification Framework with all institutions that offer TVET courses becoming registered training organisations under one authority. Successful implementation will require overcoming the obstacles of legislation that governs the different sector providers, and effective coordination that provides skills and trade courses that meet industry demand.

In health, work is being undertaken to improve coordination through a more whole-of-government approach to issues (e.g. health workforce development to improve the provision of health services across the economy) and establishing a more effective mechanism for collecting data and undertaking research to inform policymaking. A key obstacle to reform is where necessary resources are diverted from the delivery of identified key result areas to funding unplanned activities.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

Papua New Guinea would benefit from the experience of other APEC member economies in developing and implementing structural reforms to support human capital development, including the design of policies and practices, for example, to improve the quality of school education and deliver better health outcomes. Technical assistance and capacity building support would also be beneficial, as would APEC collaboration and partnership in undertaking research.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Peru

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

The quality of teachers is directly related to the students' learning achievements. Thus, achieving a true educational reform depends on the ability of the Ministry of Education to attract and retain competent and motivated professionals into the teaching career.

As part of the public policy to increase the value of the teaching career, "Ley de Reforma Magisterial" (a Teacher's Law Reform) has been implemented since 2014. This law's main objective is to attract and retain the best teachers into the public education system in order to raise the economy's education quality. Its implementation has improved teacher selection, installed a system based on performance incentives and raised teachers' salaries.

Through evaluations, the Ministry of Education improves teacher selection. These evaluations ensure that the admission, permanence, promotion and access to positions in the teaching career are based on merit. Since 2015, 8,648 teachers entered the first stage of the teaching career, while 63,958 teachers were promoted to higher stages of the teaching career. Approximately 17,416 teachers were able to enter management positions.

Furthermore, the incentive-based system granted 995 "Vocación de Maestro" scholarships and 2,680 Attraction Bonus for those who decide to enter the public teaching career. Approximately 197,000 teachers (tenured and non-tenured) will receive bonuses due to its school type or location.

Finally, in 2016, the Ministry of Education has increased the teachers' salary as a result of temporary bonuses related to their positions. These increases represent on average a 15% raise in the monthly salary of a teacher. The Ministry of Education also offered teachers the opportunity to participate in contests to access leadership positions within the teaching career.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

The sector's remaining challenges are related to: provide a better access to population with especial needs; reduction of the illiteracy rate and greater coverage of the population who dropped out of school; and increase access to higher education of the population with lower resources.

The educational model for people with disabilities needs to be strengthened in its design in order to guarantee a better access and to be able to measure the quality of the service given. The current characteristics of the model do not seem to reduce the high access gap. By 2015, only 43% of students with special needs between 0 and 20 years old had access to education, 66% did so in inclusive educational institutions, but only 12% of them were assisted by SAANEE (support and advisory services for special educational needs). Among other causes, under coverage may be due to the absence of adequate conditions and proper incentives in schools, as well as the lack of specific strategies targeted at dispersed populations. Regarding the quality, there is not enough teaching and non-teaching staff, and the role they play is not monitored.

On the other hand, regarding Basic Alternative Education, it faces important challenges: to reduce the illiteracy rate and increase the coverage of the population that have abandoned the regular basic education. Between 2012 and 2015, illiteracy rate has remained around 6%, with a higher rate in rural areas. In this matter, the Literacy Program as a strategy of the Ministry of Education faces a number of challenges related to the absence of integral alternatives of quick literacy campaigns, a lack of continuity of studies and the fact that there is no sustainability inside learning circles. What's more, about a million people between 15 and 30 years old have not finished basic education and instead they are working or even worse, they do not work neither study. The main challenges for these programs designed to serve this population, is to present significant benefits and to offer the possibility of certifying in technical skills for employability.

Finally, while there is significant progress in the access to basic education, achieving coverages rates greater than 80% in all three levels, in the case of higher education we still have a big gap to reduce. In 2016, the enrollment rate in higher education of the population between 16 and 22 years old was approximately 22%. Moreover, this gap in higher education is more evident among the population with lower resources. The enrollment rate in higher education in the poorest quintiles, 1 and 2 of the distribution of expenditure, was 11% and 17% respectively; whereas the percentage of enrollment of the population of quintiles 3, 4 and 5 was 19%, 22% and 32% respectively. The greater and better access to higher education is associated with an increase in social mobility and the reduction of social inequalities. However, not all young people that has finished secondary education have access to a high-quality institution and have enough resources to finance studies that can guarantee them a job. Inequalities are also evident in culmination rates, while only 4% of the population between 19 and 30 years old of quintile 1 of the distribution of expenditure are completing higher education studies, the percentage in quintile 5 raises to 30% of students finishing studies. Fellowships represent an alternative for this low-income population, so more than 70% of scholarships awarded by the National Scholarship and Credits Program (PRONABEC) are focused exclusively on them.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Appropriate conditions of infrastructure is the most elemental guarantee that the Ministry of Education must offer to students. Schools do not have minimum conditions of quality to enhance learnings and capabilities. According to the "Plan Nacional de Infraestructura al 2025" (a

National Infrastructure Plan for 2025), the infrastructure gap is over 68,000 million Soles equivalent to 14% of gross domestic product.

Although there have been improvements in learning achievements, there is a hard work to do. Among 2012 and 2016, proportion of students with a satisfactory learning level on reading comprehension increased around 20 percentage points and in mathematics the score doubled in accordance to Students Census Evaluation (ECE) results. Meanwhile, gap in learning achievements within urban and rural areas are wide. In the same period, the percentage of students with satisfactory level in reading comprehension shifted from 37.5% to 55.1% in urban schools and it shifted from 7% to 18.5% for rural schools. Furthermore, percentage of students with satisfactory level in mathematics raised from 15.2% to 29.1% in urban areas and it changed from 4.1% to 12.3% for rural areas.

Despite efforts to close initial education access gap, by 2016, 35% of 3 years old children have not accessed school, meanwhile 95% of 4 and 5 years old children are attending school. It represents an important challenge to figure out the reasons behind this demographic gap.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

As part of the Delivery Unit developed by the Presidency of the Council of Ministers, the Ministry of Education have prioritized objectives related to interventions in rural areas in accordance with:

STRATEGIC OBJECTIVES

SO1: Improve teaching practices on multigrade rural schools

SO2: Improve learning achievements of rural primary schools in reading comprehension

SO3: Improve teaching practices on rural secondary schools

SO4: Improve student learning achievements of rural schools in reading comprehension

SO5: Improve access to basic services on rural schools

These objectives are related to several indicators that allow to measure developments by 2021:

STRATEGIC OBJECTIVES	INDICATOR	SOURCE	BASELINE		GOAL 2021
			DATE	VALUE	VALUE
SO1: Improve teaching practices on multigrade rural schools	Percentage of teachers on single-teacher and multigrade schools at an effective level (level 3 or 4) in critical thinking indicator.	MPE	2016	23%	35%
	Percentage of teachers on single-teacher and multigrade schools at an effective level (level 3 or 4) in classroom involvement indicator.	MPE	2015	22%	40%

SO2: Improve learning achievements of rural primary schools in reading comprehension	Percentage of second grade students on primary rural schools at a progress or effective level in reading comprehension of Students Census Evaluation (ECE).	ECE	2015	80.73%	88%
	Percentage of second grade students on full grade primary rural schools at a progress or effective level in reading comprehension of Students Census Evaluation (ECE).	ECE	2015	89.64	100%
SO3: Improve teaching practices on rural secondary schools	Percentage of secondary school teachers on at an effective level (level 3 or 4) in critical thinking indicator.	MPE	2016	20%	35%
	Percentage of secondary school teachers on at an effective level (level 3 or 4) in classroom involvement indicator.	MPE	2016	17%	35%
SO4: Improve student learning achievements of rural schools in reading comprehension	Percentage of second grade students on secondary schools at a progress or effective level in reading comprehension of Students Census Evaluation (ECE)	ECE	2016	11%	25%
SO5: Improve access to basic services on rural schools	Percentage of primary rural school with electricity, mains water supply and public sewerage system or septic tank.	Semáforo Escuela	2016	48.0%	65%
	Percentage of public primary schools with internet connectivity service (LESI)	Censo Escolar	2016	8.0%	25%
	Percentage of secondary rural schools with electricity, mains water supply and public sewerage system or septic tank.	Semáforo Escuela	2016	56,8%	70%
	Percentage of public secondary schools with internet connectivity service (LESI)	Censo Escolar	2016	24.0%	50%

In order to close the gap of access to pre-school education, the Ministry of Education built suitable infrastructure to attend 3-year-old children and developed a more flexible educational system to care for this target group. The goal to 2021 is attend at 85% of 3-year-old children.

To close Peru's gap in educational infrastructure, the Ministry of Education made rural areas in the rainforest a priority. It plans to gradually provide schools in these areas with equipment, furniture and other educational infrastructure. This will be done through (i) the purchase, delivery and installation of educational modules in 32 schools in the rainforest, (ii) the implementation of 6 Emblematic School projects and (iii) the installation of educational modules which include an alternative access to basic services (Water, sanitation and energy) in 6 schools. Furthermore, the Ministry of Education will continue giving maintenance and replacing furniture in the rest of rural schools.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

Regional cooperation in the Asia-Pacific basin, particularly on the sphere of Asia-Pacific Economic Cooperation Forum, could contribute to the development of strategies, policy-building, and capacity-building of officials and teachers in various areas of the educational system, engine for the sustainable development of an economy. This could be done through the modalities of international technical cooperation such as consultancy, training, information exchange, among others, in the form of APEC projects or political dialogues. In addition, the space provides the opportunity for the development and enhance of bilateral relations, as well as the link with various working groups that enable a comprehensive approach to the issues under the scope of the sector.

In view of the above, in regard **special basic education**, the Forum, based on the experience gained from the development of initiatives and projects aimed to the inclusion of people with disabilities in the labor market, could encourage the exchange of information, strategies and lessons learned in relation to development and pedagogical practices for attend students with disabilities in their various manifestations, as well as for the establishment of appropriate conditions and incentives for the generation of inclusive educational institutions and mechanisms for the monitoring of these programs. In addition, it is recognized that, in order to develop this line of work, a closer relationship between the Human Resources Development Working Group and the Group of Friends on Disability should be sought.

With regard to the challenge of **reducing the rate of illiteracy and reintegration into the education system**, regional cooperation could contribute to the acquisition of knowledge on alternative comprehensive programs of rapid literacy, use of various methodologies and strategies for the sustainability of learning circles; recognizing that this problem has a greater presence in rural areas. On the other hand, the exchange of information on strategies and programs for reintegration into the educational system could be sought, particularly in relation to the socialization of the benefits that will be produced by the reintegration and considering the different realities of the population that have not completed their studies and nevertheless they work or do not study or work.

On the **access to higher education of the poorest quintile**, considering that one of the objectives of the Human Resources Development Working Group is the development of knowledge and skills for all, as well as one of the areas prioritized by the same group is the quality and development of tertiary education (technical and vocational and university), the forum could contribute to its development through the exchange of information related to programs that seeks to expand and promote the access to this level of education to this part of the population, as well as through the identification of programs for student mobility that enables the development of competences in a globalized world.

In terms of **urban-rural education gap**, it is worth highlighting the start of negotiations to implement an APEC strategy for the economic development of remote areas, which includes rural areas and the theme of educational development. It is necessary that this initiative allows

the recognition of the geographical differences between the member economies of APEC and therefore the differentiated strategies of attention. In this sense, regional cooperation could allow lessons learned, policies and strategies established to provide adequate attention to these areas, including the use of new technologies and new learning modalities.

Peru maintains a lag of more than a decade in **educational infrastructure**, being a priority today the attention to this problem, which is surely shared with other member economies of the Forum. Thus, regional cooperation could allow the knowledge of policies and strategies developed for the planning, construction, maintenance, repair and adaptation of the educational infrastructure according to the local context and according to quality standards that guarantee the conditions for the development of learning and capacities, and avoiding the affectation to the regular cycle of studies of the students. In addition, the APEC Business Advisory Council could be a liaison space to seek the rapprochement between the public and private sector in this area.

Finally, in relation to the gap in **access to initial education**, the forum could seek to identify those economies that consider initial education as part of their basic education system, seeking the exchange of information and knowledge between them in relation to reasons behind the access of this level and the diversification of models for their attention.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

The Philippines

Best Practices. Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.

1. There have been significant efforts to address the previous investment gaps in human capital of the economy. For instance, the budget share for social services climbed from an average 3.5 percent of GDP in the 1980s to an average of 5.1 percent of GDP beginning 2000s, and earmarked at 8.4 percent of GDP in 2017. The government's commitment to increase spending on major social services such as education, health, and social security and labor welfare, not to mention the vigorous investment on infrastructure build up, further increases the competitiveness and productivity of our present and future workforce¹.
2. In view of the foregoing, structural reforms in human capital development were anchored on strategies that will effectively make a dent on alleviating the conditions of the poor and vulnerable within the medium to long term horizon:
 - a. The **implementation of the Enhanced Basic Education (K to 12) program** is a major structural reform that seeks to enhance the quality of basic education in the Philippines. To date, the program's effectiveness is yet to be evaluated given that the first batch of students will only be graduating in 2018. Nonetheless, it is expected that the additional two years of basic education will result in the improvement of basic competencies of high school graduates to prepare them for the world of work, entrepreneurship, or higher education.
 - b. The **Pantawid Pamilyang Pilipino Program (Pantawid Pamilya)**, a conditional cash transfer (CCT) program of the government, has been successful in influencing poverty reduction in the economy by improving human capital among the poor population. The program improved investment in education and health-seeking behavior of the poor. The **Pantawid Pamilya** provides education and health grants to poor households identified under the National Household Targeting System for Poverty Reduction (NHTS-PR, or **Listahanan**) having children aged 0-18 years old, or pregnant woman.

The **Pantawid Pamilyang Pilipino** Program Impact Evaluation Results (DSWD, World Bank, Australian Aid, ADB; November 2014) show that the program is meeting the objective of increasing poor households' investments in their children, as evidenced by the shift in spending patterns among poor households in **Pantawid barangays** (villages). Household beneficiaries spent more on education and medical expenses than those in non-**Pantawid** barangays. Furthermore, with the expansion of the program, **Pantawid Pamilya** became the fourth largest CCT program in the world. Also, it made impressive progress in improving its targeting efficiency and

¹ Report on the ongoing process towards developing the Philippine Labor and Employment Plan (LEP) 2017-2022. Source: http://www.ilo.org/manila/country/WCMS_523524/lang--en/index.htm

substantially reduced its administrative cost of delivering cash transfers to beneficiary families (Kakwani et al. 2016).

Improving the **National Health Insurance Program (NHIP)** coverage can be seen as one of the most effectively implemented structural reforms in human capital development in the economy over the past five years. The NHIP coverage has reached 93 million or 92 percent of the total population in 2015 from 72 percent in 2012. Of these, 61 million are among the vulnerable (informal economy, indigent, sponsored and senior citizens). **The effectiveness of this reform can be primarily attributed to the full subsidy of premium contributions of indigents and senior citizens.**²

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

Despite the increasing economic growth in the Philippines, the economy's Gini coefficient³ remains to be one of the highest among its ASEAN Neighbors (Table 1).

Table 1. Gini Coefficient across selected ASEAN Economies

Economy	1990	2000	Latest	Economy	1990	2000	Latest
Cambodia	0.383 (1994)	0.419 (2004)	0.36 (2009)	Philippines	0.438 (1991)	0.461	0.43 (2009)
Indonesia	0.292	0.29 (1999)	0.381 (2011)	Thailand	0.453	0.428	0.394 (2010)
Malaysia	0.477 (1992)	0.379 (2004)	0.462 (2009)	Vietnam	0.357 (1993)	0.376 (2002)	0.356 (2008)

Source: WorldBank

1. The Philippine government has made great strides in **creating more and better employment opportunities for Filipinos**. In fact, the unemployment rate reached its lowest in the past decade in 2016, at 5.5 percent. Despite this achievement, many Filipinos are still forced to look for work elsewhere, and even take on low-skilled jobs. While these low-skilled jobs are a steady source of employment for many Filipinos, OFs employed in these kinds of jobs tend to be vulnerable to abuse and exploitation.

Underemployment rate also remains high. In the Philippines, where the degree of work informality remains high, and where a third of the employed are found in the agriculture sector, underemployment continues to be a more pressing problem.

2. **Inequalities in education attainment** is also a challenge to inclusiveness. A study by Albert et. al (2015), showed that inequalities in education attainment leads to vulnerable

² The passage of the National Health Insurance Act of 2013 (Republic Act 10606 amending Republic Act 7875) provided that all citizens of the Philippines shall be covered by the NHIP and that premium contributions for indigent members shall be fully subsidized by the national government. Likewise, in November 2014, the mandatory NHIP coverage of senior citizens has been passed, also with full subsidy on premium contributions. These policy interventions significantly contributed to the increase in NHIP coverage. The budget for the premium contributions are sourced from the proceeds of Republic Act No. 10351 or commonly known as the Sin Tax Law.

³ The Gini coefficient measures the extent to which income distribution deviates from a perfectly equal distribution. A Lorenz curve plots the cumulative percentages of income received against the cumulative number of recipients, starting with the poorest individual. The Gini index measures the area between the Lorenz curve and a hypothetical line of perfect equality, expressed as a percentage of the maximum area under the line. The Gini ranges from zero (which reflects complete equality, i.e., all persons have exactly the same income) to one (which indicates complete inequality, where one person has all the income while all others have none). While a larger Gini coefficient signifies more inequality, the interpretation of the Gini is more straightforward when the figures are compared across time and space.

employment.⁴ Therefore, raising the quality of education and improving opportunities for school participation are important to increase the skills, competencies, and income-earning abilities of individuals.

For instance, inadequate quality of education and training was identified by employers as the most important reason for having skills gaps. Poor quality of training, lack of facilities, curriculum that is not responsive to industry, and weak industry linkage were found to be among the factors that contribute to the skills gaps of the workforce.⁵ In light of the recent efforts on globalization, ASEAN integration and increased mobility among all kinds of workers, especially the professionals, the pressure to improve the quality of education to the level of international comparability is an immediate task.

3. **Infrastructure investments in the economy has lagged behind** the region with insufficient and inefficient transportation hindering movement from homes to jobs and/or schools and vice versa. This was not helped by high cost of electricity and slow internet connectivity. In the next six years, the government has committed to pursue an aggressive infrastructure spending program over the medium term, dubbed Golden Age of Infrastructure. This will be characterized by massive infrastructure spending covering transport (road-based, rail, air, maritime), water resources (supply, sewerage, and sanitation, flood management), energy, ICT, social infrastructure (education facilities and housing) and solid waste.
4. Another challenge in making economic growth more inclusive is the **need to further mainstream the needs of the vulnerable sector in the development planning process and various development programs**. Furthermore, people's exposure to several risks such as life cycle risks, economic risks, environmental risks, and governance and political risks also pose as challenge in the human capital development of the economy.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

1. **Expanding the collaboration between government, academe, and industry, and ensure that the higher and technical education match the needs of industries.** The economy's relatively high underemployment rate suggests that the type of labor the economy produces does not reflect industry demand. With the dynamic labor market, continuous trainings and upgrading of services of training centers, schools, and universities should be a focus area. To address the labor-mismatch problem, better coordination between employers, academia, and government should be achieved so that information on the labor market demand and supply will be facilitated more efficiently.
2. **Addressing youth unemployment.** Policies that address the economy's relatively high youth unemployment (11.6% as of the October 2016) across sectors and geographical location are also of paramount importance. One area where government can focus its intervention is by reducing the number of youth that are not in education and employment, which currently is around 20.5 percent. Key policy areas will revolve around increasing access to education at all levels and improving the quality of education services with an end view of producing high-quality graduates and a highly competitive workforce.

⁴ <http://dirp3.pids.gov.ph/webportal/CDN/PUBLICATIONS/pidsdps1501.pdf>

⁵ Gropello, Tan, Tandon (2010). Skills for Labor Market in the Philippines.

3. **Low productivity of the economic sectors.** In 2015, labor productivity of the industry and services sectors grew by 3.6 percent, lower than the medium-term Plan target of 4.1-5.0 percent. Meanwhile, labor productivity in the agriculture, forestry and fishing sector also fell below the Plan target.
4. **Reintegration of returning Overseas Filipinos (OFs) needs to be improved.** Along this line, reintegration initiatives for OFs should be continuously pursued. While there are already a number of programs related to reintegration, there is still a need for improvement in terms of coherence of reintegration programs given various migration-related government agencies handling, as well as effective monitoring and evaluation of programs and projects, and accurate skills matching with domestic opportunities. For reintegration to be successful, it should be intentional, and should be taken into consideration throughout all stages of the migration cycle: from the pre-departure, on-site, and then, the return phase. It should also refer to different reintegration pathways for different types of returning OFs, such as temporary, permanent, irregular and distressed.
5. Some policy gaps include the **need for convergence strategy to improve efficiency of social protection (SP)** programs in the economy. There is also a need to improve programs and services focusing on the vulnerable group --children, women, persons with disabilities (PWDs), Indigenous Peoples (IPs), overseas Filipinos (OFs) and their families, workers in the informal economy, and older persons. There is also a need to improve social safety net mechanisms in times of disasters caused by natural hazards and human-induced shocks, as well as in times of armed conflict.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

The Philippine Development Plan 2017-2022 targets to increase the income earning ability of Filipinos through improvement in employability and productivity, as well as enhancement of labor mobility and income security.

1. The Philippines continues to address unemployment and job skills mismatch in order to produce globally competent workforce through the following interventions⁶:
 - a. Intensifying skills training, upgrading, and retooling programs consistent with global standards;
 - b. Establishing skills training centers or hubs equipped with advanced technology;
 - c. Reviewing education curriculum and harmonizing all enterprise-based training models (i.e., learnership, apprenticeship, and on-the-job-training); and
 - d. Hastening school-to-work transition through implementing the Government Internship Program (GIP) targeting youths who need to have relevant work experience and those who aim to work in the public sector, Special Program for the Employment of Students (SPES) providing short-term work opportunities for poor students, and JobStart Program which facilitates the employment of at-risk youth.

⁶ Source: Philippine Development Plan 2017-2022

2. Improve employability. Labor entrants employability will be ensured through four major strategies: (1) Encourage skills development and retooling through continuing education and training; (2) Strengthen employment facilitation services; (3) Strengthen and expand internship, apprenticeship and dual-training programs that facilitate school-to-work transition; and (4) Implement programs that encourage women to participate in the labor market.
3. Improve productivity. To improve productivity the following strategies will be implemented: (1) Strengthen the implementation of the two-tiered wage system; (2) Ensure safety and health in the workplace; and nurture workplace harmony.
4. Enhance Labor mobility and income security. Labor mobility and income security shall be enhanced through: (1) provision of income support and emergency employment, and (2) enhancement of the efficacy of the minimum wage policy.

Obstacles to achieving the PDP targets and desired outcomes:

1. Investment in human capital. With our local labor market being tied to the global labor market, and with the protectionist bent of political economies, the economy's pool of workers must be equipped to meet challenges whether for domestic or overseas employment, that are geared towards specialized fields and high quality work. The government must continue spending on human capital needs to prepare our workers for the ever changing world of present and future work.
2. Passage of labor bills. The PDP has also spelled out the priority legislative agenda that are deemed critical for the labor sector (i.e. 100-Day Maternity Leave Act, Productivity Incentive Bill and Unemployment Insurance). The non-passage of these bills would make it difficult to achieve the end-of-goal targets for the sector.
3. Brain drain contributes to the problem of low level of innovation and of creating a knowledge-based economy in the economy. This is as potential researchers, scientists, and engineers, who are the key actors for the innovation ecosystem to flourish, prefer to seek employment overseas due to better economic opportunities and potential for advancement. Since knowledge and technology are mostly embodied in human resources, this stresses the urgency to accelerate the development of R&D human resource.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

1. Regional cooperation and international organizations can play an important role in helping countries improve the quality of health and education services to be at par with international and/or regional standards, particularly in terms of facilities, knowledge, and skills requirements. In the case of the ASEAN for instance, the approval of the Qualifications Reference Framework (QRF) for education will ease learner mobility within the region and pushes member-states to update course programs and address issues related to the implementation of Mutual Recognition Agreements (MRAs).
2. Key policy issues and challenges facing Asia involve the potential contagion to growing income inequality, with large portions of Asia's population not benefiting from the

region's overall increased prosperity. For one, the APEC can be the platform to discuss and propose regional frameworks towards greater labor mobility. Significant barriers can be overcome when the member economies engage in social dialogues/fora that mainly aim to identify which areas/policies they need to amend to allow for a more mobile labor market, which is beneficial not just to businesses (as there is greater pool of talent to choose from) but also to workers (better career opportunities and chances to improve living conditions of families, etc).

3. Regional cooperation initiatives under the ASEAN Community Vision 2025, fosters the facilitation of movement of skilled labor in ASEAN. This can provide additional opportunities for skilled OFs, as well as to encourage foreign scientists and experts to share their knowledge and specializations in the economy. Furthermore, ASEAN will consider further improvements to existing MRAs on skilled labor and consider the feasibility of additional MRAs to facilitate the mobility of professionals and skilled labor in the region.⁷ These will be pursued given that the existing MRAs allows for only eight professions, among which, engineers are the only ones allowed to engage in STI activities.
4. Guidance from the ASEAN Declaration of Social Protection (October 2013) is appreciated and has helped in providing direction to improve SP programs and services in the economy.

⁷ ASEAN 2025, Forging Ahead Together

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

The Russian Federation

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Set of reforms that have produced a significant impact on the development of the human capital in Russia are related to the **improvement of higher education**. The main objective of higher education reform was optimization of the existing system of Russian higher education through the elimination of the poorly performing universities that fail to deliver quality education, and establishing new consolidated universities. On top of that, a Competitiveness Enhancement Program (5 top 100) was launched to improve and to enhance international standing of the Russian universities for the duration of time through 2020. The selection process has identified 21 Russian universities that received government support and additional funding.

Besides directly addressing the issue of improvement of a system of higher education, this reform has encouraged attainment of strategic goals. Establishing a network of 'regional flagship universities' gave new opportunities for development of human capital in Russian regions. So far, federal universities became the new centers of regional development that attract the most gifted audience of young people and create environment for the fulfillment of their talents. At the same time, federal universities became the channels of the most important government initiatives and projects that focus on the development of human capital on the regional level.

As can be seen from above, several positive effects are apparent, including the following ones:

- General level of higher education and its quality have been improved;
- Optimization and re-distribution of the educational funding allowed to allocate money for the implementation of the projects that would help develop universities throughout the economy, to modernize their infrastructure, and to adopt advanced technologies and practices;
- The universities that were established became the centers of attraction and development of human resources and human capital;
- Federal universities that were established in remote regions of Russia became areas of technological growth and socio-economic development, and function as talent pipelines for the regional economy;
- Government funding of the internationalization of education sector in the leading universities fosters integration with the global research and academic communities that

offers new opportunities for the development of human capital.

Other important area of structural reforms in the development of human capital in Russia is the **improvement of conditions for women to combine child care charges with the employment**. In this field in Russia corresponding measures aim at achieving the following:

- ensuring the availability of pre-school educational institutions;
- development of children's health care institutions, as well as other organizations that provide services in the field of leisure and development of underage children;
- implementation of flexible forms of employment and distant employment;
- assistance in the employment of women with children under the age of 18, including the promotion of self-employment;
- creation of vocational guidance and vocational training (retraining) for women that are on parental leave with child at the age up to 3 years, as well as informing about the content of such activities and the course of their implementation.

Implementation of these measures in 2013 – 2016 let to achieve following results:

- the employment rate of women aged 20-49, with children under the age of 18, amounted to 76.0% of the total number of women of this age, that exceeds the same indicator for the entire population by 10,0%;
- the unemployment rate among women aged 20-49 with children under the age of 18 decreased by 0.2% compared to 2013, and amounted to 4.7% of the economically active population (in 2013 - 4.9%). At the same time, this indicator is 0.6% below the same indicator for the entire population;
- during the period 2013-2016 63.1 thousand women on maternity leave completed their studies.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

In the field of the improvement of employment conditions for women one of the challenges is that most women, after the expiration of the maternity leave, while getting the job, are facing the problem of the reduction of their professional qualifications and partial loss of professional skills for the performance of the corresponding type of professional activity.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

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Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

Among the initiatives aimed at modernization of school education and introduction of elements that focus on creative and innovative development of the state's economy one should mention the establishment of a network of the Quantorium technoparks for school children. Russia is also exploring the opportunities provided by digital education. There is a program "Russian digital school" which is looking for the ways to create free online video-courses for all general subjects of elementary and general education. In the sphere of Higher Education and TVET it is the educational portal Open Education. This web site provides Russian citizens with an opportunity to get proper higher education avoiding geographical and financial limitations. These open online courses will expand the boundaries of education for every student.

In the field of the improvement of labor conditions for women that are on maternity leave, the development of measures in the following areas will be continued:

- to enhance conditions for women to combine responsibilities for the upbringing of children with labor employment;
- to organize vocational training (retraining) for women on parental leave with child up to 3 years.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

Regional cooperation and international organizations (such as APEC) can play an important role in addressing possible problems and "gaps" that all economies face today. As perspective directions of such cooperation it is possible to consider:

- growth of energy, infrastructure, transport, information, financial connectivity at the level of economies, regions, cities, companies.
- development of cooperation in the field of APEC education, including the development of internship programs and student exchange, joint strategic research, and, in accordance with the rules of national education systems, information exchange in the field of educational standards of participating economies, qualification requirements and credit systems, and measures for the transition to the practice of mutual recognition, improvement in women's employment
- development of proposals for the implementation of the resolutions adopted earlier (Ministerial meetings in 2004-2016) to develop mutual APEC education competencies, as well as to develop measures to increase the mobility of students, researchers and providers of educational services in the Asia – Pacific Region (APR).

Active participation in different programs implemented and suggested by member economies and exchange of knowledge and experience may give a new impetus for the improvement and development and bring a major positive change to the existing systems.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Chinese Taipei

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Talent cultivation can be seen as one of the most effectively-implemented structural reforms in human capital development in Chinese Taipei in the past 5 years. And, the top 3 reasons for the effectiveness are as follows:

1. Updating the supply and demand of human resources periodically

The National Development Council (NDC) integrates and updates on a regular basis the information related to supply and demand of human resources in terms of long-term and short-term projections, so as to understand the need of human resources for industrial development and provide evidence-based reference to both the government and private sectors.

2. Cultivating, retaining, and attracting talents

Chinese Taipei launched “The Integrated Program to Cultivate, Retain, and Attract Talent (2014-2016)” and took pragmatic measures to cultivate high-quality talents for industry need and build up the human capital, such as promoting diverse and practical programs of advanced study and training, cultivating international talents, and developing occupational competency standards and capability appraisals, etc.

3. Shaping the environment for developing training industry

Chinese Taipei put forward “The Workforce Training Industry Development Program (2014-2016),” by encompassing the three aspects of strengthening supply, developing demand, and shaping the environment for developing training industry by guiding investment of private resources, so as to narrow the gap between school curricula and job markets and enhance professional and interdisciplinary skills of the mid-level workforce.

4. Strengthening the linkages between the industry, academia and research via a cabinet-level mechanism

To reshape the partnership of the industry, academia, and research and to link the innovative R&Ds, talent cultivation, and knowledge transfer mechanism more effectively, the Cabinet has established “the Board of Linking Industry, Academia, and

Research” in July 2016 so as to take charge of policy coordination in this regard.

Challenges to Inclusiveness. *Considering your economy’s current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

Two major challenges to inclusiveness are the following:

1. To raise youth employment and improve youth pay

Since 2000, there has been a slowdown in salary growth in Chinese Taipei, especially among the youth. According to statistics of the Directorate General of Budget, Accounting and Statistics (DGBAS), the main monthly income of youth aged 15-19, 20-24 and 25-29 in 2016 was NTD 18,929, NTD 26,252, and NTD 32,605, respectively, which were lower than the overall average of NTD 38,476.

In 2016, the unemployment rate of the 15-24 year olds was 12.12%, which is 3.09 times higher than the overall unemployment rate of 3.92%.

2. To promote employment of the middle-aged and the elderly

The population of Chinese Taipei is aging rapidly, yet the labor force participation rates for the middle-aged and the elderly are trailing behind those countries such as Japan, Korea, and Singapore.

Policy Gaps. *Considering your economy’s current situation, what are your economy’s three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Two major policy gaps regarding structural reform in human capital development are the following:

1. Brain drain due to low pay

In Chinese Taipei, the real wage growth is stagnant, and the real wage in 2016 is almost the same as that in 2000. Therefore, many citizens would rather work abroad to get higher pay. According to statistics of the Directorate General of Budget, Accounting and Statistics (DGBAS), the number of citizens working abroad in 2015 were 724,000, with a 62,000 increase from 2009.

2. Gaps between school curricula and job market

In recent years, due to rapid changing population structure and industrial structural transformation, we are faced with such conundrums as the over-supply of mid-level workforce and gaps between school curricula and job market, etc., which indicate the urgency to retrain the mid-level workforce for value-added skills and the opportunity to develop the industry for manpower cultivation. Thus, the successful development of the services industry for talent cultivation will become the vital momentum for Chinese

Taipei's manpower upgrading and industrial transition of the future.
<p>Action Plans. <i>Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?</i></p>
<ol style="list-style-type: none"> 1. In the face of the challenges of international race for recruiting global talents and domestic brain drain, the Administration is currently promoting the “5+2 Industrial Innovation Program” and formulating the draft “Act for the Recruitment and Employment of Foreign Professional Talent,” in order to strengthen the efforts of attracting and retaining global talents, to boost economic development, and to accelerate industrial transformation. Through well-planned policy measures of assisting industrial upgrading and transformation, providing incentives for global talents, and building a friendly environment, we hope to reduce the brain drain and enhance our national competitiveness. 2. To promote inclusive employment and make all sectors benefit from economic growth, Chinese Taipei has launched the following programs: <ol style="list-style-type: none"> (a) With the aim of promoting and fully utilizing the middle-aged and elderly workforce, Chinese Taipei is developing a dedicated employment law for the middle-aged and old workers to safeguard their employment rights and to build a friendly workplace. (b) To promote youth employment and improve their work pay, we endeavor to embark on the following strategic policy directions: <ul style="list-style-type: none"> • Building a platform to help youth put into practice their creativity and inspiration to start up their own businesses. For example, the “Business Angel Fund” is to invest NTD 1 billion over the next five years to provide the needed capital for innovators to start businesses and provide entrepreneurs with startup space and consultation service. • Developing a plan to provide subsidies for cross-area movement for employment and overseas employment services. • Design of diverse, flexible and independent training programs for matching industrial trends and cultivating employment skills. • Providing complete career exploration tools and improving professional skills to allow career exploration to take root. • Help youth find out about and use government career service resources. (c) To provide comprehensive employment information for women, Chinese Taipei has established more than 300 employment service centers around the island, a Jobs portal website, a year-round 24-hour employment service hotline, and more than 10,000 touchscreen stations in the four major convenient store chains.

Ministry of Labor (MOL) also offers walk-around service, as well as streamlined customized services and related employment promotion measures. These efforts aim to provide a wide-range of choices for diversified employment opportunities, so that female workers can overcome potential hurdles and find suitable careers.

- (d) Chinese Taipei has been offering free business start-up training courses and consultation service. In addition, to support women, residents from remote islands, and the middle-aged and old workers in developing micro-enterprises, MOL offers a low-interest start-up loan with a maximum amount of NTD 1 million per person for a term of no more than seven years. The borrower need not provide collateral or a guarantor. Through training courses and consultation service, we hope to empower aspiring business owners and help startups kick start and also benefit the economy.
3. To reduce the gap between school education and employment, Chinese Taipei has launched specific initiatives as follows:
 - (a) To encourage senior-high students to obtain pragmatic work experiences before further pursuing higher educational achievement.
 - (b) To establish the evaluation mechanism for recruiting talents with practical job skills and for strengthening curricula of vocational education.
 - (c) To promote regular industrial study and research for teachers to enhance the linkage with industrial practices and quality education.
 - (d) To promote on-the-job training programs to enhance students' professional competence and employability.
 - (e) To encourage teachers to guide interdisciplinary, cross-team, and cross-school collaboration to inspire students for local employment and startups.
 4. To tailor occupational training for the need of the industry, Chinese Taipei has implemented several practical programs as follows:

(a) Occupational Standards

Chinese Taipei aims to establish a national occupational standard system by coordinating with concerned authorities and inviting industries to be part of the establishment of the sectoral and industrial occupational standards. Such a system will align training closer to labor market demand, so as to fully optimize the human capital investment and enhance our national competitiveness.

(b) Curriculum Quality Certification

Chinese Taipei develops an occupation-oriented curriculum quality certification. By inviting industry experts to review the curriculum, the certification system ensures the rigor and adequacy of the curriculum design and development, as well as the implementation effectiveness. Through this system, the overall training curriculum can better meet the demand of the industries and labor market and become more effective

in cultivating talent.

(c) Talent Quality Management System

With an objective to systemize vocational training programs, the Talent Quality Management System strives to improve the planning and execution capacity of training agencies and businesses, and to enhance training quality. This is a quality verification tool, which includes five main components of “Plan, Design, Do, Review, and Outcome.” This System ensures the reliability and accuracy of training procedure, while also motivating institutions to hold training activities with stronger capability.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

To address the challenges and policy gaps such as low wage and talents shortage in Chinese Taipei, various initiatives under the APEC Strategy for Strengthening Quality Growth, Framework for Youth Education, Employment and Entrepreneurship, and APEC Education Strategy, etc. could enrich regional cooperation to share good practices and identify cross-cutting policy issues.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Thailand

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

In the past 5 years, the outstanding reform in human capital development in Thailand has been a promotion of Dual Vocational Education and Training (DVET). From 37,694 vocation students attended the DVET of whom worked in 3,826 enterprises in 2012, the numbers rise to 134,597 students and 17,791 enterprises in 2017. This program allows students to obtain knowledge at school and simultaneously practice in the real working field. The program differs from regular internship as it offers a longer range of the practice in factories, training content, an allowance paid to the trainee, a well-designed supervision and cooperation between teachers and supervisors in the factories in order to draft action plans and set goals for students. The feedback is very positive. The companies are satisfied with the DVET students who have competency matched with their expectation, serving one of the purposes of education, which is to prepare students for employment.

There are three main reasons behind this achievement. First factor is the strong support and partnership from the private sector so that the DVET programs have been initiated in many vocational schools. They also help the schools to set quality curriculums and training system both in schools and factories. This increases the quality of students and results in job offers after graduation which is the second factor behind the successful of DVET because students are likely to enroll if they can see potential employment prospects. Lastly, there is a supported organized structure set up as the national committee called the Joint Public-private Committee for the Development of Vocational Workforce, together with 33 sub-committees, classified by industries and areas, to steer and make the cooperation happen.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

Thailand like many other APEC economies is facing increasing challenges in making economic growth more inclusive. First, the progress in technological advancement results in growing demand for higher skilled worker or labor specializing on or with multiple-skills, while currently more than 40% of Thai workforce graduated only primary education or lower and only 22% can achieve higher education.

Second, the growing numbers of the elderly people are expected to result in Thailand becoming an aged society within 5 years. This indicates the less working population which results in fewer

workforces for economy. Also, the poverty rate of elderly people is higher than overall population. So if there is more old aged population, the proportion of the poor inclines to be more. Moreover, the proportion of working-age population has been declining since 2015, which results in labor shortages in a wide range of sectors.

Third, educational inequality is prevalent as there is quite a large gap in access to quality education between the rich and the poor. According to the World Bank, the greatest concentration of functionality illiterate is found in rural villages¹.

Thus, without the good preparation in time for the technological change, the aged society and the educational inequality, inclusive growth tends to be harder to achieve where gain will be transferred to just a small group of people while a large number of people remain vulnerable.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

Reform in human capital development in Thailand during the next era will be ever more challenging especially in terms of how to prepare population for the 21st century and how to close policy gaps. The quality of the Thai education system is one of the major concerns. Although the biggest proportion of the fiscal budget has been allocated to education sector for the past 16 years, the students' learning achievement is still low; one reflection is the unimproved PISA² scores and the fact that they are lower than those of other countries with a comparable level of development. Moreover, the gap between the top tier performers and the lowest tier is quite wide (the difference is around 200 scores). The reasons behind that include the problematic design of both curricula and the teaching system, which mainly focuses on testing students' memory of the content rather than their understanding, which causes a lack of creativity. Furthermore, the distribution and allocation of teaching resources and teachers to remote areas are either lacking or inadequate.

The second gap is a slow increase in labor productivity. Labor productivity of the Thai workforce during 2001-2014 only increased by an average of 2.9 percent per year, a rate which is considerably lower than that of neighboring countries, including Malaysia, which has double the productivity of Thailand, and Singapore, which is 5 times higher. Last but not least is insufficient investment in early childhood education which is critical for child's brain to further develop. As a result, 27.5 percent of young children demonstrate delayed development. These 3 main issues could have seen to be the most important challenges that impede progress in structural reform in human capital development in Thailand.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

¹ World Bank (2017). Getting Back on Track: Reviving Growth and Securing Prosperity for All.

² Programme for International Student Assessment

In the medium to long term, the aforementioned challenges have been recognized in the national plans. The government has a draft for the 20 year national plan which will be cascaded to 5-year National Economic and Social Development Plans (NESDP). The vision of the current 12th NESDP which will use for the next 5 years (2017-2021) is to equip Thai population with the right mindset, right skills and the right wellness for the 21st century. The core focus areas are education, training system, human resources for the targeted future industries preparation, health promotion, moral development, and aged friendly society development. Many measures are introduced such as promoting STEM³ and art education, revamping teachers' evaluation system, partnering vocational schools with private sectors, advocating health preventive measures, supporting family to be one of the focal point to cultivate quality human resource.

Furthermore, the quality of public services will be the main challenge, particularly education and public health. Closing the social protection gaps by providing additional social welfare to targeted groups and increasing access to public services should be continued from the previous Plan, along with an emphasis on raising labor skills and pursuing labor policy that enhance labor productivity and income. Measures should also be linked to increasing the productivity of targeted groups such as the 40 percent of population with lowest income, the disadvantaged, women and elderly persons. In the short run, ministries as implementing agencies have adopted the framework of the 5 year plan and translate into their own action plans. For example, the Ministry of Labor is planning to upgrade potential training centers to be centers for high skills especially in the area of the S-curve industries aligning with the national agenda. The Ministry of Education is expanding STEM classes and revising the appraisal system for teachers. The government also aims to provide assistance in terms of support for SMEs, community- and social enterprises, development of microfinance and of financial access for job-creation, and promotion of access to high-quality inputs at fair prices.

To achieve these goals, the plan must be implemented effectively. This needs clarity of the contents, a sense of awareness and understanding of the plan's objectives, a sense of ownership, and the shared responsibilities of every sector in society. Additionally, it requires a systematic and integrated manner of bridging the goals and actions, which are also quite challenging to attain.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

It has always been APEC's top priority to accelerate the human capital development as can be seen in 2015, APEC prioritizes human capital development and equitable growth for all members of society. APEC's Human Resource Development Working Group (HRDWG) has played a vital role in helping the region in terms of building human capacity and ensuring that all people and communities in the region can participate in the global economy. Many initiatives on education, labor and capacity building to develop human resources have been implemented under this working group. For example, APEC vocational training program helped uplifting the status of individuals by acquiring new skills and enabling them to participate in the fast growing

³ STEM stands for Science, Technology, Engineering and Mathematics.

economy. This highlights the benefits of APEC's efforts to improve workforce capacity in the Asia-Pacific.

APEC provide an excellent platform for member economies to engage with other international organizations, for example, International Labor Organization (ILO), Organization for Economic Cooperation and Development (OECD), Association of Pacific Rim Universities (APRU), Pacific Economic Cooperation Council (PECC), Pacific Islands Forum (PIF) Secretariat, Southeast Asian Minister of Education Organization (SEAMEO), UNESCO, UNICEF, and World Bank. In other words, APEC member economies could help each other in bridging the gaps and challenges with respect to structural reform in human capital development through participating in these capacity building programs as well as other training program organized by APEC and its associated organizations. They play a huge role in addressing challenges in reform in human capital development through providing assistance that could help developing economies to enhance and align competencies to the needs of individuals, societies and economies as well as accelerate innovation for education in order to increase employability. Through capacity building and training programs organized by various working groups and committees under APEC, member economies could learn from each other's experiences which in turn give them the opportunity to apply best practices to their reform process in order to achieve the desired goals.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

United States of America

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

Occupational Safety Standards

In addition to their social costs, workplace injuries and illnesses have a major impact on an employer's bottom line. It has been estimated that employers pay almost \$1 billion per week for direct workers' compensation costs alone. The costs of workplace injuries and illnesses include direct and indirect costs. Direct costs include workers' compensation payments, medical expenses, and costs for legal services. Examples of indirect costs include training replacement employees, accident investigation and implementation of corrective measures, lost productivity, repairs of damaged equipment and property, and costs associated with lower employee morale and absenteeism. <https://www.osha.gov/dcsp/products/topics/businesscase/costs.html>

The Department of Labor's Occupational Safety and Health Administration (OSHA) was created by Congress in 1970 to assure safe and healthful conditions for working men and women by setting and enforcing standards and providing training, outreach, education and compliance assistance. In more than four decades, OSHA and state partners, coupled with the efforts of employers, safety and health professionals, unions and advocates, have had a dramatic effect on workplace safety. Worker deaths in America are down-on average, from about 38 worker deaths a day in 1970 to 13 a day in 2015. Worker injuries and illnesses are down-from 10.9 incidents per 100 workers in 1972 to 3.0 per 100 in 2015.

OSHA structural reform initiatives have been effective through a multifaceted approach to ensure that employees and employers know their rights and obligations to ensure a safe work place:

- **Investigations:** The OSHA is committed to strong, fair and effective enforcement of safety and health requirements in the workplace. OSHA inspectors, called compliance safety and health officers, are experienced, well-trained industrial hygienists and safety professionals whose goal is to assure compliance with OSHA requirements and help employers and workers reduce on-the-job hazards and prevent injuries, illnesses and deaths in the workplace.
- **Small Business Consultations:** OSHA's On-site Consultation Program offers free and

confidential safety and occupational health advice to small and medium-sized businesses in all states, with priority given to high-hazard worksites. On-site Consultation services are separate from enforcement and do not result in penalties or citations. Consultants from state agencies or universities work with employers to identify workplace hazards, provide advice on compliance with OSHA standards, and assist in establishing injury and illness prevention programs.

<https://www.osha.gov/dcsp/smallbusiness/consult.html>

- **Cooperative programs with business, labor, and other organizations:** OSHA offers cooperative programs under which businesses, labor groups, and other organizations can work cooperatively with the Agency to help prevent fatalities, injuries, and illnesses in the workplace.

https://www.osha.gov/dcsp/compliance_assistance/index_programs.html

Improving Higher Education Access and Affordability

In today's world, one important key to success is to gain the postsecondary education and credentials that careers and employers require. Millions of students and families want to make this investment in their future, but the college marketplace and student loan financing can be confusing.

Over the past two decades, the amount of total outstanding student debt has risen to over \$1.2 trillion and the average amount of student debt has risen to nearly \$30,000. Given the importance of encouraging postsecondary access, the United States has made several strides to improve the affordability of earning a postsecondary credential. The most significant are the commitment to maintaining the bedrock Federal postsecondary grant program, the Pell Grant and the availability of loan repayment programs based on a borrower's monthly discretionary income, rather than a flat amount (commonly referred to as "income-driven repayment programs").

Pell Grants: Although with rising tuition costs, the percentage of postsecondary educational expenses financed through grants has decreased, Pell Grants remain an important source of financial assistance, especially for lower income families. For the 2015-2016 award year, \$28.2 billion in Pell Grant funds were distributed to 7.6 million recipients. In an effort to facilitate students' matriculation in their respective programs, Congress authorized, as part of the Consolidated Appropriations Act of 2017, payment of up to 150 percent of a student's Scheduled Pell Grant Award during a single award year. Beginning with the 2017-2018 award year (July 1, 2017), this measure allows eligible students to receive Pell Grant funds on what is essentially a year-round basis. Previously Pell Grant recipients were limited to no more than 100 percent of a Scheduled Award.

Typically, a student takes coursework during the fall and spring semesters of an academic year, receiving (assuming eligibility for a Pell Grant) 50 percent of a Scheduled Award in each of those terms. In prior years, such a student, having used 100 percent of his or her Scheduled Award would, since most institutions attach summer to the previous academic year, receive no Pell Grant funding for the summer term. Many needy students seeking to matriculate at a

faster pace by taking coursework during summer sessions therefore found their options limited. This issue has been resolved under the new statute, which makes available an additional 50 percent of a Scheduled Award (up to a maximum of 150 percent for the award year). A Pell-eligible student may now, with some stipulations, receive full payments of a Pell grant award for attendance in the fall, spring and summer terms of the same academic year.

Income Driven Repayment (IDR) Plans: Recognizing that rising levels of student indebtedness were making it increasingly difficult for low- and middle-income Americans to complete a postsecondary credential, Congress created the first widely-available IDR plan as part of the College Cost Reduction and Access Act of 2007 (CCRAA).

An IDR plan sets a borrower's monthly student loan payment at an amount that is intended to be affordable based on the borrower's income and family size. For example, the original Income-Based Repayment (IBR) program created by Congress in the CCRAA sets a borrower's monthly payment amount to 15 percent of his or her discretionary income (defined as 150 percent of the poverty guideline for the borrower's family size and State).

IDR plans have numerous advantages for borrowers that ease the financial burden of attaining a postsecondary credential. For unemployed or low-income borrowers, IDR plans allow for temporary low- or even zero-dollar payments, enabling borrowers to avoid unaffordable monthly payments or possible loan default while they find employment or a higher-paying job. IDR plans can also provide for a repayment schedule more consistent with a borrower's earnings potential: as a borrower persists in the workforce and their income increases, their repayment amount also increases, while remaining an affordable percentage of that increased income. Finally, IDR plans provide protections for a borrower whose income is insufficient to pay a large loan balance even over an extended period. For a borrower that has repaid their loan for multiple decades but has not yet repaid the loan in full, IDR plans allow for the forgiveness of the remaining balance.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

There are 1.3 million fewer manufacturing jobs in the United States than there were at the beginning of the Great Recession in December 2007, while the share of Americans in the work force plummeted to lows not seen since the 1970s, the national debt doubled, and the middle class got smaller. Some of the most important challenges in making economic growth more inclusive include:

Addressing the Skills Gap: In the United States, we have about six million job openings and seven million unemployed workers. Businesses note that they are eager to fill their vacancies, but they cannot find workers with the right skills. One of our most critical challenges is giving our workers the skills they need to participate in an ever-changing, fast-moving economy. This calls for demand-driven education that gives men and women the technical skills they need now – and also prepares them to be agile, responsive life-long learners who can acquire new skills in our ever-changing workplace.

The Department of Labor is working to align job training with the skills the market demands of its workers, especially as advancing technology changes the types of jobs available in our economy. The Department of Labor, along with state and local governments, industry, and educational institutions, partner together to have substantial positive impact on American workers. This includes programs and initiatives under the Workforce Innovation and Opportunity Act (WIOA), including Jobs Corps and apprenticeship programs.

Gender: Women make up nearly half of the United States' workforce, and mothers provide at least half their families' income in over 40 percent of American households with children under age 18. Over the last decade, technological breakthroughs have fundamentally transformed the U.S. economy. But all too often, women do not fully experience these benefits. Women are invaluable players in the economy, and investing in women is absolutely critical for growing the economy.

In the United States, women are more likely than men to live in poverty and they face significant barriers to economic security and stability, including: occupational segregation; underrepresentation in higher-level positions; disproportionate concentration in low-wage occupations; unequal pay; inadequate workplace flexibility; and pregnancy and sex discrimination. Women, on average, continue to earn less than men, and women are significantly more likely than men to earn minimum wage or less for the work they do.. The gender wage gap results in significant lost wages that add up over women's lifetimes and even affect women's retirement security.

Women-owned businesses also cluster in sectors with lower profit margins and sometimes lack access to adequate capital. This can limit women's ability to invest in the high-technology systems that are transforming the way we do business.

Additionally, women are underrepresented in employment in the science, technology, engineering and mathematics ("STEM") fields, comprising only 26 percent of those employed in computer or mathematics occupations.

- In recent years, the USDOL has awarded small grants to study the feasibility of developing and expanding statewide paid family and medical leave programs. <https://www.dol.gov/wb/media/paidleavegrants.htm>
- Through DOL's Women in Apprenticeship in Non-Traditional Occupations (WANTO) grant program, community-based organizations receive funding to provide employers with technical assistance in recruiting and retaining women in apprenticeship and non-traditional occupations, thereby helping women enter into and succeed in higher-wage, high-growth occupations in industries such as IT, energy, construction, and advanced manufacturing.
- The U.S. Government Executive Orders 11246 and 13665 prohibit federal contractors from discriminating against employees and applicants because of their race, color, religion, sex, sexual orientation, gender identity, or national origin, or because they have discussed, disclosed, or inquired about compensation. Discrimination can occur in many aspects of employment, including recruitment, hiring, job assignments, training,

benefits, promotion, pay, discipline, or other workplace conditions, such as a hostile or harassing work environment.

<https://www.dol.gov/ofccp/SexDiscrimination.html>

<https://www.dol.gov/ofccp/PayTransparency.html>

Youth: Nearly all young people—98.6 percent—hold at least one job between the ages of 18 and 25. The average young person holds 7.2 jobs between ages 18 and 28. Some work part-time or summers only, while others see full-time permanent employment as their path to economic independence. Employment can be beneficial for youth by teaching responsibility, organization, and time management and helping to establish good work habits, experience, and financial stability. There are many advantages to working during high school, especially for low-income youth, including higher employment rates and wages in later teen years and lower probabilities of dropping out of high school. Knowing how to find and keep a job is not only critical for admission to the adult world but also is an important skill for which there is little in the way of formal, structured preparation.

To address the challenges that youth face, the Department of Labor provides funding through the public workforce system under WIOA focused on connecting disadvantaged youth to education and career pathways.

In addition, the Department of Labor implements Job Corps, the largest and most comprehensive, mostly residential, education and job training program for at-risk youth, ages 16 through 24. Job Corps combines classroom, practical, and work-based learning experiences to prepare youth for stable, long-term, high-paying jobs. <https://www.dol.gov/general/topic/training/jobcorps>

YouthBuild is a community-based alternative education program that provides job training and educational opportunities for at-risk youth ages 16-24. Youth learn construction skills while constructing or rehabilitating affordable housing for low-income or homeless families in their own neighborhoods. Youth split their time between the construction site and the classroom, where they earn their high school diploma or equivalency degree, learn to be community leaders, and prepare for college and other postsecondary training opportunities. The Department of Labor administers the program.

https://www.doleta.gov/Youth_services/YouthBuild.cfm

While Pell Grants and IDR plans have significantly eased the financial burden on students seeking postsecondary education, significant challenges continue to exist in encouraging postsecondary affordability and ensuring taxpayers' investment in student assistance programs is well-spent. The United States is taking concrete steps to address these challenges, as described below.

Pell Grants: Programmatic changes alone will not solve the problem of college affordability, but year-round Pell represents a pragmatic effort on the part of Congress and the Department of Education to remove what historically has been a structural impediment to students who want to pursue an accelerated path to graduation, and reap the economic benefits of entering the workforce or starting advanced degrees sooner rather than later. Many institutions have

designed programs that facilitate acceleration through the use of compressed schedules and/or enhanced course offerings during what have traditionally been periods of nonattendance for most students, such as summer.

In the past, the lack of access to Pell Grant funding outside of traditional fall and spring terms prevented many students from taking advantage of the schedule innovations offered by their respective institutions. Year-round Pell removes this impediment. While tuition at some institutions exceeds even the highest Pell Grant award, students at lower cost institutions such as community colleges are often able to cover most of their expenses with funding from Pell Grants. Facilitating these motivated students, many of whom come from economically challenged backgrounds, in achieving the goal of not only graduating but doing so ahead of schedule, can only benefit both those students and American society as a whole.

IDR Plans: In recent years, IDR plans have grown in popularity. However, choosing and enrolling in the right repayment plan is overly complicated by the numerous repayment plans authorized and required by law to be offered to student borrowers. For example, there are currently *five* different major IDR plans widely available to borrowers, all with different eligibility criteria, repayment amounts, and forgiveness terms. There is widespread agreement that the number of IDR plans is confusing and difficult to explain, often discouraging enrollment in any IDR plan and ultimately harming the most vulnerable borrowers.

In the Fiscal Year 2018 Budget, the Administration proposed to greatly simplify student loan repayment by consolidating five IDR plans into a single plan to make choosing a repayment plan less complex. This new IDR plan would set a borrower's monthly payment at 12.5 percent of discretionary income, while eliminating loopholes to ensure high balance borrowers make payments commensurate with their income. For borrowers with undergraduate student debt only, any balance remaining after 15 years of repayment would be forgiven. For borrowers with any graduate debt, any balance remaining after 30 years of repayment would be forgiven.

To support this expedited pathway to debt relief for undergraduate borrowers, the Administration has also proposed efficiencies designed to generate savings that help put the Nation on a more sustainable fiscal path, saving taxpayers \$143 billion over the next decade while insulating current borrowers from changes to their loan programs.

By taking these and other steps, the Administration aims to help more students and families afford the quality college education that can turn their dreams into action and their talents into success.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

With the new administration still developing its policies, we are unable to identify policy gaps at this time.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

With the new administration still developing its policies, we are unable to identify policy gaps at this time.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

With the new administration still developing its policies, we are unable to identify policy gaps at this time.

**AEPR 2017 Individual Economy Report (IER) Questionnaire:
Structural Reform and Human Capital Development**

Viet Nam

Best Practices. *Among your economy's structural reforms in human capital development in the past 5 years (2012-2017), which one do you think has been implemented most effectively? Please identify the top 3 reasons for the effectiveness of this structural reform that could be relevant for other economies.*

In the past five years, Viet Nam has made an array of efforts in radically transforming education, health and social protection so as to achieve significant progress in human capital development. Viet Nam has for decades adopted several goals related to human development, most noticeably the Millennium Development Goals (till 2015) and the Sustainable Development Goals (since 2015). In line with this, the key structural reforms at aggregate level include: (i) trade and investment liberalization which broadened economic opportunities for Viet Nameese enterprises and people; (ii) market-oriented reforms which enhanced freedom and ease of doing businesses; (iii) increasing mobility of labours across sectors and geographical regions; and (iv) promoting access to economic opportunities for women, youth, people in the mountainous and remote areas, and disabled people. Specific reforms in Viet Nam's health and education comprised of: (i) gradual relaxation of entry for private sector (including foreign suppliers); (ii) market-oriented reforms of training curricula; and (iii) State-budget-funded trainings and retrainings for labours to meet practical demand.

The above streams of reforms have brought about major changes. Economic growth has also been inclusive, as accompanied by high elasticity of employment. Productive sectors gradually accounted for an increasing share in employment structure. The share of agricultural employment decreased rapidly (from nearly 80 per cent during the late 1980s down to just 41.5 per cent in 2016), with the labor force moving to industrial and service sectors. Within the agricultural sector, positive structural change, with increased shares for more productive and higher income sub-sectors were recorded. The share of formal employment also increased, from 28.2 per cent in 2007 to 33.7 per cent in 2014. As a result, Viet Nam successfully reduced its relative gap in labor productivity. In 2016, the average labor productivity attained USD 3,853/person, with a growth rate of 5.3 per cent relative to 2015.

Effectiveness of structural reforms on human capital development was attributed to (i) long-term engagement in structural reforms and human capital development; (ii) alignment of structural reforms with supportive measures to ensure participation and shared benefits of various labour groups; and (iii) the wide range of cooperation activities to support human capital development in Viet Nam.

Challenges to Inclusiveness. *Considering your economy's current situation, what are the three most important challenges your economy faces in making economic growth more inclusive? Please explain.*

First, Viet Nam is encountering the risk of economic growth slow-down, while the contribution of domestic companies to growth has been slowly improved. Viet Nam has experienced lower economic growth in recent years (average of 5.9% per annum in 2011-2015; 6.2% in 2016) as compared to previous period (average of 7.0% per annum in 2006-2010, and 7.5% in 2001-2005), partly due to difficulties in external economic environment (such as the global financial crisis and slow economic recovery in various part of the world). Economic growth and export growth have also become more dependent upon FDI sector, while this sector is weak linked with domestic enterprises. Within the domestic economy, linkages between the formal and the informal sectors had lagged behind in the growth process, hence further aggravating the problems of a multi-speed economy.

Second, the education and health systems are struggling in response to the requirements of the new stage of development. The scale and quality of higher education and vocational training in Viet Nam still lag behind practical need. Enhancing autonomy of public service providers – which are dominant in these subsectors – has been emphasized, though Viet Nam is still in search for the optimal extent of such autonomy. Liberalizing prices of education and health services presents another challenge, as Viet Nam strives to balance the need to maintain reasonably low inflation and inducement of quality improvement in such subsectors. Maintaining equality in access to proper health and education services is no easy task, due to the uneven quality of staff in these subsectors, being more modest at the grassroot/rural areas and being more competent in central/urban areas.

Third, Viet Nam's fiscal space has become considerably narrowed. In the absence of adequate revenues to compensate for reduction of import tariff, Viet Nam's budget became more constrained. Prolonged budget deficit and sizeable public debts undermined capacity of the Government to make investment in hard and soft infrastructures, including such sectors as health and education. Financing retrainings for labours – especially those in remote, rural or mountainous areas - to adapt to new labour market condition, similar, is under difficulty.

Policy Gaps. *Considering your economy's current situation, what are your economy's three biggest policy gaps with respect to structural reform in human capital development? Please explain.*

- Increasing economic efficiency by accelerating domestic reforms in tandem with efforts to achieve greater regional and international integration through (i) the implementation of public administration reforms; (ii) accelerate structural reforms in the fields of public investment, finance and banking, State-owned enterprises and agriculture; (iii) Improving business environment on a competitive and equitable basis; and (iv) improvement of the efficiency and flexibility of the labor market

- Enhance connectivity and technological readiness as well as nurturing innovation through promoting industrial and service clustering, agricultural product chains and increasing the size of enterprises; public investments in key infrastructure, thus supporting connectivity and technological readiness; Reshaping the capital market to develop long-term financing and venture capital that supports R & D and innovation
- Renovation of the social protection system to secure greater levels of coverage and efficiency, thereby helping people and the economy to better cope with external shocks, improve their capacities to make investments for the future and seize productive employment opportunities.

Action Plans. *Considering the challenges and policy gaps you have previously identified, what are the short- and medium-term plans of your economy to address these challenges and gaps? What obstacles do you foresee, if any?*

- Short-term: Improving business environment and enhancing national competitiveness by attaining the average of ASEAN-4 (Malaysia, Thailand, Indonesia and the Philippines) in terms of Doing Business criteria in 2017 and reaching average scores of ASEAN-4 in terms of competitiveness by 2020.
- Medium-term: Restructuring the economy (during 2016-2020) in linkages with transformation of economic growth model, increasing the quality of growth, improving labor productivity and competitiveness of the economy. The restructuring of the economy bases on major tasks of (i) strong development of domestic private sector, and adequate attraction of FDI (ii) restructuring state sector, including SOEs, public investment, state budget and public services sector; (iii) restructuring of financial market with focus on credit institutions and securities market; (iv) modernization of planning the restructure of economic sectors and zones associated with increasing productivity, quality and efficiency; and (v) restructuring of major production markets such as land market, labor market and technological and scientific market.

Role of Regional Cooperation. *What role can regional cooperation and international organizations such as APEC play in addressing the challenges and policy gaps you have previously identified?*

- Continue working on policy framework on enhancing the labor mobility in the region;
- Enhancing cooperation of project/initiatives on human resource development directed towards vulnerable and disadvantaged groups in society, such as persons with disabilities, women and youth, as well as mobile workers;
- Trainings and workshops related to initiatives and experiences in the adaption of education and health system in response to new requirements;

- Technical assistance on renovation of social protection system and increasing efficiency of the economy.



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Prepared or Printed by

Asia-Pacific Economic Cooperation Secretariat

35 Heng Mui Keng Terrace, Singapore 119616

Telephone: (65) 6891 9600 Facsimile: (65) 6891 9690

Email: info@apec.org Website: www.apec.org