UNDER EMBARGO UNTIL 12.00 HRS., BANGKOK TIME, THURSDAY, 28 APRIL 2016

ECONOMIC AND SOCIAL SURVEY OF ASIA AND THE PACIFIC 2016

Nurturing productivity for inclusive growth and sustainable development

UNITED NATIONS
ESCAP
Economic and Social Commission for Asia and the Pacific

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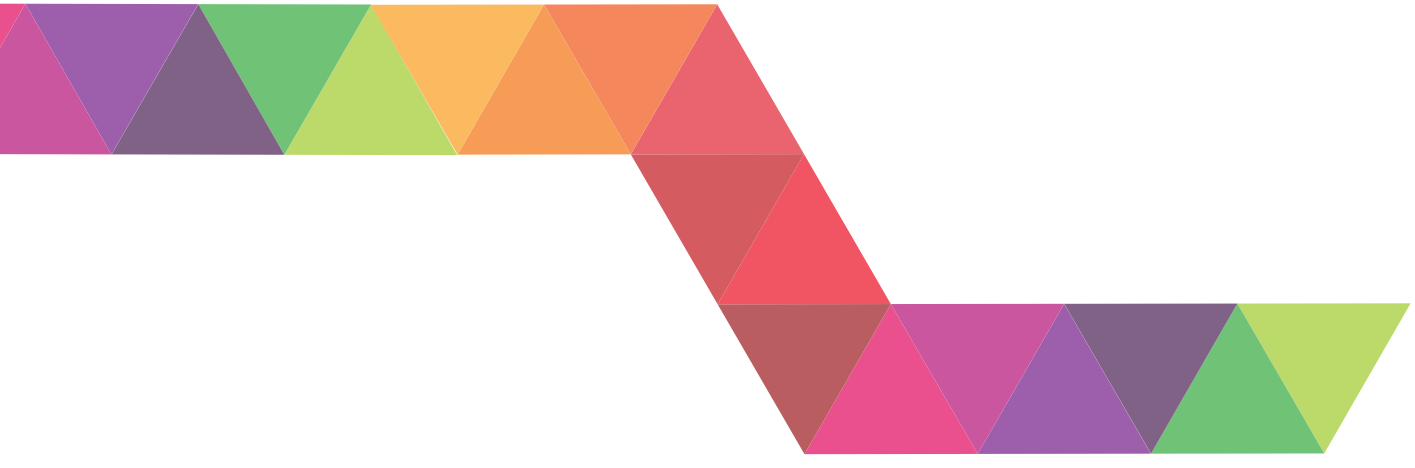

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Nurturing productivity for inclusive growth and sustainable development

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FOREWORD

Inclusive and sustainable economic growth is essential for the success of the 2030 Agenda for Sustainable Development. Robust and consistent economic performance is also necessary to implement the Addis Ababa Action Agenda on development financing and the Paris Agreement on climate change. In Asia and the Pacific, however, the pace of economic expansion has decelerated significantly in recent years. Reviving sustainable economic growth in this, the most populous region of the world, is vital to keeping the promises of these three transformative and universal new global agreements.

The 2016 edition of the ESCAP *Economic and Social Survey of Asia and the Pacific* highlights the importance of increasing productivity to reinvigorate economic growth and support sustainable development. The *Survey* provides a detailed analysis of factors that have caused the recent economic and productivity slowdown in the region, and examines their implications for eradicating poverty, reducing inequality and improving employment prospects. It explores issues of the rising middle class and rapid urbanization as examples of multifaceted challenges to sustainable development and analyzes issues, such as ageing populations, natural disasters and participation of women in the labour force.

To bolster economic growth in the light of fragile global economic conditions, the *Survey* argues for higher priority to be given to stimulating domestic and regional demand through higher levels of productivity and increases in real wages. Just as strengthening productivity will contribute to the achievement of many of the Sustainable Development Goals, investing in the Goals will nurture growth in productivity, creating a virtuous cycle between sustainable development and inclusive economic growth.

Emphasizing the importance of greater labour productivity in agriculture, the *Survey* argues that a modest increase in agricultural productivity between 2016 and 2030 could lift an additional 110 million people from poverty. It also underscores the importance of industrialization, especially in rural areas, and the rapid transformation towards service-based economies. The *Survey* also contains valuable proposals to increase productivity, including an emphasis on the importance of higher-quality education to promote innovation and enhance skills.

I commend ESCAP for this insightful and thorough analysis. On the basis of this report, policymakers in the Asia-Pacific region and beyond will be better able to design and adapt national policies to support productivity-driven economic growth and sustainable development.

Ki Moon Ban

BAN Ki-moon
Secretary-General of the United Nations

April 2016

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PREFACE

A number of distinct phases of economic growth have occurred in the Asia-Pacific region over the past four decades. In the 1980s and 1990s, when surplus labour in agriculture began to migrate to jobs in manufacturing and services, regional economies underwent major structural changes. With the emergence of China as the "factory of the world" and the currency adjustments following the 1997 Asian financial crisis, regional economic growth became increasingly dependent on the export of merchandise to advanced economies. When external demand collapsed during the global financial and economic crisis that started in 2008, concerns were raised that the Asia-Pacific region would also be severely affected. However, after a brief downturn, the region's economic growth rate recovered on the back of fiscal stimulus programmes and rapid credit growth, demonstrating the dynamism of Asia and the Pacific, which accounted for about two thirds of global growth in the years that followed.

This resilience reflected the region's increased purchasing power, but this was also a time when households and corporates became highly leveraged, despite the existence of excess capacity in certain sectors. Consequently, asset bubbles began to emerge in the context of ample liquidity injected into the global system by the advanced economies. This situation proved unsustainable, and a series of events and trends – sluggish exports, China's policy-led economic growth moderation, commodity price declines, strengthening of the United States dollar and normalization of its monetary policy, growing inequality and demographic challenges – have pushed the region into a low-growth and high-risk scenario.

The next phase of Asia-Pacific economic growth should, therefore, be driven by further rebalancing towards generation of domestic and regional demand, as well as by broad-based productivity gains. Supporting this strategy requires higher and more targeted fiscal spending, enhanced skills for workers and better infrastructure. Improving agricultural productivity and rural industrialization will also be critical, as 55% of the people in the Asia-Pacific region still live in rural areas. Productivity-led growth will, however, need to be accompanied by steady increases in real wages to support domestic demand and implementation of the 2030 Agenda for Sustainable Development. This approach will improve the quality of growth by making it more inclusive and sustainable.

Recent volatility in financial markets, including exchange rate depreciations, is a reflection of the changing underlying dynamics, which policymakers are finding increasingly challenging to manage. Consumer spending is constrained by high household debt and a declining share of wages in national incomes, while private investment has not been as forthcoming in view of the high levels of corporate debt as well as domestic and global uncertainties. Moreover, despite record low overall inflation in the region, declining global commodity prices have had adverse impacts on commodity exporters, and manoeuvring room for monetary policy has been limited by capital outflow pressures as well as domestic financial stability concerns. Along with the economic slowdown and emerging policy challenges, progress on poverty reduction is slowing, inequalities are rising and prospects of decent employment are weakening.

These are some of the cross-cutting challenges facing the region that are dealt with in this issue of the *Survey*, which also contains analyses and policy suggestions tailored to specific subregions and countries. These challenges include population ageing and fiscal sustainability issues in East and North-East Asia; economic diversification and development of the services sector in North and Central Asia; natural disasters and risk-sharing mechanisms in the Pacific; female labour force participation in South and South-West Asia; and reforms of tax policy and administration in South-East Asia.

Fiscal policy can play an important role in supporting domestic demand through countercyclical measures and in strengthening the foundations for inclusive and productivity-led growth through better education, health care and infrastructure. A proactive fiscal policy could also alleviate the pressure on public services arising from rapid urbanization and a rising middle class in the region. One caveat is that such fiscal measures should be accompanied by sustained reforms towards achieving an efficient and fair tax system which delivers the necessary revenues.

Active labour market policies are also needed to support employment in times of economic slowdown and to foster a virtuous cycle in which high-quality education and vocational training increase labour productivity and translate into higher wages. At the same time, enhancing social protection for the poor and near-poor is an urgent priority as these groups tend to be highly vulnerable to economic downturns. Regional economic cooperation and integration, particularly in the areas of capital markets, intraregional trade, infrastructure development, and energy and information and communications technology connectivity, are other important avenues to boost domestic and regional demand.

It is also significant that total factor productivity growth has slowed considerably in recent years, as suggested by a sharper decline in output than can be explained by changes in employment and investment. Although cyclical elements may also be in play, fundamental bottlenecks in skills and infrastructure seem to be holding back the productivity potential of the region.

Access to high-quality education and higher research and development spending are important for effective diffusion of technology and innovation. There are also opportunities for productivity gains to be made from agglomeration and scale economies associated with urbanization – for which high-quality infrastructure is critical. At the same time, to ensure that productivity growth is inclusive and broad-based, greater attention needs to be paid to revitalizing agriculture and the rural economy, as well as to enhancing financing for small and medium-sized enterprises. Finally, there is a need to reorient the discussion on productivity to reflect such issues as intensity of resource use − particularly that of energy − and the associated environmental degradation.

All of these issues are closely related to the 2030 Agenda. As the most comprehensive intergovernmental platform for regional cooperation in Asia and the Pacific, ESCAP is strengthening its work in the areas of financing for development, science, technology and innovation, trade facilitation, energy and capacity-building, all of which are critical enablers and means of implementation for sustainable development.

The multidimensional nature of poverty and inequality requires multidimensional solutions. This is why ESCAP is focused on supporting the efforts of member States to revive economic growth across the region and to make it more inclusive, resilient and sustainable.

Shamshad Akhtar
Under-Secretary-General of the United Nations and
Executive Secretary, United Nations Economic and
Social Commission for Asia and the Pacific

EXECUTIVE SUMMARY

The year 2016 represents a historic milestone in global development policymaking as it marks the beginning of the 2030 Agenda for Sustainable Development which, with its 17 Sustainable Development Goals and many targets, provides a comprehensive and universal framework for development policy over the coming 15 years. This is also an opportune time to rethink the region's development strategy, its overreliance on exports destined for developed economies and more recently the extent of the sharp increase in private sector debt leverage. With the centre of economic gravity continuing to move eastwards, it is time for the Asia-Pacific region to adopt a development model that relies more on domestic and regional demand that, among other things, nurtures inclusiveness, equality and social stability.

Eight years after the global financial and economic crisis that started in 2008, the impact of low economic growth in developed economies continues to linger in the Asia-Pacific region. Despite the extraordinary monetary and fiscal measures that have been taken to overcome the effects of those crises, global aggregate demand remains weak and the outlook uncertain. The region's continued exclusive reliance on export-led development is thus futile. At the same time, economic expansion in China, the engine of regional as well as global economic growth, is moderating; progress in reducing poverty is slowing and inequalities are rising, while demographic pressures, an expanding middle class and rapid urbanization are posing complex economic, social, environmental and governance challenges.

Added to these unfavourable phenomena is a sharp rise in private debt in some major economies as the region navigates through the impacts of depreciating currencies and rising interest rates in the United States. Nonetheless, the region has the wherewithal and dynamism to revitalize economic growth amid these challenging circumstances. Improving the quality of this growth by making it more inclusive and sustainable, however, is a more demanding task.

To bolster economic growth in Asia and the Pacific and effectively pursue the 2030 Agenda, Governments will need to strengthen efforts to stimulate domestic and regional demand, according to the *Economic and Social Survey of Asia and the Pacific 2016*. In addition to raising public spending, sustained increases in domestic demand will require steady growth in real wages. However, growth in productivity – after having increased markedly over the last couple of decades – has declined in recent years. This situation is worrying not only as wage growth has lagged productivity growth, but also as wage growth ultimately depends on productivity growth. Thus, if the region is to shift to a more sustainable development strategy that is driven by domestic demand, greater focus must be placed on productivity along with commensurate increases in real wages. Thus, it is argued in the *Survey* for 2016 that a productivity-driven, wage-led approach would enable countries to increase their aggregate supply and their aggregate demand, thereby enhancing the well-being of their societies.

The first chapter of the *Survey* contains an examination of the macroeconomic peformance of and outlook for the Asia-Pacific region, analysing the implications of some of the economic challenges that the region is facing. It also contains a discussion on several policy options, with emphasis on the importance of fiscal policy. The chapter also includes an examination of the impact of the recent economic slowdown in the Asia-Pacific region in terms of its effects on poverty, inequality and employment prospects, along with challenges posed by an expanding middle class and rapid urbanization. In the second chapter, the diversity of the region is considered by providing a more disaggregated analysis of economic issues and challenges that each of the five subregions is facing. In doing so, a distinct issue is the focus for each subregion, which provides an opportunity for increased understanding of a variety of experiences and policy considerations. Finally, the third chapter contains analyses on the importance of productivity in the Asia-Pacific region and a set of policy recommendations on how to strengthen productivity growth.

Economic outlook and policy challenges

The economic outlook for developing Asia-Pacific economies is broadly stable but is clouded by uncertainty. Economic growth in 2016 and 2017 is forecast to increase marginally to 4.8% and 5%, respectively, from an estimated 4.6% in 2015, as a confluence of macroeconomic risks continues to buffet the region. These risks include: a somewhat uncertain outlook for the Chinese economy in the backdrop of a fragile global economic recovery; weak consumption and investment trends in major developing economies in the region; volatility in exchange rates, including that due to low oil prices for commodity exporters; growing private household and corporate debt; and an ambiguous path of interest rate increases being pursued by the United States. These uncertainties are interconnected and thus complicated to manage.

Prospects of an export-led recovery in developing Asia-Pacific economies remain broadly subdued due to the weak economic outlook for the European Union and Japan alongside the somewhat better growth performance that is expected in the United States. For many exporting economies in the region, particularly commodity-dependent economies, this challenge is compounded by moderating growth of the Chinese economy, which has been partly driven by much-needed rebalancing to sustain growth in the medium term. Indeed, with global commodity prices having declined to levels last seen at the time of the outbreak of the global financial and economic crises in 2008, with the most dramatic reductions having been observed recently in the case of oil, resource-dependent economies endured severe declines in their GDP growth rates in 2015.

The outlook for domestic demand, which will need to play a major role in supporting any future growth in most regional economies, is also expected to remain rather constrained. In some economies, this situation is partly due to the relatively high levels of household and corporate debt that have accumulated at a rapid pace over the past few years. High inflation in some economies and declining real wages are also contributing factors. In going forward, a larger share of household incomes and corporate earnings will be directed towards debt repayment, further constraining the impetus to increased domestic demand. Investment will also be affected by general uncertainty, excess capacity and low utilization rates, making investors wary of making long-term decisions. However, some support for growth in domestic demand may come from the expected progress in the reform policies of major developing economies in the region. Moreover, several lower-income economies are experiencing robust economic expansion fueled by higher levels of foreign investment and rapid growth in domestic credit, albeit from a low base. Policymakers should ensure, however, that such investments contribute to economic diversification and that credit growth does not hinder financial stability.

In the context of high levels of private debt, gradual yet expected increases in interest rates in the United States may increase the pressure on capital to flow out of the Asia-Pacific region. In turn, this could lead to higher interest rates in the region. The prospect of higher domestic financing costs does not bode well for growth in domestic demand or for fixed investment. Yet, if economies choose to maintain their interest rates or reduce them because of lower inflation, they may experience higher exchange rate pressures. Recent depreciation of the Chinese currency has already put stress on other currencies in the region. It is this tension in policy considerations that is increasing the level of "uncertainty" – *the* factor that is the ultimate detriment to investment.

While inflation is expected to remain low in the region as a whole, reaching a multi-decade low of 3.7% in 2016 compared with 4.1% in 2015, there is considerable divergence between subregions and individual economies. For instance, in economies with sizeable commodity exports, subdued commodity prices weakened their terms of trade and external account performance, which resulted in significant currency depreciations and higher inflation rates. In contrast in other economies, an overall low-growth, low-inflation environment, all things being equal, would suggest that there is further room for an easy monetary policy stance, although considerations relating to financial stability and exchange rate volatility are likely to influence the conduct of monetary policy. However, while many economies have continued lowering their policy interest rates, this approach so far has not had a notable impact on economic growth.

Countercyclical fiscal policy, unlike monetary policy, can potentially play a more supportive role in enhancing economic growth, particularly as most developing countries in the region, by and large, have relatively low levels of government debt, although debt servicing costs are high in some countries. Moreover, fiscal policy, particularly spending on education, health and infrastructure, has a significant impact on the distribution of income and opportunities and on long-term economic growth. In keeping in view their development needs, Governments of economies in the region must recognize that there is no mechanical or universally accepted

threshold for limiting public debt. Ultimately, each country needs to assess the costs and benefits of higher public debt, keeping in mind that the long-term sustainability of fiscal positions also depends on sufficient, consistent and equitable tax revenues.

Even as economic growth plateaus in Asia and the Pacific, it is not clear that growth in the past has been sufficiently inclusive, given the weak employment growth in 2015 for the region as a whole coupled with the mixed progress that has occurred in enhancing the quality of employment. These dynamics are also contributing to concerns about the extent of poverty reduction and rising inequality in the region. Available data on the post-crisis period indicate that some major developing economies, accounting for a large share of the population in the Asia-Pacific region, are experiencing a decelerating trend in the rate of poverty reduction. Similarly, indicators of income inequality have worsened in recent years. In particular, the outpacing of wage growth through increases in productivity in many developing economies in the region has led to more unequal distribution of incomes between capital and labour. Thus, ensuring steady increases in wages is one of the important factors for reducing poverty and inequality.

Active labour market policies can support employment in times of economic slowdown and foster a virtuous cycle in which good-quality education and vocational training increases labour productivity and this in turn translates into higher wages. Also, a productivity-driven, wage-led approach has a higher chance of addressing issues of poverty and inequality and supporting sustained increases in economic growth. At the same time, enhancing social protection for the poor and near-poor is critical as these groups tend to be highly vulnerable to economic downturns. Greater social protection in the region can also support regional economies in boosting the role of domestic demand in economic growth by reducing the need for precautionary savings. Regional economic cooperation and integration, particularly in the areas of capital markets, intraregional trade, infrastructure development, and energy and information and communications technology (ICT) connectivity, are other important avenues for boosting domestic and regional demand.

Despite the economic slowdown of recent years, faster growth in previous decades has resulted in a noticeable increase in the size of the “middle class” in many countries in the region. An expanding middle class, with higher disposable incomes, represents an increasing pool of domestic demand that can be tapped by economies to reduce their dependence on the struggling external sector. However, a rising middle class also tends to lead to increased demand for public services that go beyond basic needs, such as better-quality education; decent health, water and recreational services; reliable energy and ICT infrastructure; and clean air, along with less congested transport facilities. Such demands put pressure on Governments to provide these services and, in the case of expectation gaps, can lead to social tensions. Particular attention should be given to the group earning just above $2 a day, a “transitional class” that remains very vulnerable to falling back into poverty due to external shocks. Governments should ensure that social protection is provided especially for this group in order to cement their position in the middle class.

A particular feature of the expansion of the middle class and the wider economic growth process in the region is the phenomenon of rapid urbanization. Despite the positive contribution of cities to economic growth, not all urban dwellers have benefited from this transformation, as they lack access to many basic services and rely on the informal sector for many of their needs. Rapid urbanization has also significantly raised the region’s exposure to natural hazards by exacerbating existing risks and creating new ones. Dealing with these challenges requires government policies that, among other things, would lead to development of the necessary infrastructure and improved social support structures. Implementing such proactive policies, however, requires sufficient government funding, especially at the local level.

Perspectives from subregions

The Asia-Pacific region is vast, varied and rich in development experiences. Consequently, the development challenges faced by the region are quite diverse. A one-size-fits-all approach to development cannot and should not be followed. Rather, the specific conditions of each country or at least different subregions should therefore be evaluated separately, keeping in view their respective historical context, social and political traditions, and aspirations.

In East and North-East Asia, moderating growth in China and the Republic of Korea together with Japan’s weak growth path and stubborn deflationary pressure depressed the subregion’s economic expansion in

2015. Key uncertainties to the outlook for the future are whether China's medium-term growth rate will settle around 6.5% and whether the Japanese economy would return to recession if the consumption tax is increased in 2017 as planned. As decelerating growth in China has been accompanied by heightened economic uncertainty, an immediate challenge is to manage the transition in China without causing too many negative spillovers into the regional and global economy. The size of the working-age population in all major subregional economies is projected to shrink after 2020 to the extent that the elderly could account for up to one third of the subregion's total population by 2035. That occurrence will pose a serious threat to the economic and social development of the subregion; its impact on fiscal sustainability, especially on the provision of social security, could be substantial.

The subregional economies in North and Central Asia faced a marked deterioration in economic growth performance and heightened macroeconomic instability in 2015. In most of these countries, a deep plunge in the global prices of oil, gas and minerals slashed export earnings and fiscal revenues, weakened terms of trade and resulted in steep currency depreciations and multi-year high inflation. The outlook is very uncertain and the risks are clearly tilted to the downside. The current turmoil serves as a stark reminder that the subregion needs to diversify its growth engine beyond resource-based sectors. Although infrastructure connectivity has improved in recent years, reforms are needed to create vibrant business support services to complement a high value-added manufacturing sector. The challenge is to raise the required financing for diversification and push forward deregulation in a calibrated manner, such as easing market entry, while having in place strong regulatory bodies that protect consumer interests and ensure fair competition.

In the Pacific subregion, overall economic growth in 2015 was driven largely by elevated production of liquefied natural gas in Papua New Guinea, which accounts for 60% of output in Pacific island developing economies. This situation, however, masks much slower economic expansions and even contractions in other economies. The near-term growth outlook is set to weaken as capital inflows into Papua New Guinea's mineral sector have passed their peak levels, while dry conditions brought about by the El Niño weather phenomenon will constrain subsistence agriculture. Given their small population size and land area and remote geographic location, Pacific island developing countries are highly exposed to natural hazards and meteorological extremes. Public policies have been focused on enhancing an individual country's ability to cope with natural disasters but the sheer scale of those disasters calls for closer and perhaps more innovative partnerships between the Pacific island economies and the international development community.

In South and South-West Asia, India's economy is gradually gaining growth momentum amid making steady, albeit uneven, progress on policy reforms to attract foreign investment and revive stalled infrastructure projects. The positive spillovers of stronger growth in India into other major economies in the subregion are, however, small in view of the limited trade and financial interlinkages. Despite a recent increase, the subregion's economic growth rate remains below its potential. One option to close the output gap is to increase the participation rate of females in the workforce; currently, that rate is an average of 43% across countries in the subregion. Policy efforts have been made to overcome core barriers and offset disincentives for women to work. However, the key question is whether such policies are bold enough to alter social norms that discourage or even prohibit a role for women outside the household sector. Reforms to ease supply-side constraints, such as severe energy shortages and infrastructure deficits, are also critical in reducing production costs and promoting export competitiveness. Over time, such measures will help to relieve inflation and narrow the current account shortfalls, promoting greater macroeconomic stability.

In South-East Asia, economic growth was stable but at a low level in 2015. Exports declined amid China's growth moderation, and household spending in major economies was also held back by domestic factors, such as slower job creation in Indonesia and high household debt levels in Malaysia and Thailand. Countries with lower income levels will continue to enjoy relatively robust economic expansion, thus narrowing the development gaps between frontier economies and emerging economies in the subregion. The recent launch by the Association of Southeast Asian Nations of the ASEAN Economic Community should provide a good opportunity for frontier economies to diversify their growth engines. However, while foreign investment helps to create more jobs, it may not necessarily benefit government revenue to the extent expected due to various tax exemptions and reductions that are in place. Such tax privileges also complicate tax administration and result in lower levels of compliance. Competition to offer more generous tax privileges should be addressed through stronger regional tax cooperation. Tax reforms are also needed to meet the rising demand for public social services and urban infrastructure.

Importance of increasing productivity

The relatively strong economic growth witnessed in the Asia-Pacific region over the last few decades was driven primarily by factor accumulation, that is, by increases in the labour force and the capital stock through investment, including from abroad. Nevertheless, significant increases in productivity, particularly in labour productivity, also took place throughout the region, such that the gap in the level of labour productivity with developed economies has roughly been halved: labour productivity in the developed economies was about 12 times higher than that in the Asia-Pacific region in 2013 compared with 24 times higher in 1990. Moreover, as a reflection of higher levels of labour productivity, significant improvements in wage levels in the region have also been observed. For instance, in 2013 real wages in the region were more than 240% higher than in 1999 compared with a global increase of only 33%.

Economic growth and productivity growth have declined, however, in the aftermath of the 2008 economic and financial crises. Growth of total factor productivity (TFP) has declined by more than half in developing countries in the region, averaging only 0.96% between 2008 and 2014, while labour productivity has declined by more than 30% to 3.9% in 2013. Similarly, despite increases in wage levels, growth in real wages has not been commensurate with the observed increases in productivity levels. These trends are worrying as economic and productivity growth and sustained increases in real wages are vital for development. They also highlight the region's vulnerability to external shocks stemming from its reliance on exports to developed economies.

In most developing Asia-Pacific economies the contribution of the service sector to labour productivity growth has been the most important one. Indeed, many economies in the region have shifted from an agricultural to a service-based economy, leapfrogging the manufacturing stage. This shift is, however, coming at a too early level of development in many countries in the region and may not be conducive for fostering development. Across the globe, countries that have developed successfully have generally done so on the back of rapid industrialization. It is therefore imperative for these countries to reindustrialize and to stimulate productivity growth.

In this regard, strengthening the role of agriculture along with rural industrialization is vital not only because agriculture accounts for one in four workers and because 55% of people in the region live in rural areas, but also because greater labour productivity in agriculture would enable higher incomes in the rural sector, which would contribute to strengthening domestic demand and to reindustrialization of economies. Thus, the agricultural sector continues to play a significant role in poverty alleviation in the region. Indeed, a simulation exercise revealed that, if growth of TFP and fertilizer use remains unchanged and the recently observed decline in the use of farm machines is reversed, the corresponding increase in agricultural productivity could lift at least 110 million people out of extreme poverty in the next 15 years.

As the share of industry and services in GDP increases, so does aggregate productivity growth, owing to the fact that productivity in these sectors is generally higher, being more capital-intensive, than in agriculture. However, the skill bias of modern technology and rapid capital accumulation can reduce the pace of absorption of often unskilled labour freed from the agricultural sector, resulting in sluggish employment growth. This trend can be observed by the fact that agriculture's share in GDP in developing economies in the region has declined much faster than the corresponding decline of total employment in agriculture. Moreover, in many countries the relative position of agricultural incomes, measured by agricultural value added per worker, in comparison with GDP per capita has declined significantly over the years. The region has thus experienced faster economic growth without a corresponding ability to absorb the expanding labour force; at the same time, agricultural workers have become relatively poorer.

The Sustainable Development Goals provide an entry point to strengthen productivity. At the same time, focusing on productivity provides an overarching framework for countries to tackle the achievement of several Goals, thereby creating a virtuous circle between the Sustainable Development Goals and productivity. It must be recognized though that at an early stage of development productivity-driven growth may not immediately lead to increases in decent jobs and higher wages. An active and effective role of Government is therefore imperative to provide the necessary cushion in the meantime.

Raising agricultural productivity must be at the centre of the focus to end poverty (Goal 1) and end hunger and achieve food security (Goal 2). Increasing productivity, especially in the agricultural sector, contributes

to the reduction of poverty directly by positively affecting the rural households' income obtained from agricultural and non-agricultural activities. Efforts to eradicate poverty and achieve higher levels of productivity in agriculture would also foster development of the rural sector and encourage industrialization (Goal 9).

As higher levels of productivity in agriculture will free up labour from that sector, which would be available to work in the non-agricultural sector, it is important to consider a broader development strategy. Focusing on accommodating the "agricultural push" of labour would also provide an opportunity for moving towards full and productive employment (Goal 8), especially if a structural change could be achieved in following an agriculture-industry-service sequence and rural industrialization through small-scale industries. Doing so would, however, require additional training of people, particularly of labour with low-level skills. Thus, mechanisms are needed to ensure that populations have access to good-quality education and lifelong learning (Goal 4). Combating climate change and its impacts (Goal 13) could also produce a beneficial impact on productivity growth, especially productivity in the agricultural sector.

To identify gaps and take relevant steps to accelerate productivity growth, enhance its level and share the resulting gains, it is important to understand what drives productivity. Key factors that have a particularly strong impact on productivity are: labour quality, which includes knowledge and skills, as well as the health of the workforce; innovation through enhanced openness via trade, foreign direct investment and participation in global value chains; adequate infrastructure, such as transport, energy and ICT; and access to finance, especially by small and medium-sized enterprises.

In addition to promoting policies that strengthen the contribution of these factors to productivity growth, it must be remembered that such policies do not work in isolation; a comprehensive, cross-sectoral and integrated approach is needed. For instance, the issue of extensive "surplus labour" in agriculture cannot be solved within the boundaries of agriculture alone. Appropriate strategies and policies are needed to absorb the agricultural push of labour from the agricultural sector and to accelerate aggregate productivity growth. For instance, these policies include developing the non-farm sector by fostering rural industrialization through small-scale industries. Such measures can strengthen linkages between agricultural and non-agricultural sectors and would lead to backward-forward and production-consumption linkages within agriculture and between the agricultural and non-agricultural sectors. Governments' policies should also facilitate such movements by retraining workers to improve their skills thus making them more employable and offering productivity-based financial incentives for encouraging such movements.

The importance of good-quality education in enhancing productivity on a sustained basis cannot be overemphasized. Such education provides people with the skills required to apply current technologies as well as to be able to assimilate, adapt and develop new technologies and adjust to changing economic conditions. Such endeavours to promote good-quality education need to be complemented with active research and development programmes that facilitate innovation and technical education through vocational schools that help upgrade skills of the workforce. Similarly, investment in infrastructure, physical as well as financial, together with efforts to improve accessibility of enterprises to information and communications technology would significantly contribute to productivity growth in the industrial sector, while also spurring foreign direct investment-related positive spillover effects. Most such initiatives would require strong support from the Government, and that in turn would require strong fiscal positions.

Finally, Governments will need to step in to ensure that increases in labour productivity are passed on to workers so that economies in the region will be able to shift to a development strategy in which domestic and regional demand plays a greater role. Doing so will require linking gains in labour productivity more closely with increases in wage levels. Strengthening the enabling environment for collective bargaining is one necessary component in a Government's policy arsenal; enforcing minimum wages, in consultation with the private sector, is another important policy tool. Similarly, balanced use of social protection measures, including unemployment insurance and pensions keeping in view labour market flexibility considerations, could also foster domestic demand and smoothen the reallocation of workers between sectors. Again, effective and credible implementation of a host of such policies will be contingent upon strong and sustainable fiscal positions, which would be difficult to attain without reforming tax administration and improving revenue collection.

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CONTENTS

CONTENTS *(continued)*

BOXES

CONTENTS *(continued)*

FIGURES

CONTENTS *(continued)*

TABLES

EXPLANATORY NOTES

Analyses in the *Economic and Social Survey of Asia and the Pacific 2016* are based on data and information available up to the end of March 2016.

Groupings of countries and territories/areas referred to in the present issue of the Survey are defined as follows:

- ESCAP region: Afghanistan; American Samoa; Armenia; Australia; Azerbaijan; Bangladesh; Bhutan; Brunei Darussalam; Cambodia; China; Cook Islands; Democratic People's Republic of Korea; Fiji; French Polynesia; Georgia; Guam; Hong Kong, China; India; Indonesia; Iran (Islamic Republic of); Japan; Kazakhstan; Kiribati; Kyrgyzstan; Lao People's Democratic Republic; Macao, China; Malaysia; Maldives; Marshall Islands; Micronesia (Federated States of); Mongolia; Myanmar; Nauru; Nepal; New Caledonia; New Zealand; Niue; Northern Mariana Islands; Pakistan; Palau; Papua New Guinea; Philippines; Republic of Korea; Russian Federation; Samoa; Singapore; Solomon Islands; Sri Lanka; Tajikistan; Thailand; Timor-Leste; Tonga; Turkey; Turkmenistan; Tuvalu; Uzbekistan; Vanuatu; and Viet Nam
- Developing ESCAP region: ESCAP region excluding Australia, Japan and New Zealand
- Developed ESCAP region: Australia, Japan and New Zealand
- Least developed countries: Afghanistan, Bangladesh, Bhutan, Cambodia, Kiribati, Lao People's Democratic Republic, Myanmar, Nepal, Solomon Islands, Timor-Leste, Tuvalu and Vanuatu.
- Landlocked developing countries: Afghanistan, Armenia, Azerbaijan, Bhutan, Kazakhstan, Kyrgyzstan, Lao People's Democratic Republic, Mongolia, Nepal, Tajikistan, Turkmenistan and Uzbekistan
- Small island developing States: Cook Islands, Fiji, Kiribati, Maldives, Marshall Islands, Micronesia (Federated States of), Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Timor-Leste, Tonga, Tuvalu and Vanuatu
- East and North-East Asia: China; Democratic People's Republic of Korea; Hong Kong, China; Japan; Macao, China; Mongolia and the Republic of Korea
- North and Central Asia: Armenia, Azerbaijan, Georgia, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, Turkmenistan and Uzbekistan
- Pacific: American Samoa, Australia, Cook Islands, Fiji, French Polynesia, Guam, Kiribati, Marshall Islands, Micronesia (Federated States of), Nauru, New Caledonia, New Zealand, Niue, Northern Marina Islands, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu
- Pacific island developing economies: All those listed above under "Pacific" except for Australia and New Zealand
- South and South-West Asia: Afghanistan, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Maldives, Nepal, Pakistan, Sri Lanka and Turkey
- South-East Asia: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, Philippines, Singapore, Thailand, Timor-Leste and Viet Nam

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Many figures used in the Survey are on a fiscal year basis and are assigned to the calendar year which covers the major part or second half of the fiscal year.

Growth rates are on an annual basis, except where indicated otherwise.

Reference to "tons" indicates metric tons.

References to dollars ($) are to United States dollars, unless otherwise stated.

The term "billion" signifies a thousand million. The term "trillion" signifies a million million.

In the tables, two dots (..) indicate that data are not available or are not separately reported; a dash (–) indicates that the amount is nil or negligible; and a blank indicates that the item is not applicable.

In dates, a hyphen (-) is used to signify the full period involved, including the beginning and end years, and a stroke (/) indicates a crop year, fiscal year or plan year. The fiscal years, currencies and 2015 exchange rates of the economies in the ESCAP region are listed in the following table:

Country or area in the ESCAP region	*ISO Alpha-3 code*	*Fiscal year*	*Currency and abbreviation*	*Rate of exchange for $1 as at December 2015*
Afghanistan	AFG	21 March to 20 March	afghani (Af)	64.52
American Samoa	ASM	..	United States dollar ($)	1.00
Armenia	ARM	1 January to 31 December	dram	483.75
Australia	AUS	1 July to 30 June	Australian dollar ($A)	1.37
Azerbaijan	AZE	1 January to 31 December	Azerbaijan manat (AZM)	1.56
Bangladesh	BGD	1 July to 30 June	taka (Tk)	78.50
Bhutan	BTN	1 July to 30 June	ngultrum (Nu)	66.33
Brunei Darussalam	BRN	1 January to 31 December	Brunei dollar (B$)	1.41
Cambodia	KHM	1 January to 31 December	riel (CR)	4 051.50
China	CHN	1 January to 31 December	yuan (Y)	6.49
Cook Islands	COK	1 April to 31 March	New Zealand dollar ($NZ)	1.46
Democratic People's Republic of Korea	PRK	..	won (W)	..
Fiji	FJI	1 January to 31 December	Fiji dollar (F$)	2.18
French Polynesia	PYF	..	French Pacific Community franc (FCFP)	109.08
Georgia	GEO	1 January to 31 December	lari (L)	2.39
Guam	GUM	1 October to 30 September	United States dollar ($)	1.00
Hong Kong, China	HKG	1 April to 31 March	Hong Kong dollar (HK$)	7.75
India	IND	1 April to 31 March	Indian rupee (Rs)	66.33
Indonesia	IDN	1 April to 31 March	Indonesian rupiah (Rp)	13 795.00
Iran (Islamic Republic of)	IRN	21 March to 20 March	Iranian rial (Rls)	30 130.00
Japan	JPN	1 April to 31 March	yen (¥)	120.50
Kazakhstan	KAZ	1 January to 31 December	tenge (T)	340.01
Kiribati	KIR	1 January to 31 December	Australian dollar ($A)	1.37
Kyrgyzstan	KGZ	1 January to 31 December	som (som)	75.90
Lao People's Democratic Republic	LAO	1 October to 30 September	kip (KN)	8 172.60
Macao, China	MAC	1 July to 30 June	pataca (P)	7.98
Malaysia	MYS	1 January to 31 December	ringgit (M$)	4.29
Maldives	MDV	1 January to 31 December	rufiyaa (Rf)	15.41
Marshall Islands	MHL	1 October to 30 September	United States dollar ($)	1.00
Micronesia (Federated States of)	FSM	1 October to 30 September	United States dollar ($)	1.00
Mongolia	MNG	1 January to 31 December	tugrik (Tug)	1 994.28
Myanmar	MMR	1 April to 31 March	kyat (K)	1 304.00
Nauru	NRU	1 July to 30 June	Australian dollar ($A)	1.37
Nepal	NPL	16 July to 15 July	Nepalese rupee (NRs)	106.22

Country or area in the ESCAP region	*ISO Alpha-3 code*	*Fiscal year*	*Currency and abbreviation*	*Rate of exchange for $1 as at December 2015*
New Caledonia	NCL	..	French Pacific Community franc (FCFP)	109.08
New Zealand	NZL	1 April to 31 March	New Zealand dollar ($NZ)	1.46
Niue	NIU	1 April to 31 March	New Zealand dollar ($NZ)	1.46
Northern Mariana Islands	MNP	1 October to 30 September	United States dollar ($)	1.00
Pakistan	PAK	1 July to 30 June	Pakistan rupee (PRs)	104.86
Palau	PLW	1 October to 30 September	United States dollar ($)	1.00
Papua New Guinea	PNG	1 January to 31 December	kina (K)	3.01
Philippines	PHL	1 January to 31 December	Philippine peso (P)	47.17
Republic of Korea	KOR	1 January to 31 December	won (W)	1 172.50
Russian Federation	RUS	1 January to 31 December	ruble (R)	72.88
Samoa	WSM	1 July to 30 June	tala (WS$)	2.60
Singapore	SGP	1 April to 31 March	Singapore dollar (S$)	1.41
Solomon Islands	SLB	1 January to 31 December	Solomon Islands dollar (SI$)	8.06
Sri Lanka	LKA	1 January to 31 December	Sri Lanka rupee (SL Rs)	144.06
Tajikistan	TJK	1 January to 31 December	somoni	6.99
Thailand	THA	1 October to 30 September	baht (B)	36.09
Timor-Leste	TLS	1 July to 30 June	United States dollar ($)	1.00
Tonga	TON	1 July to 30 June	pa'anga (T$)	2.21
Turkey	TUR	1 January to 31 December	Turkish lira (LT)	2.91
Turkmenistan	TKM	1 January to 31 December	Turkmen manat (M)	3.50
Tuvalu	TUV	1 January to 31 December	Australian dollar ($A)	1.37
Uzbekistan	UZB	1 January to 31 December	Uzbek som (som)	2 780.05
Vanuatu	VUT	1 January to 31 December	vatu (VT)	111.75
Viet Nam	VNM	1 January to 31 December	dong (D)	21 890.00

Sources: United Nations, *Monthly Bulletin of Statistics* website, http://unstats.un.org/unsd/mbs/app/DataSearchTable.aspx, 31 March 2016; and national sources.

UNDER EMBARGO UNTIL 12.00 HRS., BANGKOK TIME, THURSDAY, 28 APRIL 2016

ABBREVIATIONS

ADB	Asian Development Bank
AEC	ASEAN Economic Community
ASEAN	Association of Southeast Asian Nations
BRICS	Brazil, Russian Federation, India, China and South Africa
ESCAP	Economic and Social Commission for Asia and the Pacific
FAO	Food and Agriculture Organization of the United Nations
FDI	foreign direct investment
GDP	gross domestic product
GST	goods and services tax
ICT	information and communications technology
IFAD	International Fund for Agricultural Development
ILO	International Labour Organization
IMF	International Monetary Fund
LNG	liquefied natural gas
OECD	Organisation for Economic Co-operation and Development
PISA	OECD Programme for International Student Assessment
PPP	purchasing power parity
SAARC	South Asian Association for Regional Cooperation
SDGs	Sustainable Development Goals
SMEs	small and medium-sized enterprises
TFP	total factor productivity
UNCTAD	United Nations Conference on Trade and Development
UNESCO	United Nations Educational, Scientific and Cultural Organization
UN-HABITAT	United Nations Human Settlements Programme
UNIDO	United Nations Industrial Development Organization
USDA	United States Department of Agriculture
VAT	Value-added tax
WFP	World Food Programme
WTO	World Trade Organization

UNDER EMBARGO UNTIL 12.00 HRS., BANGKOK TIME, THURSDAY, 28 APRIL 2016

CHAPTER

1

ECONOMIC GROWTH OUTLOOK AND KEY CHALLENGES

The economic outlook for Asia and the Pacific in 2016 and 2017 is clouded by uncertainty. The region faces the prospects of either a continuation of the current moderate pace of economic growth or further deceleration if a number of emerging risks materialize more pronouncedly. Under the baseline scenario, growth in Asia-Pacific developing economies is forecast to remain at about 5% in 2016 and 2017, marginally higher than the estimate of 4.6% for 2015. However, if the risks come to fruition, a “low-growth scenario” could materialize in 2016. Among other implications that this negative outcome would hold for the region, would be a difficult start to the process of implementing the 2030 Agenda for Sustainable Development. Policymakers are advised therefore to proceed with prudence and pursue strategies that support sustained economic growth in a manner that promotes the overall well-being of societies in the region.

The key macroeconomic risks faced by Asia and the Pacific in the next couple of years are: a somewhat uncertain outlook for the economy of China against the backdrop of fragile global economic recovery; volatility in exchange rates, including that due to low oil prices for commodity exporters; growing levels of private household and corporate debt; and an ambiguous path of interest rate increases that may be pursued by the United States of America. The real extent of these risks is revealed when appreciating the interconnectedness of these apparently independent developments. For instance, a higher than expected decline in economic growth in China together with increases in interest rates set by the United States may lead to a string of exchange rate depreciations in the region, thereby increasing the financial vulnerabilities of economies that have extensive exposure to private debt denominated in foreign currencies and those that rely excessively on oil for their foreign exchange earnings.

Economic growth in China is forecast to continue its gradually moderating trend in coming years. On its own, this would be a positive development as it reflects that country's efforts to rebalance the economy in favour of domestic consumption. The concern, however, is whether the rebalancing can be managed in a manner that does not induce a shock to domestic macroeconomic stability and consequently to the regional and global economy given the country's considerable economic weight. As witnessed during 2015 and early 2016, differing views and uncertainty about the prospects for economic growth in China can lead to volatility in asset and currency markets in that country and beyond in addition to having dampening effects on growth in trade, thus creating uncertainty regarding global economic prospects.

Exchange rate depreciation in China carries the risk of spilling over into other regional economies, partly due to the herd behaviour of markets and partly due to the pressure faced by policymakers to compete with China. Many developing economies in the region, especially the commodity-exporting countries, are already experiencing significant depreciation due to steady declines in commodity prices − especially for oil − over the past year or so. At the start of 2016, oil prices fell to their lowest level since 2003. While lower prices may be beneficial for oil-importing countries in terms of keeping inflation low and creating higher levels of disposable income, such prices are detrimental to growth in the numerous commodity export-dependent economies in the region, underscoring the need for diversifying sources of growth.

In this context, the impact of monetary policy changes made by the United States vis-à-vis the outlook for the Asia-Pacific region will need to be well managed. For one, increases in interest rates in the United States could lead to increases in domestic financing costs in the region. Furthermore, uncertainty regarding the pace of increases in interest rates may act as another spur to outflows of portfolio capital, which would further dampen growth prospects. The risks associated with likely increases in domestic interest rates and capital outflows go beyond economic growth, as they relate also to sustained financial stability. Juxtaposing these developments against a strong rise in household and corporate debt in a number of developing economies in the region gives a better appreciation of underlying risks and their wide-ranging impacts. High levels of private debt, when compounded with declining exchange rates, rising interest rates and portfolio outflows, can threaten the solvency of domestic households, businesses and banks.

Even if these risks do not materialize, there are concerns that the current moderate pace of economic growth has been accompanied by phenomena that are impeding the region's progress towards achieving the Sustainable Development Goals. For instance, economic growth has not translated into commensurate increases in decent jobs for most economies. This is one of the reasons underlying signs of a slowdown in the pace of poverty reduction in the region. Similarly, inequalities – of both incomes and opportunities – continue to flourish in much of the region. More importantly, in broad terms the growth model being pursued in the region is underpinned by debt accumulation rather than productivity-driven increases in real wages.

These developments imply that even the moderate growth occurring in the region is failing to benefit adequately those sections of society who most need it, namely the poor. Despite the recent slowdown, high economic growth in previous years also brought with it the phenomenon of urbanization. The sheer pace and scale of urbanization is exerting enormous pressure on Governments to ensure inclusive and sustainable development in their economies. Furthermore, the challenges of urbanization are likely to increase in coming years. Another aspect of the increasing wealth in the region is the emergence of the "middle class" in many previously poor economies. While the rise of such a grouping is considered a positive outcome in terms of producing stronger domestic demand, it is important to remain cognizant of the risk posed by

placing less emphasis on dealing with the challenges faced by the poor and the "transitional class" in such economies. Moreover, the challenges caused by a rising middle class go beyond the economic sphere; they have social and environmental consequences, too.

To ensure effective realization of the Sustainable Development Goals, economies in the region will need to strive both for higher economic growth and better-quality growth. As external demand is likely to remain weak in the near term, continued excessive reliance on exports to revive growth will not produce the desired results; economies will have to focus instead on boosting domestic demand. Similarly, ensuring that the quality of growth is beneficial will require internalizing various aspects of inclusiveness and sustainability in policymaking. The key tool available to Governments to achieve these objectives is fiscal policy. Monetary policy is unlikely to play a significant role in promoting growth due to uncertain conditions in financial markets that call for a prudent stance. Government development spending is currently a viable option for many economies because fiscal space remains available. However, to ensure consistent effectiveness, fiscal policy will have to be undertaken judiciously, supported by reforms to expand over time the "resource envelope".

Regional cooperation initiatives also provide domestic initiatives with valuable support to spur higher economic growth and achievement of the Sustainable Development Goals, especially for poorer economies with lower domestic capabilities. One promising area of regional cooperation is in new initiatives for the financing of infrastructure projects, with emphasis on physical infrastructure in the least developed economies. Such spending will contribute to increasing the long-term potential growth of these economies by positively influencing productivity as well as boosting short-term growth. Critically, infrastructure spending will also improve the inclusiveness of growth by providing job-rich growth. Another nascent area of cooperation is intergovernmental cooperation in energy and transport connectivity networks, such as the proposed "Asian Energy Highway" and the "Asia-Pacific Information Superhighway". Improving connectivity through the greater harmonization of such networks will improve efficiency and therefore reduce prices and increase access for poorer economies and sections of the populace within economies.

1. MACROECONOMIC OUTLOOK AND CHALLENGES

1.1. Economic growth constrained by weak trade and subdued domestic demand

The economic growth outlook for the developing economies in the region is broadly stable but clouded by uncertainty

Against an estimated growth rate of 4.6% in 2015, the rate in 2016 and 2017 is forecast to increase marginally to 4.8% and 5%, respectively (see table 1.1). Among the subregions, either declines or only moderate improvements in growth are expected to be seen in most of them over 2016 and 2017. The major positive change in forecast for those years concerns North and Central Asia owing mainly to the economy of the Russian Federation contracting by a smaller magnitude compared with contractions in the previous few years. The reason for the lack of a significant uptick in growth forecasts is the expected continuation of a number of factors buffeting the region. Chief among them are: fragile global economic recovery in most developed economies; a continued moderation in the Chinese economy; weak consumption and investment trends in major Asia-Pacific economies; and declining trends in labour and total factor productivity.

This baseline forecast is subject to a number of downside risks. If these occur, a "low-growth scenario" could materialize. Assessment of some of these risks is discussed briefly in box 1.1. On the other hand, there remains the possibility of an easing of some of the pressures assumed under the baseline case. Thus, a "high-growth scenario" for developing economies in the region is also outlined. However, under prevailing conditions, the probability of a high-growth scenario eventuating is relatively low.

Weak external demand continues to influence growth prospects of developing economies in the region

One important factor hindering faster economic growth of developing economies in Asia and the Pacific is the fragile recovery in the advanced economies. Despite a slightly rising trend since 2013, the growth outlook for advanced economies remains essentially flat (see figure 1.1). With the outlook for the European Union and Japan continuing to remain weak, alongside

Table 1.1

Rates of economic growth and inflation in the ESCAP region, 2015-2017

(Percentage)	Real GDP growth			Inflation[a]		
	2015[b]	2016[c]	2017[c]	2015[b]	2016[c]	2017[c]
East and North-East Asia[d]	**3.3**	**3.4**	**3.2**	**1.1**	**1.2**	**1.8**
East and North-East Asia (excluding Japan)[d]	**5.7**	**5.5**	**5.4**	**1.3**	**1.8**	**2.1**
China	6.9	6.5	6.3	1.4	1.8	2.1
Democratic People's Republic of Korea	..	..	..	..	..	..
Hong Kong, China	2.4	2.0	2.3	3.0	2.3	2.9
Japan	0.5	1.1	0.7	0.8	0.5	1.5
Macao, China	-20.3	-2.7	4.6	4.6	4.5	4.8
Mongolia	2.3	0.5	1.0	6.6	3.5	7.0
Republic of Korea	2.6	2.9	3.1	0.7	1.6	2.0
North and Central Asia[d]	**-2.6**	**-0.9**	**0.5**	**14.1**	**8.1**	**5.2**
North and Central Asia (excluding Russian Federation)[d]	**3.1**	**2.4**	**3.2**	**6.4**	**11.4**	**7.0**
Armenia	3.0	2.5	2.8	3.5	3.3	2.9
Azerbaijan	1.1	0.3	1.2	4.0	10.0	5.6
Georgia	2.8	2.7	3.0	4.0	5.1	4.5
Kazakhstan	1.2	0.5	1.5	6.6	14.7	7.5
Kyrgyzstan	3.5	2.5	4.0	6.6	8.0	4.5
Russian Federation	-3.7	-1.5	0.0	15.5	7.5	4.9
Tajikistan	6.0	5.0	5.2	5.5	8.0	6.5
Turkmenistan	6.7	5.4	6.5	7.0	7.6	5.9
Uzbekistan	8.0	7.8	8.0	10.0	11.5	10.5
Pacific[d]	**2.6**	**2.8**	**3.1**	**1.4**	**1.9**	**2.2**
Pacific island developing economies[d]	**6.5**	**3.4**	**2.7**	**3.3**	**4.4**	**4.5**
Cook Islands	-0.5	0.0	0.2	3.0	1.8	2.0
Fiji	4.0	2.2	3.1	1.4	3.0	3.0
Kiribati	3.0	1.8	2.0	1.4	0.3	0.8
Marshall Islands	-0.5	1.5	2.0	0.5	2.0	2.5
Micronesia (Federated States of)	-1.5	2.5	3.5	-1.1	-0.3	0.3
Nauru	-10.0	3.0	15.0	11.4	6.6	1.7
Palau	6.7	3.0	7.0	2.2	1.5	2.5
Papua New Guinea	9.9	4.3	2.4	5.1	6.0	6.0
Samoa	1.5	2.2	0.7	1.9	2.0	2.0
Solomon Islands	3.2	3.0	2.8	-0.3	4.4	5.7
Tonga	3.4	2.8	2.7	-0.7	-0.3	0.5
Tuvalu	2.0	3.5	3.0	2.0	3.5	2.0
Vanuatu	-1.0	2.5	3.8	2.5	1.9	2.4
Developed countries in the Pacific subregion	**2.6**	**2.8**	**3.1**	**1.4**	**1.9**	**2.2**
Australia	2.5	2.7	3.0	1.5	2.1	2.3
New Zealand	3.4	3.5	3.6	0.3	0.5	1.5
South and South-West Asia[d,e]	**5.7**	**5.9**	**6.3**	**6.6**	**6.8**	**6.6**
Afghanistan	2.0	3.0	4.0	-1.3	3.0	4.3
Bangladesh	6.5	6.8	7.0	6.4	6.2	6.5
Bhutan	5.9	6.5	6.6	6.6	5.0	6.5
India	7.6	7.6	7.8	5.0	5.2	5.6
Iran (Islamic Republic of)	0.8	4.4	5.1	13.6	12.5	12.8
Maldives	4.8	6.0	7.1	1.4	1.6	1.8
Nepal	3.4	2.2	4.5	7.2	9.5	8.0
Pakistan	4.2	4.5	4.8	4.6	4.0	5.0
Sri Lanka	4.9	5.4	5.9	3.8	4.5	5.0
Turkey	4.0	3.0	3.7	7.7	8.5	6.5
South-East Asia[d,e]	**4.3**	**4.5**	**4.8**	**2.5**	**2.4**	**2.8**
Brunei Darussalam	-1.2	2.0	3.0	-0.4	0.2	0.4
Cambodia	6.9	7.0	7.1	1.2	2.0	2.9
Indonesia	4.8	5.3	5.5	6.4	4.3	4.3
Lao People's Democratic Republic	6.4	7.0	7.0	1.3	2.0	2.3
Malaysia	5.0	4.4	4.8	2.1	2.8	2.8
Myanmar	8.5	8.5	8.0	10.7	9.5	8.5
Philippines	5.8	6.0	6.2	1.4	2.5	3.0
Singapore	2.0	2.0	2.5	-0.5	-0.5	0.5
Thailand	2.8	3.2	3.5	-0.9	0.5	1.5
Timor-Leste	4.3	5.0	5.6	1.0	2.0	3.0
Viet Nam	6.7	6.8	6.9	0.6	2.0	3.0
Memorandum items:						
Developing ESCAP economies[f]	**4.6**	**4.8**	**5.0**	**4.1**	**3.7**	**3.6**
Least developed countries	**6.2**	**6.4**	**6.7**	**5.9**	**6.2**	**6.3**
Landlocked developing countries	**3.1**	**2.5**	**3.4**	**6.0**	**10.8**	**6.9**
Small island developing States	**6.0**	**3.9**	**3.6**	**2.7**	**3.7**	**4.0**
Developed ESCAP economies[g]	**0.9**	**1.4**	**1.1**	**0.9**	**0.7**	**1.6**
Total ESCAP region	**3.3**	**3.5**	**3.6**	**3.0**	**2.7**	**2.9**

Sources: ESCAP, based on national sources; United Nations, Department of Economic and Social Affairs, *World Economic Situation and Prospects 2016* and its update (Sales No. E.16.II.C.2). Available from www.un.org/en/development/desa/policy/wesp/; International Monetary Fund, International Financial Statistics databases. Available from http://elibrary-data.imf.org; Asian Development Bank, *Asian Development Outlook 2016: Asia's Potential Growth* (Manila, ADB, 2016); CEIC Data. Available from www.ceicdata.com; and website of the Interstate Statistical Committee of the Commonwealth of Independent States. Available from www.cisstat.com.

a Changes in the consumer price index.
b Estimates.
c Forecasts (as of 31 March 2016).
d GDP figures at market prices in 2010 United States dollars (at 2005 prices) are used as weights to calculate the subregional aggregates.
e The estimates and forecasts for countries relate to fiscal years defined as follows: 2016 refers to fiscal year spanning the period from 1 April 2016 to 31 March 2017 in India, Myanmar; from 21 March 2016 to 20 March 2017 in Afghanistan and the Islamic Republic of Iran; from 1 July 2015 to 30 June 2016 in Bangladesh, Bhutan and Pakistan; and from 16 July 2015 to 15 July 2016 in Nepal.
f Developing ESCAP economies consists of all countries listed in the table excluding Australia, Japan and New Zealand.
g The group of developed ESCAP economies consists of Australia, Japan and New Zealand.

Box 1.1

Changing external economic conditions, alternative growth scenario and its impacts on emerging Asia-Pacific economies

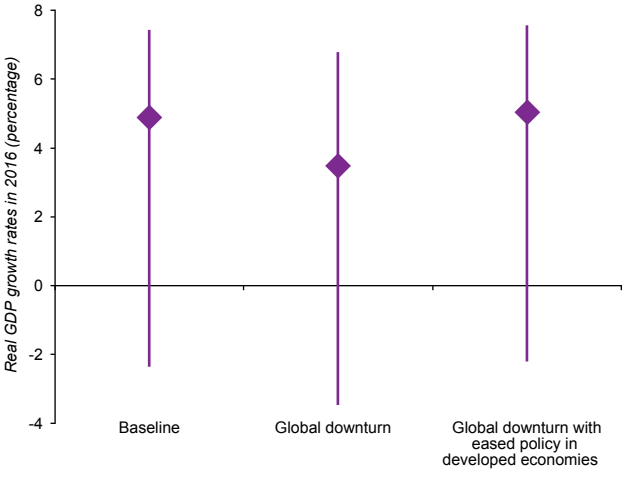
The external economic environment faced by the Asia-Pacific economies is clouded by several downside risks. In Europe, it is highly uncertain whether the package of monetary policy support measures announced in March 2016 would help to shore up domestic demand.[a] Uncertainty in Europe, which is a major trading partner of many Asia-Pacific economies, goes beyond macroeconomic risks. Among other factors are the possible exit of Greece from the euro zone and of the United Kingdom from the European Union, as well as different views on policies to handle the migrant crisis which could undermine the unity of the European Union. Similarly, in the United States the policy interest rate was increased in December 2015 for the first time in nearly a decade. How the United States economy will react to further likely interest rate increases is not clear, although the market's response so far has been mostly calm.[b]

A faster than expected pace of monetary policy normalization in the United States would imply relatively strong economic growth and job creation in that country. While stronger economic performance in the United States may revive opportunities for developing countries, such a situation could also dampen their economic prospects, including those in the Asia-Pacific region, by putting upward pressure on domestic interest rates. Many of these economies are already facing prospects of higher financing costs, greater risk of capital outflows and weaker currencies that may push up debt servicing costs. In Latin America, that region's economic growth is being negatively affected by a deep recession in Brazil, while growth in the Middle East is being held back by low oil prices and heightened geopolitical uncertainties. Low commodity prices are also constraining economic expansion in Africa. More broadly, developed and developing economies that rely on commodity exports could face a further deterioration in their terms of trade if global demand continues to weaken.

If some of these downside risks in the external environment materialize in 2016, economic growth in the Asia-Pacific region could turn out to be lower than currently projected in the baseline scenario. To quantify the impact of this alternative scenario, a simulation exercise is conducted using the Oxford Global Economic Model. In particular, the simulation exercise assumes that: (a) the global oil price and non-fuel commodity price index are 10% lower than their baseline levels due to subdued global economic activity;[c] (b) a country's world trade index, which is determined mainly by import demand in its major trading partners, declines by 3%; and (c) the risk premium on a country's debt (denominated in United States dollars) rises by 100 basis points as a result of a higher degree of risk aversion among global investors. It should be pointed out that the magnitude of these assumptions is modest relative to actual changes in the past.[d]

Under this scenario, output growth in 11 emerging Asia-Pacific economies in 2016 could be up to 1.4 percentage points lower than the baseline case (see figure below).[e] Although lower commodity prices would help to buoy economic growth in net energy-importing economies, a decline in merchandise exports and higher borrowing costs would constrain overall growth performance under this scenario.

Alternative growth scenarios for emerging Asia-Pacific economies in 2016



Source: ESCAP, based on the Oxford Global Economic Model.

Note: The vertical lines show the ranges of real GDP growth rates in 11 emerging economies in the region in 2016. The dots on the lines represent the group-average growth rates. The baseline projections are based on growth forecasts in the Oxford Model.

Box 1.1 *(continued)*

In the event that macroeconomic policy support in developed economies rises in response to the downturn, the baseline growth projections for emerging Asia-Pacific economies as a group would likely be sustained. More specifically, in a scenario under which it is assumed that the three shocks described above and that short-term interest rates in all developed economies are 50 basis points below their baseline levels in 2016, annual output growth in emerging Asia-Pacific economies would be about 0.2 percentage points higher than the baseline. This scenario is possible if monetary policy normalization in the United States moves forward at a slower pace than expected and the European Central Bank further reduces interest rates and/or introduces a bolder set of unconventional monetary policies to keep financing costs at unusually low levels.

a Among other measures, the package includes a €20 billion increase in the size of its asset-purchase programme to €80 billion a month, and reductions in the deposit rate from −0.3% to −0.4% and in the main policy rate from 0.05% to zero.
b The United States Federal Reserve made a projection in mid-March 2016 that the federal funds rate would rise from about 0.4% in 2015 to 0.9% in 2016 and 1.9% in 2017.
c In the baseline scenario, the global oil price is projected to decline by 31% in 2016, while the non-fuel commodity price index is expected to fall by 6%.
d For example, in 2015 the global oil price plunged by 47% and the global non-fuel commodity price index by 17%. Similarly, the global trade index declined by 12-15% in 2009 in China, India, Indonesia, Malaysia, the Philippines, the Russian Federation, Thailand and Turkey.
e The 11 economies are: China; Hong Kong, China; India; Indonesia; Malaysia; the Philippines; the Republic of Korea; the Russian Federation; Singapore; Thailand; and Turkey. Together, they account for about 92% of total output in developing Asia-Pacific economies.

somewhat stronger growth performance expected in the United States, the prospects of an export-led recovery in developing Asia-Pacific economies will remain broadly subdued. Economic growth in global developed economies stood at about 2% in both 2014 and 2015, with only a minor increase expected in 2016 (IMF, 2016a). Within developed economies in the Asia-Pacific region, the most disappointing outlook remains that of Japan. Its growth is expected to pick up modestly in 2016, albeit at the low rate of 1.1%. The outlook for the developed economies is expected to translate into further weakness in global export demand, thus negatively affecting manufacturing exports from the Asia-Pacific region. In taking into account the fact that the European Union is a leading export destination, capturing more than 16% of merchandise exports from Asia-Pacific economies, the grouping's persistently sluggish demand is a major factor explaining its modest trade growth. The estimated growth rate of merchandise exports from the Asia-Pacific region was

Figure 1.1 **Real growth in gross domestic product in developing economies in Asia and the Pacific, in advanced economies and in the world, 2006-2017**

Sources: ESCAP forecasts and International Monetary Fund, World Economic Outlook Databases. Available from www.imf.org/external/data.htm.

Note: The developing Asia-Pacific group comprises economies listed in table 1, excluding Australia, Japan and New Zealand. The advanced economies group is composed of the European Union and the United States as well as Australia, Japan and New Zealand.

only 2.3% in real terms in 2015 (ESCAP, 2015a). The situation was even worse for imports which declined by 2.4%. Particularly affected were the manufacturing export-dependent economies in East and North-East Asia and in South-East Asia (see figure 1.2).

More recently, global and regional demand has been further weakened by the moderation in growth of the Chinese economy, which has not only become a major exporter and importer in its own right but has also become a major trading partner for the rest of the region. The slowing demand had a stronger impact on price levels, and as a result there was a sharp decline of 9% and 14% in export prices and import prices, respectively. In considering these factors, ESCAP forecasts that the region is likely to stabilize its modest rate of trade growth at between 2% and 3% in 2016 for exports as well as imports in volume terms. On the positive side, despite the weakening of the prospects for trade growth, the Asia-Pacific region still holds on to its position as the largest merchandise trading region in the world, with its share of 40% in global exports and imports.

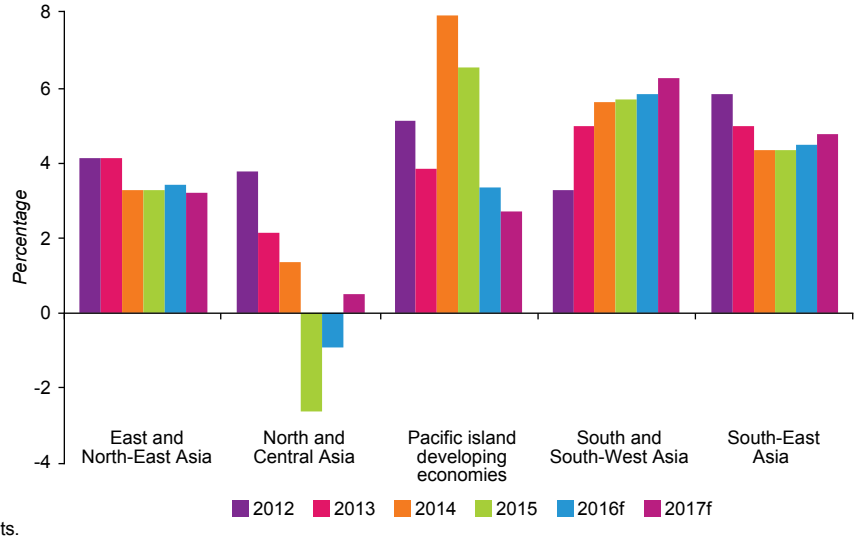
Moderating growth of the Chinese economy has further weakened global and regional demand

Economic growth in China is forecast to be around 6.5% for 2016 and 6.3% for 2017, continuing the moderating rate of economic expansion from an estimated increase to 6.9% in 2015. The growth moderation in China is being driven partly by a much-needed rebalancing to sustain growth in the medium term, away from investment and net exports and towards consumption, as well as away from manufacturing and towards services. Indeed, since 2013, while GDP growth has declined, the share of consumption in GDP growth has increased, while that of investment has decreased (see figure 1.3). It is expected that the Government will maintain its policy focus on rebalancing in coming years, provided that the growth moderation remains gradual, which would imply that monetary policy as well as fiscal policy will remain relatively restricted with regard to supporting investment.

Given the large weight of China in the GDP of the developing Asia-Pacific region – 40% of the total – even a small change in its GDP growth estimates would result in a considerable impact on the region's growth outlook. China has surpassed the United States to become the largest individual trading partner in the Asian and Pacific region, absorbing 13% of merchandise exports from the region as a whole.[1] In fact, China sources more than 40% of its imports from other Asia-Pacific countries. The growing importance of exports to China has been a major factor driving the rise in its share of intraregional exports from 48.9% in 2008 to 53% by 2015.

Manufacturing exporters in particular are experiencing an export recession owing to the drop in China's final exports, implying less demand for Asia-Pacific intermediates, as well as the slowdown in Chinese demand for final products (see figure 1.4). Among manufacturing economies in the region, China is the largest export market for Singapore, Taiwan Province of China, Thailand and the Republic of Korea in that

Figure 1.2 **Real growth in gross domestic product in subregions in Asia and the Pacific, 2012-2017**



Source: ESCAP forecasts.

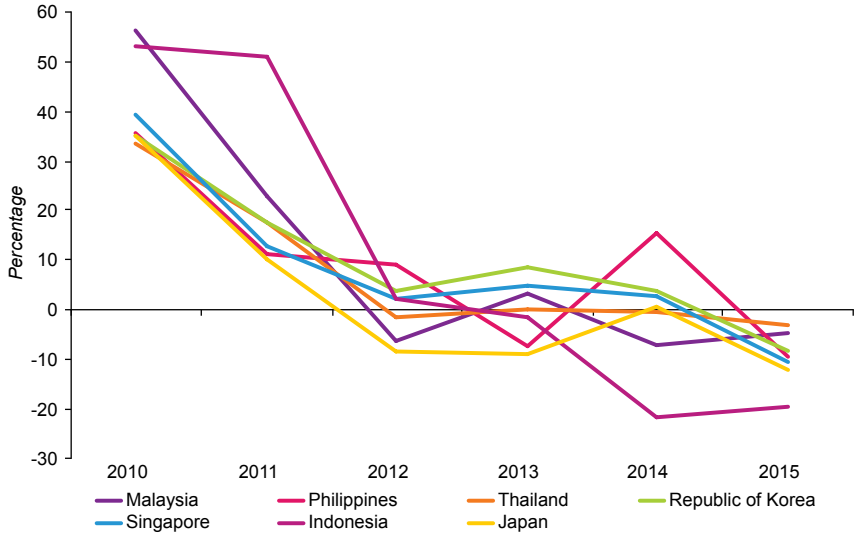
Figure 1.3 Growth contributions in China, by expenditure, 2005-2015

Source: ESCAP, based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

order, and the second largest market for Japan and Viet Nam. Exports of the Republic of Korea, Singapore and Thailand have contracted since July 2015 on a year-on-year basis.

Apart from the moderation in Chinese economic growth, another impact on the region's trade comes from weakening of the Chinese currency. Depreciation of the Chinese currency puts pressure on other currencies in the region to depreciate as well. This situation affects direct exports by the region's economies to major trading partners due to greater currency competition. A decline in the Chinese currency, however, is not the only spur to currency competition. Depreciation of the Japanese currency since 2015, given its large export sector, has also played a role in the recent exchange rate depreciations observed in the region. Relatively weak economic growth prospects for China could also lead to investor uncertainty, leading to renewed bouts of capital outflows from regional economies, as seen in early 2016. The possible spillover effects on growth and other variables in the region resulting from developments in China in coming months are considered in box 1.2.

Figure 1.4 Percentage growth in exports to China for selected Asia-Pacific economies, 2010-2015



Source: ESCAP, based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

Box 1.2

Spillovers from economic rebalancing and policy changes in China

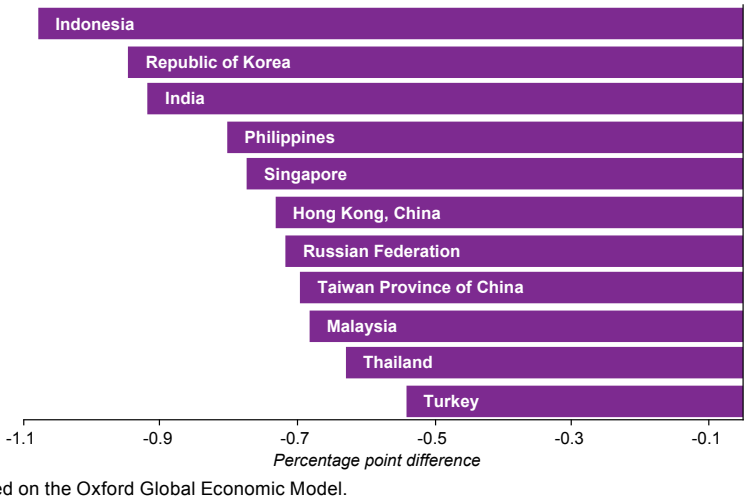
Given the importance of the Chinese economy to the region's economic prospects, an attempt is made to quantify the potential macroeconomic impact of China's ongoing economic rebalancing on other emerging Asia-Pacific economies. In particular, the discussion is focused on three issues: (a) implications of a declining role of manufacturing activity in China on oil-exporting economies; (b) impact of increased uncertainty that has coincided with China's growth moderation; and (c) assessment of possible currency competition, triggered by China's currency devaluation.

The main objective of China's efforts in the area of economic rebalancing is to reduce the country's reliance on the export-led manufacturing sector and mitigate carbon emissions. To capture this policy direction, a simulation scenario is constructed using the Oxford Global Economic Model. Under this scenario, it is assumed that the volume of oil input used in industry, which is mainly determined by manufacturing growth, is 20% lower than the baseline levels during 2016 and 2017.[a] As China's oil imports have a direct impact on the global oil stock and prices, under this scenario the global oil price decreases by about $3.50 per barrel. As a result, the value of merchandise exports in Indonesia, Malaysia and the Russian Federation, the three major oil exporters in the region, is estimated to decline by 1.7%, 3.6% and 9.5%, respectively, during 2016 and 2017. The combined export loss in these three countries is valued at about $34 billion over the two years relative to the baseline. Moreover, under the same scenario, the ratio of export prices to import prices in the Russian Federation is estimated to dip further to below 0.60 in 2016 and 2017 from 0.93 in 2014 and 0.72 in 2015. Such deterioration in the terms of trade would weaken that country's macroeconomic stability through depreciation pressure on the exchange rate, higher external debt servicing costs and higher inflation.

The moderating economic growth in China has led to uncertainty. Consequently, volatility in China's daily stock market index, a high-frequency variable that is very sensitive to changes in market sentiment, has increased since early 2015 relative to the preceding few years. Moreover, growing concerns over the pace of a growth moderation in China are often cited as one of the main reasons that explain the global share sell-offs in mid-2015 and early 2016. China's share prices plunged by about 25% in each of two periods: July-August 2015 and January 2016. During both periods, the stock market index in the United States decreased by only 3-4%, indicating that movements in stock market indices in several emerging Asia-Pacific economies are becoming more closely linked with China.

A decline in share prices coupled with a heightened degree of risk aversion and weaker market sentiments could have a substantial negative impact on economic growth. The following simulation scenario assumes that the magnitude of lower share prices mimics what was observed during the sell-offs in July-August 2015 and January 2016.[b] Additionally, it assumes that the market risk premium rises while market confidence deteriorates as a result of more volatile economic conditions.[c] Under this scenario, the annual GDP growth rates in India, Indonesia and the Republic of Korea are estimated to be 0.9-1.0 percentage points lower than the baseline forecasts (see figure A). In these three economies, annual real consumption could be 0.9-1.1% below the baseline levels, while fixed investment levels could decline by 1.3-2.3%.

Figure A
Economic growth impact of lower share prices and rising economic uncertainty



Source: ESCAP, based on the Oxford Global Economic Model.

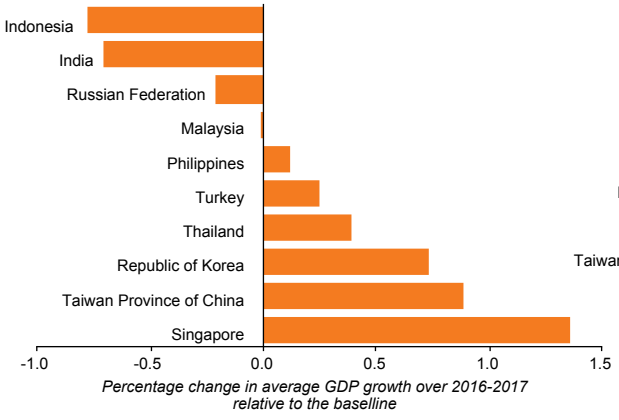
Box 1.2 *(continued)*

As part of its economic rebalancing, China has revised its exchange rate policy. The value of the Chinese currency is now based on a basket of currencies of China's main trading partners. In 2015, the renminbi lost about 4.2% of its value on top of the 1.9% depreciation experienced in 2014. The weaker currency could push other regional economies to pursue the same policy direction in order to maintain their export competitiveness. Such across-the-board currency depreciations may not be very helpful in boosting economic growth of the region, as the net effect of the perceived positive impact on exports would be marginal.

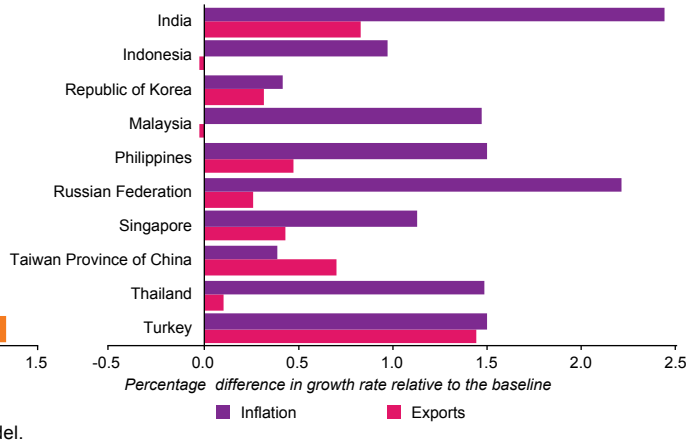
In fact, in a simulation scenario that assumes a 10% currency depreciation against the United States dollar in all major Asia-Pacific economies during 2016 and 2017,[d] economic growth in India, Indonesia and the Russian Federation declines relative to the baseline (see panel A in figure B). In India and the Russian Federation, while the weaker exchange rates help to improve the export of goods and services, the magnitude of the improvement is small, as anticipated (see panel B).[e] In contrast, exchange rate depreciations push up inflation rather notably because of the higher prices of imported goods and services, thus constraining household spending. Overall, although currency depreciations may lead to some growth acceleration in export-oriented economies, such as the Republic of Korea, Singapore and Taiwan Province of China, the real output level in emerging Asia-Pacific economies as a whole is estimated to be nearly $19 billion below the baseline during 2016 and 2017, given the below-baseline growth in large economies, such as India, Indonesia and the Russian Federation.

Figure B
Macroeconomic impact of a 10% across-the-board currency depreciation

Panel A. Real GDP growth rate



Panel B. Inflation and exports of goods and services



Source: ESCAP, based on the Oxford Global Economic Model.

The impact of China's economic rebalancing on smaller economies or those with lower income levels could be more noteworthy. For instance, in Mongolia almost 90% of exports go to China. In the Lao People's Democratic Republic, Turkmenistan and Viet Nam, exports of goods to China are also sizeable at 11-20% of those countries' GDP. In addition to such close economic linkages with China and the associated implications, these smaller economies are quite vulnerable owing to their relatively limited room for fiscal and monetary policy maneuverability.

[a] While large, this assumption is not unrealistic as a shock scenario. The volume of oil used by China's industry declined by 6.7% in 2010 and 0.5% in 2011 when the economy was still growing at 10.4% and 9.3%, respectively. The assumption also takes into account the Government's effort to promote greater use of non-fossil fuels and introduction of more stringent emissions standards.

[b] The average declines in share prices during the two episodes of global stock sell-offs are between 3% and 7% for most emerging Asia-Pacific economies, and higher at about 11% in Singapore and 14% in Hong Kong, China.

[c] More specifically, it is assumed that the gap between corporate and government bond rates and the United States treasury bills rate widens by 100 basis points and that the market confidence index falls by 10 points on a typical 0-100 point scale. Both shocks are assumed to last for one quarter. Under these assumptions, economic uncertainty dampens economic growth through lower investment and consumption amid higher financing costs and weaker market sentiments.

[d] This assumption is relatively modest. The currency depreciations recorded in 2015 were between 2.5% and 8.5% in India, the Philippines, the Republic of Korea, Singapore and Thailand, and much larger at about 13% in Indonesia, 19% in Malaysia and 24% in Turkey.

[e] Exports increased in most economies under this scenario due to greater import demand in the United States, as the United States dollar appreciated across all major regional currencies. More specifically, imports by the United States are assumed to increase by $61 billion during 2016 and 2017 relative to the baseline.

Fragile growth prospects have led to significant declines in commodity prices, adversely affecting commodity-dependent economies

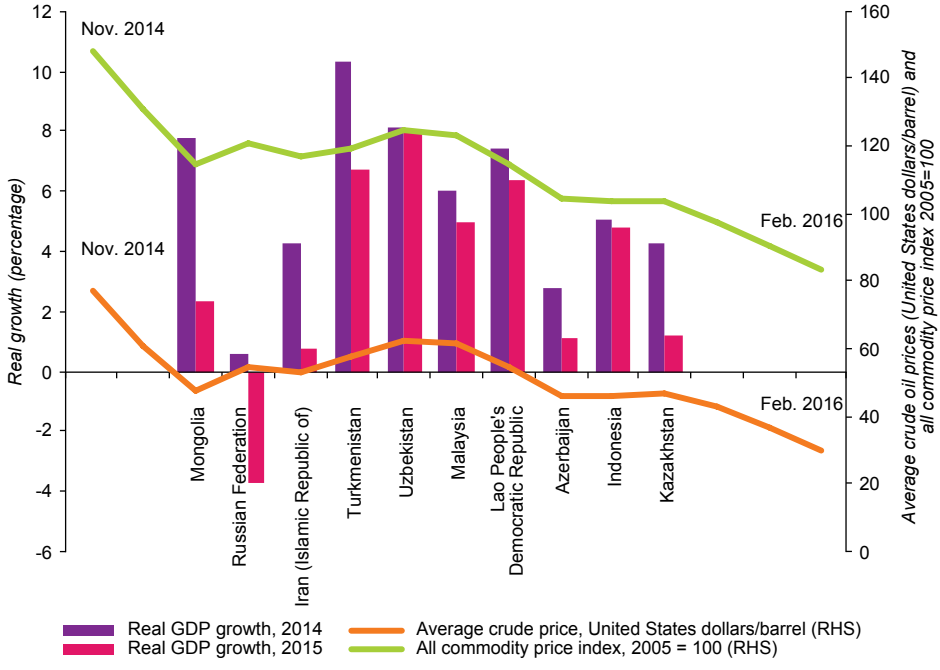
Taken together, growth moderation in China and overall weak global economic growth have had a particularly strong impact on commodity-dependent economies in the region. Global commodity prices have declined to levels last seen at the time the global financial and economic crisis started in 2008, with the most dramatic reductions being observed in the case of oil.[2] Although global demand and supply factors have played an important role in explaining these declines, the new and most pressing driver in the past year has been concerns over the prospects for the Chinese economy. Key among sectors of domestic investment in China that are expected to assume a lesser role in coming years are real estate investment and infrastructure spending in the more developed parts of the country. The need for raw material commodities in these sectors had been the key driver of China's emergence as the largest commodity importer in the world.

The major commodity-dependent subregion in Asia and the Pacific, which has been particularly affected by declines in commodities prices, is North and Central Asia, while Indonesia, Malaysia and Mongolia are the major economies in other subregions that are being negatively affected. Economies where commodities play a major role in exports have experienced the greatest declines in their GDP growth between 2014 and 2015. Figure 1.5 highlights how, among commodity-dependent economies, the sharp fall in oil and overall commodity prices during this period has coincided with the largest decline in GDP growth for Mongolia, followed by the Russian Federation, the Islamic Republic of Iran and Turkmenistan.

Domestic demand needs to support economic growth, though recently its growth has not lived up to its potential

Domestic demand in developing Asia-Pacific economies, with rising incomes and a younger population in most subregions, has more potential to support future economic growth than reliance on demand from developed economies. However, under the baseline scenario, the role of domestic demand is expected to remain relatively constrained. For instance, growth in domestic consumption and investment in some economies is likely to be negatively affected by the relatively high levels of household and corporate debt which have been accumulated over recent years, such as in Malaysia, the Republic of Korea and Thailand. In going forward, a larger share

Figure 1.5 **Effect of oil and commodity prices on growth of commodity-dependent economies in Asia-Pacific region, 2014-2016**



Sources: ESCAP, based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016) and the Economist newspaper. Available from www.economist.com/blogs/graphicdetail/2015/08/commodity-dependency.

of household incomes and corporate profits will be directed towards debt payments, constraining further impetus to domestic demand.

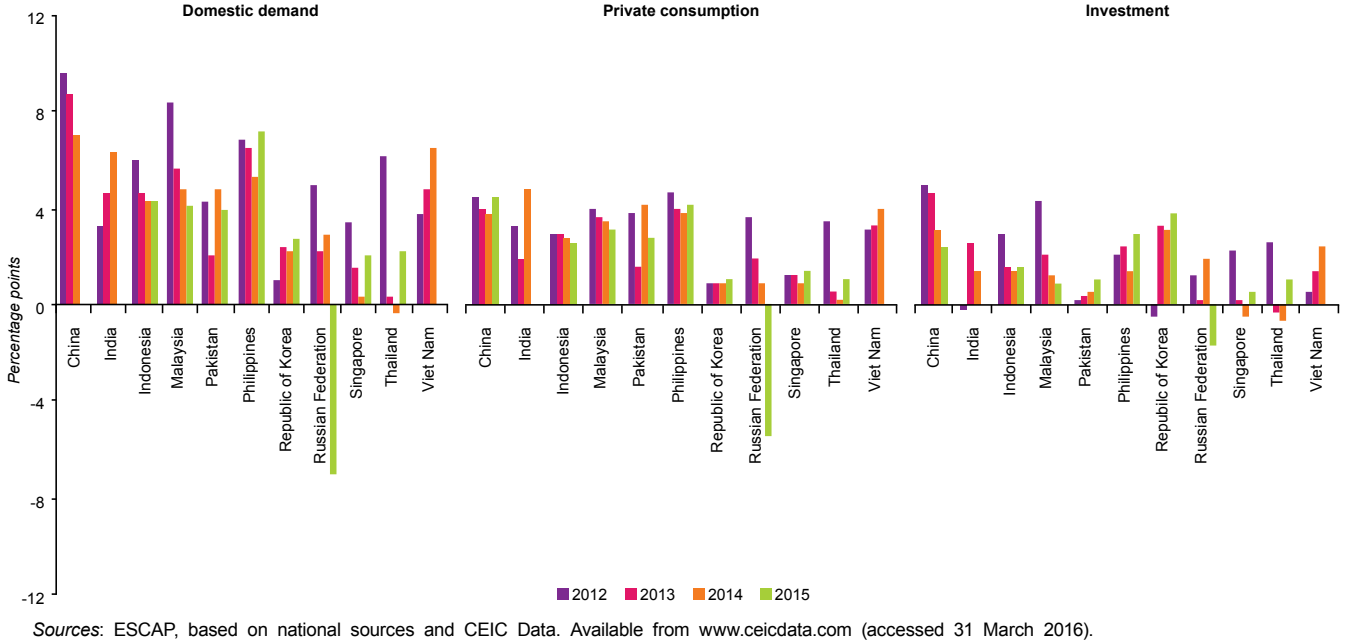
Indeed, between 2012 and 2014, private domestic demand in terms of percentage points of overall growth has been on a downward trend for, among others, China, Indonesia, Malaysia, Mongolia, the Russian Federation and Singapore. Furthermore, a number of countries with data available up to 2015 show a continuation of this trend, including Indonesia, Malaysia and the Russian Federation (see figure 1.6). This implies that, apart from muted exports, slowing domestic demand has also been an important driver of slowing growth in these economies. The factors driving the slowdown vary, depending on the particular element of private domestic demand.

Other than high household debt, as briefly discussed above, another factor dampening growth of private consumption in some economies is high inflation due to depreciating currencies. High inflation is eroding the purchasing power of households, which has been the case in Indonesia, Kazakhstan, Mongolia, the Russian Federation and Turkey, for example. For such economies, resolving the fundamental factors responsible for persistent currency depreciation pressures will be important. Other than a prudent monetary policy stance, reducing excessive reliance on a few commodities together with policies geared towards increasing real wages will help support private consumption.

In recent years, the contribution to economic growth from fixed investment has also declined for several major developing economies in the region, including China, India, Kazakhstan, Malaysia, Mongolia, Singapore, Sri Lanka, Thailand and Turkey. One reason is the relatively high interest rates in some countries due to both inflation and the need to preserve capital inflows, which hampers increases in credit for investment. This has been the case in India, Kazakhstan, Mongolia and Turkey, for example. In such cases, it will be necessary to maintain low and stable inflation and make effective use of macroprudential policies. Investment will also continue to be affected by the general uncertainty regarding the prospects for the global economy, with investors remaining wary of undertaking long-term decisions.

In this context, it is worth highlighting the risk emanating from gradual yet expected increases in interest rates in the United States. Such increases will put pressure on capital to flow out of the Asia-Pacific region and, as a consequence, could lead to higher interest rates in the region. The prospect of increases in domestic financing costs does not bode well for fixed investment growth. If economies choose to maintain their interest rates, they may experience higher exchange rate pressures. It is this tension in policy considerations that is increasing uncertainty – the ultimate deterrent to private investment.

Figure 1.6 **Growth of private domestic demand, private consumption and private investment in selected Asia-Pacific economies, 2012-2015**



Sources: ESCAP, based on national sources and CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

In some countries, such as China, Malaysia, Singapore, Sri Lanka and Thailand, weak investment is linked to sluggish prospects for the leading export sector. For moderately middle-income countries such as these, it will be necessary to take measures to boost productivity, as discussed in chapter 3, by investing in skills development for the workforce. Lack of sufficient spending on infrastructure is the other main factor causing the decline in fixed investment, despite the enormous needs in many developing economies in the region.

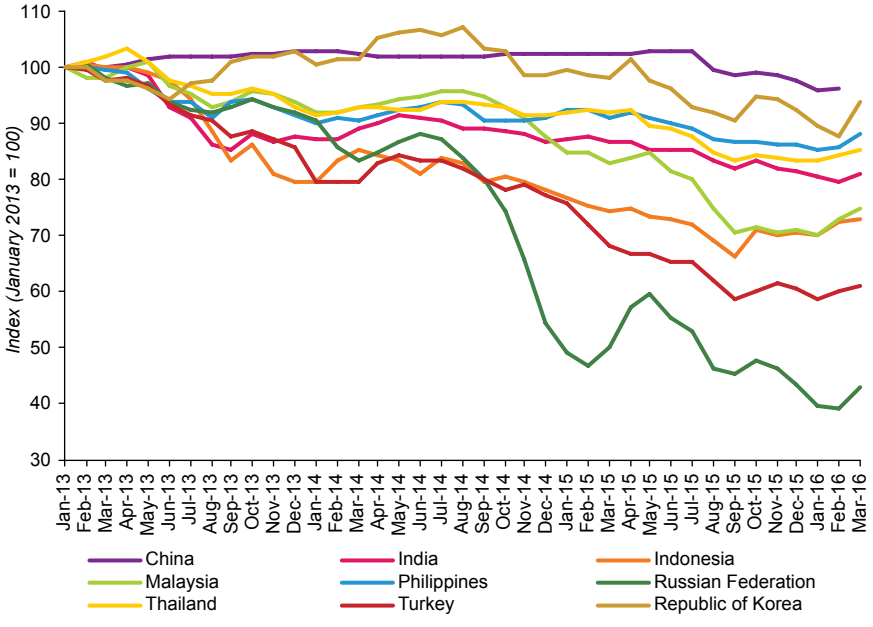
Some support for growth in domestic demand is likely to come from expected progress in reform policies of some major developing economies in the region. It is expected that India and Indonesia will both see greater implementation of their stated reform objectives, which are intended to boost domestic investment. These measures include simplification of regulatory structures and government infrastructure programmes. India is forecast to consolidate its growth rate of 7.6% in 2015, growing by 7.6% and 7.8% in 2016 and 2017 respectively. Indonesia is expected to increase its growth rate from 4.8% in 2015 to 5.3% in 2016 and 5.5% in 2017. Viet Nam is also expected to continue on its drive to divest its stakes in State-owned enterprises. It is assumed that the country will continue its strong growth performance, with growth likely to increase slightly from 6.7% in 2015 to 6.8% in 2016 and 6.9% in 2017.

1.2. Capital flow and exchange rate developments contribute to uncertainty

The region is experiencing a trend involving a general outflow of capital along with considerable volatility in financial markets

The prospects of stable international financial flows are riddled with uncertainty. Since 2015, there has been a trend involving a general outflow of capital from the region. This has led to significant volatility in asset markets as well as exchange rate depreciations (see figure 1.7). The outflow from the region is part of a trend in emerging markets globally. Global emerging markets suffered a net outflow of capital in 2015 for the first time since the 1980s, with the total outflow being $735 billion (Institute of International Finance, 2016).[3] Net short-term debt and bank outflows from China, combined with broad-based retrenchment in the Russian Federation, accounted for the bulk of the total outflow from the region in absolute terms. Even without these two economies, in 2015 Asian economies as a group also recorded the first net capital outflows in 10 years (Capital Economics, 2015). China posted record capital outflows of $676 billion in 2015. On the other hand, the capital outflow of the Russian Federation declined in 2015 by three times less than that of 2014, with $57 billion leaving the country instead of $153 billion (TASS, 2016).

Figure 1.7 **Exchange rate indices in selected Asia-Pacific economies, 2013-2016**



Source: ESCAP, based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

Note: A declining trend represents depreciation and vice versa.

Divergence in economic growth and interest rate prospects of many regional economies with those of the United States are the key factors responsible for capital outflow from the region. Although financial markets had for some time already factored into their calculations the initial impact of the increase in the interest rate by the United States Federal Reserve in December 2015, uncertainty regarding the timing of further increases is likely to lead to volatility in financial markets in the region. Monetary policies of the central banks of the European Union and Japan on the other hand, including quantitative measures, are currently in easing mode as inflation has failed to increase sufficiently to reach targets. Indeed, at the end of January 2016 Japan announced further steps by imposing negative interest rates on deposits held by Japanese banks with the central bank, while the European Union decided in December 2015 that its bond-buying programme would be extended to March 2017. Such monetary easing policies are introducing fresh liquidity into global financial markets at a time when the United States is withdrawing liquidity, leading to considerable volatility in global capital flows and financial markets.

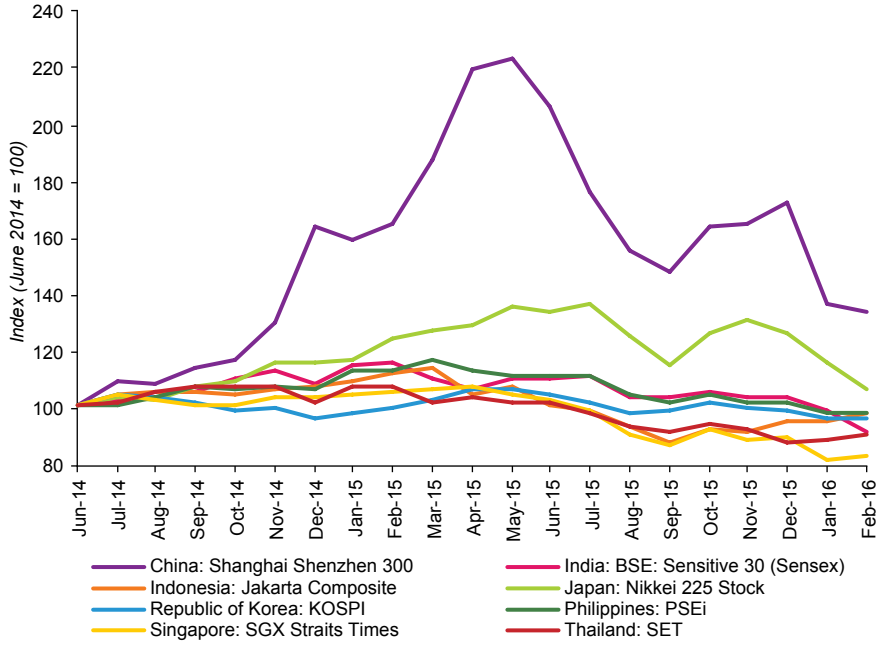
The other major reason for capital outflows from the region has been the weaker economic data from China and perceived related developments in the Chinese equity market. Decline in the Shanghai stock market in late 2015 and early 2016 spurred such concerns as they were interpreted by some investors as reflecting anxiety about the economy. However, it should be borne in mind that gyrations in the stock market do not necessarily reflect the state of the country's economy or its future outlook. For instance, when the stock market experienced a dramatic rise in the first half of 2015, China's economy was slowing down amid a slew of negative data.

Retail investors account for about 80% of China's stock market total, as opposed to much lower percentages in developed economies. Retail investors are possibly more prone to herd behaviour as opposed to institutional investors who tend to have greater knowledge of economic fundamentals. Furthermore, the frothy nature of stock markets is clear from the fact that the 40% decline in the equity market since its peak in mid-2015 still returned the market to roughly the same value as it had been at the start of 2015. Nevertheless, the fresh round of decline in equity values at the start of January 2016 did coincide with data on the continuing declining trend in the economy. The fall was triggered initially by the December 2015 manufacturing Purchasing Managers' Index reading, which was below expectations and therefore showed that industrial production had slowed for the tenth successive month.

The linkage between Chinese stock market movements and those of other major markets in the region can be seen from their co-movement at times of sharp declines in the former in the first two weeks of 2016 (see figure 1.8). While the Shanghai stock market fell by 15%, the Hang Seng Index of Hong Kong,

Figure 1.8

Equity market performance of China and selected Asia-Pacific economies, 2014-2016



Source: ESCAP, based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

China declined by 9.2%, Japan's Topix fell by 6.5%, Taiwan Province of China's Taiex by 6.6%, and India's Sensex by 4.7%. For the broader MSCI Asia-Pacific stock market index, the first two weeks of 2016 ranked as having the poorest start since 2000. The falls experienced by Asian stock markets in response to those in China reflect to some extent the strength of export linkages in the region with China and the belief that equity market falls in China are a sign of increasing concerns regarding growth in the economy.

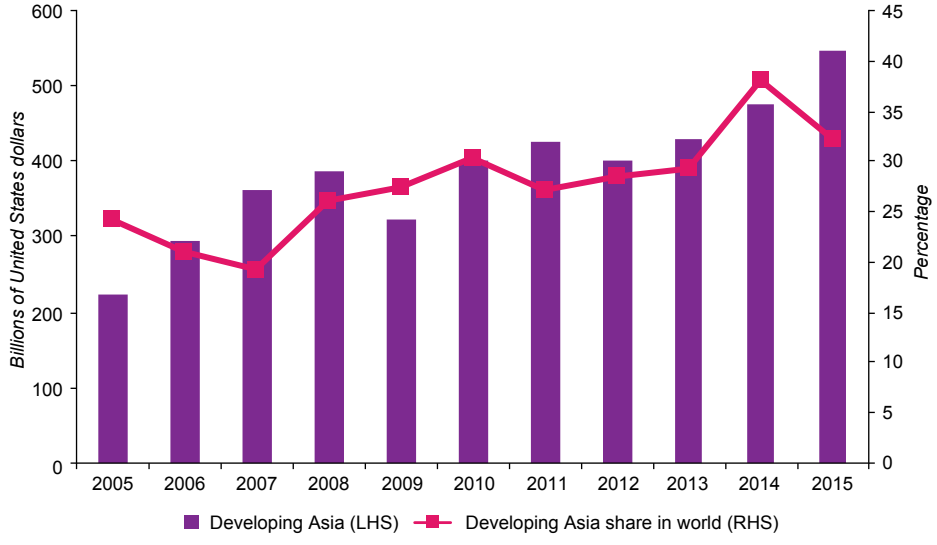
Another factor, which is also linked to China, driving capital outflows from the region has been movements in the country's currency. In the first week of January 2016, China allowed its currency to depreciate significantly, by a total of 1.5% against the United States dollar. In December 2015, China had already signalled that it would no longer consider currency stability in comparing it to the dollar and would instead consider the renminbi against a basket of 13 currencies. This change allows the renminbi to weaken more sharply against the dollar than in the past, which is especially pertinent in a period when the dollar is expected to strengthen as United States interest rates rise. Indeed, between the announcement of the basket in December 2015 and 11 January 2016, while the Chinese currency weakened 2.5% against the dollar, the renminbi weakened only 0.9% against the basket. However, uncertainty also exists regarding the future direction of currency moves by China as the central bank has used its foreign exchange reserves significantly since the depreciation of early January 2016. Reserves fell by $99.5 billion in January 2016 to $3.23 trillion after having fallen $513 billion in 2015, as the central bank had previously sought to maintain the dollar peg (Reuters, 2016).

Reflecting the linkage between regional currency markets and that of China, Asian currencies fell in tandem with the Chinese currency at the start of 2016. The Korean won declined by 3.1%, the Malaysian ringgit depreciated by 2.1%, and the Singapore dollar and Indonesian rupiah by about 1%. The decline in Asian currencies reflects concerns about export competition with China and other regional competitors in the face of depreciating currencies. Other than China, an important regional competitor which has seen its currency lose value has been Japan, experiencing a decline of 10% in the value of the yen against the dollar since mid-2014. Nevertheless, for less-advanced economies in the region, China remains a more direct export competitor than Japan due to the nature of the goods that it exports.

While portfolio flows are expected to decline, the outlook for foreign direct investment in the region is more positive

The share of the foreign direct investment (FDI) inflows into the Asia-Pacific region in global FDI flows has been on an increasing trend since 2005, although it declined in 2015. Asia and the Pacific as a whole received significant FDI inflows totalling $548 billion in 2015, a rise of 15% over that of 2014, according to the latest data available (see figure 1.9) (UNCTAD,

Figure 1.9 **Inflows of foreign direct investment into the Asia-Pacific region and their share in global inflows, 2005-2015**



Source: UNCTADstat.

Note: The UNCTAD grouping for "developing Asia" does not include ESCAP economies in North and Central Asia and in the Pacific. LHS = left-hand side; RHS = right-hand side.

2016). Hong Kong, China was the largest recipient of FDI in line with its position as a gateway to China, followed by China itself, Singapore and India in that order. The Asia-Pacific region has also continued to grow as a major outward investor, continuously increasing its share of global FDI outflow since 2010, with total FDI from the region reaching $563 billion in 2014, representing 41.6% of total global FDI outflow, according to the latest data available. The majority of outward investment came from China. Intraregional FDI is gaining more importance, with 60% of total greenfield investment coming from the Asia-Pacific region.

Foreign direct investment has benefited from an improved investment environment and deeper regional integration

There are various reasons behind the good performance of the region as whole. First, the investment environment has improved, with national and regional investment measures addressing liberalization, facilitation and promotion of FDI. This is true not only for large economies, such as China and India which pursued further liberalization, but also for smaller countries, such as Bangladesh, which despite being one of the least developed countries, has managed to attract a steady inflow of FDI for several decades as a result of its liberal investment policy and incentive regimes. Second, deeper levels of economic integration in Asia and the Pacific have helped to increase intraregional FDI flows as well as overall FDI flows to and from the region. Some examples include the recent establishment of the ASEAN Economic Community, the "one belt one road" initiative[4] and mega regional trade agreements, such as the proposed regional comprehensive economic partnership and the Trans-Pacific Partnership.

Despite the success of the region as a whole, uneven development between economies persists. Least developed countries in the Asia-Pacific region have improved their capacities over time, almost tripling FDI inflows into these countries within a decade, although the share is still relatively small overall. Nevertheless, they continue to rely on natural resources or labour-intensive industries and face a poor business climate, lack of infrastructure and government resources, as well as other macroeconomic and political constraints that prevent them from attracting higher levels of value-added FDI flows. These small and vulnerable economies could benefit considerably from FDI, but enhanced regional cooperation is needed for them to benefit from global and regional value chains.

1.3. Navigating monetary policy trade-offs remains challenging

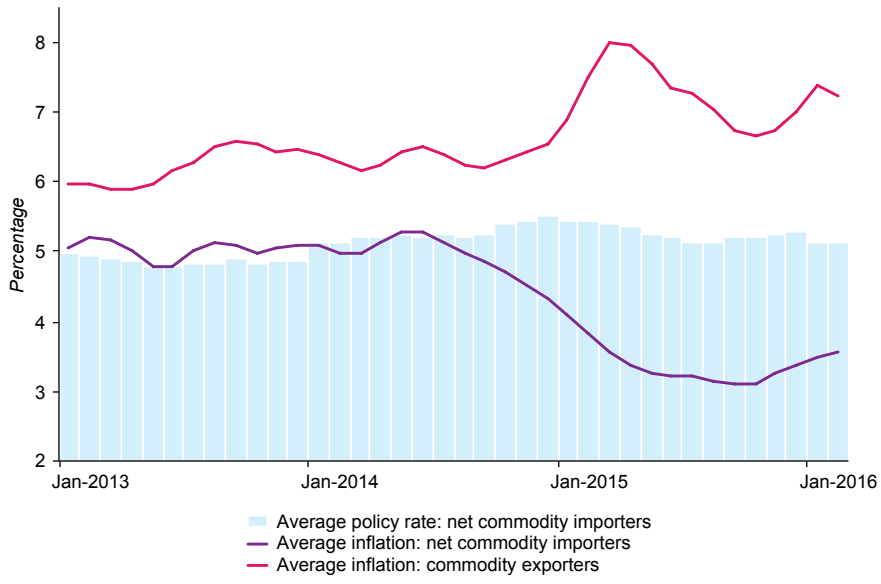
Inflation has declined in most economies in the region except in the commodity-dependent countries

Consumer inflation in developing Asia-Pacific economies was at a multi-decade low rate of 4.1% in 2015.[5] The deep plunge in global commodity prices, especially the prices for crude oil, with Brent crude prices falling from $109 per barrel in June 2014 to $37 per barrel in December 2015, mainly accounted for the lower inflation. In economies where official data on core inflation, or overall inflation excluding food and energy items, are available, there is some evidence that an economic slowdown also contributed to softer inflationary pressure.[6]

While inflation is low in the region as a whole, there is considerable divergence between subregions and economies, with commodity-dependence being an important driver. In economies with sizeable commodity exports, subdued commodity prices weakened their terms of trade and external account performance, which resulted in deep currency depreciations and higher inflation rates (see figure 1.10). In contrast, inflation in net commodity-importing economies continued its downward trend that started in mid-2014 and continued into 2015. Producer prices indeed decreased in most of these economies in 2015, ranging from about 2.5−5.5% in China, India, Pakistan, the Republic of Korea and Thailand to about 9% in Singapore and Taiwan Province of China. Without the rationalization of energy price subsidies that took place in many economies in the region, such as India and Indonesia, the pass-through from producer prices to consumer prices would have been stronger and would have resulted in even lower consumer inflation in 2015.

In economies with low inflation and/or weak domestic demand, the outcome has been easing of monetary policy. The Republic of Korea, Sri Lanka and Thailand lowered their policy interest rates by 50 basis points in 2015, while India reduced them by 125 basis points and Pakistan by 300 basis points. In all of these economies, the policy rates reached their multi-year low levels by end-2015. In the early months of 2016, Bangladesh and Indonesia also reduced their policy rate by 50 basis points each. However, monetary policy considerations should go beyond concerns of near-term economic growth and inflation, and be mindful of other issues, such as financial stability, exchange rate movements and capital flows. For instance, amid excessive growth of broad money, Sri

Figure 1.10 **Monthly inflation and policy interest rates in selected Asia-Pacific economies, 2013-2016**



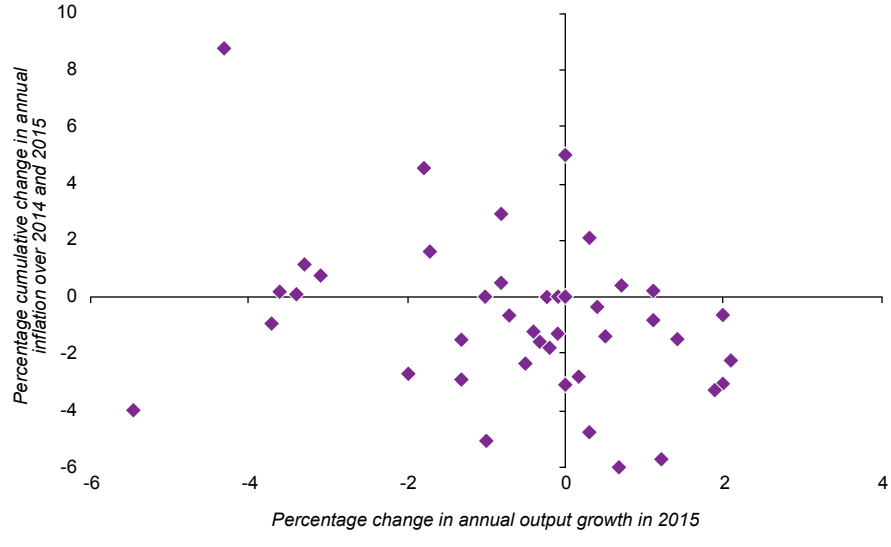
Source: ESCAP, based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

Note: The inflation rates are calculated as unweighted, 3-month moving averages of consumer price indices in 20 net commodity-importing economies and 5 commodity-exporting economies. These unweighted average values helped to lessen both the downward bias caused by low inflation in China for the former group and the upward bias caused by high inflation in the Russian Federation for the latter group. The other four countries considered here as commodity exporters are Armenia, Azerbaijan, Kazakhstan and Mongolia.

Lanka reversed its eased monetary policy stance by raising the policy rate by 50 basis points in February 2016 after a reduction of a similar magnitude in April 2015.

An important point worth highlighting is that the low inflation, along with the easy monetary policy stance of the last few years, has not really lifted economic growth, as usually would tend to be the case. Figure 1.11

Figure 1.11 **Percentage change in annual output growth in 2015 against cumulative percentage change in annual inflation in 2014 and 2015 for selected Asia-Pacific economies**



Source: ESCAP, based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016) and national estimates.

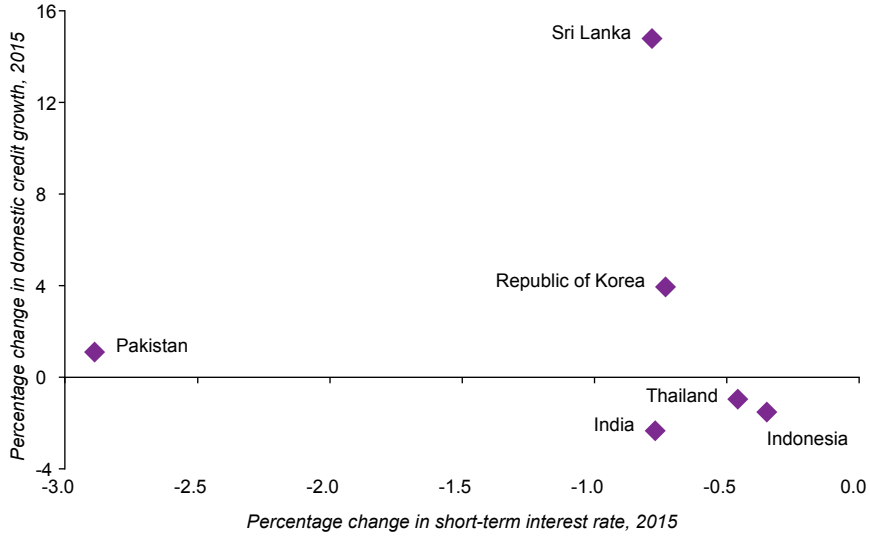
depicts a scatter plot between recent changes in annual output growth and inflation and shows that there is mixed evidence on the growth-inflation nexus. In particular, of 29 economies where inflation moderated over the period of 2014 and 2015, economic growth accelerated in 2015 relative to that of 2014 in only 13 economies (bottom-right quadrant).[7]

The disconnect between growth, inflation and monetary policy can be attributed to a combination of several interconnected factors. At the macro level, this period of low inflation has been clouded by uncertainty due to an unfavourable economic environment, such as concerns over an uneven economic rebound in advanced economies, growth deceleration in the region and heightened volatility in financial markets. These developments weighed on consumer sentiments and constrained private consumption, particularly amid rising household debt levels in some economies in the region. Moreover, despite lower inflation, it appears that real wage growth has slowed in many economies. This could be because subdued economic activity and low inflationary expectations limited nominal wage adjustments.[8]

Fixed investment has not responded to monetary policy easing as well. One reason is a limited pass-through from a lower policy rate to lower short-term interest rates in 2015, as observed in such economies as Kyrgyzstan, Nepal, the Russian Federation, Taiwan Province of China and Turkey. In several countries where short-term interest rates did decrease following monetary policy easing, the evidence on the link between borrowing costs and domestic credit growth is mixed (see figure 1.12). In India, Indonesia and Thailand, domestic credits expanded at a slower pace in 2015 relative to 2014 despite lower short-term interest rates. In India, investors remained cautious, as economic growth prospects are contingent upon progress being made in structural policy reforms. In Indonesia and Thailand, weak domestic demand held back investment decisions. Sluggish economic activity means that Thailand's industrial capacity utilization rate has declined steadily since mid-2013 and stood at only 63% at end-2015, resulting in new investment projects being postponed. Another factor that held back fixed investment growth despite lower nominal interest rates is the increase in real interest rates. In particular, inflation-adjusted lending rates in Hong Kong, China; Malaysia; the Philippines; Singapore; and Thailand increased by 0.7-2.6 percentage points in 2015 relative to the levels in 2014. All of these economies registered slower domestic credit growth in 2015.

At the micro level, the impact of lower commodity prices on income distribution is contributing to low growth in domestic consumption. Low inflation over the last few years is largely driven by decreases in fuel prices, which tend to disproportionally benefit higher-income groups due to the higher share of fuel in their consumption basket.[9] However, consumption by higher-income groups is typically less sensitive to price changes, so the impact of lower inflation

Figure 1.12 **Percentage change in interest rate and domestic credit growth, 2015**



Source: ESCAP, based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

on additional spending tends to be small. Moreover, falling global oil prices in the past few years have coincided with lower international food prices, which are also reflected in much smaller food price increases in most economies in the region,[10] a situation that tends to reduce farm incomes and limit consumption among rural households.

In looking forward, consumer inflation in developing Asia-Pacific economies is projected to soften slightly more in the near term, to 3.7% in 2016 and 3.6% in 2017. The decrease is expected to be underpinned by lower inflation in the North and Central Asian subregion, especially in the Russian Federation. In other subregions, inflation is generally anticipated to edge up from a low base in 2015. Indeed, there are more countries where inflation is projected to rise in 2016 and 2017 than those with lower or stable inflation, including China and India.

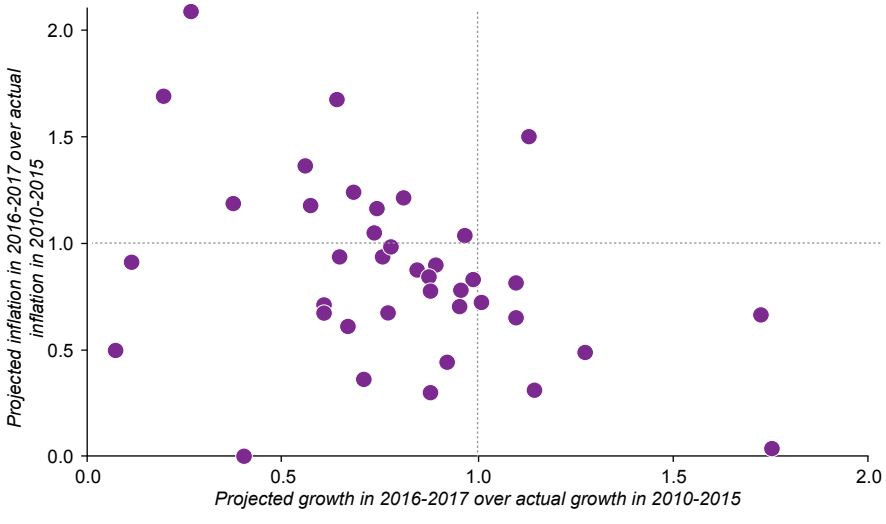
Considerations relating to financial stability and external account stability will have an influence on the conduct of monetary policy

A low-growth, low-inflation environment in the region, all things being equal, would generally suggest that there is further room for an easy monetary policy stance in the coming few years. Figure 1.13 shows that, of 48 Asia-Pacific economies, 22 of them are set to experience lower growth and inflation rates in 2016 and 2017 relative to their past trends recorded during the period 2010-2015 (bottom-left quadrant). This group of economies includes, among others, emerging economies, such as China; Hong Kong, China; Indonesia; the Republic of Korea; Singapore; and Turkey, as well as economies with smaller, less accessible financial markets, such as Armenia, Azerbaijan, Fiji, the Lao People's Democratic Republic, Maldives, Mongolia, Nepal and Solomon Islands. As far as monetary policy goals of promoting steady economic growth and maintaining price stability are concerned, monetary policy support can be deemed desirable in these economies given below-trend growth and inflation prospects.

Meanwhile, there are countries where projected growth also falls below past trends, but the use of an accommodative monetary policy stance may be constrained due to higher-than-trend inflation expected in the coming years (top-left quadrant). This group of countries is dominated by North and Central Asian economies, such as Georgia, Kazakhstan, the Russian Federation and Turkmenistan. Malaysia and Samoa also belong to this group but their average inflation in 2016 and 2017 is projected to remain modest, so there may still be room for some monetary policy support.

Nevertheless, in many economies with prospects for below-trend growth and inflation, considerations relating to financial stability will also have an influence on the conduct of monetary policy. In particular, a monetary policy stance that is kept too loose for too long could undermine domestic financial stability because firms and individuals tend to undertake riskier investment decisions when their balance sheets look stronger than

Figure 1.13 **Projected output growth and inflation in 2016 and 2017 relative to trends in the period 2010-2015 for selected Asia-Pacific economies**



Source: ESCAP, based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016) and national estimates.

they would otherwise. The need to strike a balance between the role of monetary policy in supporting economic growth and ensuring financial stability is especially relevant in economies where household and/or corporate debt levels are already relatively high or rising rapidly, such as China, the Republic of Korea and Singapore,[11] as well as those with currently high loan default ratios, such as Armenia, Maldives and Mongolia.[12]

Similarly, monetary policy and related liquidity-generating developments in advanced economies also tend to have a bearing on the conduct of monetary policy in emerging economies. The key channel of influence is external account stability via sharp changes in capital flows and exchange rates, which in turn has implications for domestic financial stability in terms of changes in the balance sheets of corporates and banks. In this context, as interest rate increases in the United States move forward, the gap between interest rates in the United States and the region could narrow further and potentially result in greater capital outflows and currency depreciations. In such circumstances, it could become difficult for developing economies in the region to lower their interest rates further despite low inflation and weak economic growth. They may consider continuing with current levels of interest rates, provided a weaker exchange rate is accepted and does not undermine external account stability. These conditions are quite constrained in such economies as Turkey where the size of external debt and reliance on foreign funds have increased markedly since the global financial and economic crisis began in 2008.

While monetary policy support may be feasible in economies facing prospects for below-trend growth and inflation as well as concerns about low financial stability, the effectiveness of monetary policy could still remain limited in some cases. For example, the economies of Armenia, Azerbaijan, Maldives and Mongolia are characterized by a high degree of dollarization (Mwase and Kumah, 2015), which tends to weaken monetary policy effectiveness because the foreign currency component of broad money cannot be controlled directly by monetary authorities. Similarly in Fiji, the Lao People's Democratic Republic, Nepal and Solomon Islands, their less developed financial markets typically limit the monetary policy transmission mechanism.[13] Nonetheless, although eased monetary policy may not help to actively boost household consumption and business investment in such economies, such a policy should still indirectly support economic growth. For example, lower domestic interest rates help to reduce a Government's debt servicing costs; such savings could be used to finance fiscal support programmes or scale down planned fiscal consolidation. However, incorporating such fiscal considerations while deciding upon the monetary policy stance would require the existence of a credible and independent central bank along with transparent and established coordination mechanisms with the fiscal authority.

1.4. Fiscal policy requires balancing fiscal discipline and flexibility

Countercyclical fiscal policy potentially can play a supportive role for economic growth, provided fiscal sustainability is ensured

Given the gradually declining trend in economic growth in developing economies in the region, countercyclical fiscal policy, unlike monetary policy, potentially can play a more supportive role for growth. Indeed, the stance of fiscal policy in the region in 2015 was largely countercyclical and expansionary. China pushed ahead with large infrastructure projects and provided tax breaks and other relief measures for corporations.[14] India adjusted its fiscal consolidation path to allow for more capital expenditures.[15] Indonesia reallocated most of its savings from a fuel subsidy cut to infrastructure and social spending. The Republic of Korea and Thailand passed supplementary budgets aimed at stimulating domestic demand. However, the Russian Federation had to cut public spending as oil and gas revenues continued to decline, although it was able to draw on past windfall savings to mitigate some of the adverse impacts.[16]

For a number of least developed countries and small island developing States, the concern is not only cyclicality but also how to expand public goods and services in support of national development without risking fiscal sustainability or "overheating" the economy. Total government expenditures have grown rapidly in Myanmar, for instance, albeit from a low base. Fiji and a number of other Pacific island economies have also scaled up capital expenditures in recent years.

Whether fiscal policy is aimed at stabilizing the economy or supporting national development, an important consideration has to do with fiscal sustainability. By and large, most developing countries in the region have relatively low government debt as a percentage of GDP, which fell significantly during much of the 2000s due to the implementation of prudent policies as well as rapid economic growth. The declining trend was reversed in the wake of the global financial and economic crisis that began in 2008; after stabilizing

somewhat in the years immediately following the crisis, government debt levels recently began to pick up again (see figure 1.14). On average for the region, the general government debt level is estimated to have increased to a still manageable 42% of GDP in 2015 compared with 36% in 2007.

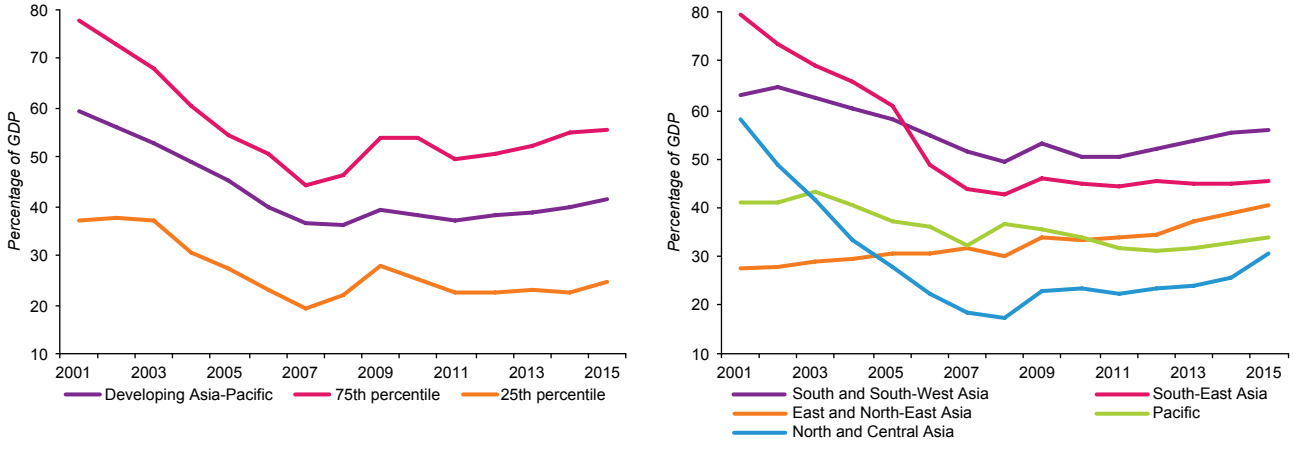
Finding the right balance between fiscal discipline and flexibility is important to support the development needs of the region

It should be recognized that there is no mechanical or universally accepted threshold for limiting public debt, a fact that has been confirmed by recent empirical studies (Pescatori, Sandri and Simon, 2014). Moreover, as fiscal austerity measures, informed by the notion of a unified threshold, prompted sharp output declines in Europe, the policy relevance of holding on to a particular threshold has been questioned. Ultimately, each country needs to assess the costs and benefits of higher public debt, for instance smaller margins to cope with contingent risks against faster achievement of education, health and other development goals.[17] If deemed necessary, consolidation could be done in a phased and comprehensive manner – for instance by establishing a medium-term framework for reprioritizing expenditures and broadening the tax base – rather than by making sudden cuts in capital expenditures, which could be self-defeating by eventually retarding growth. For instance, India's latest deficit reduction effort has been accompanied by fuel subsidy reform, which itself was well sequenced, and tax reform, which leaves more room for making capital expenditures.

Similarly, for countries which have fiscal rules, it is important to find the right balance between fiscal discipline and flexibility.[18] For instance, Indonesia's budget balance rule requires the general government budget deficit not to exceed 3% of GDP in any given year. Amid slower growth and revenue shortfalls, concerns have been raised that the Government's 2016 budget, which contains significant allocations for infrastructure, health and other priority areas, may need to be revised.[19] Some flexibility may be warranted, especially given Indonesia's relatively low public debt. For instance, a cyclically adjusted budget deficit rule or a fiscal rule can be considered in which public investment and other priority outlays are excluded from the perimeter of the rule. Redesigning the fiscal rule in such a manner would leave more space for countercyclical and development-oriented fiscal policies.[20] It should also be noted that such countries as China and the Republic of Korea do not have legally binding rules but only internal guidelines for preparing their budgets, which have been generally effective.

As had been argued in the year-end update of the Survey for 2015 (ESCAP, 2015d), an important consideration beyond stabilization is the potential impact of fiscal policy on the distribution of income and opportunities and on long-term economic growth. Spending on education, health and infrastructure are particularly important in this regard, and countries are trying to scale up such spending by phasing out inefficient and regressive expenses. For instance, India, Indonesia and Malaysia implemented fuel subsidy reforms, often accompanied by targeted

Figure 1.14 **General government gross debt in selected Asia-Pacific economies, 2001-2015**



Source: ESCAP, based on data from International Monetary Fund, *World Economic Outlook, October 2015: Adjusting to Lower Commodity Prices*. Available from www.imf.org/external/pubs/ft/weo/2015/02/pdf/text.pdf.

Note: The figure covers 39 developing economies in the region, but excludes Australia, Japan and New Zealand. Data for 2014 and 2015 are estimates.

mitigating measures, such as cash transfers for low-income households.[21] However, allocating the budget across competing priorities and necessary expenses is not a straightforward task. For instance, several Governments have significantly increased civil service pay and allowances, or plan to do so in the coming years, but this may "crowd out" other expenses. While the "optimum" allocation would ultimately depend on a country's circumstances and preferences, a comparison with regional peers and relevant variables, such as the child mortality rate for health spending, may shed some light.

Social expenditures, which are important for inclusive and equitable growth, are increasing, albeit from a low base. Indonesia allocated 5% of its 2016 national budget to health expenditure compared with 3% in 2014 (Negara, 2016). Many countries, including Indonesia, have committed themselves to achieving universal health coverage (Ly and Yarrow, 2014). The Philippines allocated more than a third of its 2016 national budget to social services, which covers housing, livelihood and community-driven projects. Pakistan is expanding its Benazir Income Support Programme to 5.3 million beneficiaries. Many countries in the region have similar conditional cash transfer programmes. Aside from increasing the size of the budget concerned, access and affordability for the poor should be enhanced. For instance, in Bangladesh in 2011 skilled birth attendants were present for 64% of births to women in the highest-income quintile but for only 12% of births to those in the lowest-income quintile (ESCAP, 2015b).

Public infrastructure spending is particularly important for long-term growth and requires better implementation capacities

For long-term growth, public infrastructure outlays are particularly important. Several Governments are scaling up capital expenditures, including through debt financing or the sale of certain State assets, as well the reallocation of expenditures and improved revenue collection. Indonesia also recently recapitalized several State-owned enterprises for infrastructure investment. Malaysia has successfully attracted private participation under its Economic Transformation Programme, which helped create a pipeline of bankable projects. India and Thailand are launching new infrastructure funds to attract long-term private financing from sovereign wealth funds and pension funds. However, aside from financing, it is important to improve project selection, as well as management and implementation capacities across the board.

Government expenses can be improved along economic classification and functional lines. A number of countries are increasing civil service pay and allowances. In Cambodia, minimum monthly salaries for civil servants are expected to rise to $250 by 2018, which is equivalent to $3,000 annually, compared with the annual per capita income of $1,100 in 2014. In Bangladesh, it was recommended in the 2015 review of public sector pay that base pay for all grades be approximately doubled and that significant changes be made in terms of allowances. Keeping in mind that developing the quality of the civil service requires wide-ranging reforms beyond pay, Governments should make an effort not to compromise critical social and infrastructure spending. In addition to such indicators as the cost of living, Governments can also compare the wage bill with the size of other expenses, such as the consumption of goods and services, subsidies and social benefits that are administered by employees (see figure 1.15).

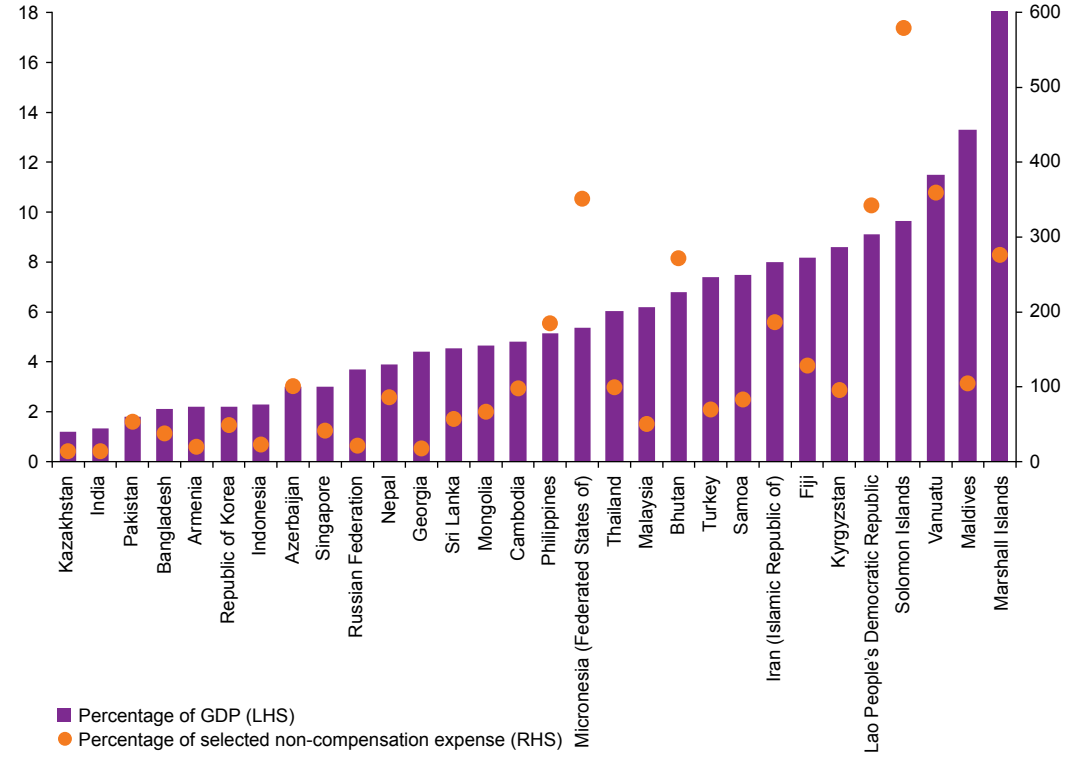
In term of government financing of expenditures, while borrowing is an option especially in times of low financing costs,[22] there is a risk that interest payments may ultimately limit the Government's spending capacity. For instance, countries such as India, Pakistan and Sri Lanka spent an estimated equivalent of 4-5% of their GDP on interest payments in 2015 (see figure 1.16).[23] The composition of debt matters. In Pakistan, heavy reliance on short-term borrowing makes debt dynamics sensitive to interest rate changes. Limited access to concessional external financing has also pushed countries such as Viet Nam to rely more on domestic debt at higher interest rates and shorter maturities.

1.5. Growing household and corporate debt indicate increasing risks

Household and corporate debt has risen rather sharply in recent years in some economies, increasing the risks for the region

The risks for the region due to slowing growth as well as capital outflows have been heightened in some economies due to high levels of household and corporate debt, which have increased significantly in a number of countries in the past decade. Those levels are being driven by low interest rates, ample liquidity and increased access to cross-border loans and international capital markets. In the wake of the global financial and economic crisis that started in 2008, debt-driven consumption and investment played an important role in sustaining the region's high economic growth rate. Greater use of debt had

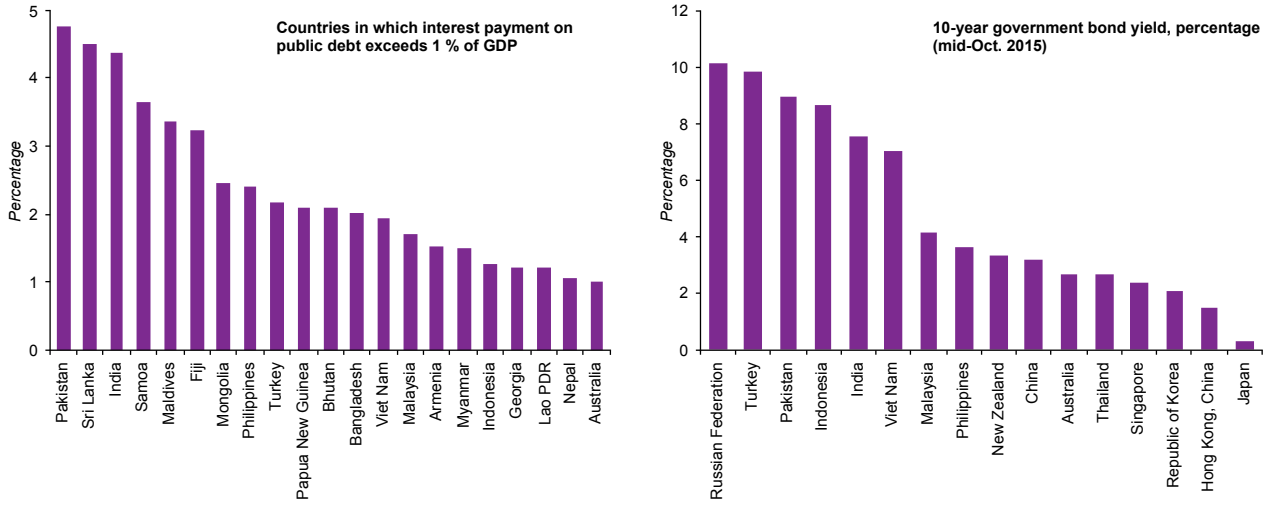
Figure 1.15 Government expenditures on employee compensation



Source: ESCAP, based on data from International Monetary Fund, Government Finance Statistics.

Note: Data are for 2014 or latest available year. Selected non-compensation expenses consist of the use of goods and services, subsidies and social benefits; expenditures such as grants are excluded. LHS = left-hand side; RHS = right-hand side.

Figure 1.16 Government expenditures on debt servicing



Source: ESCAP, based on data from International Monetary Fund, *World Economic Outlook, October 2015: Adjusting to Lower Commodity Prices*, and Trading Economics. Available from www.tradingeconomics.com.

Note: The estimated interest payment for 2015 was calculated as the difference between estimated government overall balance and primary balance in 2015.

desirable aspects, reflecting the region's financial development. Events in the past year, however, have exposed the risks associated with higher debt – both in terms of financial stability and future growth prospects. In particular, the depreciation of the Chinese currency since August 2015 and the increase in interest rates in the United States since December 2015 have prompted large capital outflows from the region and a reassessment of the growth outlook and risks.

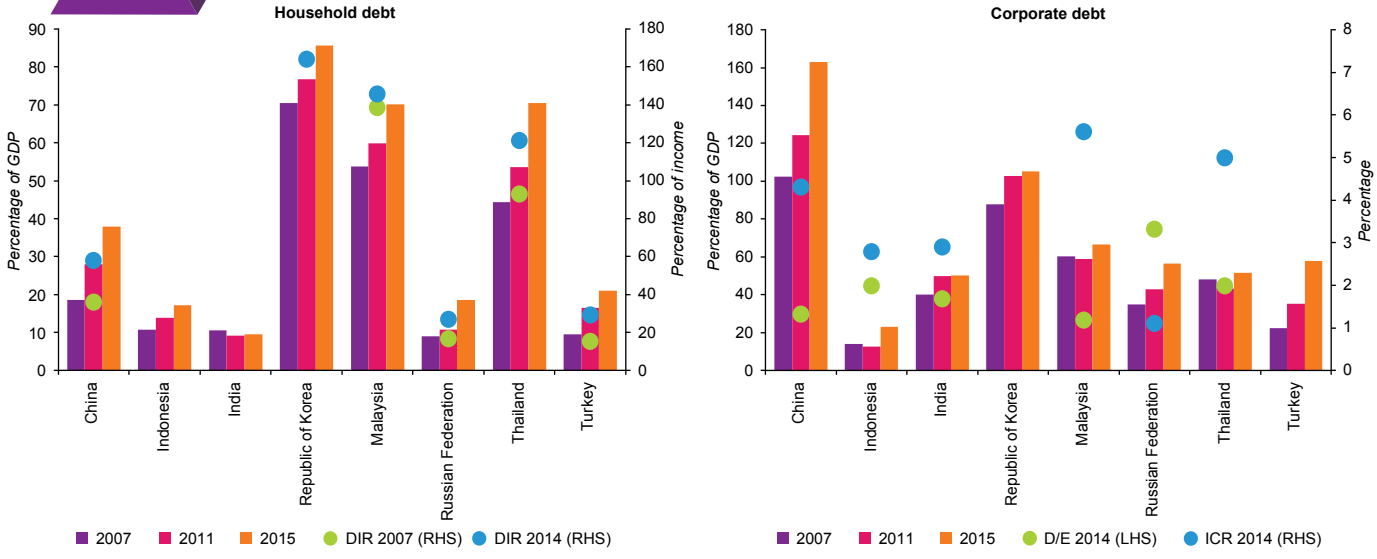
Compared with the situation at the time of the 1997 Asian financial crisis, the region's financial system is now stronger and backed by sizable official reserves. However, debt servicing capacities of the private sector may be more constrained at this time in view of the economic slowdown and subdued earnings. Debt exposure to highly cyclical or excess capacity sectors, such as real estate, construction, energy and heavy industries, will prove to be a challenge in the deleveraging stage. The confluence of shifts in the global financial and commodity cycles could also have negative implications for some countries.

The latest available data show that household debt is as high as 86% of GDP or 164% of disposable income in the Republic of Korea and also quite high in Malaysia and Thailand. Corporate debt is as high as 163% of GDP in China, although firm-level indicators of leverage and debt-servicing capacity suggest that firms in India, Indonesia and the Russian Federation may be more vulnerable to shocks (see figure 1.17). While private debt levels tend to rise with higher incomes, the rapid pace of increase in the past decade has raised concerns. Historically, episodes of rapid credit growth have almost always been followed by a banking crisis, as in the case of the 1997 Asian financial crisis. Since 2007, the private debt to GDP ratio (household and corporate debt combined) surged by some 80 percentage points in China and by 30-40 percentage points in Malaysia, the Republic of Korea, Thailand and Turkey, as the growth of debt far outpaced nominal growth of GDP. In other words, mortgage loans and consumer loans grew faster than household disposable income while corporate leverage increased.

Even if conditions are broadly manageable, pockets of risk still exist

Although debt may eventually boost incomes and assets if it is effectively invested, the immediate implication of higher and rapidly increasing debt is a rise in the private sector's debt service ratio, with a higher share of household incomes and corporate earnings going to debt servicing. If deemed unsustainable, this situation may encourage some deleveraging and act as a drag on domestic demand. Alternatively, debt

Figure 1.17 **Household and corporate debt in selected Asia-Pacific economies**



Source: ESCAP, based on credit to the non-financial sector data set, Bank for International Settlements; household accounts data set, OECD; Richards Dobbs and others, "Debt and (not much) deleveraging", McKinsey and Company; and Julian Chow, "Stress testing corporate balance sheets in emerging economies", International Monetary Fund Working Paper WP/15/216 (Washington, D.C., IMF, 2015).

Note: Household debt is shown as percentages of GDP (left axis) and disposable income (right axis); DIR = debt to income ratio. Corporate debt, excluding financial institutions, is expressed in terms of GDP. This is complemented by firm-level indicators from the Orbis database, as reported in Chow (2015) referenced above. D/E = debt to equity, or corporate leverage. ICR = interest coverage ratio, or corporate earnings before interest and taxes to interest. Debt to GDP ratios for the first quarter of 2007 and 2011 and second quarter of 2015 (latest available). LHS = left-hand side; RHS = right-hand side.

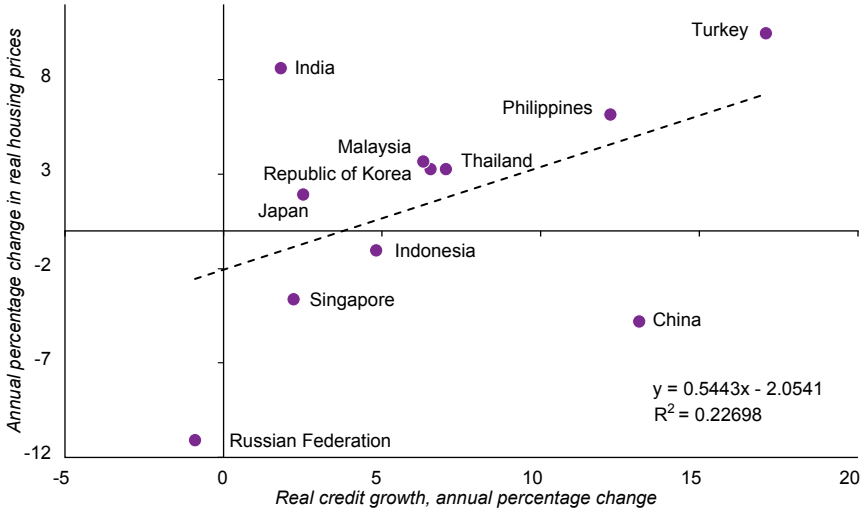
levels may increase further to sustain high levels of spending, in which case sustained economic growth would come at the cost of increased financial risks and a potentially sharper slowdown in the future.

There are two caveats to this growth-instability nexus. First, if debt accumulation is used productively and increases the region's capital stock, both growth and stability may be achieved. Nevertheless, history suggests that financial booms tend to go hand in hand with significant resource misallocations (BIS, 2015). Second, if countries manage to restructure debt efficiently, by lowering refinancing costs and lengthening maturities, a more gradual deleveraging with relatively low financial risks may be achieved. China, Malaysia and the Republic of Korea seem to be taking this path.[24] However, this strategy also could result in the encouragement of even more borrowing.

Debt sustainability would vary across households and corporates, so that pockets of risk could exist even if the overall picture looks manageable. In the case of household debt, a particular concern is the disproportionate amount of debt held by households with low capacity to service debt.[25] In Thailand, debt servicing as a share of income was 27% for all households but nearly 50% for the poorest income quintile in 2013 (Muthitacharoen, Nuntramas and Chotewattanakul, 2014). In the Republic of Korea, where the household debt-to-income ratio has surpassed 160%, much of the debt is owed by the self-employed in low-productivity service sectors (Bank of Korea, 2015). Another risk is that much of what is considered household assets as well as debt are tied to the real estate sector, making households vulnerable to fluctuations in the price of housing. House prices and credit have grown rapidly in a number of countries and exhibit a positive correlation (see figure 1.18). Even in China, India and Indonesia, where credit to households is relatively small, mortgage lending has been growing rapidly; in China, where the household debt-to-income ratio neared 60% in 2015, mortgage loans made up half of the credit extended to households.

Corporate debt concerns are not new to Asia, and the recent increase in corporate leverage (debt to equity) may seem rather insignificant compared with the deleveraging that followed the 1997 Asian financial crisis. There was also significant deleveraging in State industrial firms in China during the second half of the 1990s and early 2000s. Nevertheless, the renewed increase in leverage in the wake of the 2008 crisis raises several concerns. Firm-level data reveal that the most highly leveraged firms tend to have lower profitability and lower interest coverage ratios (earnings to interest) and to be less liquid (IMF, 2014). In India, a third of corporate debt is owed by companies with debt-to-equity ratios exceeding 300%, and many firms carry high interest burdens. In China, indebtedness of State-owned enterprises soared even as the return on assets fell, in contrast to foreign and private industrial firms which were cutting their leverage and boosting their profitability (Rutkowsky, 2015).

Figure 1.18 **Growth of housing prices and credit in selected Asia-Pacific economies, last 12 months**



Source: ESCAP, based on data from Global Housing Watch, International Monetary Fund.

Moreover, as suggested previously, leverage has grown in highly cyclical or excess capacity sectors, such as real estate, construction, energy and heavy industry. This combination – along with the high dollar exposure (as discussed below) – leaves the corporate sector highly vulnerable to shocks. A stress test of the resilience of the corporate sector to shocks, such as exchange rate depreciation, earnings decline and increases in borrowing costs, shows that debt at risk could spike significantly even from relatively low levels (Chow, 2015).

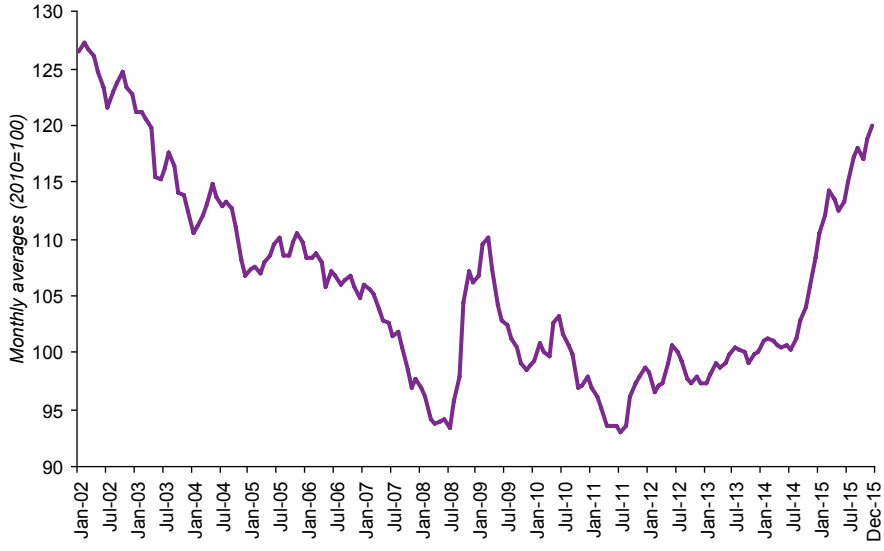
Risk exposure increases when the increase in dollar-denominated corporate debt is considered

In addition to the sharp increase in debt, a related concern is the exposure of corporates to external debt, in particular the share of debt denominated in United States dollars. This is because the United States federal fund rate has begun to rise, which will cause increases in dollar financing and refinancing costs (for maturing loans) over the next few years. At the same time, the more traditional risk of currency mismatch has resurfaced amid strengthening of the United States dollar. The nominal effective exchange rate of the dollar depreciated before the start of the crisis in 2008, but has been appreciating since 2011 and at a faster pace more recently (see figure 1.19). Currency-related risks are mitigated if there are natural hedges, such as export earnings, or hedging via derivatives. In this regard, there seems to be quite a variation across countries and sectors. For instance, the currency composition of assets and liabilities are less likely to be matched by property developers in China or energy and utility firms in India, which have been among the most active international debt issuers in recent years. Also, compared with corporates in the Republic of Korea (which are known to have access to liquid domestic or offshore markets that support financial hedging strategies for both currency and interest rate risk exposures), peers in China and Indonesia are less likely to be hedged as markets may not be deep enough to provide appropriate and cost-effective hedging (Chui, Fender and Sushko, 2014).

As of mid-2015, United States dollar debt held by non-bank borrowers, including non-bank financial institutions and government debt as well as non-financial corporate debt, in selected major Asia-Pacific developing economies stood at $2.1 trillion, two thirds of which amount was in dollar loans (domestic and cross-border) and a third in dollar bonds (including offshore), although the ratio varied across countries. While China stands out in absolute terms, its dollar debt as a share of annual exports and foreign currency reserves was on the lower end, that is, 52% and 35%, respectively (see figure 1.20). Turkey on the other hand had debt-to-exports and debt-to-reserves ratios as high as 127% and 200%, respectively.

In considering non-financial corporate debt only, the share of dollar debt is estimated in the range of 5-10% in China, India, Malaysia and the Republic of Korea

Figure 1.19 **Nominal effective exchange rate of the United States dollar, 2002-2015**



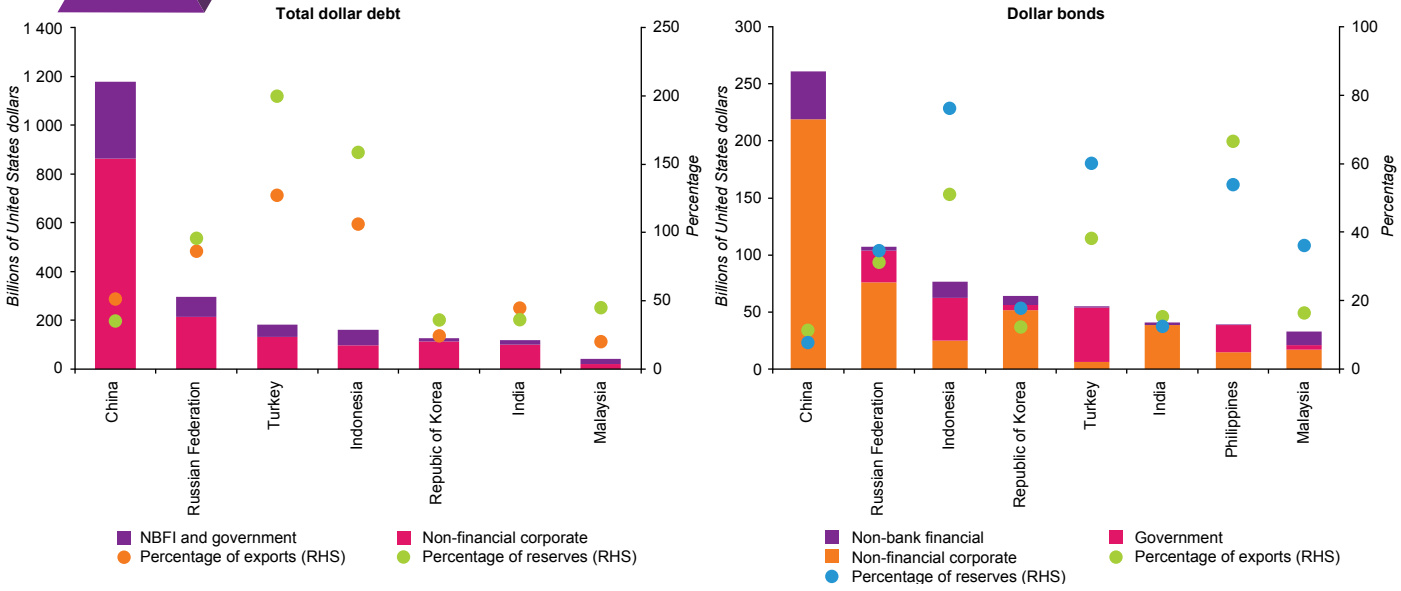
Source: Bank for International Settlements.

Note: Monthly averages of the value of the currency against a weighted average of several foreign currencies; data until December 2015.

compared with about 30-50% in Indonesia, the Russian Federation and Turkey (McCauley, McGuire and Sushko, 2015). Figure 1.20 also shows data for dollar bonds only; Indonesia, the Philippines and Turkey seem to have relatively large dollar exposures compared with their dollar earnings or reserves, although the share of the non-financial corporate sector is relatively smaller.

The implications of dollar debt, including spillovers into the domestic economy, would vary depending on how the dollar debt was used. Firms engaged in international trade borrow dollars to finance dollar-invoiced transactions. They also use dollar credit to fund holdings of inventory and fixed assets at home or to fund productive assets held by affiliates outside the home country.[26] However, the recent sharp increase in corporate debt seems to entail more than just trade finance and domestic and foreign investment, as there was an attempt to profit from interest rate differentials or currency movements (McCauley, McGuire and Sushko, 2015). In other words, firms seemed to have also borrowed dollars to accumulate financial assets, including those in the domestic currency, and thereby were able to engage in carry trade (see figure 1.21). Some dollars were deposited in domestic banks, which may explain how banks

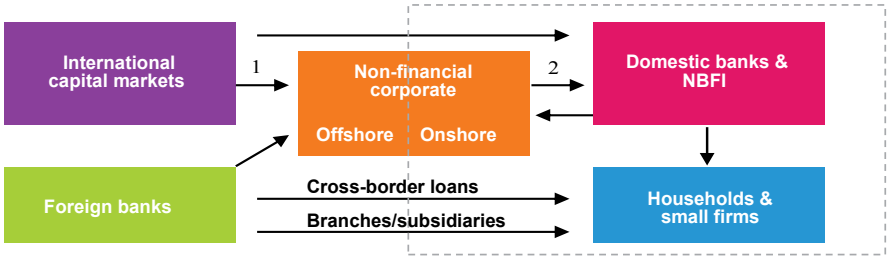
Figure 1.20 **Dollar debt in selected Asia-Pacific economies, latest data**



Source: ESCAP, based on data from Bank for International Settlements; Robert McCauley, Patrick McGuire and Vladyslav Sushko, "Global dollar credit: links to US monetary policy and leverage", Bank for International Settlements Working Papers No. 483 Basel, Switzerland, BIS, 2015); and CEIC Data.

Note: Data are on dollar debt for the second quarter of 2015, total exports in 2015 and foreign exchange reserves at end-2015. Total dollar debt includes dollar loans as well as dollar bonds. NBFI = non-bank financial institutions.

Figure 1.21 **Channels of credit and carry trade**



Source: ESCAP.

Note: Arrows indicate the direction of credit – bank loans and debt securities. The dotted line indicates a residence-based domestic economy used in GDP and balance of payments; it differentiates onshore and offshore borrowing. As an illustration of the carry trade, funds raised in international capital markets at a low interest rate (1) are not only used for investment but also deposited in domestic banks at higher interest rates (2). NBFI = non-bank financial institutions, also known as "shadow banks".

were able to increase lending to households and small firms while maintaining relatively stable loan-to-deposit ratios even in countries with relatively low domestic savings. Some of the accumulated cash also funded corporate holdings of higher-yielding domestic assets, such as wealth management products or investment fund shares (Chui, Fender and Sushko, 2014). In such cases, the unwinding of dollar debt may have large spillover effects on the domestic economy beyond the finances of the leveraged firms.

2. MACROECONOMIC POLICY SUGGESTIONS

This section presents some selected policy considerations keeping in view the key short-term and long-term macroeconomic challenges that the region must address to revive sustained and resilient economic growth. In the short term, it will be critical to take measures to mitigate the impact of high private debt in some economies to ensure that growth is not dampened by issues related to financial stability. In the long term, Governments will need to consider approaches to expand tax resources in order to fund productive fiscal policies which will support domestic growth drivers. Finally, Governments' active engagement in initiatives towards greater regional cooperation can boost intraregional trade, investment and financial flows and reduce dependence on extraregional growth drivers.

2.1. Financial sector measures to manage growing corporate and household debt

A comprehensive yet phased approach is needed to address the implications of sharply growing private debt

In order to ensure sustained growth and financial stability, Governments will need to introduce a host of comprehensive measures to address the issue of sharply growing private debt. Policy priorities should include better monitoring of household and corporate liabilities and assets, and effective use of macroprudential and capital flow management tools.[27] Policymakers could also increase the attention paid to banks' sectoral exposures in addition to overall capital adequacy, while accounting for contingent liabilities on the fiscal side. For countries such as China, improving credit allocation and restructuring State-owned enterprises are also critical for achieving debt sustainability. However, as had been argued in the year-end update to the Survey for 2015 (ESCAP, 2015d), policymakers should be aware that abrupt tightening measures may further constrain the private sector's debt servicing capacities and increase debt risks across the board. Thus, a phased yet comprehensive approach is recommended. At the same time, the region's process of financial development should be continued through greater cooperation and integration.

Monitoring of household and corporate finances should include both liabilities and assets, as the quality of assets may also affect the capacity for debt servicing

In terms of monitoring, data on household assets – both financial and real estate assets – could be improved, as the data are scarce compared with those on income and expenditures. Micro and macro-level analysis of household debt would help policymakers better assess the risks both for financial stability and future growth prospects. For instance, in Thailand the primary concern is that higher debt burdens will affect consumption, particularly for low-income households, although there are signs of asset price speculation by retail investors (Bank of Thailand, 2014). Monitoring vulnerable and systemically important firms, as well as banks and other sectors closely linked to them, is also crucial. Such expanded monitoring requires that the collection of data on corporate sector finances, including foreign currency exposure, be improved (IMF, 2015).

However, effective monitoring may be difficult given that companies are not subject to the sort of regulation that is applied to banks. The usual avenue would be to rely on greater public disclosure, either ex ante or ex post. Such requirements could be imposed by the Government or may be included in accounting standards or stock market listing requirements. Companies may fear an adverse response from investors and lenders stemming from the disclosure of significant exposure to foreign currencies and so be dissuaded from borrowing excessively. However, as disclosure through annual reports is infrequent and slow, a case may be made for requiring some form of more frequent disclosure, at least to the authorities, by large companies (Hawkins and Turner, 2000).

Use of macroprudential and capital flow management tools can be made more effective

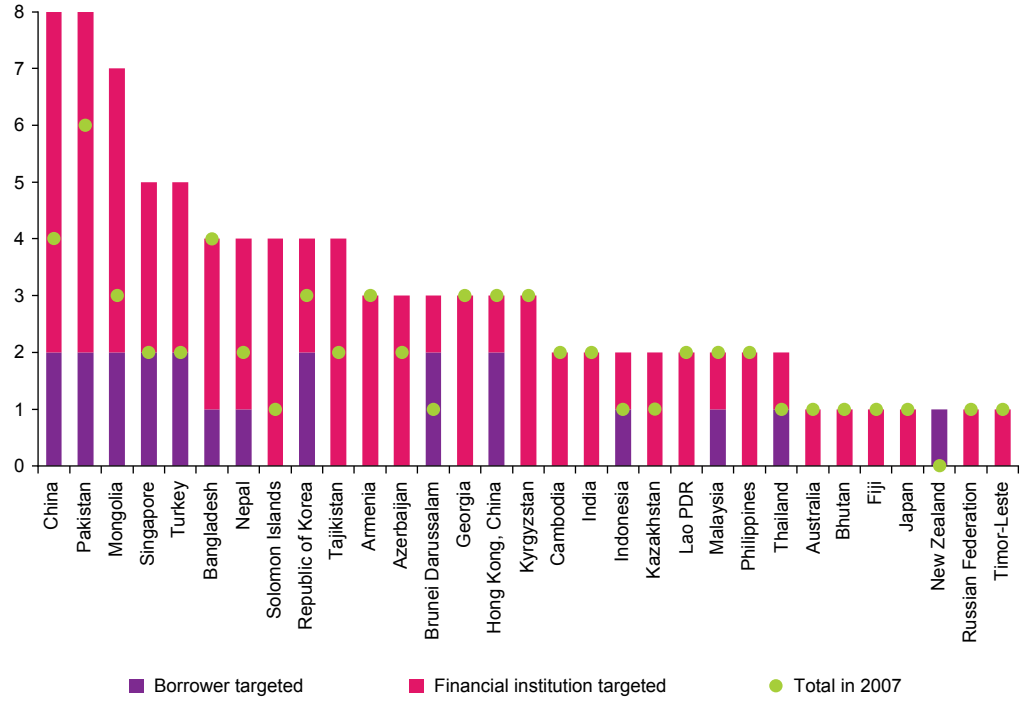
Much of the financial stability enjoyed by Asian economies today can be attributed to the prudent measures put into place in the wake of the 1997 Asian financial crisis. However, given the renewed increase in debt, macroprudential measures have been increased in some countries either in terms of the number or the intensity of the measures (see

figure 1.22). These actions include borrower-targeted measures, such as limits on loan-to-value ratios (which impose a minimum down payment) and debt-to-income ratios (which restrict unaffordable increases in debt), as well as lender-targeted measures, such as concentration limits (which limit the fraction of assets held by a limited number of borrowers) and limits on foreign currency loans.

Other measures may include sectoral capital requirements, which force lenders to hold extra capital against loans to a specific sector, thus discouraging heavy exposure to that sector. Also, higher risk weights can be imposed, for instance on mortgage loans with high loan-to-value ratios, as in the case of Malaysia. Stricter loan-to-value limits can be applied in order to differentiate speculators with multiple mortgage loans from first-time home buyers. If housing price booms are driven by increased demand from foreign cash inflows that bypass domestic credit intermediation, other tools, such as stamp duties, may be more effective, as in the case of Singapore. At the same time, however, given the low infrastructure stock and the rapid urbanization taking place in many countries, high housing prices may also reflect supply bottlenecks. In such cases, structural policies, including urban planning and expansion of government-subsidized housing, would be needed.

For corporate debt, direct prudential controls could also be considered. For instance, only companies rated above a certain grade, or which can demonstrate that they have either foreign currency income or adequate systems to manage the risk, would be allowed to borrow offshore. Foreign borrowings could be limited in size or a minimum maturity could be set. In India, foreign borrowing (other than trade credit) by companies is regulated by the authorities, which insist on a minimum maturity of five years for loans in excess of $20 million and do not allow put options to subvert this regulation (Hawkins and Turner, 2000).

Figure 1.22 **Number of macroprudential measures used in selected Asia-Pacific economies**



Source: ESCAP, based on data from Eugenio Cerutti, Stijn Claessens and Luc Laeven, "The use and effectiveness of macroprudential policies: new evidence", International Monetary Fund Working Paper No. WP/15/61 (Washington, D.C., IMF, 2015).

Note: The number of measures does not necessarily reflect intensity. Data for 2013 are based on the IMF survey on global macroprudential policy instruments conducted in 2013 and 2014. The macroprudential tools are divided into 12 categories, including 2 borrower-targeted instruments (loan-to-value ratio caps and debt-to-income ratios) and 10 financial institutions-targeted instruments (dynamic loan-loss provisioning, capital buffer requirements, leverage ratio, capital surcharges on systemically important financial institutions, limits on interbank exposure, concentration limits, limits on foreign currency loans, foreign exchange and/or countercyclical reserve requirements, limits on domestic currency loans, and levy or tax on financial institutions).

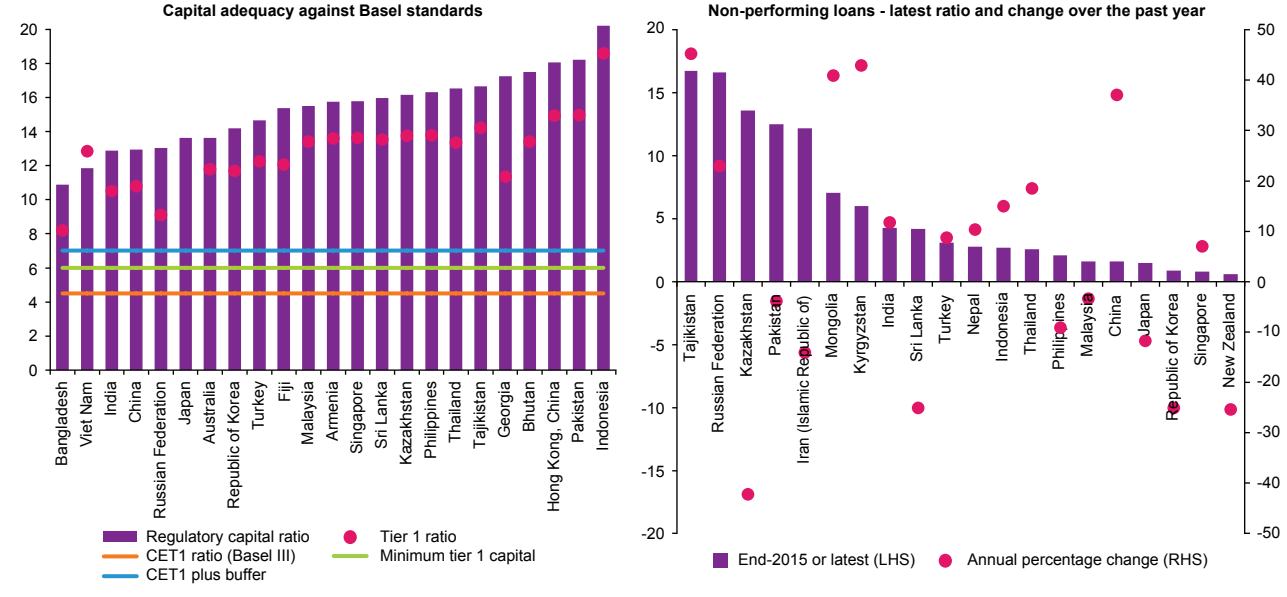
In some cases, however, macroprudential measures may be less effective without parallel capital flow management measures. For instance, in China direct cross-border loans by banks outside China to non-banks inside China increased rapidly after the Government restricted foreign banks' ability to bring dollars into the country (McCauley, McGuire and Sushko, 2015). This is consistent with the finding that the greater use of macroprudential policies is associated with more reliance on cross-border claims (Cerutti, Claessens and Laeven, 2015). In the Republic of Korea, restrictions on dollar loans encouraged a shift to dollar bonds; although this measure lengthened the maturity, the stock of debt continued to grow.

Better supervision of the banking sector and effective debt restructuring would be helpful

Although Asian banks are generally well capitalized (see figure 1.23), it is likely that mortgage delinquencies and corporate defaults will rise as financing costs rise and income and earnings remain subdued in some cases. In fact, although non-performing loan ratios remain relatively low in most countries where private debt has increased, there are some early signs of deterioration in asset quality. For instance, China's non-performing loan ratio increased by nearly 40% over the past year, albeit from a low base. To mitigate vulnerabilities affecting the financial sector that arise from conditions of non-financial sectors, bank supervision could be strengthened with respect to the quality of loans (bank assets) and exposure to foreign exchange and interest rate shocks. Doing so would entail the use of risk-weighted assets, which would give due attention to credit risks. At the same time, sectoral exposures could be re-examined and appropriate concentrate limits put into place, for instance with respect to the real estate sector. Stress tests could also be introduced to ensure that banks have not only sufficient capital levels to absorb losses but also governance structures and risk management processes that promote banking stability.[27]

Effective debt restructuring could help lower the financing/refinancing costs and lengthen maturity. For instance, this could happen through a regulation of the shadow banking sector, which has grown rapidly in the past decade. In China, one reason that banks have been issuing loans so quickly – faster than overall credit growth – is that they are replacing "shadowier forms of financing" (Economist, 2015). This

Figure 1.23 **Banking sector capital adequacy and asset quality in selected Asia-Pacific economies, latest data**



Source: ESCAP, based on financial soundness indicators, International Monetary Fund and CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

Note: Capital adequacy data for the third quarter of 2015 or latest available, and non-performing loan data for end-2015 or latest available. For the capital thresholds, see Basel Committee on Banking Supervision, *Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems* (Basel, Switzerland, 2010 and 2011). Available from www.bis.org/publ/bcbs189.pdf. CET1 = common equity tier 1 ratio, which excludes any preferred shares or non-controlling interests but includes the sum of equity capital and disclosed reserves, and sometimes non-redeemable, non-preferred stock. LHS = left-hand side; RHS = right-hand side.

step would also help enhance financial transparency, which is critical for minimizing uncertainties and preventing contagion across the board. Improving the credit history information of household and firms – for instance through credit registers – could also help lenders become better informed about the current debt of potential borrowers. At the same time, efforts to enhance financial access for households and small firms should be accompanied by financial education and training to inform borrowers of potential risks. While credit helps smooth consumption against income fluctuations, this aspect also means that households can become less concerned about negative income shocks so that, rather than saving for a rainy day, they just borrow more (Dynan and Kohn, 2007).

Improving credit allocation and restructuring State-owned enterprises are also critical for sustainability of private debt

For countries such as China, improving credit allocation and restructuring State-owned enterprises are also critical for sustainability of private debt. As noted previously, in China indebtedness of State-owned enterprises soared even as return on assets fell in contrast to foreign and private industrial firms which were cutting their leverage and boosting their profitability (Rutkowsky, 2015). Policymakers have taken some steps to encourage banks to lend to smaller and more efficient private firms, including by liberalizing deposit rates to encourage greater competition. There is also ongoing deliberation on privatization of State-owned enterprises, including innovative pilot schemes in which such enterprises transfer part of their equity stakes to a social security fund, with the aim of raising efficiency in the State sector (as the funds would influence these enterprises' governance structure and operations) while strengthening pension financing. It should be noted, too, that in China, "corporate debt" includes not only that incurred by State-owned enterprises but also off-budget borrowing by local governments. In this regard, the recent sizeable bond-swap programme for local governments has helped reduce the cost of debt servicing.

2.2. Enhancing tax revenues through base-broadening

Raising adequate revenues is critical for ensuring fiscal sustainability

As fiscal policy assumes a growing role in stabilizing the economy through countercyclical measures and supporting long-term national development priorities, it is important to ensure fiscal sustainability through the raising of adequate revenues as well as through effective debt management. In particular, improving tax policy and administration is critical to financing government expenditures in an efficient and fair manner.

As highlighted in the Survey for 2014 (ESCAP, 2014a), many countries in the region seem to have room to increase tax revenues. Countries at the lower end of tax-to-GDP ratios tend to have economic structures that are less conducive to raising taxes. For instance, countries in South Asia rely more on agriculture and services than their peers in East Asia that are manufacturing-heavy. Low openness to international trade and low urbanization rates can also make it more costly for Governments to raise taxes.

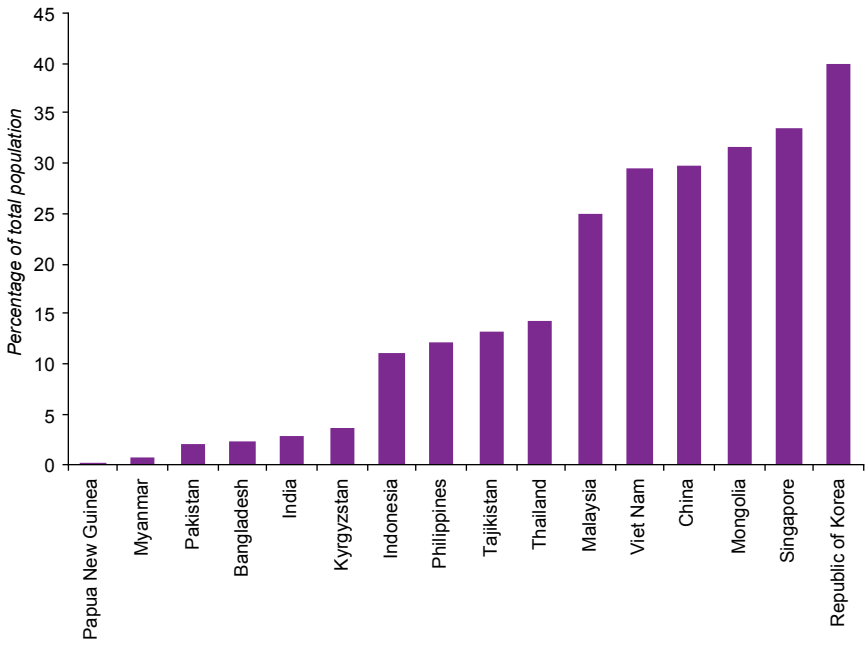
Nevertheless, even after accounting for these differences, the tax base seems to be unusually narrow in some countries. In Pakistan, the number of active personal income tax filers is fewer than 1 million, significantly below the 5.7 million people reportedly earning above the income tax threshold.[24] The number of registered taxpayers is higher than the number of tax filers, but still very low compared with the total population (see figure 1.24). Similarly, the number of active corporate income tax filers is less than 1% of the number of commercial and industrial electricity users.

Identification and registration of taxpayers and removing redundant exemptions are critical steps in broadening the tax base

The identification and registration of taxpayers is a critical first step in collecting taxes. Some tax administrations operate registration systems that issue unique taxpayer identification numbers, while others use a citizen or business identification number that is used generally across Government. For instance, in Pakistan the Government has recently issued notices to potential taxpayers and is integrating the national tax number system (covering less than 2% of the population) with the computerized national identity card database (covering about 80%). Expanding the tax net requires more than just registration, however. Tax compliance should be enhanced through withholding taxes and third-party information reporting as well as audits. At the same time, effective taxpayer services, including those delivered through online platforms, can minimize compliance costs for individuals and businesses and promote voluntary compliance.

A major factor behind narrow tax bases are wide-ranging and potentially redundant exemptions. For instance,

Figure 1.24 **Registered taxpayers for individual income in selected Asia-Pacific economies**



Source: ESCAP, based on national sources, and Satoru Araki and Iris Claus, *A Comparative Analysis of Tax Administration in Asia and the Pacific* (Mandaluyong City, Philippines, Asian Development Bank, 2014).

Note: Data are for 2013 or latest available year.

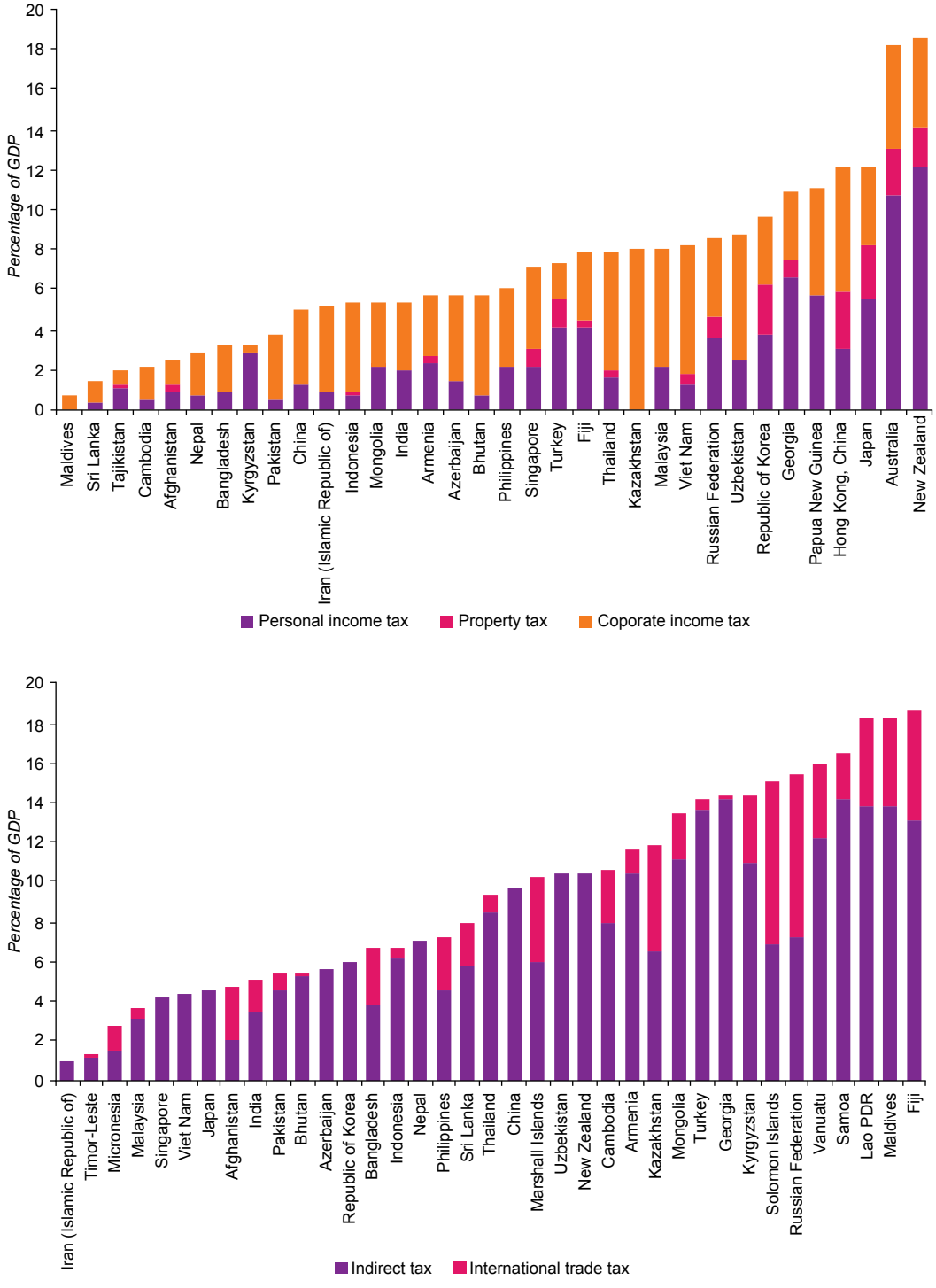
agricultural income receives special tax treatment in several South Asian countries, without a proper distinction being made between poor and wealthy farmers. In addition to the legally lost revenues, this situation creates opportunities for tax evasion, as taxpayers can abuse the legislation by declaring business income as agricultural income in order to avoid taxation (Reva, 2015). Tax holidays are also widely used in Bangladesh, Pakistan and Sri Lanka for the manufacturing and services sectors. Again, loose tax incentives can create opportunities for tax avoidance and evasion as investors funnel profits from an existing profitable company through the tax holiday company. Similar problems arise with regard to indirect taxes in view of the long list of items eligible for exemptions or reduced rates. While these are often justified on claims of enhancing tax progressivity, there is actually very little assessment on the redistributive impact of such tax concessions.

As a first step in addressing this challenge, Governments could publish tax expenditures to encourage proper cost-benefit analysis of tax exemptions and incentives.[30] According to an open budget survey undertaken in 2015, Governments of countries in the region that publish at least some tax expenditures number only 14.[31] Estimated foregone revenues ranged from 1.5% of GDP in the Philippines in 2011 to nearly 5% in India in 2013, although coverage and methodology tended to vary across countries.[32] At the same time, Governments could estimate and report the impact of at least key tax expenditures, that is, whether they are achieving their intended policy goals and if so, how effectively, when compared with direct government spending. The design of tax expenditures could be improved, for instance by making certain provisions time-bound. Improving tax legislation is also critical for minimizing the room for confusion and inconsistent implementation.

Enhancing tax progressivity, and avoiding undue distortions can support efforts to raise revenue

In addition to strengthening revenues through base-broadening, an important objective of taxation has to do with tax progressivity. In this regard, increasing the revenue share of income taxes is important (Atkinson, Piketty and Saez, 2011). Personal income taxes in particular are considered to be potentially more progressive, given that there is less room to shift the tax burden than is the case with corporate income taxes.[33] However, personal income taxes currently play a disproportionately small role, contributing less than 2% of GDP, in more than half the countries in the region (see figure 1.25). In addition to income taxes, taxation of assets could enhance tax progressivity.

Figure 1.25 **Direct and indirect tax revenues in selected Asia-Pacific economies**



Source: ESCAP, based on International Monetary Fund, Government Finance Statistics, World Revenue Longitudinal Data and CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

Note: Data are for 2014 or latest available year. Indirect tax includes general goods and services tax, such as sale tax and value-added tax (VAT) and excise tax on specific items. For Viet Nam, only VAT revenues are shown. Data on international trade tax revenues were not available for a number of countries.

Since 2014, China has launched a pilot property tax scheme in Shanghai and Chongqing, and that scheme is expected to be expanded nationwide. Countries such as Viet Nam and more recently Thailand have introduced inheritance and gift taxes.

Another aspect of recent tax reforms concerns economic efficiency, or the question of how to raise adequate revenues without unduly distorting economic activities. Many countries have moved to value-added taxes (VAT) to avoid the cascading effect of regular business and sales taxes. In 2016, China is extending VAT to cover the remaining four industries – finance, construction, property and consumer services – and the complete transition is expected to result in total tax savings of $150 billion for enterprises.[35] Such reforms have been more difficult in India, where two types of VAT are charged: one at the federal level and the other at the state level. There is tax cascading on industrial goods as no input credit is available for the central VAT. The separate implementation of the service tax also results in arbitrary under- or overtaxation of products.[36] India is now working on a unified, nationwide goods and services tax which may boost economic growth by as much as 1.5% of GDP in the medium term (Chadha and others, 2009).

Pursuing comprehensive regional tax coordination can reduce revenue loss from increasing complexity and tax competition

Finally, given the fact that the world is becoming more interlinked, the tax implications of dealing with international investors are increasingly becoming more challenging for national tax administrations. Similarly, in the absence of comprehensive tax coordination among countries in the region, the risk of cross-country competition through tax incentives is increasing. Keeping in view these and other related considerations discussed above, the region's economies could significantly benefit by setting up a forum for regional cooperation and coordination in tax matters. Such a forum could help serve in fulfilling five key objectives: (a) supporting tax revenue enhancement efforts of Asia-Pacific countries; (b) strengthening and rationalizing municipal financing to support the region's continuing urbanization; (c) promoting tax policies that directly support inclusive growth and sustainable development; (d) facilitating exchange of information and coordination to address harmful tax competition; and (e) providing an open platform for developing countries to discuss and coordinate their positions on new international tax standards and practices.

2.3. Regional cooperation and integration to foster domestic demand

Weak global economic growth has given impetus to unlock new sources of aggregate demand through regional cooperation and integration

The ongoing weakness and prolonged uncertainty about recovery of global economic growth has given impetus to regional economies to unlock new sources of aggregate demand in order to sustain their growth dynamism. By expanding regional demand and stimulating domestic consumption, regional economies could in aggregate increase their overall prospects of productive investment activities. Regional economic cooperation and integration is particularly promising in the areas of capital markets, intraregional trade, infrastructure development, ICT connectivity and energy connectivity.

The development of capital markets is crucial for the provision of long-term financing for investment in the region. Currently, there are substantial differences in stock market capitalization across the region, with such capitalization ranging from 144% of GDP in Malaysia to 0.3% of GDP in Armenia. Countries need to move towards harmonization of legal and regulatory frameworks to attract investors and to increase the liquidity and efficient functioning of domestic capital markets. The eventual objective would be the adoption of common financial transaction standards and the establishment of region-wide financial infrastructure that could better support cross-border financial transactions, especially for long-term investment projects. These standards should be based on international frameworks, such as those of the International Organization of Securities Commissions and the Committee on Payments and Market Infrastructures. An Asia-Pacific capital market development forum of regional policymakers would be a useful next step, which would facilitate deliberations on the way forward for harmonization and the linking of capital markets in the region.

There is also scope for further strengthening of regional trade integration to support the rapid growth of intraregional trade that has occurred in recent years. Regional policies could be undertaken to accelerate the growth of regional value chains as a key vehicle of trade, especially by linking to countries with special needs and propagating vertical specialization. Furthermore, building on developments since the ninth WTO Ministerial Conference held in Bali, Indonesia,

in December 2013 and the tenth WTO Ministerial Conference held in Nairobi in 2015, cooperative trade policies could be undertaken to further enhance trade facilitation measures and thus reduce trade costs.

Increasing intraregional trade requires initiatives to improve regional infrastructure and ICT and energy connectivity

The steady rise of intraregional trade in the region cannot fully achieve its potential without improved regional infrastructure development and overall strengthening of regional connectivity. Better regional surface transport networks and multimodal transport networks connected through dry ports are key elements of this strategy. In this context, the Asian Infrastructure Investment Bank, led by China, with authorized capital of $100 billion and initial subscribed capital of about $50 billion, can play an important role in providing financing for infrastructure development. This source of new financing could especially help connect the least developed countries with the emerging economies in the region. Similarly, the "Silk Road Fund" announced by China in 2014 would also support megaprojects of the "one belt one road" initiative, with investment in various infrastructure projects as its centrepiece. A similar initiative of the BRICS countries to set up the "New Development Bank" is also expected, with an initial funding of $100 billion, to provide financing and expertise required for the development of infrastructure in the region.

In the area of regional ICT connectivity, countries can move towards establishing the "Asia-Pacific Information Superhighway", which could connect each country's backbone networks and integrate them into a cohesive land- and sea-based fibre infrastructure. Doing so would reduce the cost of business and especially increase opportunities for and the participation of small and medium-sized enterprises, which are most sensitive to business costs, in regional production networks. The ESCAP secretariat has been requested by its member States to support this initiative by establishing an open-ended working group to develop principles and norms as well as a master plan covering both the policy and technical aspects of the so-called superhighway (ESCAP, 2015b). Over recent years, cooperation through such initiatives as the Greater Mekong Subregion information superhighway, the South Asian subregional economic cooperation information superhighway and the Trans-Eurasian information superhighway has already offered a promising start in enabling countries to reap the benefits of the digital revolution.

Given the enormous number of gaps in energy connectivity, regional cooperation to develop an Asian energy highway can play an important role in bridging the divide and enhancing energy security. The Asian energy highway is an initiative supported by ESCAP to establish an intergovernmental dialogue on common infrastructure and harmonized energy policies. The establishment of such a highway in the region would further integrate market mechanisms that enable power to be moved more efficiently and sustainably, and thus improve private sector investment opportunities, especially in landlocked developing countries. The next steps in the development of the energy highway should be for further integration of the concept into national energy plans through appropriate institutional arrangements and financial planning.

Increasing South-South assistance in sharing of knowledge, financing and other resources will be important to increase convergence in levels of sustainable development

Enhancing South-South assistance, one of the pillars of the regional cooperation and integration mechanisms, can play an important role in narrowing intercountry divergence in development outcomes, thus supporting the region's economic prospects. Inequalities in incomes and opportunities can be reduced by fostering convergence in levels of sustainable development through the sharing of knowledge, financing and other forms of resources. Over recent years, China, India, Singapore, Thailand and Turkey, among other countries, have used the vehicle of South-South cooperation, amounting to more than $20 billion in assistance, to provide other developing countries in the region with support to improve their capabilities to sustain economic growth and sustainable development in such areas as infrastructure development, social programmes and climate change-related support.

The bottom line is that the region's potential to support an aggregate demand-centric economic recovery is considerable and can be utilized through cooperation and integration, especially in the areas of capital markets, intraregional trade, infrastructure development, and ICT and energy connectivity. ESCAP has played and will continue to play an important role in promoting these objectives.

3. POLICY CHALLENGES TO IMPROVE THE QUALITY OF GROWTH

Apart from ensuring sustained and robust economic growth by resolving macroeconomic challenges, policymakers will need to undertake measures to improve the quality of this growth. To do so, they will need to address some key social and environmental challenges that have increasingly come to the fore, as will be highlighted in this section. First, they will have to consider the issue of inclusivity in the current growth model in the region, as can be seen in terms of less than satisfactory creation of decent jobs; the fact that the number of poor has not declined as fast as previously in recent years; and that the benefits of economic growth have increasingly been enjoyed by more well-off members of society than the poor. Second, a major phenomenon that has accompanied economic growth in the region is the rise of the middle class, which has posed numerous economic as well as social challenges, such as pressure on Governments to provide a range of public services, over and above the provision of basic needs. Third, the region has experienced rapid urbanization in recent years, which is leading to myriad societal and environmental issues and represents a microcosm of complex challenges faced by Governments to improve the quality of economic growth.

3.1. Slower growth having impacts on employment prospects, poverty and inequality

The slowdown in economic growth is adversely affecting the prospects for employment and its quality

Even as economic growth plateaus in Asia and the Pacific, it is not clear whether it has been sufficiently inclusive. A key area of concern is the quantity and quality of jobs created. Employment growth in 2015 was merely 1.1% (or 21.3 million jobs) for the region as a whole.[37] In East Asia, job growth was notably weak at 0.3% (or 2.9 million jobs), weighed down by both the decelerating economy in China and the country's ageing population. By contrast, in South Asia employment creation accelerated from 1.7% in 2014 to 2.1% in 2015 mainly as a result of strong labour force trends in India. Job growth reached 1.5% (or 4.5 million jobs) in South-East Asia and 1.4% (or 256,000 jobs) in the Pacific island economies.

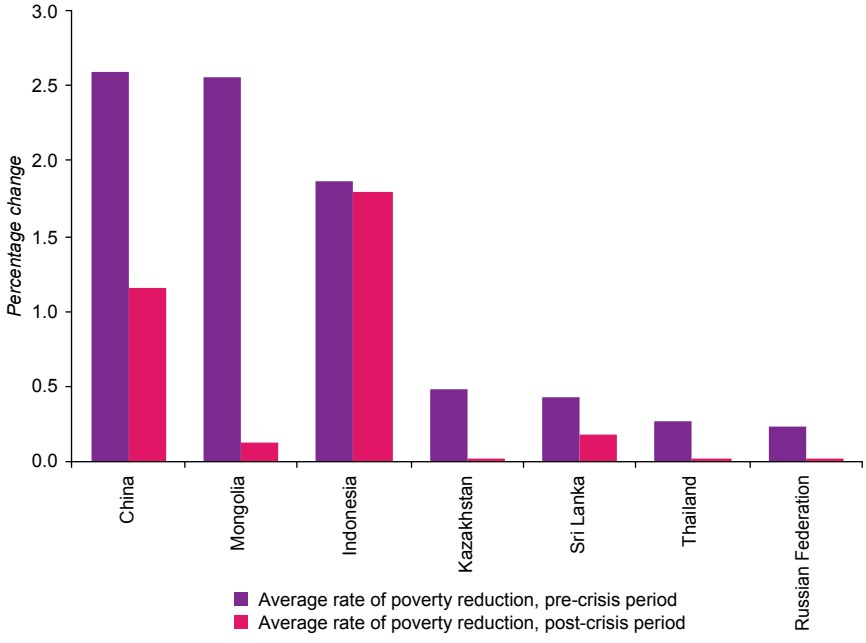
A key factor shaping weak employment rates in the region is lower labour force participation, partly resulting from more young people staying longer in school before entering the job market. Despite this positive part of the explanation, young people who do seek work face considerable challenges, such as taking up a job that is poorly remunerated or one that underutilizes their potential. The Asia-Pacific youth unemployment rate in 2015 was 11.5% and was higher for young women (11.7%) than young men (11.4%). Youth unemployment is notably high in the Pacific island economies and in South-East Asia (13.1%). Overall, young people in the labour force are 3.8 times more likely to be unemployed than their adult counterparts in the region. By subregion, the ratio is even higher in South-East Asia (5.4 times) and South Asia (4 times). In the region as a whole, the share of young workers from poor households (defined as earning less than the $1.90 extreme poverty line) was 14.2% in 2015 compared with 9.8% for adult workers. The working youth poverty rate was particularly high in South Asia (21.6%).

While job growth in Asia and the Pacific was muted in 2015, mixed progress was recorded in enhancing the quality of employment. Vulnerable employment as an own-account or contributing family worker in the developing Asia-Pacific region is still widespread and typically involves informal work arrangements without legal or social protection. The vulnerable employment rate was 55.4% (or 1 billion workers) in 2015, down slightly from 55.7% in 2014. Women are more likely than men to be in vulnerable jobs. For example, the vulnerable employment rate was 79.5% for women and 71.7% for men in South Asia. Likewise, in South-East Asia the rates were 60.1% and 52.8% for women and men, respectively.

The benefits of economic expansion have accrued relatively less to the poor in recent years as is evident from rising income inequality

Economic slowdown and challenges facing employment are contributing to concerns about the extent of poverty reduction in the region.[38] Inclusive growth requires not only robust economic growth but ensuring that economic expansion reaches the poorer sections of the population. Available data indicate that some major developing economies in the region, accounting for a major proportion of the population in Asia and the Pacific, have undergone a decelerating trend in the rate of poverty reduction in the post-crisis period until 2013 as compared with the recent pre-crisis period (see figure 1.26). These economies include China, Indonesia and the Russian Federation, among others. It is worth highlighting that economic growth can reduce poverty only to a certain extent, and that some forms of poverty cannot be reduced through economic growth alone, particularly when poverty is heavily linked to social exclusion.

Figure 1.26 **Average rate of reduction of the poverty headcount ratio at $1.90 a day in selected Asia-Pacific economies, pre-crisis and post-crisis periods**



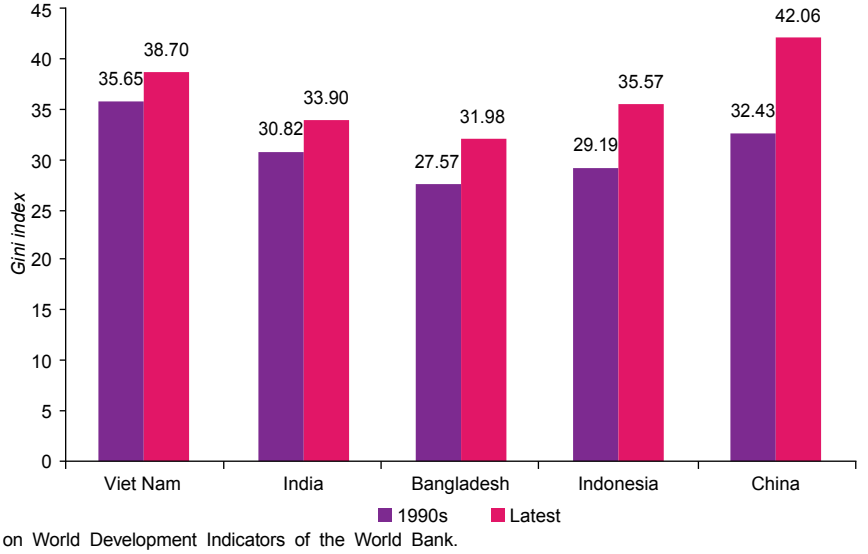
Source: ESCAP, based on the World Bank's World Development Indicators for various years.

Note: The ranges for China are 1999-2008 and 2008-2010; Indonesia 1999-2008 and 2008-2010; Kazakhstan 1996-2008 and 2008-2013; Mongolia 1998-2007 and 2010-2012; Russian Federation 2000-2008 and 2008-2012; Sri Lanka 1995-2006 and 2009-2012; Thailand 2000-2008 and 2008-2012.

The 2030 Agenda for Sustainable Development provides a framework that emphasizes giving focus to reducing all forms of inequalities; thus, it can help in addressing broader concerns related to poverty.

While it is to be expected that the rate of poverty reduction will slow along with slowing economic growth, the benefits of economic expansion have also accrued proportionately less to the poor in recent years, as is evident from the rise in income inequality. This situation can be observed in the Gini inequality indices for five major developing economies, which account for the vast majority of the population in the region (see figure 1.27). Inequality for all these economies has

Figure 1.27 **Gini coefficients of inequality in selected Asia-Pacific economies, 1990s and latest**



Source: ESCAP, based on World Development Indicators of the World Bank.

Note: Gini index of 0 represents perfect equality, while an index of 100 implies perfect inequality. With regard to 1990s data, the year 1990 was used for China and Indonesia; 1991 for Bangladesh; 1992 for Viet Nam; and 1993 for India. As for the latest data, 2009 was used for India; 2010 for Bangladesh, China and Indonesia; and 2012 for Viet Nam.

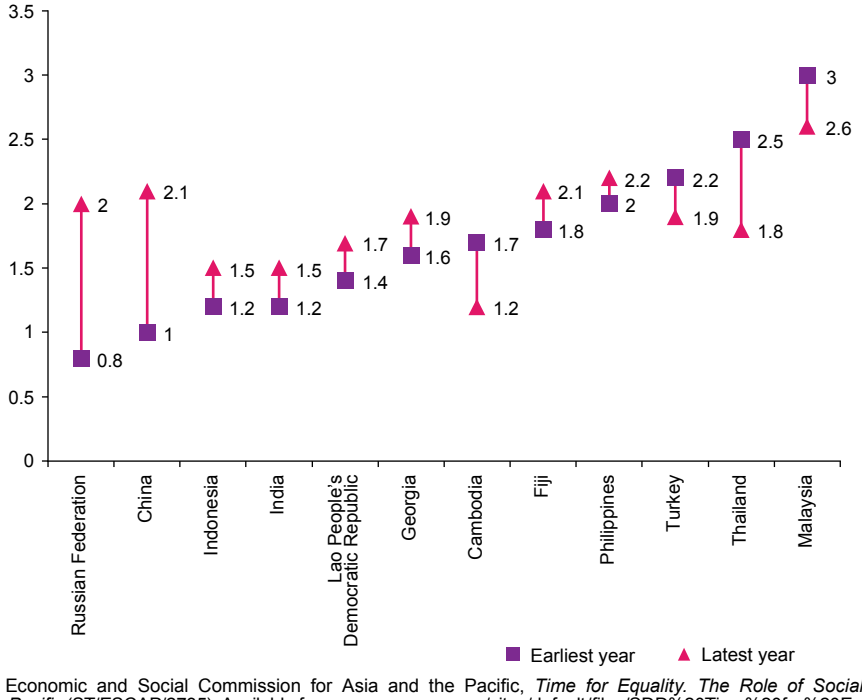
risen when comparing the latest post-crisis reading with the value in the 1990s. ESCAP calculations show that, had inequality not increased, approximately an additional 200 million people could have been lifted out of poverty in the three most populous countries of the region alone – China, India and Indonesia.

Further evidence regarding the pressing problem of rising inequality can be seen by considering the Palma ratio, which is the ratio of the income share of the richest 10% of the population's share of gross national income divided by the share of the poorest 40%. In some countries, the richest 10% hold twice as much in income as the lowest 40% (see figure 1.28). For instance, the Palma ratio increased from 1.0 to 2.1 in China and from 0.8 to 2.0 in the Russian Federation. In countries where inequality fell, such as Malaysia, the ratio remained high.

There are cases where income inequality persisted or even increased in spite of a reduction in poverty. For instance, between 1993 and 2012, India managed to halve the percentage of people living in absolute poverty. Yet, overall income inequality increased, with the income share of the richest 10% rising to 30% in 2013 from 26% in 1994, and the share of each of the lower four quintiles decreasing slightly (World Development Indicators, various years). Another example is Mongolia, where relative income shares as a whole changed little, although absolute poverty was almost eradicated. However, the highest income quintile, and among them particularly the richest 10%, gained the most, while the share of other income deciles decreased slightly (World Development Indicators, various years).

An important characteristic of recent growth performance in a number of major developing economies in the region has been increases in asset prices, primarily real estate and equity values. The income accruing from these asset market increases has gone primarily to the more well-off sections of society that are able to invest in such assets. For example, for China between 2002 and 2010, 97% of the increase in inequality had been due to changes in the values of financial and housing assets (Kotarski, 2015). As a result of such increases in asset values, the number of ultra-high net worth individuals, those with a net worth of more than $50 million, in major developing economies in the region, such as China, India,

Figure 1.28 **Palma index in selected Asia-Pacific economies, 1980s-1990s and latest**



Source: United Nations, Economic and Social Commission for Asia and the Pacific, *Time for Equality. The Role of Social Protection in Reducing Inequalities in Asia and the Pacific* (ST/ESCAP/2735). Available from www.unescap.org/sites/default/files/SDD%20Time%20for%20Equality%20report_final.pdf.

Note: Data for earliest available year refer to 1981 for China and Thailand; 1983 for India; 1984 for Indonesia and Malaysia; 1985 for the Philippines; 1987 for Turkey; 1988 for the Russian Federation; 1992 for the Lao People's Democratic Republic; 1994 for Cambodia; and 2002 for Fiji. Data for latest available year refer to 2008 for Fiji; 2009 for Malaysia; 2010 for China and Indonesia; 2011 for India; and 2012 for Cambodia, the Lao People's Democratic Republic, the Philippines, the Russian Federation, Thailand and Turkey.

Indonesia and the Republic of Korea, has increased considerably between mid-2014 and mid-2015 (Credit Suisse Research Institute, 2015). The increase in asset values has been amplified by easy money policies of advanced economies, which attracted portfolio flows into the region in order to obtain higher returns.

Apart from the direct impact of decelerating growth, an important driver of the slowing rate of poverty reduction and rising inequality in the post-crisis period is the underlying nature of the growth model itself, which essentially favours unfettered consumption-led, debt-fuelled increases in economic output. There is nothing inherently wrong with consumption-led economic expansion. The problem emerges when a large segment of the population, especially the lower-income groups, increasingly and excessively rely on debt rather than wages to support increases in consumption. This may be due to the outpacing of wage growth by productivity increases that many developing economies in the region have seen in recent years, and that has led to a shift in the balance between shares of labour and that of capital in national income, resulting in unequal distribution of incomes in favour of capital (ILO, 2015a).

Thus, a fundamental reason driving lower poverty reduction and rising inequality is that of slow wage growth in recent years. This has been seen clearly at the global level, where much of the recent increase in inequality in many countries has been driven by changes in wages and wage inequality (ILO, 2014). Ensuring consistent increases in wages is important for reducing poverty and inequality, as the poor are more often employed in wage-earning sectors as compared with those who are better off, who rely more on non-wage income sources. A productivity-driven wage-led approach to economic growth is therefore preferable, as it has a higher chance of addressing issues of poverty and inequality, in addition to supporting sustained increases in economic growth.

Slow progress in reducing poverty as well as the growth of income inequality have further underscored the pressing need for greater social protection in the region. Key aspects of a social protection floor include universal access to affordable health care; free primary and secondary education; unemployment benefits for wage earners and income-support measures for those in need; contributory and social pensions; and full access to social benefits for persons with disabilities, including disability allowances, services and support. Apart from the need to ensure inclusive and sustainable development, greater social protection will also support regional economies in boosting the role of domestic demand in growth by reducing precautionary savings for emergencies, especially by the poor.

Reducing inequalities of outcomes will critically require addressing inequalities of opportunity

Furthermore, reducing inequalities of outcomes will critically require addressing inequalities of opportunity. These inequalities refer to unequal access to chances required to sustain and improve livelihoods and lead meaningful lives. Unequal access to health care and education are key examples of inequality of opportunity. Many countries in the region lagged in achieving targets on health under the Millennium Development Goals. Close to 80% of the region's population still does not have access to affordable health care. Also, despite strong progress in improving overall access to education, about 18 million children of primary school age in the region do not attend school.

Policies to tackle inequality must also give due recognition to the fact that characteristics that identify the social group to which an individual belongs have a substantial influence on well-being and economic outcomes. These characteristics include gender, age, ethnicity, disability and migration status. In the Asia-Pacific region, women, youth, older persons, persons with disabilities and international migrants are particularly affected. Horizontal inequalities created due to these characteristics are buttressed by a lack of voice and power in these social groups. Such horizontal inequalities constitute a large component of overall inequalities within countries. Beyond individual and group exclusion, these types of inequalities can hinder economic growth and national stability by weakening bonds in society and creating disengagement and dissent.

3.2. Rising middle class creates challenges but also offers opportunities

The rise in the middle class in recent decades has created numerous socioeconomic challenges, and yet this phenomenon can strengthen domestic demand

Despite the slowdown in recent years, the rapid economic growth that had been recorded in the previous few decades has resulted in a noticeable increase in the size of the "middle class" in many countries in the Asia-Pacific region. This phenomenon has created numerous socioeconomic challenges but also several opportunities. For instance, a rising middle class, with higher disposable income, tends

to demand public services that go beyond basic needs, such as access to better-quality education and health care, and water and recreational services along with reliable energy and ICT infrastructure. This situation puts pressure on Governments to provide such services and, if they are adequately met, can create further development potential through improved social services. Moreover, this new group offers the prospect of an increasing pool of domestic demand to be tapped by economies, which would thus reduce their dependence on the struggling external sector.

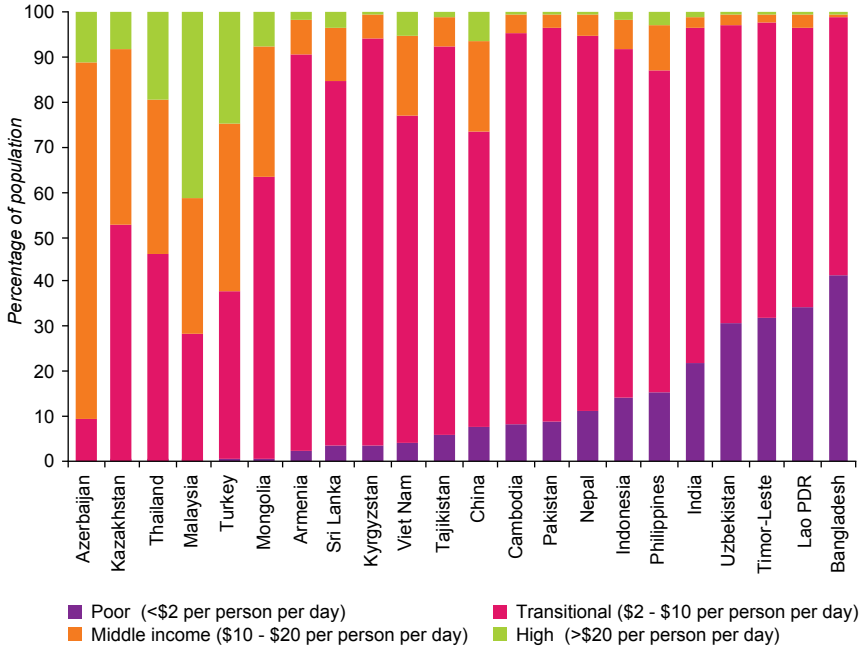
Generally, the definition of "middle class" in the context of a developing economy varies from the definition used in developed countries, where it is not based exclusively on income but also entails a certain value system. However, to follow the definition of other international organizations and for the purposes of comparative analysis, people with incomes of between $2 and $10 a day are described as forming the transitional class; those with incomes between $10 and $20 a day are defined as belonging to the middle-income class, while those living on at least $20 a day are considered as members of the high-income class.

An important point worth highlighting is that, in societies with high-income inequality, where the income shares of the top 10% or even top 1% have risen sharply, the group earning just above $2 a day is still at the relative bottom of income distribution. This group is very vulnerable to falling back into poverty due to shocks, such as a persistent decline in economic growth and employment prospects, disease in the family or loss of the main breadwinner and natural calamities. Thus, this group is considered as a "transitional class" and requires consistent support to build their resilience rather than fitting the traditional definition of "middle class". This risk is particularly high in countries with limited systems of social protection that would strengthen resilience to such shocks.

In 2012, only about 10% of the population in developing countries in the Asia-Pacific region lived in absolute poverty, defined at that time as living on less than $2 person per day. In the same year, more than 1.6 billion additional people compared with the situation in 1993 had incomes ranging from $2 to $20 a day as a result of rapid economic growth and increased development efforts. Consequently, in 18 countries in the Asia-Pacific region, more than half their populations were in the transitional – and therefore vulnerable – class, earning between $2 and $10 a day (see figure 1.29); they accounted for more than 2.5 billion people. In seven countries, namely Armenia,

Figure 1.29

Percentage income distribution in selected Asia-Pacific economies, 2013



Source: ESCAP calculations based on data from World Bank PovCal database. Available from http://iresearch.worldbank.org/PovcalNet/index.htm?1.

Cambodia, Kyrgyzstan, Nepal, Pakistan, Sri Lanka and Tajikistan, more than 80% of their populations formed part of the transitional class, which indicates the scale of the multifaceted challenges faced by these economies. Nevertheless, this situation also means that now only a minority of the population of these countries is living in absolute poverty and that these countries can increasingly count on domestic demand as a source of economic expansion in their growth strategies.

The role of the middle class is particularly important in stimulating domestic demand. Apart from their greater purchasing power, the middle-class income group is more resilient to shocks than the transitional class. In several countries in the region, a relatively large proportion of their populations now form part of this group. Azerbaijan is the country with the strongest middle-income class – about 80% of the population earns between $10 and $20 a day. In Turkey and Thailand, the middle-income class represents 37% and 34% of the population, respectively, with 46% and 38% of the population still belonging to the transitional category. In China, the share of the transitional class has increased from about 40% in 1993 to 65% in 2012, while the share of the middle-income class, which was less than 1% in 1993, increased to 20.6% in 2012 (World Bank, 2016a).

Among the many implications of this situation, the increased purchasing power of the growing middle class has led to an overall increase in energy and food consumption per capita along with changing food habits. As a result of such changing habits, however, obesity and other factors that pose health risks have led to a higher incidence of non-communicable diseases. Taxing unhealthful foods, such as sugar-sweetened beverages, is one example of policies that can be introduced to address obesity and non-communicable disease. There is a need to promote more healthful and sustainable lifestyles beyond nutrition, such as promoting physical exercise, which includes creation of green spaces that are accessible to all, including persons with disabilities and older persons, as well as creating incentives to walk instead of using private cars or motorcycles.

Provision of adequate social protection should go hand in hand with responding to the demand for government services that go beyond basic needs

As indicated above, when people emerge from poverty, they create demands for government services beyond basic needs. For example, with rising income levels people demand affordable and high-quality health care beyond basic health services. As in many countries in the Asia-Pacific region, health-care services still have to be funded by households' out-of-pocket expenditure; even with their increased income, the middle class still cannot afford health-care services beyond those that meet very basic needs. As a result, in Cambodia and Pakistan for example, infant mortality remains at a high level, although it drops significantly in the higher income quintiles of those countries. Some reports contain a description of the difference in access to skilled birth attendance according to income (see ESCAP, 2015b).

Similarly, rising income levels also lead to increased demand for better-quality education and not just more years of schooling. For instance, as income levels increase demand for early childhood education tends to increase as well. Many countries do not provide early childhood education as a public service; it is mostly provided by the private sector or civil society. People are also likely to demand adequate and sufficient recreational activities, including green spaces, which are also required to promote healthful lifestyles. The rise in such demands increase pressure on Governments to provide adequate access to social services in both rural and urban areas by enhancing the provision and affordability of such services. Currently, considerable inequalities exist in access to social services between income groups and between rural and urban areas (ESCAP, 2015b).

Thus, as with the poor, the emerging middle class, especially the transitional class, needs a level of social protection to reduce the risk of the people concerned falling back into poverty and to increase the resilience of such people to shocks. Given the rapid pace of population ageing in some subregions in Asia and the Pacific, increasing the coverage of pension systems is also becoming progressively more important. Without a comprehensive system of income security for older persons, large numbers of people risk falling back into poverty when they become old, posing a risk for countries' recent success in reducing poverty.

Overall coverage with social insurance tends to increase by income group, with the highest income quintile being covered significantly more by contributory pensions than other income quintiles. For example, in Viet Nam, 19% of people in the highest income quintile are covered by contributory pensions, but only 8.2% and 10.9% of those in the third and fourth income quintiles, respectively, are covered this way. The reason is that many people in the lower income

quintiles are employed in the informal sector, which is difficult to cover through contributory pensions. To address this issue, several countries, such as China, Thailand and Viet Nam, have introduced a voluntary contributory pension scheme to cover people in the informal sector. However, effective participation in voluntary pension schemes remains low among workers in that sector, largely because the unstable income of such workers makes it difficult for them to contribute to such schemes regularly. The situation is different in countries in North and Central Asia, including Mongolia, where coverage of contributory pensions is relatively equal across income quintiles, as they inherited pension schemes from times that were characterized by a strong role for the Government.

With the rise of the middle class in some countries, more people than previously are able to contribute regularly to social insurance schemes, such as unemployment insurance, contributory pensions or health insurance. This situation has also helped develop a market for private health insurance beyond basic coverage. Contributory pensions are a means to raise domestic savings and to contribute to consumption-smoothing throughout the lifecycle. A few countries in the region already have a well-developed system of contributory pensions, primarily countries in East and North-East Asia as well as North and Central Asia, while other countries are currently in the process of reforming the system and expanding coverage, such as China. However, in most low-income and lower-middle-income countries, coverage of contributory pensions remains low. In many countries, existing pension schemes cover only the public sector, leaving the majority of the population uncovered.

3.3. The phenomenon of urbanization

While the overall impact of urbanization on economic growth has been positive, growing strains have emerged with regard to urban infrastructure and resource consumption

A particular feature of the rise of the middle class as well as the wider economic growth process in the region is the phenomenon of rapid urbanization, which has been associated with a shift from agriculture in rural areas to manufacturing and services in urban areas. This process has led to a large movement of the poor to cities as well as a rapid increase in the size of the middle class in cities. While the overall impact on economic growth has been positive, the emergent strains on urban infrastructure and resource consumption require specific government policies to deal with the changing dynamics. One part of the approach to tackle these issues is to redirect urbanization to emerging smaller cities. Another part of the solution is to take action within existing cities to reorient consumption patterns and develop necessary infrastructure. An important aspect of undertaking such proactive policies will be tackling the issue of insufficient local government funding.

As home to 4.3 billion people in 2014, the Asia-Pacific region accounts for 60% of the world's population. Of these people, more than 2.1 billion live in urban areas; they represent approximately 45% of the region's total population and 55% of the global total urban population. The share of urban dwellers in the region has been rising over the last 25 years as a result of natural population growth, rural-to-urban migration and the reclassification of rural areas into urban areas. An estimated 120,000 people in the region migrate to cities every day (ESCAP, 2014b). As a result, all subregions in Asia and the Pacific are experiencing urban growth at higher rates than overall population growth. By 2018, more than half the regional population will live in urban agglomerations. In just over 30 years from this milestone, no less than two thirds of the population in the region will be urban, or about 3.2 billion people. To put this figure into perspective, that number is equivalent to what was the entire population of the Asia-Pacific region as recently as 1990. In the last 15 years alone, 630 million people were added to the populations of Asian and Pacific cities − a number greater than the current urban population of Europe.

Of the 28 megacities in the world, 17 are now in the Asia-Pacific region. The great scale of the region's urbanization, however, goes well beyond megacities. The majority of the urban population live in rapidly growing small and medium-sized towns, where the region's urban transformation is actually unfolding (ESCAP, 2014b). Indeed more than half (54.4%) the region's urban residents live in smaller cities with populations of fewer than 500,000 people. The important point to note is that secondary and smaller cities and towns do not have the resource base of many larger cities, and the urban poor have less access to basic service provisions, adequate livelihoods and decent transportation options.

The economic contribution of cities to GDP is significant, in view of their large contributions to national wealth. Indeed, the region's largest and most globalized cities have economies larger than many countries in the region. In the case of China, cities contribute 74% of national GDP, while representing only 43% of the population (Dobbs and others, 2011).

The city of Tokyo generated almost $1.9 trillion of GDP in 2010, which was the largest amount in the region, followed by Moscow and Sydney (Foreign Policy, 2012). Cities in the region are now the pre-eminent localities of economic growth and wealth creation. Millions of people in urban areas have been lifted out of poverty, forming an expanding urban middle class of almost 2 billion people (ADB, 2010).

Despite the positive contribution of cities to economic growth, not all urban dwellers have benefited from this transformation, and inequalities are increasing. In many cities, the majority of the urban population continues to rely on the informal sector for employment, housing and access to land, infrastructure, services and transport. It is notable that employment in the informal sector of large economies, such as India, Indonesia, Pakistan and the Philippines, continues to account for from one half to two thirds of total employment despite years of strong economic growth. Unless and until the urban poor are formally recognized, they will remain deprived of the rights of urban citizenship, secure land tenure and access to basic services, including access to clean water and sanitation, and health care, among other services. This problem is prominent in low-income economies in the region, where nearly two thirds of urban dwellers live in slums, a figure which is increasing (UN-Habitat, 2012).

Further concentration of economic development in a few large cities could lead to greater imbalance across urban areas. At the same time, many second- and third-tier cities continue to lag behind megacities, reinforcing the urban challenges within these agglomerations and exacerbating imbalanced economic growth. Therefore, in much of the region there is a need for more balanced urbanization, including having greater attention paid to regional and secondary cities and enhanced rural-urban linkages to realize a sustainable, inclusive and resilient urban future. A focus on emerging smaller cities would provide policy opportunities to reshape and rebalance the region's urban future.

Urbanization has been largely unplanned, causing persistent and emerging sustainability challenges

The real problem is that urbanization has been largely unplanned and poorly integrated, with resource use along with high exposure to disaster risks leading to persistent and emerging sustainability challenges. Concerns about sustainability have often been secondary to that of economic growth. This pattern of exploitation is now being felt in terms of declining liveability in many cities, decreasing access to green and open spaces and deteriorating viability of natural systems. For instance, in many Asia-Pacific countries, while there has been progress in terms of the availability of a safe water supply and improved sanitation for urban dwellers,[39] the issues of equal distribution and the quality of water still remain. Furthermore, lack of sufficient access of those living in informal settlements or slums to safe water and sanitation has resulted in widespread urban health disparities between various population groups.

Furthermore, many cities face a crisis over waste, a situation which has created health hazards, incurred rising costs and complicated poverty reduction efforts. Pressures related to affluence − managing changing consumption and production patterns of the growing middle class, air pollution and congestion related to increasing vehicle use and the emergence of e-waste − further aggravate urban challenges. Moreover, gradual erosion of ecological buffers and increasing exposure of critical infrastructure in parts of the region contribute to the risk that cities face, while many rapidly expanding cities are located in major multi-hazard "hotspots" that are vulnerable to cyclones, floods, earthquakes and landslides (see box 1.3).

An integrated and multidisciplinary approach to planning along with effective governance is required to address issues related to urban sustainability

It is not possible to address such sustainability issues in isolation. Therefore, water-energy-food and land nexus-based solutions and risk-sensitive development are essential for achieving sustainable development and must underpin future strategies. The need for greater resource efficiency to support future urban development is critical given the expanding resource footprint of cities, which are transcending ecosystem and administrative boundaries. Importantly, building the resilience of cities to natural disasters is necessary in view of the high and increasing risk of urban disasters, a situation that demands greater coordination across the stakeholders and institutions concerned. The need for integrated planning requires a multidisciplinary approach as well as effective and dynamic governance.

Moreover, it is necessary to nurture sustainable cities in the region by investing in social support structures and social protection systems, and by creating greater opportunities for all. It is no coincidence that such countries as Japan and the Republic of Korea, which

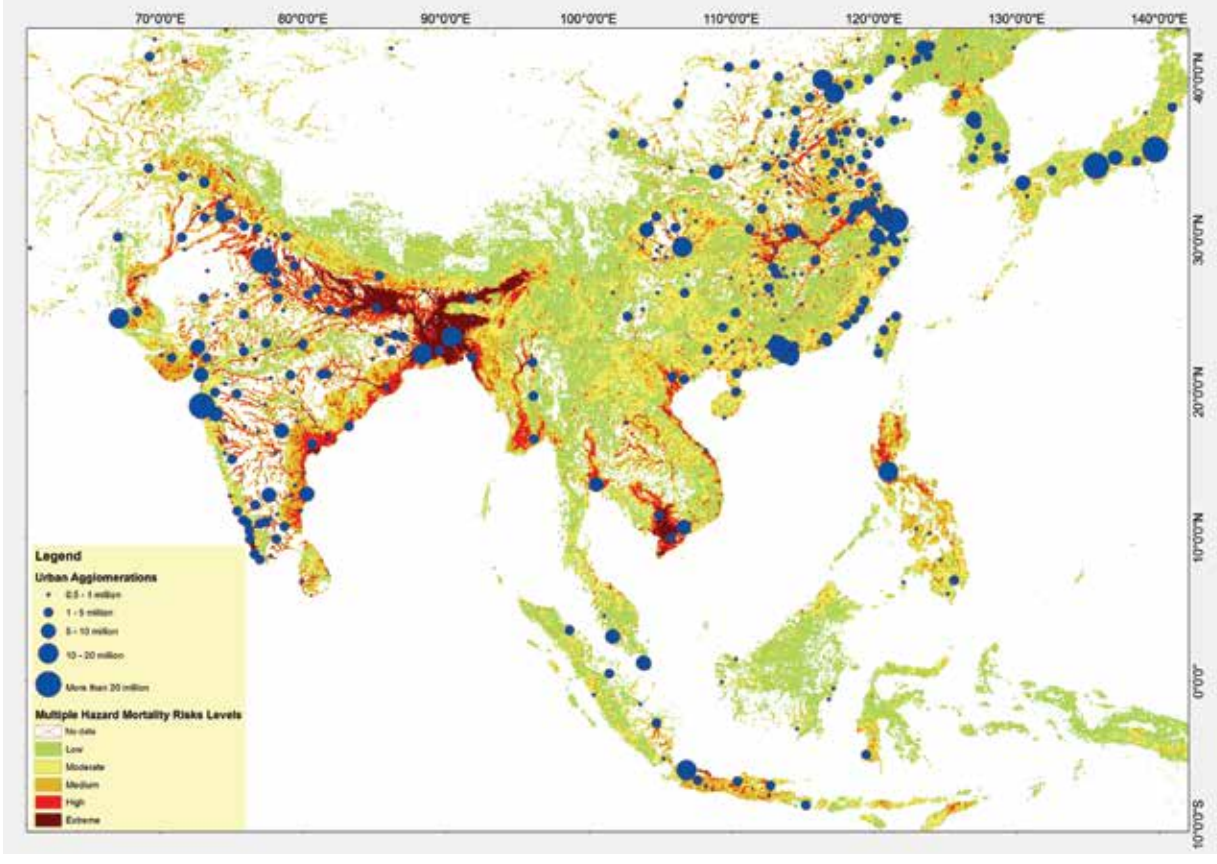
Box 1.3

Urgent need to address increasing urban disaster risk in Asia-Pacific region

Building resilience to disasters and reducing disaster risk are among the regional priorities for sustainable development in Asia and the Pacific.

There are clear reasons for giving these aspects priority. In 2015 alone, more than 16,000 lives were lost as a result of natural disasters in the region; they accounted for 70% of the global total of such deaths.[a] Many of the disasters were urban ones. Urban flooding was frequent, including the Jakarta flood in February that year, the floods in the Japanese city of Joso in September and Chennai, India, in December, which resulted in more than 500 deaths.[b] Massive disaster impacts resulted from the 2015 Nepal earthquake that killed nearly 9,000 people and caused economic damage and losses valued at more than $7 billion, which were most concentrated in the capital, Kathmandu.[c]

Asia-Pacific cities exposed to multiple hazards



Source: United Nations, Economic and Social Commission for Asia and the Pacific, *Asia-Pacific Disaster Report 2015: Disasters without Borders – regional resilience for sustainable development* (Sales No. E.15.II.F.13), figure I-20.

Disclaimer: The boundaries and names shown and the designations used on this map do not imply official endorsement or acceptance by the United Nations.

Rapid economic growth and rising populations in cities have led to major changes in land use in the region. In particular, ecological buffers that provide protection against natural disasters have been eroded, thus raising the urban disaster risk level. Critical infrastructure, such as roads, water and sanitation systems and the electric grid, in many cities is old and not disaster resilient. Thus, it is necessary to implement risk-sensitive urban planning, enforce proper building codes, retrofit critical infrastructure and invest in urban infrastructure.

In addition to these aspects, many of the rapidly expanding cities in Asia and the Pacific are located in ”disaster hotspots” where there is high risk from cyclones, earthquakes, floods and landslides, as seen in the figure above. Climate change and projected sea level rise pose further challenges, especially to

Box 1.3 *(continued)*

coastal cities where more than half the region's urban population currently live. Today, in the region, about 742 million people living in cities are at "extreme" or "high" disaster risk. By 2030, this number could reach 980 million.[d]

Building urban resilience requires a paradigm shift in urban development and management. Without such a shift, it would be difficult to protect the hard-earned development gains in the Asia-Pacific region.

[a] EM-DAT, International Disaster Database of the Centre for Research on the Epidemiology of Disasters. Available from www.emdat.be. Accessed 23 February 2016.
[b] Arun Janardhanan, "Now Chennai struggles to lay its dead to rest", *Indian Express*, 10 December 2015, Available from http://indianexpress.com/article/india/india-news-india/now-chennai-struggles-to-lay-its-dead-to-rest (accessed 27 January 2016).
[c] Government of Nepal, National Planning Commission, *Nepal Earthquake 2015: Post Disaster Needs Assessment*, Volume A, Key Findings (Kathmandu, 2015).
[d] United Nations, Economic and Social Commission for Asia and the Pacific, *Asia-Pacific Disaster Report 2015: Disasters without Borders – regional resilience for sustainable development* (Sales No. E.15.II.F.13).

have invested strongly in education, health care and social protection, have created more equal, dynamic, creative and ultimately more successful urban centres (UN-Habitat and ESCAP, 2015). Change requires new vision and partnerships, spanning national and local governments, as well as the private sector and civil society, all of which need to join efforts to promote economic and social cohesion. Promoting diversification and structural changes, with strong local governance, is the best way to transform urban economies.

A key challenge in this regard is that the region's governance frameworks appear ineffective and insufficient to address the patterns and magnitude of urban growth. Many of the region's cities are managed using outdated legal and regulatory frameworks and institutional arrangements. Renewal of urban planning and governance requires countries to break away from competitive and fragmented systems − among various levels of government and between governmental and non-governmental actors − towards more collaborative strategic approaches (UN-Habitat and ESCAP, 2015).

It is essential, while strengthening planning and policy frameworks, to also open up new partnerships to revitalize cities and organize urban growth more coherently. Effective policies for spatial management, land-use planning, infrastructure investment, poverty reduction and environmental protection require accurate, relevant and real-time data on urban trends and conditions. However, urban data collection and reporting have not kept up with the needs of most cities. Where this capacity does exist – specifically in the case of globally connected cities – data are rarely clustered in a way that is constructive for policy use. This "data deficit" is undermining informed decision-making and the planning of urban development, including responding to complex social and economic change. What is needed is nothing less than an "urban data revolution" for the region.

Enhancing local government finances will be essential to develop the requisite urban infrastructure

Current revenue sources at the local government level are also woefully insufficient to meet the long-term financing needs of urban infrastructure. Many urban centres are unable to raise funding from capital markets to enhance capital investments. Property taxes tend to be the most lucrative source of local revenue, but evidence from the region shows that property tax usually accounts for only about 20% of local government revenues. Collection of fees for basic economic and social services is also low, while wastage and theft of electricity and water in particular have begun to weaken the financial viability of significant numbers of energy and water boards, resulting in sizeable circular debt within jurisdictions. As a result, many small and medium-sized towns across all countries in the region continue to depend on the transfer of funds from higher levels of government for capital expenditure as well as revenue expenditure. Often, these funds are not assured, a situation which leads to chronic shortages of services and skilled staff in addition to complicating budget planning processes.

Local governments must maximize their existing revenue sources and manage their assets more effectively. Mumbai in India and Istanbul in Turkey offer

good examples of cities that raise revenue through consolidation of land and assets as well as auctions in private markets. Cities in the future, however, will clearly need to access additional sources of external financing either individually or through "pooling" with other local governments. In attempting to meet future needs, cities will require greater access to capital markets, but the ability to do so will also demand better oversight and more transparent systems of financial management.

3.4. Labour market policies for growth with employment and adequate wages

There is room to improve labour market approaches to ensure that economic growth translates into productive and better-quality jobs

In order to promote inclusive growth, a key focus of the Sustainable Development Goals, Governments of countries in the region will need to examine and reconsider existing labour market approaches and formulate appropriate policies to ensure that economic growth translates into productive and better-quality jobs. Policy interventions may also be required to ensure that such job creation leads to commensurate increases in real wages. Two groups that require particular attention from policymakers are youth and vulnerable workers, the populations of which are high in the region.

A major area of policy focus should be in the education sector. Beyond primary schooling, developing the future workforce in many low- and middle-income countries involves the ability of people to gain greater access to secondary education, as well as to technical and vocational education and training. Middle- and high-income economies are also facing challenges related to the disconnect between tertiary education and the needs of employers. In addition to improving access to higher education, it will be even more important in the future to improve the quality of education and make it relevant to fast-changing labour markets. Various measures could help reform education systems and strengthen learning outcomes. Some useful initiatives undertaken by countries include establishing a teacher licensing system, extending pre-service and in-service training, recognizing outstanding performance of teachers and improving teachers' compensation, establishing a benchmark system for quality standards, and reorienting learning practices towards the information and knowledge economy.

A responsive system for technical and vocational education and training (TVET) is also critical for workforce development and would help fill gaps in skills and competencies not provided by higher education. However, TVET currently accounts for a small share of school enrolment in many regional countries. TVET institutions in many countries face challenges related to the relevance of curricula, poor-quality instruction and infrastructure and the absence of certification frameworks that meet the standards of employers. Also, gender stereotyping hinders young women from choosing some vocational tracks. A focus on improving TVET quality and relevance through stronger linkages to the demands of industry is paramount, as is expanding access for poor and rural populations, integrating core skills, developing tools for improving the recognition of continuous and prior learning, and enhancing the availability of reliable labour market information and vocational guidance. For instance, the Lao People's Democratic Republic is developing a labour market information system and a TVET education management information system that will enhance assessment of skills demand and strengthen employment services for TVET students and job seekers (ILO, 2016).

Active labour market policies can be another set of effective interventions that could help workers better integrate into fast-changing labour market conditions. Such policies can include enhancing the functioning of public employment services, providing career counselling, offering additional training and improving the quality of labour market information. An example is the National Employment Agency of Cambodia, with technical assistance from ILO; it is furnishing career advice, job search assistance and labour market information to young job seekers and raising awareness among young people of the resources and programmes available to them. Regarding the provision of career counselling, some countries have taken useful measures to target in particular vulnerable sections of youth. For example, Singapore's Development Framework for Youth Workers targets at-risk youth, provides them with career coaching and develops their so-called soft skills (ILO, 2015b).

Improving the link between productivity and wages is critical

Another important policy area is improving the link between productivity and wages. Low and slow growth in productivity is an issue in much of the region, an issue which is covered in chapter 3 in more detail

along with some suggestions to improve the situation. However, while higher growth in labour productivity is a precondition for sustainable wage growth, it does not guarantee parallel wage growth. The correlation between labour productivity and wages is far from perfect, with wages having lagged productivity growth in many regional economies in recent years. For example, in ASEAN economies real wages have lagged productivity gains since 2005. Moreover, the gap has been even more pronounced in specific sectors, such as manufacturing in Thailand where real wages remained flat between 2001 and 2011 (ILO and ADB, 2014).

Effective collective bargaining can be one of the tools for rebalancing the gains from economic growth through facilitating fair wage increases in line with productivity. Currently, most regional economies have some way to go to strengthen their systems for collective negotiations between employers and workers. The pay-offs from building stronger institutions have been demonstrated in the advanced global economies where collective bargaining has facilitated economic restructuring – helping enterprises to cope with unexpected events and to strengthen training and skill formation.

Collective bargaining can also standardize employment conditions across enterprises and reduce the potential for a downward spiral of wage competition between enterprises. This risk can be addressed through negotiations between union federations and employers' organizations that set minimum conditions for an entire sector (multi-employer bargaining) and to a lesser extent through agreements between individual companies and company-level trade unions (single-employer bargaining). Among developing countries in the region, the Republic of Korea and Singapore have the highest proportion of workers covered by collective bargaining; most other regional economies have far lower coverage (ILO, 2015c).

In the absence of effective collective bargaining, minimum wage policies are another important tool in setting fair wages in the region. The core objective of such policies should be to protect workers who lack collective bargaining power, often low-skilled workers. However, such policies often lead to controversy and sometimes even conflict. Governments therefore need to strengthen minimum wage-setting institutions and base decisions on sound evidence and communication with trade unions and employers. Several countries have taken steps in this direction. For instance, Malaysia and Viet Nam have both set up new, tripartite bodies to review minimum wages. In India, the Government announced a much-needed review of the Minimum Wages Act 1948. Another important concern is that, even though minimum wage systems may be in place in numerous economies in the region, the rates are not adjusted regularly. For example, in Thailand sizeable adjustments in 2012/13 followed a long period of stagnation (ILO and ADB, 2014).

4. CONCLUSIONS

The economic outlook for developing Asia-Pacific economies is broadly stable but is clouded by uncertainty. There is the possibility of further deceleration in growth due to a confluence of macroeconomic risks, which continue to buffet the region. These risks are interconnected and thus quite complicated to manage. Even if the risks to growth do not materialize, broader development concerns remain that may impede progress towards achieving the Sustainable Development Goals in the region. Such developments indicate that even the moderate growth seen in the region is falling short in terms of adequately benefiting those sections of society that need it the most − the poor.

To ensure effective implementation of the Sustainable Development Goals, the region will need to strive both for higher economic growth and better-quality growth. Since external demand is likely to remain weak in the near term, countries will have to focus on boosting domestic demand. Ensuring the quality of growth will require internalizing various aspects of inclusiveness and sustainability in policymaking. The key tool available to Governments to achieve these aims is fiscal policy, with fiscal space being available in many economies. Spending on education, health and infrastructure is particularly important in this regard. Regional cooperation initiatives also afford valuable support for domestic initiatives to spur higher growth and achievement of the Sustainable Development Goals, especially for poorer economies with lower domestic capabilities.

Importantly, in broad terms, the growth model currently being pursued by countries in the region is underpinned by debt accumulation rather than productivity-driven increases in real wages. Increasing real wages through the boosting of productivity will be critical to ensure long-term growth in incomes that will eliminate poverty and ensure a better future for all citizens. Chapter 3 contains analyses in greater depth of the issue of increasing productivity and affords a set of recommendations for the consideration of policymakers concerning the way forward.

Endnotes

[1] Total merchandise exports by Asia-Pacific economies include exports from China. If exports from China are excluded, the share would rise to 19%. See United Nations, Economic and Social Commission for Asia and the Pacific, *Asia-Pacific Trade and Investment Report 2015: Supporting Participation in Value Chains* (Sales No. E.15.II.F.15). Available from www.unescap.org/resources/asia-pacific-trade-and-investment-report-2015-supporting-participation-value-chains.

[2] Oil prices fell in mid-January 2016 to their lowest levels since 2003, having declined by 35% in 2015, with only a moderate increase having been observed since. Similarly, agricultural prices, as measured by the FAO Food Price index, declined by 19% in 2015, marking the fourth consecutive year of low prices. The widely followed S&P GCSI Industrial Metals index also declined by 24% in 2015.

[3] The global emerging markets grouping consists of Argentina, Brazil, Bulgaria, Chile, China, Colombia, the Czech Republic, Ecuador, Egypt, Hungary, India, Indonesia, Lebanon, Malaysia, Mexico, Morocco, Nigeria, Peru, the Philippines, Poland, the Republic of Korea, Romania, the Russian Federation, Saudi Arabia, South Africa, Thailand, Turkey, Ukraine, United Arab Emirates and Venezuela.

[4] The "one belt one road" initiative is aimed at building jointly a "silk road economic belt" and a "twenty-first century maritime silk road", strongly advocated by China. The implications and benefits of these measures are being discussed among the associated countries and the Asia-Pacific region as a whole. Some claim the initiative could potentially create investment opportunities for China in terms of infrastructure and also lead to a potential increase in bilateral trade.

[5] Inflation was slightly lower at 4.1% in 2009, but that was driven largely by a high base of 8.3% inflation recorded in 2009 amid the global food and fuel price surges.

[6] These economies include the Philippines, Singapore and Thailand. On the other hand, core inflation in the Republic of Korea increased in 2014 and 2015 in line with a rebound in household consumption, while overall inflation exhibited a downward trend.

[7] Changes in inflation are measured as the sum over the two-year period of 2014 and 2015 because the positive effect of lower inflation on consumption and overall economic growth tends to occur with some lags.

[8] In Hong Kong, China; Indonesia; the Republic of Korea; and Thailand, the average growth of inflation-adjusted monthly earnings was either lower or negative during 2014 and 2015 when compared with the preceding two years.

[9] For example, in Taiwan Province of China the overall price level decreased by 0.3% in 2015, while prices of transport items fell by 5.7%. Consumer inflation faced by the population in the lowest income quintile increased by 0.1%, while this figure dropped by 0.4% for those in the highest income quintile.

[10] Between June 2014 and January 2016, the World Bank's overall food price index fell by 23.1%, while the price of fertilizer, the main agricultural input, dropped by only 10.6%. In the region, food inflation moderated in 2015 in many economies where the agricultural sector remains sizeable, such as Bangladesh, Cambodia, China, India, Pakistan, the Philippines, Thailand and Viet Nam.

[11] In the Republic of Korea, household debt stood at 87% of GDP at end-2014. In China and Singapore, the ratio was lower at about 40% and 61% of GDP, respectively, but this has increased by at least 20 percentage points since the global financial and economic crisis began in 2008.

[12] The share of non-performing loans in total loans amounted to 15.3% in Maldives in the third quarter of 2015, while this share was 7-8% in Armenia and Mongolia at end-2015.

[13] Estimates on the transmission lag in small or low-income countries are often not available. For example, in Nepal, while the central bank reported that the credit channel is the strong channel of monetary policy, there is no information on the transmission lag. For further information, see State Bank of Pakistan, *Monetary Policy Frameworks in the SAARC Region*. Available from www.sbp.org.pk/mpd/MPF-SAARC-Region.pdf.

[14] For instance, in the second half of 2015, the Government of China approved two railway projects with a total value of nearly $11 billion, lowered the income threshold for firms eligible for reduced corporate income tax rates and slashed in half the 10% purchase tax on vehicles with small engines. See United Nations, *Economic and Social Commission for Asia and the Pacific, Economic and Social Survey of Asia and the Pacific 2015: Year-End Update* (ST/ESCAP/2743).

[15] The target year for reducing the budget deficit to 3% of GDP was postponed a year to 2018 rather than the earlier planned target of 2017. This helped offset the slowdown in private investment, as government capital expenditures were 30% higher in the period April-December 2015 compared with the previous year.

[16] While it has been reported that all government ministries except the defence ministry were directed to cut their budgets by 10%, actual reductions were lower as the Government decided to draw on its reserve fund.

[17] For estimated financing requirements to achieve different development goals, see United Nations, Economic and Social Commission for Asia and the Pacific, *Economic and Social Survey of Asia and the Pacific 2013* (Sales No. E.13.II.F.2), chap. 4.

[18] Fiscal rules are permanent constraints on fiscal policy, expressed in terms of a summary indicator of fiscal performance, which could be budget balance or public debt, usually as a percentage of GDP, or level or growth of government expenditures. Countries in the region that have implemented fiscal rules are Armenia, Australia, Georgia, India, Indonesia, Japan, Malaysia, Maldives, Mongolia, New Zealand, Pakistan, the Russian Federation, Singapore and Sri Lanka.

[19] Increased spending, combined with revenue shortfalls, widened the budget deficit to 2.8% of GDP in 2015, above the 1.9% target.

[20] For a broader discussion on rethinking macroeconomic policies, see United Nations, Economic and Social Commission for Asia and the Pacific, *Economic and Social Survey of Asia and the Pacific 2013* (Sales No. E.13.II.F.2), chap. 3.

[21] India deregulated the prices of petrol and diesel fuel in 2010 and late 2014, respectively, and raised the excise duty on fuel in 2015. Indonesia raised fuel prices in mid-2013; it eliminated petrol subsidies and capped diesel subsidies in 2015. Malaysia liberalized premium petrol prices in 2010 and shifted to a "managed float" (in which prices are set monthly to reflect global oil prices) on regular unleaded petrol and diesel in late 2014.

[22] For instance, Indonesia raised $3.5 billion through international bonds on 1 December 2015, ahead of the United States interest rate hike. Fiji also recently issued $200 million in bonds to roll over a maturing bond at a lower interest rate than the original bond.

[23] The estimated interest payment for 2015 is calculated as the difference between estimated government overall balance and primary balance in 2015, as contained in International Monetary Fund, *World Economic Outlook, October 2015: Adjusting to Lower Commodity Prices*. Available from www.imf.org/external/pubs/ft/weo/2015/02/pdf/text.pdf.

[24] For instance, China has obliged local governments to provide better data on their debts and has forced banks to bring more of their shadow loans onto their balance sheets, providing a clearer picture of liabilities. China has also used both monetary easing and a giant bond-swap programme to reduce the cost of servicing debts. As a result, the weighted interest rate on existing liabilities declined from roughly 6% to 4.5% in 2015.

[25] This point should not be overemphasized, however. As a whole, the bulk of household debt is held by the rich (either in the form of income or assets). For instance, in the Republic of Korea 46% of total debt is held by the richest quintile, whereas for the poorest quintile the figure is only 4.2%.

[26] While outbound FDI has increased in recent years, domestic investment has been somewhat subdued. However, in assessing how much of the funds raised are invested, possible future investments should also be considered, as firms may have front-loaded funding on the back of low United States dollar yields but may have delayed making investments due to domestic and global uncertainties.

[27] Macroprudential measures are designed to limit systemic financial risks, whereas capital flow management measures are aimed at addressing the negative effects of large and volatile capital flows. The latter tends to, but does not always, discriminate on the basis of residency. Given that systemic risks may arise from capital flows, there are overlaps between the two measures.

[28] Many of these issues are highlighted in Basel Committee on Banking Supervision, *Core Principles for Effective Banking Supervision* (Basel, Switzerland, Bank for International Settlements, 2012). However, implementation can vary substantially across countries.

[29] To put things into perspective, there are 15.6 million broadband Internet subscribers and more than 40 million individual bank accounts in Pakistan. See International Monetary Fund Country Report 16/ 2 on Pakistan. Available from www.imf.org/external/pubs/ft/scr/2016/cr1602.pdf.

[30] Tax expenditures are defined by the International Public Sector Accounting Standards Board (IPSAS) as "preferential provisions of the tax law that provide certain taxpayers with concessions that are not available to others" (IPSAS 23, Revenue from non-exchange transactions (taxes and transfers) 2006, Cl. 7, p. 5). They can apply to any type of tax, such as corporate or personal income tax, consumption taxes, customs duties and land taxes.

[31] See http://survey.internationalbudget.org/#download. In response to the survey question, "Does the Executive's Budget Proposal or any supporting budget documentation present information on tax expenditures for at least the budget year?" the following countries in the region responded positively: Georgia; India; Indonesia; Malaysia;

New Zealand; Pakistan; Papua New Guinea; the Philippines; the Republic of Korea; the Russian Federation; Sri Lanka; Tajikistan; Thailand; and Turkey.

[32] The coverage of tax expenditure reporting varies across countries and affects estimates of foregone revenues.

[33] For instance, the tax burden could be shifted by the owners of capital to employees or consumers.

[34] Viet Nam's inheritance and gift tax of 10% is charged on the value of assets inherited or received as a gift exceeding in value 10 million Vietnamese dong on each occasion such income arises. Assets include securities, capital holdings, real estate and other assets subject to ownership. Thailand's inheritance tax, which came into effect in February 2016, is 5% for ascendants or descendants and 10% for others; it is levied on assets worth more than 10 million baht.

[35] Estimates by the China International Capital Corp., Ltd. See Xinhua, "Chinese premier presses VAT reform to boost economic vitality", 25 January 2016. Available from http://news.xinhuanet.com/english/2016-01/25/c_135044216.htm.

[36] For instance, software upgrades can be supplied as part of a contract for maintenance services, in which case a different tax rate would be applied. See Satya Poddar and Ehtisham Ahmad, "GST reforms and intergovernmental considerations in India", Government of India, Ministry of Finance, Department of Economic Affairs Working Paper No.1/2009-DEA (New Delhi, 2009).

[37] All regional and subregional employment estimates are based on International Labour Organization (ILO), *World Employment and Social Outlook: Trends 2016* (Geneva, ILO, 2016) and ILO, *Key Indicators of the Labour Market*, 9th ed. (Geneva, 2015). The regional and subregional groupings used by ILO differ somewhat from ESCAP definitions; however, the percentage of the population covered by both groupings is similar due to the inclusion of all major developing economies in both sets of definitions.

[38] Poverty reduction is defined in terms of a decrease in the poverty headcount ratio, defined as the percentage of the population living on less than $1.90 a day at 2011 international prices.

[39] In 2012, 97% of the urban population in the region had access to a safe water supply; the figure had been 94% in 1990. However, access to improved sanitation for people living in urban areas in the region has been much slower in achievement − at 75% . See United Nations, Economic and Social Commission for Asia and the Pacific, *Statistical Yearbook for Asia and the Pacific 2014* (ST/ESCAP/2704).

UNDER EMBARGO UNTIL 12.00 HRS., BANGKOK TIME, THURSDAY, 28 APRIL 2016

UNDER EMBARGO UNTIL 12.00 HRS., BANGKOK TIME, THURSDAY, 28 APRIL 2016

SHUTTERSTOCK (XUANHUONGHO)

CHAPTER

2

PERSPECTIVES FROM SUBREGIONS

The Asia-Pacific region is vast, varied and rich in development experiences. Some countries are very large and some very small in terms of size of population, economy and geography. The economies of some are growing at a high rate; those of others have barely started to gather speed while some even remain static. Some offer world-class physical and financial infrastructure and, driven by high productivity, have become manufacturing and trade hubs in the global economy. Yet, some are quite poor, relying primarily on agriculture or a few commodities, and possess less-than-adequate connectivity with the rest of the world.

Consequently, the development challenges faced by the region are quite diverse. While some economies are struggling to cope with low commodity prices, others are reaping the benefits from such prices. Female labour force participation is high and adequate in some economies, but lags behind considerably in others. Differences in population dynamics and vulnerability to natural disasters are other examples. Even the aspects of economic stability, such as macroeconomic balances, financial markets, debt positions and inflation, along with associated policies, vary substantially across countries.

The purpose of this chapter is to share a glimpse of the mosaic that is the Asia-Pacific region. By being focused on subregional challenges and country-level developments, this chapter offers a better and deeper understanding of economic prospects, structural issues and the development potential of various subregions in Asia and the Pacific. This strategy allows for a better appreciation of the range of required policies and demonstrates that a one-size-fits-all approach to development cannot and should not be followed. Rather, the specific conditions of each country or at least different subregions should be evaluated separately keeping in view their respective historical context, social and political traditions and aspirations.

In **East and North-East Asia**, moderation in economic expansion in China and the Republic of Korea together with Japan's weak growth path and stubborn deflationary pressure depressed the subregion's economic expansion in 2015. The near-term economic prospects for this export-oriented subregion are not bright either, as global trade is set to expand only sluggishly in coming years. The Republic of Korea is the only economy in the subregion where growth is set to trend upward steadily over 2016 and 2017 amid revived domestic demand. Key uncertainties are whether China's medium-term growth will settle around 6.5% and whether the Japanese economy would return to a recession if its consumption tax increases in 2017, as planned. The upside is that in most economies in the subregion there is adequate room for fiscal and monetary policy support.

Moderating economic growth in China is partly policy-induced. This transition is indeed positive as long as progress that has been made on social development is not reversed. A more challenging situation could arise in such neighbouring countries as Mongolia, which has relied on China's demand for minerals to fuel its economic expansion in past years. As macroeconomic policy space to cope with China's slowdown is limited, slower growth in Mongolia is perhaps inevitable and could hold back the pace of poverty reduction in that country. More broadly, decelerating growth in China has recently been accompanied by growing concerns and heightened economic uncertainty, as reflected in global stock market selloffs in mid-2015 and again in early 2016. An immediate challenge is how to manage the transition in China without causing too many negative spillovers into the global economy.

Given that economic deceleration in China is already in its sixth year, subregional economies have been seeking to increase the role of domestic demand in driving future economic growth. Despite some concrete policy efforts and examples of success, the adjustment has not been sufficiently rapid. This is largely because the transition is constrained by structural factors that evolve only slowly, such as a shrinking population in Japan, high retention of corporate and personal savings in China and neglect of non-export activities in the Republic of Korea.

The issue of an ageing population poses a serious threat to the economic and social development of the subregion. The size of the working-age population in all major subregional economies is projected to shrink after 2020 to the extent that older persons could account for up to one third of the total population by 2035. The impact of rapid population ageing on fiscal sustainability could be substantial as population ageing pushes up public spending on old-age pension schemes and health-care services, while it constrains revenue collection as a result of a smaller workforce. Although the subregion appears to exhibit adequate fiscal resources now, fiscal risks are rising. The issue of an ageing population can, however, be turned into an opportunity if adequately addressed. For example, the expectation of a longer life can increase the savings rate, which in turn would create a greater stimulus for investments and could lead to a "second demographic dividend".

In **North and Central Asia**, the subregional economies faced a marked deterioration in economic growth performance and heightened macroeconomic instability in 2015. In most countries, a deep plunge in global prices of oil, gas and minerals slashed export earnings and fiscal revenues, weakened terms of trade and resulted in steep currency depreciations and multi-year high inflation. International sanctions and stalled progress to tackle structural weaknesses also drove the recession in the Russian Federation. As the Russian labour market employs numerous migrant workers from its neighbouring economies, the recession dampened economic growth in non-oil, remittance-dependent subregional economies.

Although some analysts suggest that the economic turmoil may have bottomed out, the outlook is highly uncertain and would depend on oil prices and developments on the geopolitical front. Moreover, risks are clearly tilted to the downside. As a large share of bank credit is denominated in foreign currencies, debt burdens and overdue loans have surged due to exchange rate depreciation, thereby placing financial stability at risk. A key concern is that oil prices are expected to remain at low levels. Thus, the pressure that deterred economic growth in 2015 will persist,

with relatively less room being available for policy response as fiscal positions have weakened due to earlier fiscal stimulus measures and subpar energy revenue. Moreover, a dilemma arises in terms of monetary policy in the face of subdued economic growth, high inflation and the risk of further currency depreciation. Poverty has recently increased in the Russian Federation and could rise further amid a prolonged period of economic downturn.

The current economic turmoil serves as a striking reminder that the subregion needs to diversify its growth engine beyond resource-based sectors. Although infrastructure connectivity has improved in recent years, reforms to create vibrant business support services to complement a high value-added manufacturing sector are needed. Economic diversification calls for liberalization in both input and product markets. The policy challenge is to push forward deregulation, such as easing the process of market entry, while having in place strong regulatory bodies that protect consumer interests and ensure fair competition. Questions also remain regarding the desirable size and role of public enterprises in driving future economic growth in these economies where the role of the State has historically been dominant.

In the **Pacific** subregion, overall economic growth in 2015 was largely driven by higher production of liquefied natural gas in Papua New Guinea, which accounts for 60% of output in Pacific island developing economies. This situation masks much slower economic expansion and even contraction in other countries. Economic growth has traditionally been volatile, as economic activity has often been driven by movements in global prices of primary commodities, tourism receipts that are highly sensitive to economic conditions in source economies and one-off developments, such as natural disasters and subsequent reconstruction activities. The near-term growth outlook is set to weaken as capital inflows into Papua New Guinea's mineral sector have passed their peak levels, while dry conditions brought about by the El Niño weather phenomenon will constrain subsistence agriculture.

Given their small population size and land area and remote geographic location, Pacific island developing countries are highly exposed to natural hazards and meteorological extremes, such as cyclones, tsunamis, droughts and floods. The likelihood that a natural disaster will take place in one of the Pacific island developing countries each year is about one in five, which is greater than that faced by any other small States in the world. Because of their magnitude, natural disasters seriously threaten the livelihood of people in the Pacific. For example, damage and losses caused by Cyclone Pam in March 2015, one of the worst natural disasters to affect Vanuatu in its history, were estimated to be equivalent to about 60% of the country's gross domestic output. The impact on the poor was even greater, given that they live in more disaster-prone areas of Vanuatu with less protected shelters.

As exposure to natural catastrophes is determined largely by geographic conditions, public policies have been focused on enhancing a country's ability to cope with natural disasters. In this regard, many countries have established large fiscal buffers to deal with the after-effects of such phenomena, while at the subregional level a natural disaster-linked insurance scheme was launched. Other initiatives are also under way, such as the construction of natural disaster-resilient transport infrastructure and a national budgeting process in which the cross-cutting nature of natural disasters is recognized. Nonetheless, the sheer scale of weather-related extremes calls for closer and perhaps more innovative partnerships between the Pacific islands and international development community.

In **South and South-West Asia**, India's economy is gaining growth momentum, underpinned by its steady, albeit uneven, progress on policy reforms to attract foreign investment and revive stalled infrastructure projects. The positive spillovers of stronger growth in India into other major economies in the subregion are below their potential in view of the limited trade and financial linkages that exist. For the near-term, optimistic prospects assume that structural reforms would move forward at a pace that keeps up with business expectations and improves market sentiments. As recent interest rate reductions have not translated into higher fixed investment, further reforms are needed to improve the business environment. The role of policy reforms in supporting future economic growth is particularly important for this subregion as room for countercyclical policies is somewhat limited.

There are signs of improvement in the subregion with respect to three persistent interconnected macroeconomic imbalances, namely large fiscal deficits, high inflation and wide current account shortfalls. Lower oil prices have resulted in a decline in inflation and have allowed fuel subsidy rationalization, leading to a positive effect on fiscal positions. Nonetheless, reforms to ease supply-side constraints, such as severe energy shortages and infrastructure deficits, are critical in reducing production costs and

promoting export competitiveness. Over the medium term, such reforms would help to relieve cost-push inflation and narrow current account shortfalls, thus promoting persistently greater macroeconomic stability in the subregion.

Despite a recent pickup, the subregion's economic growth remains below its high potential, which is supported by a young population and surplus labour in the agricultural sector. One option to close the output gap is by increasing the female workforce participation rate, which is one of the lowest rates in the world. Policy efforts have been made to overcome core barriers to women's work, such as enhancing the availability of and access to good-quality education and providing safe public transport to work in rural areas. Other policies are designed to offset disincentives for women to work, such as offering adequate parental and child-related benefits and taxation frameworks that reduce the net tax liability of working mothers. However, the key question is whether such policies are bold enough to alter deep cultural roots and social norms that discourage or even prohibit a role for women outside the household sector.

In **South-East Asia**, economic growth was stable at a low level in 2015. Merchandise exports declined amid China's growth moderation, but household spending in major economies was also held back by domestic factors, such as slower job creation in Indonesia and high household debt levels in Malaysia and Thailand. The near-term growth prospects would benefit from accommodative monetary policy stances and fiscal stimuli recently launched in larger economies. Countries with lower income levels would continue to enjoy relatively robust economic expansion, thus narrowing the development gaps between frontier economies and emerging economies in the subregion.

The ASEAN Economic Community, which became effective at the end of 2015, has as its major goal the promotion of a single market and production base in member countries, all of which are in the subregion. Lower import tariffs and less restrictive non-tariff barriers should provide a good opportunity for such countries as Cambodia, the Lao People's Democratic Republic and Myanmar to diversify their growth engines, although reforms to enhance the business environment are also needed to attract more foreign direct investment (FDI). While foreign investment helps to create more jobs, it may not necessarily benefit government revenue to the extent expected due to various tax exemptions and reductions that are in place. Such tax privileges also complicate tax administration and result in lower levels of compliance. Such competition across countries in the subregion and beyond to attract more foreign investment by offering generous tax benefits is not always welfare-enhancing and should be addressed through stronger regional cooperation on tax matters.

More broadly, tax reforms are needed amid changing economic landscapes. For example, greater regional economic integration means that revenue from trade taxes tends to decrease, while capital becomes more mobile and difficult to tax. Moreover, as countries move up the income ladder, there will be more demand for better public social services and urban infrastructure amid a growing middle-class population and rapid urbanization. Critical to successful tax reform is the need to have more effective coordination among relevant agencies, such as departments within ministries of finance, foreign investment promotion agencies and local governments. Greater use of information technology in tax administration also matters, especially its capacity to help increase tax compliance through risk-based auditing and third-party information sharing.

1. EAST AND NORTH-EAST ASIA

1.1. Macroeconomic performance and outlook

China's growth moderation and Japan's stubborn deflationary pressure are constraining output growth in East and North-East Asia

East and North-East Asia experienced a largely stable economic growth rate of 3.3% in 2015. However, excluding Japan, growth slowed from 6.2% in 2014 to 5.7% in 2015, mainly due to declining merchandise exports as a result of an economic growth moderation in China and tepid global demand. The Japanese economy recovered marginally from the negative impacts of the consumption tax increase in 2014. Amid sluggish international trade, economies in the subregion have sought to rely more on household spending for sustaining economic growth. Private consumption was the largest contributor of output growth in all of the economies in the subregion, except in Mongolia where mining exports continued to propel the economy.

For the subregion as a whole, economic growth is expected to increase slightly to 3.4% in 2016. The key factor is the expected modest recovery in Japan, which will partially compensate the growth moderation in China. Economic growth performance is unlikely

to improve further in 2017 due to weak prospects in China and Japan, as the global trade outlook remains anaemic and Japan is scheduled to put into effect the second round of sales tax increases in 2017. Consistent with the growth outlook, inflation is projected to remain broadly stable and below 2% for the subregion as a whole in 2016 and 2017. Mongolia is an exception, where near-term inflation may approach 7% in 2017.

An increasing concern for the export-dependent economies in East and North-East Asia is the drastic deceleration in global trade in recent years. In 2015, global trade volume growth dipped below the 3.3% pace projected by the World Trade Organization (WTO) in early 2015. While continued weakness in global trade is a reflection of sluggish recovery in import demand in developed countries, an economic growth moderation in China also dampened exports in other subregional economies. From double-digit growth prior to the global financial and economic crises, China's imports shrank by 14.2% in 2015 relative to that of 2014. While that decline was partly due to tumbling commodity prices, import volume also contracted. In China, Japan and the Republic of Korea, their weaker currencies against the Unites States dollar do not appear to have helped boost exports.

While economies in East and North-East Asia recognize the need to shift to a more consumption-led growth path, structural impediments have made the transition difficult. In particular, efforts to raise productivity and income levels have faced several challenges. In China, while some progress has been made in terms of increasing the share of private consumption in total output, the savings rate is still close to half of GDP. Such a high savings rate is driven by the high retention rate of corporate earnings, low accessibility of affordable credits to households and inadequate social safety nets. These issues are being addressed by the Government, which is improving access to financial services for smaller enterprises and rural households and strengthening social safety nets, but it will take time for the reforms to have an impact on household and corporate behaviour. In Japan, productivity gains are difficult to achieve due to ageing and declining population size. In the Republic of Korea, relatively low productivity in non-manufacturing sectors is a result of the favourable treatment given to the export-oriented manufacturing sector, and this situation has yet to be adequately resolved.

At the same time, to overcome the sluggish recovery in global demand, East and North-East Asian economies increasingly turn to bilateral and multilateral free trade agreements to boost trade. Following the sixth trilateral summit between China, Japan and the Republic of Korea, which took place in Seoul on 1 November 2015 after a three-year break, negotiations on a trilateral trade agreement are expected to gain momentum. In particular, the three countries agreed to kick-start the process of removing barriers to cross-border electronic trade.

China

Economic growth in China continued the moderating trend that started in 2010. The economy expanded by 6.9% in 2015 relative to the 7.3% growth rate in 2014. Exports shrank by almost 3%, while fixed investment, especially on equipment and machinery, was subdued. As a result, consumption was the largest contributor to output growth, supported by stable employment conditions, higher disposable income and low inflation. Consumer spending also benefited from a supportive macroeconomic policy stance. Fiscal spending increased, while the policy interest rate was cut twice in 2015. Lower interest rates and the easing of restrictions on home purchases that were put into place in 2013 to curb overheating in the property market underpinned the recovery of the housing market during the second half of 2015.

The financial sector experienced heightened volatility in recent years. After a 150% gain between June 2014 and June 2015, China's main stock market index underwent substantial corrections in mid-2015 and early 2016 on concerns over slower economic growth and devaluation of the currency, the renminbi. The impact of stock market volatility on consumption and investment is, however, expected to be modest, as equities still account for only a small portion of household and corporate assets. Capital outflow, sparked by speculative selling of the currency and the interest rate hike in the United States, resulted in record high net sales of $466 billion in foreign exchange by banks in 2015. To stem speculative attacks, the central bank responded by intervening in the foreign exchange market and tightening controls on currency trade. A new 20% reserve requirement was imposed on all currency forward positions.

As economic rebalancing is moved forward, economic growth is projected to moderate further to 6.5% in 2016 and 6.3% in 2017. These projections are still largely in line with a minimum target for an economic growth rate of 6.5% during the country's 13th five-year plan (2016-2020). The plan places emphasis on the quality of growth. Under the plan, green

initiatives are to be better integrated into economic policies, particularly to address the growing problem of air pollution, through such measures as tougher emissions standards and more support for the use of non-fossil fuels.

Meanwhile, financial reforms to move the economy towards a more market-based system are expected to continue, including interest rate deregulation and increasing the flexibility of the exchange rate. These reforms are expected to help reduce transaction costs and benefit all other subregional economies which have deep and wide linkages with China. However, they may also increase the risk of short-term volatility with widespread spillover effects on a global scale, as was demonstrated by the recent turmoil in the Chinese stock and currency markets. Managing planned financial reforms towards a more open market system in the light of increased volatility is a pressing challenge for the Government.

Hong Kong, China

In the Special Administrative Region of Hong Kong, China, economic growth was largely stable at 2.4% in 2015. Overall expansion was underpinned by relatively solid private consumption on the back of strong labour market conditions, including a low unemployment rate of 3.3%, increases in household income and low inflation. In contrast, the export of goods contracted by 2.2% as a result of weak demand in China and developed markets. Exports of services also decreased marginally due to the decline in inbound tourists from mainland China and smaller receipts from transportation services. The lower level of tourist arrivals dampened retail sales, which have registered weak growth in recent years. Meanwhile, fixed investment conditions are mixed, with growth in construction investment being robust but slackening in machinery and equipment investment.

While economic growth is expected to slow to 2% in 2016 and pick up slightly to 2.3% in 2017, the export outlook remains anaemic. Domestic demand should benefit from recent measures, including tax relief, credit guarantee schemes for small and medium-sized enterprises and additional income support for the elderly and low-income households. The budget surplus maintained in recent years will provide a healthy buffer for accommodative fiscal policy. In contrast, the monetary policy stance will tighten, as monetary policy conduct in Hong Kong, China is effectively tied to that of the United States. The growth outlook will depend on how consumption and investment react to higher financing costs.

Macao, China

The economy of Macao, China contracted by about 20% in 2015 following drastic declines in tourism-related earnings and gaming sector revenues. The contraction started in 2014 after China's anti-corruption drive made it difficult to attract high-end tourists from China, the single largest growth engine of the economy of Macao, China. Despite the economic slump, fixed investment appeared buoyant in mid-2015, mainly owing to large-scale investment projects in tourism that had been planned. As a result, the unemployment rate was low at 1.8% in mid-year, while labour earnings also increased. Inflation was moderate at 4.6% in 2015.

The economy is projected to contract further by 2.7% in 2016. The increased supply of gaming facilities in recent years and greater competition in the tourism sector in the Asia-Pacific region are likely to put pressure on corporate profits and overall economic growth. A freeze on government spending in response to falling tax revenue will also hold back output growth. Meanwhile, economic growth is set to rebound to 4.6% in 2017, assuming that the adjustment cycle comes to an end. Investments on non-gaming entertainment facilities that have been made in recent years should also help to attract a more diversified range of tourists and improve the economy's medium-term outlook for growth.

Democratic People's Republic of Korea

While official economic data are limited, available data suggest that the economy of the Democratic People's Republic of Korea has grown more rapidly in the past few years[1] than in the more distant past, supported by rising mineral exports to China and higher production at the Kaesung Industrial Zone. The agricultural sector is less robust, as a poor harvest was reported for the second consecutive year. According to the Food and Agriculture Organization of the United Nations (FAO), drought and flooding caused a 12% reduction in rice production, leading to a drastic reduction in food rations for households, when most households were already estimated to have borderline and poor food consumption rates.[2]

The Government continues to increase its efforts to attract FDI into the country. In 2015, a special economic zone was developed in North Hamkyung Province, making it the twentieth special economic zone to be set up since 2013. The operation of these special zones is, however, contingent on fragile

relations with the Republic of Korea. For example, the Republic of Korea suspended production in the Kaesung Industrial Zone in February 2016 to protest nuclear testing by the Democratic People's Republic of Korea. On the outlook for the future, the economy is likely to experience a slowdown in 2016, mainly due to China's lower demand for minerals.

Japan

The economy of Japan resumed positive output growth in 2015, expanding by 0.5% from zero growth in 2014. Growth performance was, nonetheless, weaker than expected amid the economic slowdown in China which constrained business investment and exports. Although the currency depreciated by 20% in 2015 relative to the United States dollar, partly as a result of expansionary monetary policy, exports did not appear to benefit from the weaker exchange rate. Meanwhile, the economy continues to face deflationary pressure. After a rise in inflation to 2.7% in 2014, which was driven by the consumption tax hike, inflation decreased to 0.8% in 2015 on the back of sluggish economic activity and lower commodity and food prices. Monetary easing would continue until the inflation target of 2% is met.

Economic growth is projected to increase to 1.1% in 2016. Solid employment conditions, with an unemployment rate of about 3% at end-2015 and increases in real wages would support consumer spending. Growth is, however, expected to be slightly restrained, to 0.7% in 2017, due to the impact of the scheduled sales tax increase in April that year. Overall, the near-term growth outlook is clouded by more modest fiscal support at a time when fiscal consolidation is needed. The Government is trying to consolidate fiscal debt levels which reached 245% of GDP in 2015, and achieve a primary budget surplus by 2020.

Mongolia

Mongolia's economic growth slowed significantly to 2.3% in 2015 compared with an average annual growth rate of 10.6% in the preceding three years. The slump was underpinned by sharp declines in mining sector investments, weaker external demand for coal and copper, particularly from China, and deteriorating terms of trade. Fixed investment decreased in 2015 due to a notable decline in FDI as investments relating to the first phase of the Oyu Tolgoi mine project came to an end.[3]

Amid concerns over rising public debt which more than doubled from approximately 40% of GDP in 2010 to nearly 90% in 2015, the Government cut spending in 2015 by about 4.2%. The Fiscal Stability Law was amended in early 2015; it set the new fiscal deficit ceiling at 5% of GDP and will decrease it further to 2% of GDP by 2018. Moreover, off-balance sheet spending through a development bank, which uses proceeds from selling government-backed bonds to finance public investment projects, will be reined in. Despite fiscal tightening, public debt increased as the Government made up for the shortfall in FDI by mobilizing external financing. Meanwhile, monetary policy was also tightened by phasing out the price stabilization programme which provides low-interest rate credit to suppliers of oil and food and contributed to the rapid growth in credit in recent years.

Economic growth is likely to weaken further in 2016 to 0.5%, before recovering slightly to 1% in 2017. Production in the Oyu Tolgoi mines would be sluggish, while global commodity prices are set to remain subdued. Fiscal and monetary policy support will also be modest. On the positive side, an agreement was reached on the second phase of the Oyu Tolgoi mine project, which is estimated to cost $5.4 billion, and that should help revive the inflow of FDI.

Republic of Korea

The Republic of Korea registered weaker-than-expected output growth of 2.6% in 2015, down from 3.3% in 2014. Falling exports, particularly heavy-industry goods, such as machinery and shipping vessels, mainly explain the slowdown. Consumer spending and tourist arrivals were dampened by the outbreak of the Middle East respiratory syndrome-coronavirus in mid-2015. In response, the Government introduced a $9 billion supplementary budget, and the fiscal deficit for 2015 increased slightly to 3% of GDP. The country's monetary policy stance also eased to support economic growth amid low inflation. The benchmark interest rate was cut to a record low of 1.5% in June 2015. Together with public policies to support home ownership, low financing costs helped to revive the housing market and the construction sector. Meanwhile, the labour market was relatively stable. Wage levels increased by about 3% in 2015. The unemployment rate was also low, although youth unemployment and informal employment are reported to have increased.

The growth outlook is projected to improve slightly, to 2.9% in 2016 and 3.1% in 2017. Recovery in consumer spending is expected to be the main driver of growth, although its strength would be held back by high and rising levels of household debt.

A possible rise in interest rates is a downside risk, which could undermine the recent rebound in real estate investment. As in past years, the downturn in global trade will limit overall economic growth in this export-oriented economy.

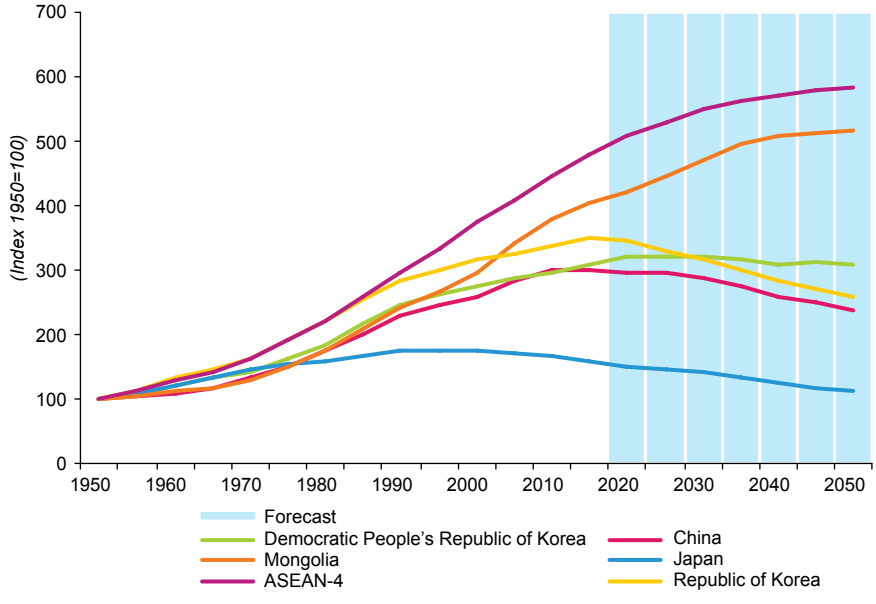
1.2. A selected policy challenge: population ageing and fiscal sustainability

The working-age population in all major subregional economies is expected to shrink after 2020

East and North-East Asia is experiencing unprecedented population ageing. The combined population of the subregion in 2015 accounted for about 22% of the world's total population, while the population aged 65 or older in the subregion constituted 29% of older persons worldwide. It is estimated that, by 2035, the share of the older population in the subregion would increase to 31% of the total for East and North-East Asia (United Nations, 2015). Japan has the highest proportion of people aged over 65 in the world, and the country's population size is already shrinking. Similarly, the pace of population ageing is rapid in China. The proportion of people aged 65 or older in the total population is projected to increase from 6.7% in 2000 to 12.1% in 2020 and 27.6% in 2050. As shown in figure 2.1, all major economies in the subregion, except Mongolia, are likely to face a declining working-age population after 2020. In comparison, the working-age population in the ASEAN-4 countries (Indonesia, Malaysia, the Philippines and Thailand) will continue to grow and reach a plateau only after 2050.

Population projections are based on current levels of fertility and longevity, which change only slowly over time. Adjustments to demographic shifts through net migration could take place more swiftly. However, the subregion's net migration levels have been low, mainly due to the importance placed on homogeneity and national identity. Furthermore, the sheer magnitude of the migration levels required to mitigate the impact of population ageing would make doing so an ambitious strategy. It is estimated that Japan would need to accept more than 600,000 immigrants a year until 2050 in order to keep the size of its working-age population constant at the 1995 level (United Nations, 2001).

Figure 2.1 **Working-age population, 1950-2050**



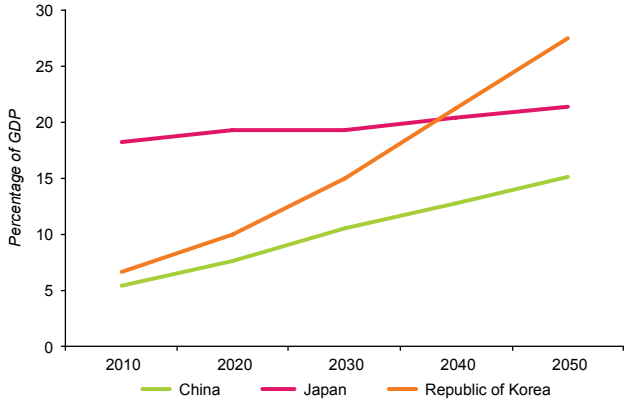
Sources: United Nations, Department of Economic and Social Affairs. Available from http://esa.un.org/unpd/wpp/Download/Standard/Population/

Broad-based policy reforms would help to maintain fiscal sustainability amid rapid population ageing

The impact of rapid population ageing is enormous and multifaceted. Of particular concern here is the impact on fiscal sustainability. On the expenditure side, population ageing is increasing the fiscal burden of old-age pension schemes and health-care services. On the revenue side, a smaller workforce constrains a country's potential for economic growth and undermines the collection of government revenues. A key question is whether fiscal positions in East and North-East Asian economies will be strong enough to cope with future rises in spending and potential declines in revenue.

Figure 2.2 depicts the projections of age-related government spending, comprising pension, health care, long-term care and unemployment benefits in China, Japan and the Republic of Korea during the period 2010-2050. It shows that all three countries are likely to experience considerable increases in public expenditure to support their ageing populations. The greatest increase in age-related spending is expected in the Republic of Korea, to nearly 30% of GDP in 2050, because the potential support ratio, or the ratio of persons aged 20-64 to persons aged 65 and older, is projected to decrease rapidly in the coming decades. In particular, this ratio for the Republic of Korea is projected to fall from 16.1 in 1980 to only 1.5 in 2050. These ratios are 13.2 and 2.1 in China, and 7.5 and 1.4 for Japan, respectively, during the same time period.

Figure 2.2 **Total age-related spending as a share of GDP, 2010-2050**



Sources: ESCAP, based on Standard and Poors, "Global aging 2013: rising to the challenge", *RatingsDirect*, 20 March 2013.

In terms of the fiscal space needed to tackle an ageing population, three economies in the subregion, namely China; Hong Kong, China; and the Republic of Korea, still have relatively low levels of public debt and have room to cushion future increases in expenditure. In Mongolia, while public debt levels are higher and have raised concerns in recent years, population ageing is progressing at a much slower pace than in other subregional peers. On the other hand, Japan has been facing fiscal pressures at a time when population ageing is already at an advanced stage. Nevertheless, while fiscal consolidation is certainly needed in Japan, public debt is viewed as stable as the Government holds large amounts of assets; net public debt was approximately 90% of GDP in 2013. Also, the central bank holds nearly one third of all outstanding government debt. These factors have enabled government bond yields to remain low despite the high levels of debt.

In the light of the projected demographic changes and growing age-related spending, the subregional economies have implemented various policy reforms to improve the well-being of older persons while keeping government debt at manageable levels.[4] In 2015, the Government of China abolished the one-child policy and removed the dual-track urban pension system under which government employees were exempted from making pension contributions. In Japan, recent measures included extending employees' pension insurance to more part-time workers, shortening the period needed to be eligible for the national pension from 25 to 10 years and setting up a new pension service to reduce the operating cost of public pension schemes. Finally, the Republic of Korea undertook extensive pension reforms, extended mandatory severance-pay plans to firms with five or fewer workers, increased childcare benefits and a lump-sum grant on birth and set up an electronic information system for collecting social security contributions.

A number of European economies with ageing populations, such as Spain and Greece, have undergone painful pension reforms in the recent past. They experienced growing intergenerational tensions as the pay-as-you-go schemes relied on current pensions being supported by current workers who would then receive a lower pension due to the shortfall in contributions when they reached retirement age. This experience suggests that it is critical to start early to implement and sustain reforms in order to avoid abrupt adjustments and massive build-ups of debt. Doing so would help to ensure orderly payments of ageing-related expenditures, such as health-care costs.

An urgent priority for East and North-East Asian economies is therefore to maintain fiscal sustainability through tax reforms. In a recent study, it was found that, given a currently low tax-to-GDP ratio, there is significant room to raise taxes without causing major economic distortions in China, Japan and the Republic of Korea (Poesoro, 2015). Recent efforts to increase tax revenues in the subregion include the sales tax increase in Japan in 2014; the Republic of Korea is considering adding another income tax bracket at the top end of the pay scale. Beyond maintaining fiscal sustainability, there is need to provide a social protection floor, increase female labour force participation, raise the retirement age, and use other untapped labour potential, such as persons with disabilities.

2. NORTH AND CENTRAL ASIA

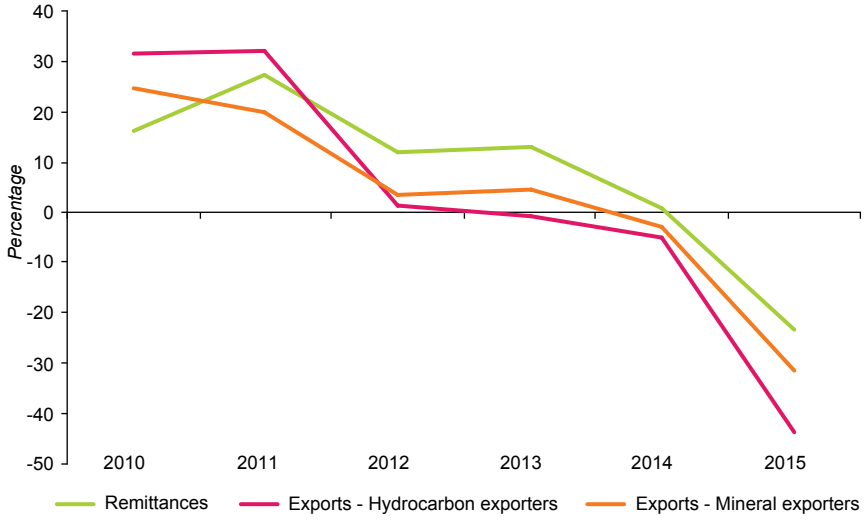
2.1. Macroeconomic performance and outlook

Declining global commodity prices and stalled progress in policy reform in the Russian Federation have resulted in recessions in North and Central Asia

The North and Central Asian subregion is facing difficult macroeconomic conditions. After a subdued 1.4% economic growth rate in 2014, subregional output contracted by 2.6% in 2015 amid a deep recession in the Russian Federation. Excluding the Russian Federation, which accounts for about 80% of output in the subregion, other economies did experience some expansion. However, at an average economic growth rate of 3.1% in 2015, this is a notable moderation from the 5.4% growth rate recorded in 2014. Sluggish growth was mainly due to low global prices for oil, gas and minerals, which led to steep declines in commodity exports from the subregion (see figure 2.3). In Azerbaijan, Kazakhstan, the Russian Federation and Turkmenistan, oil and gas account for more than 70% of total exports.

Meanwhile, the economic contraction in the Russian Federation was also driven by international sanctions and persistent structural weaknesses. Migrant workers form a large proportion of the labour force in the Russian Federation. Economic contraction, combined with policies that made it more difficult for migrant workers to obtain patents and work permits, contributed to the return or unemployment of many migrant workers, which led to reduced remittance flows from the Russian Federation. Remittances in 2015 are estimated to have decreased by almost half in United States dollar terms, or more than $10 billion (United Nations, 2016). As a result, non-oil economies that rely heavily on worker's remittances, such as Armenia, Kyrgyzstan and Tajikistan, were also affected by the recession.

Figure 2.3 **Annual changes in workers' remittances and exports, 2010-2015**



Sources: ESCAP based on data from World Development Indicators database of the World Bank, Interactive database of the United Nations Conference on Trade and Development, and CEIC Data. Available from www.ceicdata.com.

Note: The mineral-exporting countries depicted by the green line are Armenia, Georgia, Kyrgyzstan and Tajikistan. The hydrocarbon-exporting countries depicted by the red line are Azerbaijan, Kazakhstan, the Russian Federation, Turkmenistan and Uzbekistan.

Plunges in commodity exports and deteriorating terms of trade exerted a significant depreciation pressure on the subregional currencies. After the float of the ruble in November 2014, the Russian Federation's currency depreciated by 66% for the whole year and by another 13% in 2015 (see figure 2.4). Dramatic depreciations were also recorded in 2015 in Azerbaijan and Kazakhstan. Available data would indicate that some interventions were made to reduce exchange rate volatility. For example, foreign exchange reserves in the Russian Federation declined by almost 25% in 2014 and another 10% in 2015. In Kazakhstan, reserves are reported to have declined by more than 10% in 2015. The main risk associated with steep currency depreciations is the surge in debt servicing costs, as up to 20-65% of total loans are denominated in foreign currency (United Nations, 2016). The increased debt burden weighed down already fragile consumer and investor confidence. Rebuilding corporate and household balance sheets will also take time.

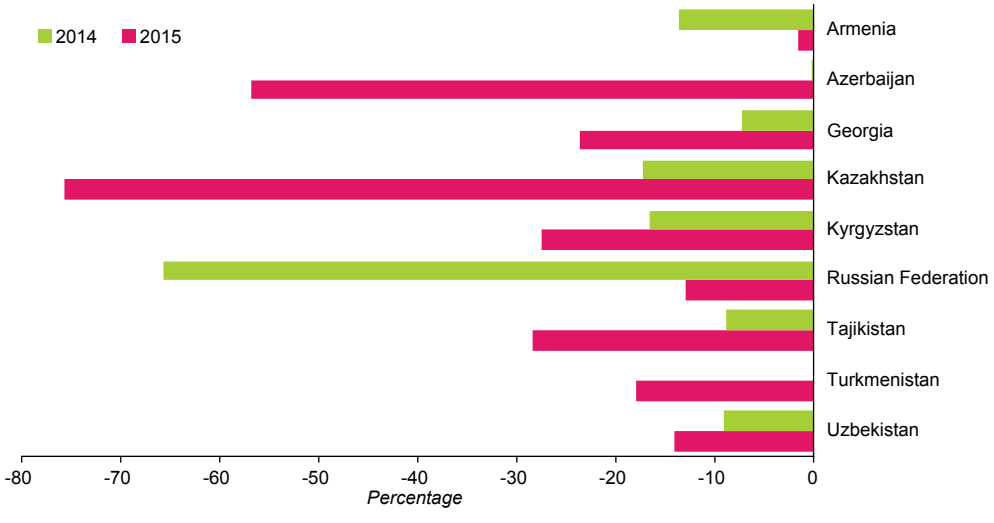
Other economies sought to maintain exchange rate stability by imposing foreign exchange controls. While such measures often offer short-term palliative benefits, they incur other economic costs and thus should be removed when stability returns. For example, controls have led to the burgeoning of unofficial markets in which exchange rates are reported to exceed the official rates by a factor of two.

Rising exchange rate and financial instabilities came at a time when monetary policy is facing complex trade-offs: inflation is rising; the process of currency depreciation may not be at its end; and economic growth is anaemic while the highly dollarized financial sector is under stress. Consequently, while tighter monetary policy will send credible signals on containing inflationary pressures, excess tightening may depress business-led revival of economic growth. In some countries in the subregion, higher interest rates may signal an overt attempt at defending the domestic currency. The pace of taking a credible path thus is a difficult balancing act that will rest on the level of credibility of central banks.

The near-term economic outlook is not too bright, despite the expectation that recession in the Russian Federation will bottom out in 2016, and economic growth in all other economies may show a slight improvement. This cautionary assessment takes into account that the distribution of risks remains skewed to the downside. Key downside risks include slower-than-expected economic growth in China which is the subregion's growing investor and trading partner, a drawn-out period of low oil prices and further currency depreciations that will further push up foreign liabilities among corporate debtors.

Medium-term growth prospects depend crucially on more substantial structural reforms. The North and Central Asian subregion needs to diversify its economic structure in order to achieve inclusive economic growth, especially amid an expected prolonged period of low energy and commodity prices. The subregion has the potential to diversify from coal, oil and

Figure 2.4 **Percentage change in currency values between January and December against the United States dollar, 2014 and 2015**



Sources: ESCAP based on data from CEIC Data. Available from www.ceicdata.com (accessed 31 March 2016).

gas into renewable energy sources. Diversification into other economic activities by tapping into global value chains is also more feasible given recent improvements in transport and electricity infrastructure. Investments in hard infrastructure projects, such as the Turkmenistan-Afghanistan-Pakistan-India natural gas pipeline, have for the first time in more than a decade produced tangible progress in cross-border connectivity. Meanwhile, with Kazakhstan's accession to WTO in 2015 and Azerbaijan's accession under way, only Turkmenistan and Uzbekistan in the subregion remain outside WTO. These developments augur well for improved and deeper economic integration in the subregion over the medium term.

Armenia

Economic growth in Armenia moderated to 3% in 2015 from 3.5% in 2014. The decline in remittances from migrant workers in the Russian Federation and tight monetary policy constrained consumer spending. Overall growth was supported by the opening of a new copper mine and higher agricultural output owing to favourable weather. Increased government expenditures, especially on public health, education and initiatives to promote the country's transition towards a knowledge-based economy, also underpinned the economic expansion. Together with declining revenues from value-added tax and import tariffs, higher government spending resulted in the fiscal deficit of 2.3% of GDP in 2015 compared with a surplus in 2014. To shore up underperforming revenue, the Government issued a $500 million, 10-year Eurobond in March 2015. Meanwhile, tight monetary policy and subdued private consumption helped to keep inflation slightly below the 4% official target.

Output growth is projected to soften further to 2.5% in 2016, before picking up slightly to 2.8% in 2017. The outlook for 2016 is weighed down by expected economic contraction in the Russian Federation that would further dampen workers' remittances, which account for about 13% of GDP. Other key headwinds are lower government spending amid fiscal consolidation and weak exports due to low prices for metals and minerals.

Despite relatively sluggish economic growth in past years, the medium-term economic prospects could be boosted by Armenia's accession to the Eurasian Economic Union that became effective in January 2015. Membership in the Union tends to benefit the country concerned through lower import prices for energy, enhanced access for exports amid lower tariffs and reduced non-tariff barriers, and mobilization of external financing in infrastructure connectivity projects. Migrant workers are also expected to benefit from more secure working conditions in the Russian Federation. Moreover, the Government's increased focus on innovation as a strategy for sustainable development coupled with an educated workforce is expected to bring new sources of growth and diversification.

Azerbaijan

Azerbaijan's economic growth moderated to 1.1% in 2015 from 2.8% in 2014. Low oil prices dampened the economy where resource rents from the oil and gas sector account for up to 40% of GDP and three quarters of government revenue. Despite a sharp decline in revenue, public capital expenditure, especially in the non-hydrocarbon sector, increased and that supported economic growth. As a result, the country's consolidated fiscal balance, which includes the State oil fund, shifted from a surplus of 3.4% of GDP in 2014 to a deficit of 5.3% of GDP in 2015.

As in other economies in the subregion, plummeting oil and gas revenues have put depreciating pressure on the domestic currency. The central bank devalued the manat currency by 33.5% in February 2015. However, as the pressure continued and foreign exchange reserves plunged, the manat was floated in December 2015. For the whole year, the currency depreciated by almost 60%. The steep depreciation pushed up imported inflation, and overall price increases rose to 4% in 2015 from 1.5% in 2014.

Near-term growth prospects are weak, with the projected pace being 0.3% in 2016 and 1.2% in 2017. The expansion is likely to be driven by non-resource sectors, as oil prices are anticipated to remain at low levels. The Government announced spending cuts of 10% in the 2016 budget so fiscal support would be more modest. Meanwhile, bank lending conditions could be stricter, especially for foreign-denominated loans, as overdue loans increased by more than 25% in 2015. Tighter credit conditions and higher inflation would undermine consumer spending. Over the medium term, structural reforms, such as enabling policies for the development of a diversified business sector, improved competition and transparency, and enhanced regional integration, will remain critical for reducing vulnerabilities and supporting the potential for growth.

Georgia

Economic growth in Georgia slowed from 4.6% in 2014 to 2.8% in 2015. As a non-oil economy, the

deceleration was attributable largely to subdued economic activity in the subregion and in the European Union. Manufacturing output and exports dipped, especially shipments of automobiles, the country's largest export item. Workers' remittances, which account for 11% of GDP, also declined amid an economic contraction in the Russian Federation. The economic expansion in 2015 was driven mainly by the construction and financial sectors.

Despite weakening demand, benign food prices and a tight monetary policy stance, the weaker exchange rate pushed up the inflation rate from 3.1% in 2014 to 4% in 2015. The central bank, which has adopted an inflation-targeting regime, raised the policy interest rate five times in 2015 for total increase of 400 basis points. Fiscal support was moderate, and the budget deficit was maintained at around the targeted 3% of GDP, despite emergency spending after floods in June 2015 and higher-than-estimated health-care expenditures.

The growth outlook is projected to be largely stable at 2.7% in 2016 and 3% in 2017. The key headwinds are a fragile economic recovery in the European Union and expected sluggish import demand in the subregion. In addition to lower remittances, an increase in debt servicing of foreign-currency loans would weigh on consumer spending. On the upside, low oil prices would help keep inflation at levels lower than in most other subregional economies, although this would be conditional on a stable exchange rate. Over the medium term, for a non-oil small economy such as Georgia, private sector development that promotes export diversification and higher quality of education to boost productivity are some of the key reforms needed for building resilience to volatilities in the external environment.

Kazakhstan

Economic growth in Kazakhstan dropped to a six-year low of 1.2% in 2015 compared with 4.3% in 2014. Merchandise exports fell amid lower global commodity prices and deep currency depreciation in the Russian Federation, which restricted the demand for Kazakhstan's exports. The trade deficit thus widened and put depreciating pressure on the domestic currency. After interventions to maintain the soft peg between the tenge and the United States dollar, the central bank abandoned the peg in August 2015, which is also in line with its transition towards an inflation-targeting monetary framework. As a result, the currency depreciated by about 75% and pushed up inflation in the latter part of the year. To keep inflation at a manageable level, the policy rate hike of 10.5 percentage points took place between September and December 2015.

To cope with slower economic growth, the Government increased spending on social programmes and schemes to support the non-oil sector, such as small-scale businesses and relief for homeowners whose mortgages are dollar-denominated. Given sharp declines in revenue, capital expenditures have been reprioritized, while the budget is being partly supported by $2 billion in loans from multilateral development banks, the issuance of Eurobonds worth $4 billion and the use of additional resources from the sovereign funds.

Economic growth is projected to soften further to 0.5% in 2016 before recovering modestly to 1.5% in 2017. Subdued oil prices and exports, fiscal tightening and higher inflation are the main drivers of the sluggish near-term economic outlook. On the upside, the construction sector would benefit from preparations for Astana Expo-2017. Recent policy reforms, such as privatization of public assets and amendments to the labour law designed to attract foreign investments, should also help to revive market sentiment. More generally, the recently announced structural reform agenda that is focused on introducing more liberal policies, strengthening market competitiveness and enhancing economic diversification would help support Kazakhstan's medium-term growth outlook.

Kyrgyzstan

Economic growth in Kyrgyzstan was largely stable at 3.5% in 2015. Higher production and exports of gold boosted the economy in the first half of the year. Non-tax revenues from the gold sector enabled the Government to maintain the fiscal deficit at about 5% of GDP in 2015, despite higher spending on social programmes, public sector wages and capital expenditure in the months before the October elections. Growth performance, however, deteriorated in the second half of 2015 amid declining workers' remittances and a slowdown in gold exports, which weakened consumer spending and domestic investments. Meanwhile, despite depreciation of the currency by 28% in 2015, inflation softened to 6.6%, as price increases were constrained by weak household spending while monetary policy remained tight.

Economic growth is projected to moderate to 2.5% in 2016, as gold production will remain weak. A rebound by 4% in 2017 is expected, contingent upon stabilization in global commodity prices and revived economic activity in the subregion. Similar to the

case of Armenia, the accession of Kyrgyzstan to the Eurasian Economic Union in May 2015 is expected to help boost the country's economic development through higher workers' remittances. The economic gains would, nonetheless, be limited until Kazakhstan and the Russian Federation, the two major member countries of the bloc, resume stronger growth momentum.

Russian Federation

The economy of the Russian Federation shrank by 3.7% in 2015, after having recorded a subdued growth rate of 0.6% in 2014. The steep declines in the prices for crude oil and natural gas and the intensification of international sanctions accounted in the main for the country's economic contraction. Domestically, stalled progress on structural reforms and weak fixed investments also weighed down the economy. Outputs in the manufacturing, trade and construction sectors were characterized by notable decreases. Amid export declines and sanctions, the domestic currency depreciated by 66% in 2014 and another 13% in 2015. Such steep depreciation contributed to a decade-high inflation rate of 15.5% in 2015, which, together with anaemic economic activity, led to an almost 10% decline in real wages, according to the official estimate. Low- and middle-income households were the most adversely affected; the national poverty rate is estimated to have increased by 3 percentage points to 14.2% in 2015. The number of people living in poverty is currently more than 20 million.

The currency depreciation and high inflation rate resulted in an increase in the dollarization of household deposits, while dollar-denominated corporate debts also increased. The amount of overdue claims rose by 54% in 2015, representing almost 4% of GDP. These developments could undermine financial stability, especially since international sanctions already limit the country's access to global financial markets. To ensure financial stability, the central bank accelerated reforms that would facilitate a move towards a free-floating exchange rate regime, increased foreign exchange liquidity, tightened banking supervision and doubled the level of insured deposits.

On the fiscal front, the Government launched an anti-crisis plan, which is aimed at recapitalizing banks; providing guarantees for State-owned companies in the agricultural, manufacturing and transport sectors; and supporting social programmes, such as unemployment benefits. To finance the plan amid lower-than-expected revenue collection, the Government temporarily suspended a budget rule that caps spending, cut spending in some programmes by 10%, introduced a partial indexation of public wages to inflation and froze government pension contributions for a third consecutive year.

The economy is projected to contract further by 1.5% in 2016, before registering zero growth in 2017. These projections are subject to considerable uncertainty, however, due to volatile geopolitical tensions and future energy prices. Consumption and investment would remain weak in 2016, while fiscal consolidation is expected to move forward. The outlook in 2017 is premised on the assumption of greater exchange rate stability, which would ease inflationary pressure, and the country's monetary policy stance. If oil prices rebound more quickly than expected, a recovery in fixed investment could be rapid as several investment projects had been postponed in previous years. A key challenge facing the Russian Federation is the need for a credible medium-term fiscal consolidation programme that is adjusted to lower oil prices. Implementation of delayed structural reforms would help to enhance the country's growth potential.

Tajikistan

Economic growth in Tajikistan slowed from 6.8% in 2014 to 6% in 2015. As a result of a recession and tighter restrictions on immigration, remittances from workers in the Russian Federation are estimated to have decreased by 60% during the first half of 2015. As remittances account for up to 44% of GDP, making Tajikistan one of the most remittance-dependent countries in the world, the decline in remittances placed considerable pressure on consumer spending and the economy in general. The expansion of the economy in 2015 was supported by higher agricultural output. Construction activity benefited from foreign investment projects that had been agreed in previous years but were recorded only in 2015.

Slower economic growth appeared to have weakened the country's fiscal position. The scheduled increases in public sector salaries, student aid, pensions and other benefits in September 2015 were postponed. Meanwhile, currency depreciation of almost 30% in 2015 raised import prices of essential food items, such as wheat and sugar, although the tight monetary policy stance helped to keep inflation stable.

Growth is set to moderate further to 5% in 2016 and 5.2% in 2017. Workers' remittances and near-term economic growth prospects would continue to be dampened by weak economic activity in the Russian Federation. Similarly, commodity exports are projected

to remain anaemic as a result of low commodity prices and sluggish import demand in the subregion. A downside risk includes a relatively low level of foreign exchange reserves, which fell from $173 million in January 2015 to $84 million in December. This buffer may be needed if external economic conditions deteriorate. An upside is potential investment inflows from China in the energy, infrastructure, textiles and gold-mining sectors.

Turkmenistan

Compared with other subregional economies, growth in Turkmenistan was relatively solid at 6.7% in 2015. The expansion was underpinned by large-scale investment projects from China and increases in domestic public and private investments that buoyed construction activities. The pace is, however, slower than the 10.3% growth rate recorded in 2014, as the volume of gas exports to China and the Russian Federation decreased. Meanwhile, inflation stepped up to 7% in 2015, partly pushed up by a currency devaluation of 18% in the early part of the year.

Economic growth is projected to trend down to 5.4% in 2016 before rebounding to 6.5% in 2017. Gas exports are expected to remain weak. The main headwind in 2016 is the projected higher inflation that is partly driven by higher custom duties on food items, as the country recently adopted an import-substitution policy. Meanwhile, after a long delay, the construction of Turkmenistan's portion of the $10 billion Turkmenistan-Afghanistan-Pakistan-India gas pipeline began in late 2015. The project is expected to help create a large number of jobs and generate a steady revenue stream from exports to the energy-deficient South and South-West Asian subregion. A recent deal with Japan involving investment in the energy and chemical sectors should also support medium-term growth.

Uzbekistan

Economic growth remained strong at 8% in 2015, making Uzbekistan the fastest-growing economy in the subregion. Higher government spending helped to mitigate the adverse impact of the deteriorating external environment, which resulted in falling oil exports and declining workers' remittances. The Government continued to allocate more than half of its spending on social programmes. In September 2015, salaries for public sector employees, student grants, pensions and other State benefits were increased by 10% on average. Public investment also increased. As a result of fiscal stimulus and currency depreciation, inflation increased to 10% in 2015.

Growth is projected to remain high at 7.8% in 2016 and 8% in 2017. Domestic demand would continue to support expansion, as merchandise exports and remittance inflows are likely to be weak amid low global prices for oil, gold and cotton as well as subdued economic activity in other subregional economies. Prudent macroeconomic management in past years, as reflected in favourable fiscal positions and large external buffers, helped to enhance the country's ability to respond to external shocks. Nonetheless, further efforts are needed to accelerate privatization and promote a more diversified, private sector-led economy that can generate productive jobs and sustain inclusive growth. Greater exchange rate flexibility to address rising pressures on the current account may also be needed, if the crisis is drawn out.

2.2. A selected policy challenge: services sector development for economic diversification and integration

To diversify its growth engine, North and Central Asia needs to create vibrant business support services to complement high value-added production

A key medium-term policy challenge faced by North and Central Asian economies is to gain competitiveness beyond the export of primary commodities. Doing so would require improving the business services component of the production process, which in turn would facilitate structural diversification and enhance regional economic integration. These services, also known as backbone infrastructure services or producer services, have direct consequences for adding value in production processes.

More than two decades after the end of the central planning system, the role of services in the subregion remains limited. While the share of services in GDP increased in most subregional economies between 1993 and 2013, services activities often involve small-scale trading rather than the business services that are required in a modern economy or by those intending to participate in global value chains. Furthermore, lack of adequate data in terms of measuring business services significantly reduces understanding of the role of the services sector in the subregion as well as its capacity for evidence-based policymaking.

The absence of a modern services sector is largely due to the underdeveloped state of the market economy and consequent lack of demand. Improvement in backbone services is a precondition for such demand to emerge. For example, the benefits of services

reform are verified only when reforms in both essential backbone services and complementary services occur (Fernandes, 2007). Similarly, in another study that examined the impact of better infrastructure services on economic growth, it is estimated that the Tashguzar-Boysun-Kumkurgon railway line in Uzbekistan raised subregional output by about 2% through enhanced connectivity effects. This development appears to have been driven by value-added increases in industry and services of about 5% and 7%, respectively (Yoshino and Abidhadjaev, 2015).

Economic diversification requires balance between deregulation and strong regulatory frameworks

Services reforms are complex because they involve a balanced mix of liberalization through deregulation and reregulation. In particular, deregulation refers to the dismantling of regulatory barriers to market entry and the promotion of competition, while reregulation includes the establishment of a transparent, predictable and enforceable legal environment, with strengthened and independent regulatory agencies. For countries that emerged from centralized planning systems, the policy challenge is even more complex as there are more regulatory barriers to dismantle and no benchmarks for effective regulation. In other words, the subregion is faced with the need to enhance competitiveness by increasing the contestability of markets through the entry of new domestic and foreign service providers. At the same time, they need to implement effective regulatory supervision of both domestic and foreign operators due to the asymmetric nature of information in such systems.

Furthermore, reforms may − and often do − include privatization because State-owned enterprises still account for a large share of producer services in the subregion. Privatization is, however, not an essential condition. The incumbent service provider can remain State owned, as long as the regulator permits entry of new providers in the market in a non-discriminatory way that promotes competition. In this regard, FDI is an important channel through which foreign providers can contest infrastructure and other service markets as greenfield investments, joint ventures between public-private enterprises or other forms of privatization.

In this context, a key policy consideration is to identify what services the Government needs to provide and what can be left to private initiative. Kyrgyzstan's nascent value chains in clothing and beans are an example. Suppliers of specialized services have emerged in response to demand. The Government's essential role was limited to providing transport and communications infrastructure services and to facilitating international trade.

Government support can also involve positive externalities. For example, there is a proposal to convert the city of Almaty into a subregional services hub through development of transport, tourism and financial services (see box 2.1). Such developments could also stimulate modern firms to participate in global value chains because many initiatives on the proposed hubs, such as effective Internet connectivity and courier services, are also prerequisites for value-chain participation. The act of internationalization of a city could itself spur new service activities as people bring in new ideas of how to remove bottlenecks or increase efficiency. An important spin-off benefit could include improved public support for provision of education and health services. While Kazakhstan, as is the case for other countries in the subregion, inherited high literacy rates and basic health services from the centrally planned economy, it has been a long and difficult task to maintain past achievements while creating education and health services better attuned to a modern market-based economy.

Recent policy reforms have shown some early results. According to the World Bank's ease of doing business index,[5] notable improvements were made in the overall business environment between 2014 and 2015. Of the 10 components that make up the index, the improvements are attributable to the "ease of trading across borders" component in Armenia, Azerbaijan and 4 Central Asian countries for which data are available. Georgia maintained its position above the median, while the other countries remained below the median, despite the improvements made in cross-border trading. Another relevant indicator is the services reform index of the European Bank for Reconstruction and Development, which is used to measure progress in policy reform in the services sector. That index reflects the average of three sub-indices, namely banking, non-banking and infrastructure reforms.[6] For recent WTO entrants, the index shows a slight improvement in Tajikistan, primarily due to improvements in the non-banking sectors prior to the country's WTO accession in 2013. For the other two WTO entrants, Kazakhstan and the Russian Federation, although at higher levels than Tajikistan, the index shows a more stable trend, and thus suggests slow progress over the past decade.

In looking forward, it is not unreasonable to expect positive developments in the reform agenda to

Box 2.1 **2020 General Plan of Almaty Development**

The city of Almaty, as the capital and largest economic centre of Kazakhstan, is positioning itself as an emerging Eurasian business hub through the development of key services sectors. In utilizing its existing infrastructure and leveraging on its future status as a world-class transportation and logistics hub, the so-called Almaty-2020 Development Plan is aimed at the development of an innovation cluster, known as the "Park of Innovative Technologies". Efforts in this regard will be focused on the information technology, education and health-care sectors; the involvement of international staff and major international companies, including financial institutions, is being focused on building production capacity in innovative services.

Importantly, the Plan involves developing Almaty into an international transport and logistics hub through construction of a world-class airport, new road junctions and main transport routes, including "BAKAD" (big Almaty ring road) which will connect with the main Western China-to-Europe route, as well as the development of accompanying logistics services. In turn, these steps will stimulate the development of tourism as well as attract major international sporting events, such as the 2017 international multi-sport event known as Universiade, in addition to international exhibitions and festivals. With the necessary backbone services in place, numerous ancillary services, providing thousands of new job opportunities, especially for the city's youthful population, will sprout in the areas of website development, tour operators, interpreters, language schools and creation of information maps, among others.

Under the Plan, emphasis is also being placed on the ease of doing business. The aim is to increase by 2020 the share of foreign investments to fixed assets by 50%; that measure will be used as an indicator of the city's ability to independently attract foreign investors, including multinational companies, in the work of the city. Towards this end, Almaty is opening a "one-stop" business service for investors that will streamline and shorten the time spent between application, approval and start of implementation of investment projects.

As a major metropolis in North and Central Asia, Almaty has embarked on an ambitious plan that positions the city as a hub of Eurasian business, innovation and culture, and affords greater importance to the development of state-of-the-art services, which will have direct consequences for adding value and contributing a range of services to economic growth, sustainability and inclusiveness. Through the balanced integration of these three pillars, Almaty may be on the path towards becoming a model of sustainable development.

emerge over the next five years, as the economic slowdown continues to expose the weaknesses of an undiversified economic structure. In this regard, service sector commitments under the General Agreement on Trade in Services can serve as a means of locking in and reinforcing domestic policy reforms that will promote an economic structure that is more resilient to global economic volatility.

The time is opportune for conducting in-depth studies that are adapted to the realities and idiosyncratic challenges of the subregion. There is a need for policy advice that identifies and sequences priority sectors for a services liberalization agenda. More research is needed to identify precisely which service inputs are important for enhancing the competitiveness of exports and to determine how countries in the subregion can bolster these inputs. This could involve policies for promoting and facilitating FDI in strategic sectors, subcontracting arrangements and investments in social services that would build a skilled workforce, among other things. Policy advice is also needed concerning measures that would tackle regulatory barriers while introducing new regulations that would enhance the conditions for competition so that a higher content of services in the downstream economy could be realized for economic diversification.

3. PACIFIC

3.1. Macroeconomic performance and outlook

Growth outlook is dimmed by smaller capital inflows into Papua New Guinea and dry conditions brought about by the El Niño phenomenon

Pacific island developing economies as a whole grew by 6.5% in 2015, down from the 8.7% growth in 2014. The expansion was uneven across economies. In Papua New Guinea, which accounts for close to

60% of total output of the group of countries, growth was robust at almost 10%, driven by production of mineral resources. In contrast, economic contractions were registered in economies such as Vanuatu due to the devastating impact of Cyclone Pam, and Cook Islands due to shortages in tourism facilities. For most other economies, growth remained below 4% in 2015.

Pacific island developing economies as a whole are projected to experience an economic slowdown in coming years, with growth rates moderating to 3.4% in 2016 and 2.7% in 2017. Soft prices for mineral exports weigh down the growth forecast in Papua New Guinea, a situation which will drag down overall growth for the group of island economies. In most countries, ongoing effects from El Niño also induce drought conditions and constrain agricultural and fisheries production (see box 2.2). The modest growth outlook is supported by expected steady economic expansion among key trading partners, such as Australia and New Zealand, lower energy import bills, higher tourism receipts and continued infrastructure upgrades and post-cyclone reconstruction efforts in some economies. The key downside factor is an increased risk of cyclones, which could significantly damage productive infrastructure and tourism facilities.

The subregion's ability to sustain high economic growth has been hampered by various factors. On the domestic front, inadequate transport and communications connectivity, notable energy and infrastructure gaps and limited skilled workforce and institutional capacity remain key constraints to growth. These factors have constrained the role of the private sector in supporting the economy, with the result that the public sector remains the largest employer in many economies in the subregion. On the external front, heavy reliance on global economic conditions has resulted in volatile inflows of FDI, foreign aid, tourism and export receipts and workers' remittances, and has undermined macroeconomic stability.

Pacific island developing economies

Fiji

Economic growth in Fiji moderated to a still high rate of 4% in 2015 compared with 5.3% in 2014. Dry conditions relating to the El Niño event resulted in a decline in the production of sugar, while much lower global prices for gold and sugar weighed down exports. The services industry, especially the transport, accommodation and restaurants sectors, dominated economic activity in 2015, supported by buoyant tourism demand. Visitor arrivals increased by 9% in 2015 compared with 2014, driven by a greater number of tourists from traditional markets, such as Australia and New Zealand, which account for three quarters of the total number of visitors. Both public and private investment buoyed the construction sector and created employment. Eased consumer credit conditions and low inflation also supported consumer spending.

The economy is projected to slow to a 2.2% growth rate in 2016 before rebounding to 3.1% in 2017. Cyclone Winston affected Fiji in February 2016, causing damage to agricultural output and tourism services in some parts of the country. The prolonged drought conditions are also expected to adversely affect production of sugarcane and other crops. The projected expansion in 2016 is supported by post-cyclone reconstruction efforts, increased foreign aid, and higher remittances sent from families abroad. Inflation is expected to rise in the first half of 2016 due to reduced food supply, although low oil prices and the reduction in the value-added tax rate from 15% to 9% would help to keep price rises at manageable levels. The major drivers of economic growth in 2017 will be the tourism-linked sectors, particularly additional investment in hotel rooms, and projects to upgrade road and airport infrastructure and air carriage capacity. Exports of sugar would, however, be constrained by the end of preferential access of Fiji's sugar to the European Union scheduled to take place in 2017.

Sustaining strong medium-term growth will depend on effective implementation of reforms to improve the business climate, particularly in areas that facilitate new business start-ups and the grant of construction permits. To promote business investment, the Government improved access to land for investment by providing an opportunity for indigenous landowners to deposit their land and benefit from lease payments for the use of such land. Meanwhile, civil service reforms are currently under way, which would help to enhance productivity and the efficiency of public service delivery.

Papua New Guinea

Output growth in Papua New Guinea decreased to 9.9% in 2015 from 13.3% in 2014, owing to temporary closure of a large copper and gold mine. The still high economic growth rate in 2015 benefited from higher production of liquefied natural gas (LNG). Non-resource output is likely to grow more moderately as a result of drought conditions that affected agricultural output and lower government spending that held back construction activity. Meanwhile, the inflation rate was largely stable at 5.1% in 2015, as the effects of lower

Box 2.2

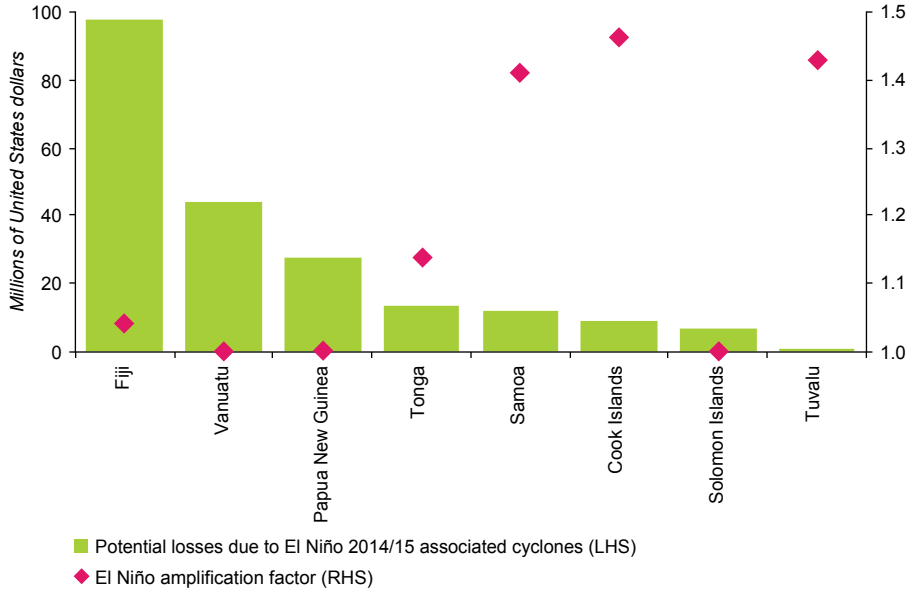
Current El Niño impacts

Pacific island developing countries are currently facing El Niño, which is associated with irregular rainfall, increased tropical cyclone frequency and abnormal sea level conditions. Historically, the adverse impact of El Niño has been sizeable, largely because reduced wet season rainfall significantly lowers output of subsistence agriculture. For example, droughts due to El Niño 1997/98 caused failure of staple food crops, such as taro and yam, and forced people to rely on bush crops and food aid. In Fiji, drought related to El Niño 1997/98 led to a 26% decline in sugarcane production and $7 million in losses from livestock death.

The potential impact of El Niño 2014/15 in Pacific island developing countries is likely to be uneven and sector-specific. For example, an El Niño event extends the skipjack tuna habitat, the main fishery resource in the subregion, towards the east (such as near Kiribati), and the later part of an El Niño event increases primary tuna productivity in the west (such as near Papua New Guinea and Solomon Islands).

El Niño events are expected to increase the magnitude of risk associated with tropical cyclone activity. The figure below shows the potential losses due to cyclones that are associated with El Niño 2014/15. These estimated losses are derived by multiplying a country's average annual loss due to cyclones by a corresponding amplification factor. Among other considerations, the average annual losses take into account exposure information, damage estimation and hazard assessment that is based on the experience of 2,400 cyclones in 15 Pacific island developing countries over a 60-year period.[a] The amplification factor is based on historical El Niño events that exhibited similar atmospheric and oceanic conditions to that of the 2014/15 El Niño.[b] Overall, the figure shows that potential losses in Cook Islands, Samoa and Tuvalu are estimated to be 41-46% greater than during normal years.

Potential losses due to 2014/15 El Niño associated cyclones



Source: United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP), *Economic and Social Survey of Asia and the Pacific 2014: Regional Connectivity for Shared Prosperity* (Sales No. E.14.II.F.4) and ESCAP and Regional Integrated Multi-Hazard Early Warning System for Africa and Asia, "El Niño 2014/2015: impact outlook and policy implications for the Pacific islands", Science and Policy Knowledge Series, Advisory Note, November 2014.

Note: LHS = left-hand side; RHS = right-hand side

[a] Pacific Catastrophe Risk Assessment and Financing Initiative, Catastrophe Risk Assessment Methodology: Risk Assessment – summary report (Washington, D.C., World Bank, 2013). Available from http://siteresources.worldbank.org/EXTDISASTER/Resources/8308420-1342531265657/PCRAFI_REPORT_WEB_Final.pdf.

[b] See New Zealand National Institute of Water and Atmospheric Research, "Seasonal climate outlook: December 2014 – February 2015". Available from www.niwa.co.nz/climate/sco/seasonal-climate-outlook-december-2014-february-2015.

oil and commodity prices were offset by a currency depreciation of 14% in 2015.

Near-term economic growth is projected to decline notably, to 4.3% in 2016 and 2.4% in 2017. Capital inflows relating to LNG projects have passed their peak levels, while unfavourable weather conditions are anticipated to further dampen the agricultural sector. Fiscal support would also be more modest amid an expected decrease in government spending. On the upside, construction activities in preparation for hosting the eighth Summit of African, Caribbean and Pacific Heads of State and Government in 2016 and the Asia-Pacific Economic Cooperation Leaders' Summit in 2018 are expected to support the economy. The key downside risks are lower-than-expected prices for key commodity export items, such as copper and gold, and lower external demand for minerals. Such phenomena could weaken public revenue performance, necessitating further consolidation of expenditures.

The immediate policy challenge is to manage headwinds from severe government revenue shortfalls, which could amount to nearly 5% of GDP according to an official estimate, due to lower-than-expected revenues from the minerals sector. A supplementary budget for 2015 introduced budget cuts of about 2.7% of GDP, mainly for projects that were behind schedule on implementation and for idle funds that had not been disbursed. These steps would help keep the public debt level within the statutory limit of 35% of GDP. In the medium term, fiscal consolidation is needed to abate risks due to further declines in commodity prices. Given the smaller fiscal space, spending on necessary public services, such as health and infrastructure, has to be well targeted to support more inclusive growth. A revival of agriculture and a strengthening of small businesses supported by greater financial inclusion will also be vital for improving the livelihood of the majority of the population.

Samoa

Economic growth in Samoa in 2015 edged up to 1.5% from 1.2% in 2014. Improved growth was attributed mainly to higher earnings from tourism, the post-disaster reconstruction programme and construction of a new airport terminal and similar work relating to the hosting of the Commonwealth Youth Games in September 2015. Visitor arrivals rose by 5.4% during the first three quarters of 2015. Workers' remittances, which account for about one fifth of GDP, also grew during the year mainly due to higher inflows from Australia and New Zealand. Lower fuel prices contributed to a benign inflation rate of 1.9% in 2015.

Near-term growth is projected to remain relatively low, at 2.2% in 2016 and 0.7% in 2017. While moderate expansion of agriculture and tourism are expected to support the economy, a narrow economic base and absence of high-value-added industries pose a significant constraint. The country's largest employer in the manufacturing sector, Yazaki EDS Samoa Ltd., is expected to close its operations, which will displace a significant number of workers. In this regard, government policies are critical to facilitate opportunities in commercial agriculture and further boost tourism.

Solomon Islands

Economic growth in Solomon Islands is estimated to have rebounded to 3.2% in 2015 following the 2% growth in 2014, which was held back by destructive floods. The recovery was broad-based. In addition to reconstruction projects, economic growth was underpinned by expansion in agriculture, manufacturing and wholesale and retail trade, which offset the suspension of production at the country's main gold mine, Gold Ridge, that had been contributing about one fifth of GDP. The overall price level decreased by 0.3% in 2015, mainly due to lower global prices for food and oil.

In 2016 and 2017, economic growth is expected to be 3% and 2.8%, respectively. Stronger performance in the mining and logging sectors are upside possibilities, although diversification of growth drivers away from resource-based sectors remains essential. Greater engagement of subsistence farmers in market activities could further boost growth. Similarly, improvement in the business environment is necessary to optimize returns from planned infrastructure investment, including a proposed submarine cable to provide high-speed Internet access.

Vanuatu

Vanuatu's economy is estimated to have contracted by 1% in 2015. Cyclone Pam devastated parts of the country in March 2015, severely damaging housing, infrastructure, agriculture and tourism facilities. Overall, the damage and losses to the economy are estimated to have exceeded 60% of GDP. Reconstruction and infrastructure upgrades in the months that followed helped to reduce the magnitude of economic contraction for the whole year, although there have been delays in some construction projects. Meanwhile, post-cyclone supply shortages and higher demand from reconstruction activity pushed up inflation to 2.5% in 2015. A temporary exemption on the value-

added tax on construction materials and lower oil prices provided some cushion.

"Strengthening ni-Vanuatu Resilience" − the new national recovery and economic strengthening programme plan which is focused on strengthening resilience in housing and settlement communities (specifically infrastructure reconstruction, restoring social services and boosting tourism and agriculture-related livelihoods) − is expected to support economic growth in the near term. In 2016 and 2017, such growth is expected to recover to 2.5% and 3.8% respectively, but there is also risk of delays on infrastructure projects due to capacity constraints and external funding gaps. Similarly, the recovery of agricultural output is contingent on favourable climatic conditions. Reduced policy uncertainty and swift decision-making by the new Government formed in early 2016 could enable timely implementation of infrastructure projects and boost business confidence in general.

Smaller Pacific island developing economies

The economy of **Cook Islands** remains weak, with the second successive year of contraction estimated at 0.5% in 2015, following the decline of 1.2% in the preceding year. Despite increased budget appropriations for capital projects, delayed implementation amid capacity constraints hampered growth performance. Tourism activity is constrained by shortages in accommodation, particularly during the peak season.

In **Kiribati**, steady growth of 3% is estimated for 2015, following infrastructure development-led growth of 3.8% in 2014. Donor-funded public infrastructure programmes, such as major road, water, sanitation and airport projects, and higher returns from fisheries are expected to remain key drivers of growth. Inflation is also estimated to have remained low at 1.4% in 2015 on the back of low oil prices and a stable currency. In looking forward, output growth in 2016 and 2017 is projected to be about 1.8-2%. Public infrastructure works are expected to continue to support growth. One key policy challenge is to address youth unemployment, which is at the highest rate in Asia and the Pacific region.

In **Marshall Islands**, the economy contracted by 0.5% in 2015. Construction activities had shrunk in recent years, as major infrastructure projects were completed in 2013. The economy is projected to resume expansion in 2016, supported by higher fishery output and new donor-funded infrastructure projects. The outlook is, however, weighed down by limited private sector expansion and the scheduled reduction in grants under the United States Compact, which account for about two thirds of government revenue, resulting in lower development spending.

The economy of **Micronesia** is estimated to have contracted by 1.5% in 2015, an improvement relative to the 3.4% contraction in 2014. Several devastating typhoons affected the economy in 2015, which damaged food crops and led to a decline in household consumption. Construction activities also contracted, as post-typhoon reconstruction efforts are constrained by limited capacity. The output growth is projected at 2.5-3.5% in 2016 and 2017, underpinned by higher revenue from fishing licenses and infrastructure grants.

In **Nauru**, output growth is estimated to have contracted by 10% in 2015 from a decade-high of 17.5% in 2014. The ongoing demand created through operations of Australia's Regional Processing Centre for asylum seekers, the second largest employer after the Government, continues to support growth. Mining delays have limited secondary mining of phosphate. Limited domestic supply and rising consumption pushed up inflation to 11.4% in 2015 from 3% in 2014. Growth is projected to recover at 3% in 2016.

In **Palau**, economic growth accelerated to 6.7% in 2015 from 4.7% in 2014. Strong tourist arrivals, mainly from China, drove the robust expansion in the tourism sector, which contributes up to 70% of GDP. Higher public capital expenditure also supported growth. The outlook for 2016 is rather positive, with projected growth at 3% on the back of higher tourist arrivals and ongoing infrastructure projects.

Tonga is estimated to have grown by 3.4% in 2015, up slightly from 2% in 2014, supported by reconstruction works after Cyclone Ian in 2014 and the coronation of the King of Tonga which boosted tourism and government and consumer spending. Growth momentum of about 2.7-2.8% is expected in 2016 and 2017, mainly due to construction activity in preparation for the 2019 Pacific Games. Inflation is expected to remain low in the near term, reflecting weak global commodity prices.

Output growth in **Tuvalu** was stable at 2% in 2015. As in Vanuatu, Cyclone Pam affected the country in March 2015. The stable growth was supported by recovery of tourist arrivals in the months that followed, as well as donor-funded construction work and exports of coconut oil. Growth is projected at 3-3.5% in 2016 and 2017, supported mainly by ongoing infrastructure upgrades.

Australia and New Zealand

Australia

The Australian economy recorded a stable growth rate of 2.5% in 2015. Exports of iron ore were relatively robust, while service receipts, particularly in tourism, education and business services, benefited from the weaker exchange rate. Lower inflation and unexpectedly strong employment growth in late 2015 helped to support consumer spending. In contrast, mining investments dropped sharply as several large-scale projects were completed. The below-target inflation rate of 1.5% in 2015, underpinned by lower fuel prices and input costs and regulatory changes in utility prices, allowed easing of monetary policy. The official cash rate was cut by a total of 50 basis points in 2015.

Growth is expected to trend up to 2.7% in 2016 and 3% in 2017. The economy gradually transitioned from resource-led growth to more broad-based growth, as reflected in strong employment growth in the services sector. As in 2015, the weaker currency would continue to buoy service receipts in key sectors, while private consumption would benefit from continued employment growth and the wealth effects due to high prices for housing. Export prospects are mixed. Exports of liquefied natural gas are expected to gain more momentum as new projects begin production in the coming years, although the outlook for shipments of iron ore and coal is less upbeat. Inflation is set to rise slightly due to stronger domestic demand and an increase in the tobacco tax in 2016.

The positive economic outlook is clouded by uncertainties. The pace of growth moderation in China will have important implications for commodity demand and prices and Australia's terms of trade. Domestically, the strength of private consumption is contingent upon solid conditions in the job market. Modest wage growth is, however, expected in the coming years, as firms continue to face spare capacity and the composition of employment shifts away from the high-paying mining sector. Sustained consumer spending is also conditional on maintaining wealth effects derived from the housing market. In this regard, an increase in mortgage rates and the introduction of differential loan pricing between investors and owner-occupiers would help to cool the housing market. Finally, fixed investment conditions will depend on whether non-mining business investments would step up to offset sluggish mining investments amid falling commodity prices. An official survey suggests, however, that investment intentions and non-residential building approvals remain at low levels (Australia, Bureau of Statistics, 2016).

New Zealand

Economic growth in New Zealand continued its steady upward trend that started in 2011. Output grew by 3.4% in 2015, supported by strong tourism and construction activities and high net migration. Together with a lower unemployment rate and higher wage levels, a multi-year low inflation rate of 0.3% in 2015 and an accommodative monetary stance supported household spending. External sector performance was weaker. A substantial decline in export prices of dairy products, which make up almost 30% of total exports, weighed down economic growth, especially in the first half of 2015.

Growth is projected to edge up to 3.5% in 2016 and 3.6% in 2017. The economy is likely to be driven by private consumption on the back of favourable labour market conditions, immigration and increased wealth from high property prices. High net in-migration and low financing rates would continue to push up housing demand and construction, despite a tapering in reconstruction following the 2011 Christchurch earthquake. Prices of dairy products would remain low. The key downside risk is the sharper-than-expected growth moderation in China, which would further depress commodity prices. While there is room for further monetary easing if needed, macroprudential measures may be required if asset prices rise rapidly. Fiscal support could be modest, as one of the Government's priorities is to maintain a fiscal surplus in the coming years.

3.2. A selected policy challenge: coping with natural disasters

A natural disaster is more likely to take place in the Pacific island developing countries than in any other of the world's small States

Pacific island developing countries are generally characterized by small population size and limited land area, remote geographic location and exposure to natural hazards and weather-related extremes, such as cyclones, tsunamis, droughts and floods. Based on historical frequency, the probability of a natural disaster occurring in Pacific island developing countries is estimated to be more than 20% per year, which is higher than that of small States in other regions of the world (Cabezon and others, 2015). The absolute number of people affected by natural disasters may be small, but they still represent

a substantial proportion of their island populations (ESCAP, 2015e). Lack of economic diversification and constrained macroeconomic policy space in Pacific island developing countries also limit their ability to absorb the impact of adverse shocks. According to an index that measures a country's exposure and ability to cope with natural hazards in 171 countries, Papua New Guinea, Solomon Islands, Tonga and Vanuatu rank among the top 15 countries (United Nations University, 2014). In this context, climate change is often seen as the most significant threat to the livelihood and well-being of people in the subregion.

In addition to their devastating human cost, natural disasters often severely damage housing, transport infrastructure, agricultural output and tourism facilities. Owing to their economy-wide impact, natural disasters can result in very extensive damage and large losses. For example, damage and losses from Cyclone Pam that affected Tuvalu and Vanuatu in March 2015 are estimated at about 34% and 61% of GDP, respectively. Similarly, in Samoa, the estimated damage and losses from a tsunami in 2009 and Cyclone Evan in 2012 are 25% and 30% of GDP, respectively. As the poor and other vulnerable groups of island populations tend to live in more hazard-prone areas, the impacts on them could be disproportionally large, with significant implications for poverty reduction.

The long-run impact of natural disasters on economic development is substantial. It has been estimated that damage and losses due to natural disasters reduced GDP growth rate in Pacific island developing countries by 0.7 percentage points per year during the period 1980-2014 (Cabezon and others, 2015). Thus, the aggregate output level in 2014 would have been close to 30% higher than the actual level had there been no natural disasters. Another estimate from the same study suggests that, for damage and losses that are equivalent to 1% of GDP, the fiscal balance would deteriorate by 0.5% of GDP in the year after the disaster, as spending on reconstruction rises while tax revenue falls. The fiscal position would weaken more notably without large inflows of foreign aid and grants that typically follow natural disasters.

The sheer scale of natural disasters calls for a stronger partnership with international development community

Policies that seek to enhance macroeconomic fundamentals, particularly the Governments' financial position, will help to increase the subregion's resilience to natural disasters. To fully meet the fiscal costs of natural disasters, Pacific island developing economies need to: (a) strengthen domestic fiscal buffers, including contingency funds and cash reserves; (b) expand the use of risk transfer instruments, such as insurance and other hedging instruments; and (c) maintain financial support from donors and multilateral institutions.

Several Pacific island developing economies have made progress in building fiscal buffers, as reflected in lower public debt levels and more favourable fiscal balances. Competing demands for scare fiscal resources, however, also mean high opportunity costs for building buffers. To supplement the limited national sources of government revenue, donor funding remains a necessary part of efforts to increase resilience. While higher flows of external funds for climate change adaptation are expected in the Pacific subregion, red tape has resulted in slow access and high transaction costs among recipient countries. To improve access to such funds, some economies have benefited from direct budget support from donors, while other countries require improved public financial systems to enable the use of national systems for the delivery of financial assistance for dealing with natural disasters and the effects of climate change.

Fiscal planning can enhance economic resilience to natural disasters by building more natural disaster-resistant public infrastructure and by having in place post-disaster budgetary procedures to support emergency relief, economic recovery and reconstruction without sacrificing debt sustainability. There is a need to recognize the cross-cutting nature of disaster risk issues when formulating sectoral planning and government budgets in order to enable the implementation of appropriate risk-mitigation strategies. In view of the diverse characteristics of Pacific island developing economies and the varied country-specific implications of natural disasters, tailored policy measures are required.

At the subregional level, a risk-sharing mechanism, such as the Pacific catastrophe risk insurance pilot programme of the World Bank, provides limited insurance cover for five Pacific islands.[7] For the 2015 season, aggregate cover against cyclones and earthquakes, including tsunamis, amounted to $43 million. Tonga received $1.27 million in response to a cyclone in 2014, and $1.9 million was paid to Vanuatu following Cyclone Pam in early 2015. Both payments helped fund the early response and assessments carried out shortly after the disasters.

A road map has been adopted towards an integrated Pacific regional strategy for disaster risk management and climate change adaptation and mitigation.[8] The objective of the strategy is to support better

preparedness and resilient development planning. Activities include sharing best practice country case studies on disaster risk management and climate change adaptation and strengthening information management systems, such as the creation of databases on hazards, exposure, vulnerabilities and risk assessments. There is also a need to strengthen drought monitoring and early warning systems, enhance the use of space applications and promote risk-sensitive development strategies.

4. SOUTH AND SOUTH-WEST ASIA

4.1. Macroeconomic performance and outlook

The optimistic prospects are conditional on the progress of structural reforms that keep up with business expectations

The South and South-West Asian subregion continued its recovery from a recent post-crisis downturn. In 2015, the average economic growth rate was largely stable at 5.7%, compared with 5.6% in 2014, led by India's 7.6% growth, which made that country the fastest-growing major economy in the world in 2015. Although low oil prices have helped, the subregion's relative growth resilience is noteworthy in the context of widespread slowdown in the emerging markets. The gradual improvement in the subregion's growth outlook is projected to inch up to 5.9% in 2016 and 6.3% in 2017, supported by the lifting of sanctions on the Islamic Republic of Iran and Nepal's rebuilding of its earthquake-ravaged infrastructure, and by the boost to Pakistan's economic outlook as the China-Pakistan Economic Corridor gathers momentum.

This positive outlook is premised on continued policy reforms that are critical for enhancing FDI inflows and raising investment rates, especially as most economies in the subregion still exhibit limited room for countercyclical fiscal policy responses when faced with adverse shocks. Despite recent declines, the inflationary environment is somewhat vulnerable. Towards the end of 2015 consumer prices showed signs of edging up, and additional feed-in from currency depreciations could occur if capital outflows from the subregion increase significantly amid global economic volatility and uncertainty. Inflationary pressures could also be stoked by another subdued monsoon season, given the dominance of monsoon-dependent agriculture in the subregion.

As a net importer of hydrocarbons, South and South-West Asia will continue to benefit in the short to medium term from the sharp decline in oil prices that has helped to bring down consumer prices and relieved fiscal pressures. Lower inflation in the subregion has enabled central banks to reduce policy rates, sometimes aggressively, as in the case of Pakistan, while Sri Lanka recently increased its rate in early 2016 after it had reached historic lows.

Lower policy rates, however, have not resulted in a significant rise in investment rates, which are held back by the uncertain global economic environment. For most countries in the subregion, private consumption continues to propel growth, which is expected to be boosted further by the forthcoming implementation of government salary revisions in India and Sri Lanka. Meanwhile, fragile global economic conditions pushed export growth into negative territory for most countries in 2015, although there were signs towards the end of the year that the downward spiral may be ebbing. However, as imports also declined, the current account balances have narrowed and remained within manageable limits.

Focusing on fiscal consolidation and addressing energy and infrastructure deficits remain important medium-term objectives in most economies in the subregion. At the same time, boosting public investment in sustainable infrastructure to close the existing gaps could help to revive the investment cycle and pay rich dividends. Some countries, by leveraging the increased policy space from fuel subsidy reductions, have already pivoted their strategic policy direction towards fostering a more sustainable energy infrastructure. India, for instance, plans to have 175 gigawatts of renewable energy capacity by 2022, including 100 gigawatts of solar energy. Nepal is seeking to harness its huge hydroelectric potential through regional cooperation strategies pioneered by Bhutan. Afghanistan and Pakistan are erecting cross-country transmission lines for power trade with other countries in North and Central Asia under the CASA-1000 project. Similar opportunities for regional cooperation are presented by the Turkmenistan-Afghanistan-Pakistan-India gas pipeline and the Islamic Republic of Iran-Pakistan-India hydrocarbons pipeline projects. The $46 billion China-Pakistan Economic Corridor that got under way recently also covers energy and transport connectivity projects.

In the context of a difficult global economic environment, exploiting the potential of regional economic integration within South and South-West Asia and beyond assumes new criticality. An estimate shows that only a third of intrasubregional export potential, which is projected to grow to $173 billion by 2020, is currently being

exploited (ESCAP, 2016). The high cost of trade in the subregion is a key barrier to formation of regional value chains, but the cost could be brought down by strengthening regional transport connectivity, including through implementing the ESCAP Asian Highway and Trans-Asian railway routes and facilitation tools.

The issue of turning the youth bulge into a demographic dividend by stepping up investment in education and health and creating decent and productive job opportunities for young people also needs policy attention. These policy actions would help sustain productivity improvement, as discussed in chapter 3. Policies need to be put into place urgently before the share of the working-age population starts to decline after 2030, a process that has already begun in Sri Lanka. Implementing such policies designed with a gender-perspective would directly boost women's labour market participation rates in the subregion, which could add more than $3 trillion to subregional output by 2025, as discussed in the next section.

At the nineteenth SAARC Summit to be held in Pakistan in late 2016, consideration should be given to taking concrete steps to unlock the potential of subregional economic integration in South and South-West Asia for fostering shared and sustainable prosperity for all.

Afghanistan

Economic growth in Afghanistan picked up slightly in 2015, to 2% from 1.3% in 2014, driven by government services and the construction and telecommunications sectors. Overall agricultural growth was muted however.[9] Domestic business sentiment deteriorated due to security concerns, as reflected in a 30% decline in FDI in the first half of the year.[10] Similarly, merchandise exports dropped by 15% in the first half of the year, pushing up the trade deficit to about 42% of GDP for the whole of 2015. Meanwhile, despite the 15% currency depreciation and the heavy reliance on imported goods to meet domestic demand, the overall price level decreased by 1.3% in 2015 owing to lower global food and fuel prices.

Growth is expected to edge up further: to 3% in 2016 and to 4% in 2017. The delayed withdrawal of foreign troops would help to sustain an important role for foreign aid, although that would also reflect continued unrest. The positive outlook is conditional on an improved security situation and progress on structural reforms. The Government's reform agenda is focused on maintaining internal security, revitalizing economic development, fighting corruption and strengthening regional cooperation.

Although the fiscal situation improved in 2015, with an increase in revenue on the back of a revival in economic activity and better domestic tax and customs compliance, the financing of basic public services continues to rely heavily on foreign aid. Foreign aid accounted for 23% of GNI in 2014 and helped Afghanistan to repay the arrears created in 2014. Continued donor support, stronger revenue collection and prioritization of expenditures are necessary to help the Government meet fiscal and external funding gaps. To increase revenues, the Government recently increased the business tax rate and fuel fee, introduced a 10% telecommunications tax and planned to introduce a value-added tax. Developing extractive mining industries, which requires an appropriate legislative framework and infrastructure investment, is also a significant potential source of government revenue.

Bangladesh

Bangladesh has sustained a robust and resilient economic growth rate of more than 6% in the past several years. In 2015, output grew by 6.5%, up from 6.1% in 2014, despite political turmoil in the third quarter. Although the share of private consumption in GDP has trended downwards in recent years, household spending continued to propel the economy in 2015, supported by lower inflation, higher workers' remittances and farm incomes, and rising public sector wages and transfer payments. Garment exports, accounting for more than 80% of total exports, were sluggish on subdued orders from Europe and lower cotton prices. Despite favourable workers' remittances, strong import demand and tepid export of goods pushed the current account balance into a deficit of 0.8% of GDP in 2015, the first shortfall in three years. Meanwhile, inflation dropped slightly to 6.4% in 2015 amid a vigilant monetary policy and a stable exchange rate that enabled pass-through of lower global food prices.

The outlook for growth remains optimistic, with growth being projected at 6.8% in 2016 and 7% in 2017. Apart from strong household spending supported by steady employment growth, economic growth should also benefit from a supportive macroeconomic policy stance, including a 50-basis point reduction in the policy rate in January 2016 and the planned, larger fiscal deficit of 5% of GDP for the fiscal year 2016. On the downside, high non-performing loans could constrain the growth of bank loans.

Despite strong growth performance in past years, several medium-term development challenges remain. These include, among others, the need to reduce infrastructure and energy shortages, broaden the

export base beyond garments and ensure decent work conditions and labour rights. To promote economic diversification, a skills development programme for the ship building industry has been introduced. The Government also plans to increase the tobacco tax and introduce a uniform 15% value-added tax rate and a 5% supplementary duty on mobile telephone usage to shore up fiscal resources. With regard to social development, the Government is scaling up school feeding programmes, its maternal health voucher scheme and an integrated microcredit programme.

Bhutan

Economic growth in Bhutan accelerated to 5.9% in 2015 compared with 3.8% in 2014, boosted by the commissioning of the $195 million Dagachhu hydropower project. The hotel and restaurant sector also expanded favourably in line with higher tourist arrivals. A special agreement with Thailand that eases visa restrictions and lower daily costs helped to support the arrivals, although the tourism sector was dampened following the Nepal earthquakes in April 2015 as tourists tend to visit Bhutan and Nepal in a combined package. Meanwhile, inflation moderated to a still high level of 6.6% in 2015. Softer price pressure was largely attributable to lower inflation in India, the source of the bulk of consumer and capital goods consumed in Bhutan.

Growth in 2016 and 2017 is projected to increase further to 6.5% and 6.6%, respectively, as commissioning of new hydropower projects and high-value tourism growth would continue to drive the economy. Private consumption would benefit from relaxation of credit controls, while a higher revenue stream from completed hydropower projects and grants from India should help buoy government consumption. At about 30% of GDP in 2015, the current account deficit is expected to remain elevated over the medium term, as an increase in hydro-exports is offset by rising non-hydro imports.

Steady growth in output in past years has kept the overall unemployment rate at a low level, but youth unemployment remained close to 10% and informal employment accounts for more than three quarters of total employment. As a result, the Government has focused on developing a skilled workforce with the aim of energizing the business sector. For example, a national workforce plan has been developed to identify labour demand in various sectors. Another development challenge is the country's heavy reliance on foreign grants to finance its capital expenditure, more than 70% of which comes from India. Policy reforms in this area have sought to expand the tax base, collect more revenue from corporate income tax and dividends from hydropower projects and restrain expenditure on public sector salaries.

India

Economic growth in India edged up to 7.6% in 2015 compared with 7.3% in 2014, making India the fastest-growing large economy in the world. Private consumption growth continued to be the main growth driver, as reflected in robust services activities relating to trade, finance, transport and communications, and real estate. However, strong household consumption was not broad-based; rural demand was weaker due to muted agricultural activity and slower rural wage growth resulting from subpar monsoon seasons in recent years. Meanwhile, stalled large-scale infrastructure projects and somewhat cautious investor sentiment resulted in sluggish fixed investment growth. On the external front, merchandise exports declined on weak orders in advanced economies and lower prices of refined petroleum products, which accounted for more than 13% of India's total exports. However, as imports also shrank and services exports remained in surplus, the current account deficit narrowed to about 1% of GDP in 2015.

Despite a spatially uneven monsoon and some seasonal spikes in food prices, consumer inflation moderated to 5% in 2015 from 6.7% in 2014. Lower inflation was driven by low global commodity prices, a downward adjustment in administered fuel prices and government measures, such as price checks, anti-hoarding and suspension of futures trading of select pulses. Moderate inflation enabled the Reserve Bank of India to cut policy rates by a total of 125 basis points in 2015.

The near-term growth outlook is positive, with the projected growth being 7.6% in 2016 and 7.8% in 2017. Urban household spending is expected to drive economic growth amid steady employment growth and relatively low inflation. Fixed investment conditions would benefit from lower borrowing costs and a more enabling business environment, as reflected in India's better ranking in the World Bank's ease of doing business index. Nonetheless, high levels of stressed bank assets and fragile business confidence could constrain investment growth. The overall strength of domestic demand will depend on progress made in implementing structural reforms and how rapidly large-scale stalled infrastructure projects are unlocked. Some progress has been made in reforming fiscal policy, such as the rationalization of fuel price subsidies,

but the implementation of the goods and services tax remains an important reform that is being held up due to political deadlock.

The Government recently launched several initiatives to promote inclusive and sustainable development. These measures include programmes to support small and medium-sized enterprises through enhanced credit under the Micro Units Development and Refinance Agency bank loan scheme; foster financial inclusion through the *Jan Dhan* programme under which 250 million people have gained access to modern banking services; create a skilled workforce under the Skill India initiative; make India a manufacturing base; and promote entrepreneurship under the Start up India Stand up India initiative. On the social front, a scheme to enhance access to improved sanitation through the introduction of a 0.5% cess on all taxable services was introduced. The Government is also placing emphasis on developing sustainable cities under the 100 Smart Cities mission, and harnessing solar and wind energy, with the target being to attain 175 gigawatts of renewable generation capacity by 2022.

Islamic Republic of Iran

Economic growth in the Islamic Republic of Iran decelerated to only 0.8% in 2015, from 4.3% in 2014 and the economic contractions recorded in 2012 and 2013. The slowdown was primarily due to international sanctions and lower oil prices, which constrained private consumption, held back foreign investment and dampened exports. Falling oil prices also widened the fiscal deficit in 2015, as oil revenues account for nearly 40% of total revenue. Meanwhile, inflation remained high at 13.6% in 2015, although it was much lower than the annual average of 28% in the preceding three years, as access to goods and services were constrained by the sanctions.

Growth is expected to rebound from a low base to 4.4% in 2016 and 5.1% in 2017, mainly due to the lifting of the sanctions, which became effective in January 2016. Oil export revenues should help to increase government revenue and the current account surplus, even though oil prices remain low. Foreign investment is also expected to pick up strongly in the near term, especially in infrastructure projects, but the country's medium-term growth is limited by significant domestic bottlenecks and restrictive business conditions. Inflation is likely to exceed the central bank's single-digit target due to supply-side bottlenecks and pent-up consumption demand released by renewed access to global markets.

Part of the policy effort to revive economic growth has been focused on improving financial intermediation through reducing non-performing loans and loosening financial bottlenecks. Examples of such measures include reductions in the bank reserve ratio and the interbank rate, $200 million in deposits in the export promotion bank to support non-oil exports and a plan to develop a public debt market. The role of fiscal policy would be constrained by low oil prices. It has been estimated that a decline by $10 per barrel in the global oil price would worsen the country's fiscal balance by 1% of GDP (IMF, 2016b). To improve its fiscal position, the Government is seeking to strengthen compliance measures, remove tax exemptions and continue its subsidy reforms.

Maldives

Economic growth in Maldives slowed sharply to 4.8% in 2015 from 8.5% in 2014 due to sluggish performance in the tourism sector, which accounts for about 40% of GDP. Tourist arrivals grew by only 1.3% in 2015 on the back of a 37% decline in visitors from the Russian Federation. The average duration of stays also decreased slightly. As was the case with service exports, merchandise exports were also subdued as shipments of canned fish products fell. On the supply side, construction activity was strong, benefiting from an increase in housing projects and public construction programmes. Meanwhile, consumer inflation moderated to 1.4% in 2015, underpinned by the decrease in fish prices and slower growth in housing rents. The minimum reserve requirement was lowered from 20% to 10% in August 2015 in order to support economic activity although the policy rates were left unchanged at 4%.

The near-term growth outlook is set to improve to 6% in 2016 and 7.1% in 2017. The construction sector would benefit from large-scale infrastructure projects planned over the next few years, although the tourism sector tends to remain anaemic. While rising public spending helps to support the economy amid tepid tourism activities and increased political uncertainty, large public debt poses a significant macroeconomic challenge. The fiscal deficit is estimated at close to 7% of GDP in 2015 due to lower-than-expected revenue collection. In this regard, the Government is focusing on reining in current expenditure and better targeting subsidies, and it introduced a green tourism tax of $6 per day. To achieve sustained economic growth, there is a need to diversify the economy beyond tourism. Recent initiatives to promote domestic investment, for example through special economic zones and loan schemes for small and medium-sized enterprises, are thus encouraging.

Nepal

Economic growth in Nepal fell from 5.4% in 2014 to 3.4% in 2015. Catastrophic earthquakes in April 2015, causing losses estimated at one third of GDP, and a subpar monsoon season that resulted in weak agricultural output mainly accounted for the slowdown. Continued political unrest over the new constitution resulted in strikes and disruptions of trade routes in certain parts of the country. The unrest pushed up prices of fuel and other essential commodities and widened the difference in inflation rates between Nepal and India, a situation which could undermine the country's competitiveness in view of the exchange rate peg to the Indian rupee. The unrest also limited the supply of construction materials and held back the implementation of public projects on post-earthquake reconstruction. As a result, government expenditure declined in the second half of 2015.

Growth in output is expected to soften further to 2.2% in 2016, before rebounding to 4.5% in 2017. Consumer spending may be constrained by relatively high inflation and weak agricultural production. In the medium term, a trade agreement with the United States, which grants duty-free treatment to certain textile and apparel articles from Nepal, should help to attract greater investment flows. Similarly, an agreement with India to develop two large-scale hydropower projects could help exploit Nepal's immense hydropower potential and address the issue of power shortages.

The official estimate suggests that the April 2015 earthquake may have pushed at least 700,000 more people into poverty in 2016, undermining the country's target of reducing the poverty rate to 18% by 2016 from 25% in 2011. To strengthen the role of fiscal policy in supporting social and economic development, there is a need to address persistent underdisbursement of allocated budgets, which is mainly due to poor project management and bureaucratic hurdles. Similarly, tax administration and compliance could be improved. In this regard, the Government announced the issuance of a reconstruction bond to enhance the ownership and participation of the general public in the reconstruction works.

Pakistan

Economic growth in Pakistan increased slightly to 4.2% in 2015 compared to 4% in 2014, underpinned by a pickup in the services sector and a modest recovery in agriculture. Consumption continues to anchor the economy amid a decade-low inflation rate of 4.6% in 2015 that enabled a significant easing of monetary policy. Despite lower borrowing costs, subdued private investment conditions have kept overall investment stagnant at about 15% of GDP for the whole year. Meanwhile, the trade deficit widened in 2015 as exports declined, mainly due to lower cotton prices. Nonetheless, favourable workers' remittances helped narrow the current account deficit, and foreign exchange reserve rose to an all-time high of $20.8 billion at end-2015.

Growth is expected to increase further in the near term, to 4.5% in 2016 and 4.8% in 2017, on the back of continued policy reform efforts, including privatization of loss-making State-owned enterprises. Downside risk includes slower growth of workers' remittances as economies in the Middle East, the major destination of Pakistani migrant workers, continue to face lower oil revenue and subdued economic activity. Despite a more favourable economic outlook, Pakistan continues to face significant vulnerabilities from domestic security issues, critical energy shortages and domestic financing of public debt, which constrains private sector development. These less enabling macroeconomic environments have resulted in a sluggish inflow of FDI.

Pakistan's energy demand is expected to exceed domestic supply in the medium term as a result of low investment, distribution challenges and circular debt flow problems among energy companies.[11] The sector uses only 70% of installed capacity, a situation that leads to blackouts lasting for 6-8 hours a day throughout the country. To address energy shortages, the Government introduced new surcharges on power tariffs and inaugurated a solar park in 2015. Pakistan will also benefit from energy transmission from Central Asian countries under the CASA-1000 project going on-steam shortly. The China-Pakistan Economic Corridor is likely to add 10 gigawatts of power capacity by 2018.

Sri Lanka

Economic growth in Sri Lanka was stable at 4.9% in 2015, although this rate remained much lower than the average growth rate of 8.5% during the period 2010-2012. The expansion was largely broad-based. A revival in agricultural output benefited from favourable weather conditions. Manufacturing activities expanded, while real estate, finance and trade drove accelerated growth in the services sector. On the demand side, growth was driven mainly by private consumption. Relatively soft price pressure, partly a result of much lower administered fuel prices, enabled the policy rate cut of 50 basis points in April 2015. Nonetheless, the policy rate was raised by a similar

magnitude in early 2016 to address rapid credit growth. On the external front, the current account deficit in 2015 widened despite strong tourist arrivals. Shipments of tea, seafood and garments decreased due to weak demand and the import bans imposed by the European Union. Workers' remittances, the country's largest source of foreign exchange, were held back by a decline in income inflows from the Middle East. The Government resorted to borrowing from the International Monetary Fund (IMF) to beef up foreign exchange reserves against the backdrop of sharp depreciation in the exchange rate.

Growth is projected to gain further momentum, at 5.4% in 2016 and 5.9% in 2017. Private consumption will likely remain the key growth driver amid greater urbanization and rising demand for housing. One immediate policy challenge is to ensure a strong fiscal position and debt sustainability. Public debt reached 72% of GDP in 2014. The 2016 budget suggests that the fiscal deficit would remain large at 5.9% of GDP. The fiscal shortfall is due to both limited revenue collection, with the tax revenue-to-GDP ratio having been only 10.2% in 2014, and the country's large expenditure burden. Unless tax reforms and expenditure rationalization are implemented, fiscal conditions are unlikely to improve significantly.

One of the medium-term challenges is to transform Sri Lanka into a competitive export-led economy. To achieve this, the Government has fostered public-private partnerships and promoted liberalization of the services sector. The need to enhance labour skills, diversify export markets, restructure loss-making State-owned enterprises and reduce infrastructure deficiencies will remain important. Development in these areas would help the country to attract more FDI and employment. Youth employment in Sri Lanka is 10 times higher than overall employment, the largest difference in the Asia-Pacific region.

Turkey

Output growth in Turkey increased to 4% in 2015 from 2.9% in 2014, driven by moderate expansion in industrial production and more favourable market confidence in the final part of the year. Exports to Europe increased, although overall shipments were held back by tensions with the Russian Federation. Tight monetary policy and lower oil and fuel prices helped to lessen inflation to 7.7% in 2015 from 8.9% in 2014. Low commodity prices also helped reduce energy import bills and the current account deficit. Meanwhile, the fiscal deficit was estimated at 1.2% of GDP in 2015. An increase in revenue outpaced the rise in expenditure in line with revived economic activity.

Growth is expected to moderate to 3% in 2016, before picking up to 3.7% in 2017. Exports should increase amid a gradual economic recovery in Europe. Consumer spending is likely to benefit from a 30% rise in the minimum wage level. The outlook is nonetheless clouded by a volatile political environment due to continuing unrest in Syria, which has resulted in Turkey becoming host to approximately 1.5 million refugees and an origin and transit country for migrant smuggling to Europe. A key downside risk is the deteriorating economic relations with the Russian Federation, which could impose economic costs of between $7 billion and $12 billion.[12] Although the upcoming election may imply additional expenditure commitments in the medium term, the Government has targeted a budget surplus in 2016 assuming that there will be a steady increase in government revenues and that the downside risk on tensions with the Russian Federation does not materialize.

4.2. A selected policy challenge: boosting women's labour force participation

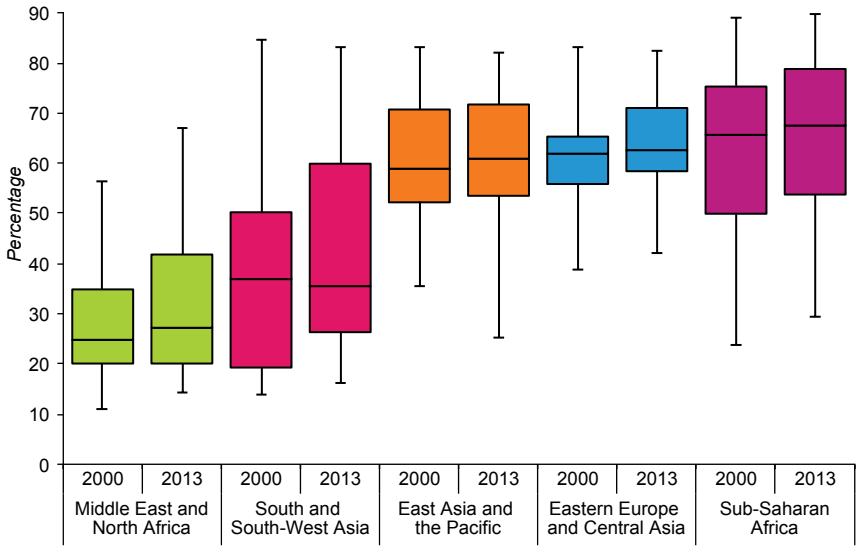
Increasing female workforce participation could help South and South-West Asia reach its high potential for output growth

South and South-West Asian countries perform poorly in ensuring economic opportunities for women. Based on an index of women's economic participation, which captures female labour force participation, gender wage equality and the presence of female professional workers in 145 economies, Bhutan, the best-performing country in the subregion, is ranked at ninetieth (World Economic Forum, 2015). India, the Islamic Republic of Iran and Pakistan are ranked among the bottom six countries in the index.

The median female labour force participation rate in South and South-West Asia, at 35.5% in 2013, is lower than that of all other regions of the world except the Middle East and North Africa (see figure 2.5). South and South-West Asia is also the only region in the world where female labour force participation decreased between 2000 and 2013.

At the country level, female labour force participation is diverse in this subregion. The participation rate in 2013 was below 30% in Afghanistan, India, the Islamic Republic of Iran and Pakistan (see panel A in figure 2.6). In Bangladesh and Maldives, the participation rate was much higher (see panel B),

Figure 2.5 Female workforce participation in South and South-West Asia: low and decreasing, 2000 and 2013

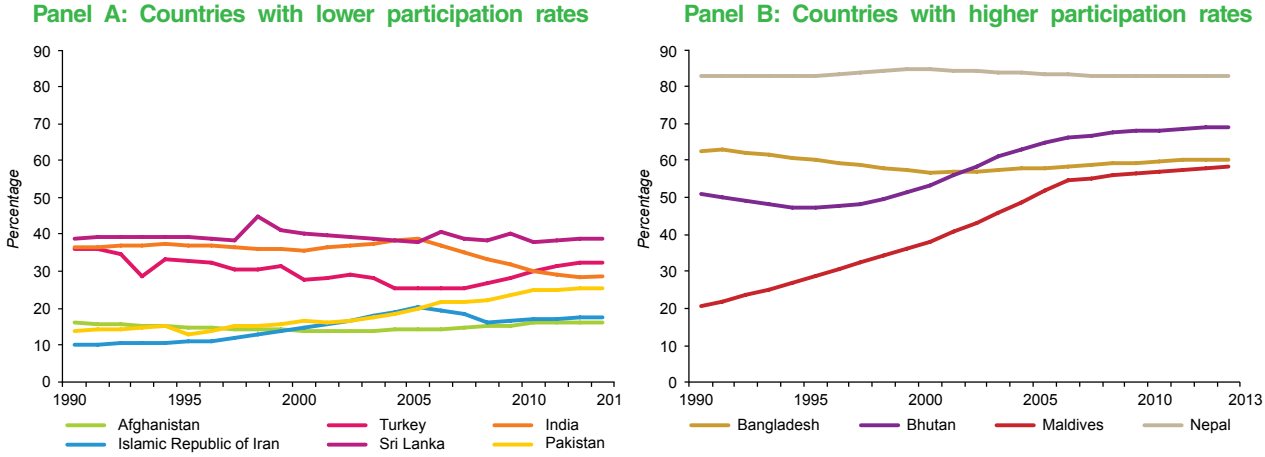


Sources: ESCAP, based on the World Development Indicators database of the World Bank.

Note: The upper and lower limits of the enclosed boxes correspond to the 75th and 25th percentiles respectively, while the horizontal lines within the boxes depict the median. The vertical lines show the range where the uppermost (lowermost) points reflect the maximum (minimum) values. These box plots are based on data from 152 countries: 20 in the Middle East and North Africa; 10 in South and South-West Asia; 29 in East Asia and the Pacific; 47 in Eastern Europe and Central Asia; and 46 in sub-Saharan Africa.

although at about 60%, this is just on par with the global average. Only Bhutan and Nepal seemed to have active female participation in the labour markets compared with other countries in the world, mainly owing to many female workers in agriculture, especially in Nepal. In terms of changes over time, one striking trend is the steep decline in the participation rate in India since 2005, which is driven mainly by the lower labour market participation rate among rural women.[13] In contrast, the participation rate surged by

Figure 2.6 Female labour force participation diverse in South and South-West Asia



Sources: ESCAP, based on the World Development Indicators database of the World Bank.

18 and 38 percentage points in Bhutan and Maldives during the period 1990-2013, respectively. Box 2.3 contains a discussion of why the female workforce participation rates in the subregion are rather diverse and generally low.

Concrete policy actions to boost the female workforce participation rate would promote economic growth in the subregion. In one simulation for India, raising the female labour force participation rate to the same level as that of males would increase GDP by

Box 2.3

Explaining the low female workforce participation rate in South and South-West Asia

Conceptually, labour market participation for women and men depends upon a combination of individual and household factors, matched with job characteristics and demands, and facilitated by economic and social infrastructure. While common factors help determine labour market participation for both women and men, women often face a far more restrictive range of such factors compared with men. Household and social norms in the subregion assume that women take the vast majority of responsibility for domestic work and caregiving and are sometimes restricted from labour market participation altogether if household income levels are sufficiently high. Labour market segmentation and economic decision-making norms restrict the range of possible jobs in which women can participate. Low incomes and high informality in segmented occupations and economic activity create significant gender gaps in participation in premium-level formal employment.

In Bhutan and Nepal, where the participation rates are higher, there are generally fewer social restrictions on women to work, while poverty also drives the need to work in Nepal. The emergence of labour-intensive, export-oriented sectors, such as the ready-made garment sector in Bangladesh and tourism in Maldives, have boosted women's labour market participation, as social norms identify many occupations in these sectors as women-centric. Such sectors are still relatively small in India and Pakistan where female participation is limited. Available evidence also shows that the expansion of microfinance schemes in Bangladesh has helped to increase job availability in rural areas of the country.[a]

The role of social norms in affecting female workforce participation in the subregion is strong. Working women can be perceived as lowering their household's social status. In one survey in Pakistan, 35% of women respondents reported that they were not working due to a lack of permission from a man, usually the husband or father, to work outside home and instead they needed to carry out domestic responsibilities.[b] Similarly, the World Values Surveys during the period 2010-2014 reveal that only one third of the respondents in India and Pakistan agreed that having a job was the best way for a woman to be independent. This view compares to more than half (54%) of respondents worldwide and places India and Pakistan in the bottom 3 countries out of the 60 countries surveyed.

The impact of education on female labour force participation is sizeable and non-linear. In India, it is estimated that one additional year of women's education increases the female participation rate by 0.6 percentage points.[c] In Sri Lanka, women with a secondary education are more likely to stay outside the workforce than those with other education levels.[d] Women with a primary education as their highest level of schooling are often from poorer households where participation in work is a subsistence-level necessity, while those with a tertiary education often work due to the greater opportunity costs of forgoing high expected wages.

Gender pay gaps, which arise when women with similar skills are paid less than men for doing the same job, also discourage women from working. In India, it is estimated that women are paid 10-15% less than men after accounting for education and work experience.[c] Similarly, OECD data show that the gap between median earnings of women relative to median earnings of men was about 20% in Turkey relative to an average of 14% in 24 European economies.

[a] Rushidan Rahman and Rizwanul Islam, "Female labour force participation in Bangladesh: trends, drivers and barriers", ILO Asia-Pacific Working Paper Series (New Delhi, International Labour Organization, 2013).

[b] R. Pande, D. Ford and E.K. Fletcher, "Female labor force participation in Asia: constraints and challenges" (synthesis report) (Manila, Asian Development Bank, forthcoming).

[c] Surjit Bhalla and Ravinder Kaur, "Labour force participation of women in India: some facts, some queries", Asia Research Centre Working Paper 40 (London, London School of Economics and Political Science, 2011).

[d] World Bank, "Low female labor-force participation in Sri Lanka: contributory factors, challenges and policy implications", Report No. 68, Discussion Paper Series, South Asia Region Human Development Sector, January 2013.

60% in 2025 compared with the baseline scenario (McKinsey Global Institute, 2015). Similarly, as a group, such an output gain is estimated at 48% above the baseline scenario in Bangladesh, Nepal, Pakistan and Sri Lanka. In another study, a policy package that includes reforms to reduce gender bias in the labour market and higher public spending in social areas is estimated to raise annual output growth in India by two percentage points above its steady-state rate (Agénor, Mares and Sorsa, 2015).

Bold policies are needed to alter deep cultural roots that discourage a role for women outside the household sector

Government policies to promote female labour force participation could focus on overcoming core barriers and offsetting disincentives for women to work. Policies that overcome the core barriers would enhance the availability of and access to good-quality education, offer skill development programmes, including women's entrepreneurship, and provide a conducive infrastructure and safe public transport to work, especially in rural areas. For example, in Bhutan, Bangladesh, Pakistan and Sri Lanka, electrification and improved access to water increased women's time available for market work (World Bank, 2011). Policies should also ensure equal decision-making, including access to finance and such productive assets as land and capital, and improve the flow of information on the job market. A quota for women in wage employment could also be introduced, at least in sectors where women do not traditionally participate. Finally, there is a need to address discriminatory laws, such as labour laws that limit the maximum amount of part-time work and family laws that limit decision-making power and/or the land rights of female family members.

Policies that offset disincentives to women's work would reduce the cost of joining the job market. An example includes adequate parental and child-related benefits, such as parental leave that is fully funded by the Government[14] and for which a component must be used by male parents. Another example is taxation frameworks that encourage mothers to work by reducing the net tax liability, such as taxing individual income rather than family income and tax-deductible childcare payments (Elborgh-Woytek and others, 2013). New laws or stronger enforcement of existing laws and regulations are also needed to: (a) allow more flexible work arrangements, such as part-time jobs and work during non-traditional working hours; (b) increase female workers' bargaining power to reduce gender pay gaps; (c) ensure a safe work environment that reflects social values but removes traditional practices that may be gender discriminatory; and (d) strengthen labour market flexibility, such as easing the entry and exit of workers.

Governments in the subregion have already pursued some of these policy options. Some recent reforms include those relating to women's representation, such as the requirement in India that at least one board member of every firm listed on the stock exchange is a woman and the provision in Pakistan that introduced a 22% quota for women in local governments (World Bank, 2016b). Other reforms provide greater social benefits, such as longer maternity leave; in the Islamic Republic of Iran, paid paternity leave has been introduced and in Turkey free preschool education. Finally, in Nepal, changes in legislation entitle unmarried daughters to an inheritance irrespective of their age; previously they had to be older than 35 years.

Successful policy reforms to boost female labour force participation need to be bold and broad-based. The policy package needs to be bold in order to mobilize millions of women into the workforce, partly because influencing social norms, which have deep cultural roots, is a challenging task.[15] The reform also needs to be broad-based, as it requires government action on various fronts, such as increasing public spending, amending laws and regulations and mainstreaming gender equality into policy design, budgeting, and monitoring and evaluation. An example of policy design is India's rural employment guarantee scheme, which ensures that at least one third of participating workers are women and have access to childcare facilities at worksites. On budgeting, Bangladesh has since 2005 incorporated gender issues into the national budget and produced gender budget reports.

5. SOUTH–EAST ASIA

5.1. Macroeconomic performance and outlook

More rapid output growth in subregional economies with lower income levels helps narrow the development gaps within South-East Asia

South-East Asia consists of countries at various stages of economic development that are increasingly integrating with each other in terms of trade, investment and finance. The launch of the ASEAN Economic Community in late 2015 is expected to bring the 10 ASEAN countries closer to a single market and

production base. At the same time, Governments are increasingly concerned about inclusive growth and innovation. Income inequality has widened during past decades of rapid economic growth, leaving behind the rural poor and those in vulnerable employment.[16] Meanwhile, countries that previously had not sufficiently diversified and upgraded their industries are facing renewed pressure. For instance, the Indonesian economy has been significantly constrained by falling global commodity prices, while Cambodia's garment sector has been adversely affected by increased cost competition following Myanmar's liberalization and Viet Nam's free trade agreement with the European Union.

On average, South-East Asian economies grew by 4.3% in 2015, similar to the pace in 2014 but lower than the average of 5% during the period 2011-2013. Exports were sluggish, while private domestic demand moderated. Currency depreciation against the United States dollar did not boost exports much, due in part to stable or appreciating real effective exchange rates and offsetting effects on companies with high dollar debt.[17] At the same time, consumer spending moderated in some countries on the back of slower job creation, high household debt and weak rural incomes. Mild inflation and low interest rates were unable to stimulate domestic demand as much as in the past. Given the subpar demand in both external and domestic markets, private investment was not robust either. Fiscal policy was generally supportive, such as strong growth in social spending and capital expenditures in Indonesia, the Philippines and Thailand. Except for the Lao People's Democratic Republic and Malaysia, subregional countries still have relatively low levels of public debt and external debt.

Economic growth is projected to pick up gradually to 4.5% in 2016 and 4.8% in 2017, supported by stronger government spending and a modest recovery in domestic private demand. In particular, consumer spending and investment are expected to steadily strengthen in Indonesia and Thailand – the two largest economies in South-East Asia – benefiting from economic stimulus and reform measures introduced in late 2015. The projection also assumes that robust growth of 6-8% will be sustained in Cambodia, the Lao People's Democratic Republic, Myanmar, the Philippines and Viet Nam where domestic demand is generally buoyant on the back of rapid real income and credit growth and foreign investment. Downside risks include negative trade and financial spillover effects from China, slow progress on economic stimulus and reform measures and adverse weather conditions. While downside risks dominate, upside risks include stronger-than-expected growth in investment from the ASEAN Economic Community, the Trans-Pacific Partnership trade agreement and bilateral free trade agreements in the respective member countries.

Inflation is expected to edge down from 2.5% in 2015 to 2.4% in 2016, primarily due to a decline in Indonesia, before rising to 2.8% in 2017. However, this trajectory is subject to various factors, such as global oil prices, fuel subsidy reforms, tax reforms and currency movements. The exchange rate stabilized somewhat in the early months of 2016 following sharp depreciations in 2015. However, there may be renewed volatility from the impact of currency devaluation in China as well as the further expected increases in interest rates in the United States. The monetary policy space in some countries would be constrained by capital outflow pressures and the need to ensure financial stability.

Current account surpluses among major exporters are much smaller compared with those in the 2000s, reflecting the relative strength of domestic demand to external demand. Commodity prices are having a significant but mixed impact, as import bills have fallen in most countries but export revenues have declined sharply among oil exporters. Countries such as Myanmar and Viet Nam are also witnessing strong capital imports driven by foreign investment.

Brunei Darussalam

Economic contraction in Brunei Darussalam continued in 2015, although at 1.2% this was more modest than the declines of 2.3% in 2014 and 1.8% in 2013. Increased petroleum production offset the impact of lower global oil prices. Stronger government spending, including in the construction sector, also supported the economy. In contrast, private consumption was held back slightly by regulatory caps on household borrowing. As the energy sector accounts for two thirds of the economy, both fiscal and current account balances recorded a rare deficit in 2015.

Economic growth is projected to return to positive growth, at 2% and 3% in 2016 and 2017, thanks to increased petroleum production. Fiscal support, backed by substantial savings under the national wealth fund, will also continue to buoy the economy and provide employment. Nonetheless, the likely persistently low prices of oil and gas pose considerable challenges for the country in coming years. In the medium term, it is critical to accelerate economic diversification to reduce reliance on the energy sector. Aside from improving the business environment, the Government

could actively support the development of small and medium-sized enterprises, including through public procurement and enhanced access to finance. The ASEAN Economic Community and the Trans-Pacific Partnership trade agreement may also open up more opportunities to attract investment into non-energy sectors, such as agro-processing, eco-tourism and financial services. Plans to establish a stock market and create an Islamic bond market to boost *sharia*-compliant financial services are already in place.

Cambodia

Economic growth remained high at 6.9% in 2015, although this rate moderated slightly relative to that in past years. The strong growth was fuelled by robust consumer spending on the back of rapid expansion in real income and credit, while investment in equipment and structure benefited from strong FDI inflows, including from China. Strong domestic demand and improvements in revenue administration resulted in stronger-than-targeted revenue growth, which helped lower the fiscal deficit (excluding grants) to 3.7% of GDP in 2015. Nonetheless, the healthy economic expansion in 2015 was not broad-based. Tourist arrivals decreased, while agricultural activity, which accounts for two thirds of employment and a third of GDP, grew by only 1%. Exports of major items, such as garments and rice, also softened amid increased competition driven by Myanmar's liberalization and Viet Nam's engagement in free trade agreements.

Driven by strong domestic demand, economic growth is projected to remain high at 7-7.1% in 2016 and 2017. Reduction of tariff and non-tariff barriers under the ASEAN Economic Community should be used as an opportunity to accelerate economic diversification, especially because the role of garment exports in driving the economy may not be as strong as in the past. In August 2015, the Government launched a new industrial development policy that is aimed at expanding the industrial base beyond garments and food processing to such areas as machinery and electrical equipment assembly and agro-industrial production. To realize such a development, it will be important to attract FDI into higher value-added sectors and channel more credit to upgrade the industrial sector.

Indonesia

As South-East Asia's largest economy, Indonesia experienced a broad-based slowdown in 2015 as consumer spending and business investment slowed, while exports remained subdued. The economy grew by 4.8%, well below its average growth rate of 6% in the preceding five years. Both exports and imports reached their lowest levels since 2010. Weak corporate performance, especially in commodity-based sectors, and excess production capacity acted as a drag on private investment. Consumer spending in 2015 was adversely affected by relatively high inflation and unemployment rates of 6.4% and 6.2%, respectively. Fewer than 200,000 new jobs were created between August 2014 and August 2015 compared with an average 2.6 million new jobs created yearly between 2006 and 2012 (World Bank, 2015a). Slower job growth has undermined social outcomes, with the poverty rate rising to 11.1% after a steady decline in the past decade.

Economic growth is projected to rebound to 5.3% in 2016 and 5.5% in 2017. Consumer spending should benefit from lower inflation and accommodative monetary policy. The policy interest rate was cut by 25 basis points in January 2016 following further easing of inflation in late 2015. After tackling price and currency stability in 2015, monetary policy is expected to be more growth-oriented in 2016. Meanwhile, investment is expected to benefit from higher budgeted public investment and recent announcements on regulatory and structural reforms. These measures include plans to simplify investment regulations and procedures and to enhance the finance of small and medium-sized enterprises by reducing financing costs and improving access to collateral through land titles.

Macroeconomic policy management is challenging amid slower economic growth and greater pressure on capital outflows. Low oil revenue, sluggish economic activity and high disbursement of public infrastructure outlays resulted in a widening of the fiscal deficit to 2.8% of GDP in 2015, which was above the target of 1.9% of GDP and close to the statutory limit of 3% of GDP. To pre-finance the 2016 budget, which calls for further shifting of resources from energy subsidies to infrastructure and social assistance, the Government raised $3.5 billion in an international bond sale in December 2015. On the monetary policy front, the central bank focused on stabilizing the domestic currency amid capital outflow pressures in 2015. Measures introduced in the second half of the year included foreign exchange interventions in the forward market, issuance of Bank Indonesia Certificates in foreign currency and renewing the bilateral currency swap agreement with China.

Lao People's Democratic Republic

In the Lao People's Democratic Republic, economic growth moderated to a still high rate of 6.4% in 2015 compared with almost 8% per year in the preceding five years. The economic expansion was driven by the operation of a new hydropower plant and increased mining output. Monetary and fiscal policies were tightened to secure macroeconomic and financial stability in 2015; the country's booming construction and real estate sectors had for years been underpinned by rapid increases in money supply and credit as well as steady growth in government spending. Credit growth fell to about 15% in 2015 from more than 30% in the previous few years. At the same time, the Government restrained public wage increases and rationalized off-budget capital expenditures.

Economic growth is expected to pick up to about 7% in 2016 and 2017, broadly in line with the official medium-term target. Hydropower and mining will continue to drive growth, despite some concerns over economic performance in major export markets, such as China and Thailand. The construction of a high-speed railway from Vientiane to the Chinese border and the upgrade of the main airport will also support the economy. Meanwhile, after abating due to lower oil prices and moderate money supply and credit expansion, inflation is expected to rise from 1.3% in 2015 to 2% in 2016 and 2.3% in 2017.

Economic diversification remains a priority, as the resource sector has limited capacity to absorb labour. The agricultural sector employs about two thirds of those employed, and overall labour productivity is low. Development of tourism and labour-intensive manufacturing, such as garments, will help expand employment opportunities. Lack of diversification in the past has also meant that high economic growth did not sufficiently translate into poverty reduction. Targeted social expenditures are needed to narrow the gap between rich and poor households in terms of access to education and health services.

Malaysia

Malaysia's economy expanded by 5% in 2015, down from 6% in 2014. Private consumption slowed amid low prices for rubber and crude palm oil; the introduction of a goods and services tax in April 2015 resulted in a temporary elevation in inflation. Tighter macroprudential measures also held back household credit, especially in riskier segments such as credit cards. Fiscal support was also modest. Despite lower oil revenue, the fiscal deficit narrowed due to fuel price subsidy rationalization and the introduction of the goods and services tax. Meanwhile, fixed investment remained robust with the continuation of infrastructure projects initiated under the Economic Transformation Programme. On the external front, continued weakness in commodity exports, in particular petroleum products, was partly offset by solid performance of electrical and electronics exports. The decline in the import of intermediate goods also implied a growing value-added contribution of the electrical and electronics sector (World Bank, 2015b).

Economic growth is expected to ease to 4.4% in 2016 on the back of low commodity prices and fiscal consolidation, before rebounding to 4.8% in 2017. Private consumption could be constrained by expected slower growth in inflation-adjusted earnings as price pressures build up slowly in coming years. On the other hand, accommodative monetary policy would continue to support consumption, with the policy interest rate being left unchanged and the reserve requirement ratio having been reduced by 50 basis points in January 2016. Meanwhile, public investment should remain robust on the back of the construction of new underground train lines and other infrastructure investments under the new five-year plan. Steady business investment is also anticipated, although low energy prices and further currency depreciation may exert downward pressure on machinery investment. Export growth is likely to remain sluggish, resulting in narrowing of the current account surplus. The upside risk is from potential trade and investment impacts related to the Trans-Pacific Partnership trade agreement.

Myanmar

The economy in Myanmar expanded rapidly at a growth rate of 8.5% in 2015, the same pace as that in 2014, on the back of robust growth in the manufacturing, construction, tourism and natural gas sectors. In contrast, agricultural activity slowed, as severe floods in mid-2015 submerged more than 400,000 hectares of farmland and dampened farm output and rural incomes. Together with the floods, strong domestic demand and continued monetization of the fiscal deficit drove up inflation to 10.7% in 2015 from 5.9% in 2014. On the external front, exports of natural gas increased, but imports grew more rapidly, resulting in a wider current account deficit of 9% in 2015. Meanwhile, government spending grew rapidly in the lead up to the general election in November 2015. Recurrent spending, such as public sector wage bills, went up and led to the wider fiscal deficit of

5% of GDP in 2015. The shortfall would have been much higher if one-off receipts from telecom and gas companies had been excluded.

Growth is expected to be high at 8-8.5% in 2016 and 2017. Myanmar stands to benefit from an expected relocation of foreign investment projects in the manufacturing sector around the region in search of lower labour costs. Nonetheless, monetary and fiscal policies are expected to be tightened slightly, given high inflation and growing external imbalances. The domestic currency has been under depreciation pressure, which resulted in the realignment of the reference exchange rate and the parallel market rate in July 2015, after efforts to ease depreciation pressure, for example by limiting cash withdrawal in the United States dollar, did not appear effective. The adoption of the financial sector law in January 2016, under which banks now face more stringent rules on reserve requirements, would also contribute to slower credit growth. The downside risk to the economic outlook is low natural gas prices, which would reduce export revenues and potentially lead to lower-than-expected foreign investment inflows in the energy sector.

In the medium term, power shortages remain a key constraint on business activities. However, the 2015/16 budget outlines cuts in capital expenditures, which is somewhat in contrast to the priority given to infrastructure development in the country's medium-term plan. To enhance fiscal resources, there is room to improve the revenue potential of the extractive industry, for instance through centralizing the collection of gas-related revenue and increasing transparency. Tax administration can be strengthened, building on recent progress, including the operation of a large taxpayer office.

Philippines

Economic growth moderated slightly to 5.8% in the Philippines in 2015, from an average of 6.7% in the preceding three years. Exports contracted by almost 6% compared with 2014 owing to subdued shipments of manufactured, agro-based and mineral items. Workers' remittances, which are equivalent to 10% of GDP, also grew at a slower pace. Nonetheless, the current account surplus of 3% of GDP was maintained, as weak exports and remittances were partly offset by lower fuel imports and continued strong performance of business process outsourcing. Domestic demand was more buoyant. Private consumption benefited from low inflation, at 1.4% in 2015, and favourable labour market conditions. Adequate domestic financial liquidity also supported credit growth for consumers despite some moderation in loan growth in the real estate sector due to macroprudential measures.

Economic growth is projected to rebound to 6% in 2016 and 6.2% in 2017 largely driven by strong domestic demand. Monetary policy remains accommodative, with the policy interest rate kept unchanged at 4%, while an expansionary 2016 national budget contains significant social and infrastructure spending. As in 2015, consumer spending would continue to benefit from mild price rises and a low jobless rate. Strong investment growth is also expected, as private participation in infrastructure increases and FDI inflows strengthen, albeit from a low base. However, part of business investment may be held back in the election year as investors wait to see what would be the new administration's policies.

The year 2016 will mark the last year of the current five-year Philippines Development Plan 2011-2016, in which inclusive growth and acceleration of infrastructure development are emphasized. Given the rapid growth of the country's labour force, a priority is to ensure strong job creation of the productive and remunerative kind that will lead to poverty reduction. A concern is that employment generation has been concentrated on services and construction rather than manufacturing. Also, while the unemployment rate has declined, underemployment and youth employment remain a challenge. The Government has launched several initiatives to tackle workers' skill deficiencies, such as programmes under the Technical Education and Skills Development Authority. While increasing public infrastructure outlays, the Government could also further mainstream productive employment into industry road maps.

Singapore

The economy of Singapore is heavily dependent on trade flows, with exports accounting for about 190% of GDP. Given subdued demand in advanced economies and China, economic growth slowed to 2% in 2015. The export-oriented manufacturing sector contracted even as construction and services saw some improvements towards the end of the year. Economic growth is projected to be stable at 2% in 2016 before rebounding to 2.5% in 2017. In respect of the 2015/16 budget, the Government announced plans for public transport upgrades and higher health-care spending over the next five years. The downside is that financing costs may rise as local interest rates tend to follow the United States federal fund rate, given the country's main lever of monetary policy is

the nominal effective exchange rate. In December 2015, the Singapore interbank rate rose to its highest level in more than seven years.

Thailand

Thailand's economy experienced a mild recovery in 2015 with growth rising to 2.8% from a low base of 0.8% in 2014. Consumer spending on non-durables expanded moderately, benefiting from two interest rate cuts in the first half of 2015 and soft loans for farmers and small-scale entrepreneurs. Purchases of durable goods remained low, however, in part due to high household debt and weak rural incomes. Meanwhile, private investment continued to contract partly owing to large excess capacity in the manufacturing sector. New investments were limited to some sectors, such as telecommunications and alternative energy. Public investment showed signs of improvement, growing by an estimated 22% in 2015 after having contracted in the previous two years. Exports remained weak as shipments of agricultural commodities, electronics and petrochemicals were disappointing. Trade in services was a bright spot, however, with tourism revenues reaching nearly a tenth of GDP, despite the bombing incident that occurred in Bangkok in August 2015.

Economic growth is projected to increase gradually to 3.2% in 2016 and 3.5% in 2017. Consumer spending is expected to recover further, benefiting from relatively mild inflation, low interest rates and stimulus measures introduced in late 2015, although high household debt and weak rural incomes will continue to act as a drag on spending on durable goods. Private investment is set to return to positive growth in 2016 on the back of economic stimulus programmes and strong public investment. The Government announced measures to support small and medium-sized enterprises and the real estate sector, a number of tax incentives and initiatives to expedite investment promoted by the Board of Investment. Meanwhile, several public infrastructure projects were recently begun, and the Government plans to spend $83 billion over seven years on new railways, roads and customs ports. A $3.5 billion fund was also approved as part of an effort to attract more private participation in infrastructure.

One immediate policy challenge is to tackle high household indebtedness. The household debt-to-GDP ratio has almost doubled in the past decade to about 80% in 2015, with a higher debt service ratio among low-income groups. Given that the debt problem is linked to poverty and inequality issues, efforts are needed to strengthen rural incomes which have been affected by drought and lower agricultural commodity prices. Social protection could also be strengthened. A positive step was the launch of the National Savings Fund in August 2015, which will provide social insurance for the self-employed, such as farmers, vendors, taxi drivers and daily wage earners. The fund will be co-financed by the Government. To increase its fiscal resources, the Government reduced fuel subsidies and implemented new inheritance and gift taxes.

Timor-Leste

Economic growth in Timor-Leste is estimated to have contracted since 2013 owing to declining petroleum production.[18] The economy is heavily dependent on oil, with oil revenues accounting for about 80% of GDP. For 2015, economic growth in non-oil sectors moderated to 4.3% from 5.5% in 2014 due to weaker government spending and delays in several large-scale private investment projects. Inflation remained low at about 1% in 2015 amid lower global commodity prices and appreciation of the United States dollar, which is used as the national currency, against the majority of the country's trading partners. The current account surplus is estimated to have shrunk notably to 4.3% of GDP in 2015 from almost 25% of GDP in 2014 due to declining oil and gas receipts, lower investment returns and higher imports driven by public works.

For the whole economy, a further contraction is still expected in the near term. The decline in global oil prices has resulted in a 56% reduction in forecast petroleum revenues for the period 2016-2022 and a 15% reduction in the country's estimated total petroleum wealth. The position of the Timor-Leste Petroleum Fund recently deteriorated from nearly $17 billion in 2014 to $16.4 billion in September 2015, and more withdrawals are needed to finance planned expenditures in coming years. Meanwhile, growth of non-oil sectors is set to pick up to 5-5.6% in 2016 and 2017 on the back of sustained government spending and higher foreign investment.

The country plans to achieve upper-middle income status with a well-educated and healthy population by 2030. The Government's strategy is to frontload spending to build the required infrastructure to attract foreign investment in agriculture, mining and tourism. Business-friendly legal and regulatory frameworks have also been put into place. As hydrocarbon reserves are expected to be depleted in about a decade, there is a need to increase revenue collection. Targeted social spending would help to reduce the poverty rate; currently half the total population is considered poor.

Viet Nam

The economy of Viet Nam expanded by a robust 6.7% in 2015 compared with 6% in the previous year. Recovery in domestic demand gained momentum. Favourable consumer sentiments were underpinned by low inflation, which dropped to only 0.6% in 2015 from 4.1% in 2014 and more than 11% on average in the preceding three years. Total investment grew by 9% amid robust FDI inflows and rising government expenditures marking completion of the country's five-year planning cycle. Exports of foreign-invested, higher-value sectors, such as mobile telephones and electronics, continued to expand rapidly, while commodity exports were more subdued. In addition to diversification into higher-value products,[19] a competitive exchange rate helped to boost the export of manufactures. The central bank devalued the currency three times in 2015 by a cumulative 3% and widened the trading band in an effort to preserve stability in the currency market.

Economic growth is projected to edge up further to 6.8-6.9% in 2016 and 2017 mainly owing to continued strong performance in domestic private demand. Consumer spending would be supported by increases in real incomes and credits. Investment should benefit from government measures to enhance the business environment, including the March 2015 resolution on improving the ease of paying taxes and border clearance procedures. The Trans-Pacific Partnership trade agreement is also expected to attract more foreign investment to build up export capacity, although more stringent environmental and labour requirements may raise production costs in the short run. The conclusion of the free trade agreement with the European Union, which accounts for one fifth of total exports, would provide a boost to the economy.

Despite strong growth performance in recent years, macroeconomic policy management remains a challenge. On the monetary front, reported non-performing loans have declined to about 3% of total loans; this improvement is due in part to transfers of default credits to the country's asset management company, which had purchased roughly $10 billion in bad debts as of October 2015. The resolution of these bad debts, however, has been slow in the absence of an adequate legal framework. On the fiscal front, countercyclical fiscal policy during the past few years has weakened the country's fiscal position. The budget deficit reached 6.6% of GDP in 2015, while public debt edged up to 61% of GDP. Declining oil revenue and a further cut in corporate income tax rates constrained revenue collection. Meanwhile, amid increasingly limited access to concessional external finance, the Government has relied mainly on domestic debt, which involves higher borrowing costs and results in shorter maturity of the public debt profile.

5.2. A selected policy challenge: improving tax policy and administration

Competition across countries to attract more foreign investment by offering generous tax benefits is not always welfare-enhancing

An important function of Government is to collect taxes for the provision of public goods, such as education, health care and infrastructure. For South-East Asia, total tax revenues as a share of GDP ranged between 12.4% in Indonesia and 19.6% in Thailand in 2013.[20] While the "optimum" tax-to-GDP ratio would depend on a number of factors − such as a country's preference for public goods, the availability of non-tax revenues and the structural characteristics of the economy − by all accounts, there seems to be room for increasing tax revenues in a number of countries. For instance, it was found in a study that Indonesia's potential tax-to-GDP ratio is approximately 4-5 percentage points higher than the actual level (ESCAP, 2014a).

Intuitively, tax revenues can be below "potential" for two reasons: a tax law which allows for various exemptions and the imperfect implementation of the tax law. For instance, in South-East Asia, the tax base tends to be narrow due to various exemptions and incentives, such as tax holidays and investment allowances, while tax compliance is undermined by weak enforcement and inadequate taxpayer services. These two gaps are discussed below for different income and consumption taxes.

The contribution of personal income tax to total government revenue is generally low, despite a rapid increase in the number of high-income individuals and the need for income redistribution amid rising inequality. Personal income tax revenue as a share of GDP ranged from 0.8% in Indonesia to 2.4% in Malaysia in 2012. While raising the top marginal rate may be difficult, partly due to the need to align corporate and personal tax rates to some extent,[21] there appears to be room to lower the income threshold for the top bracket, particularly in the Philippines, Thailand and Viet Nam, where the threshold is 23-30 times higher than the countries' per capita income (ESCAP, 2014a). At the same time, compliance measures can be strengthened, especially for high-income individuals and self-employed professionals who have greater

opportunities for tax evasion and avoidance compared with salaried employees whose wages are subject to withholding. Some such people may not even be registered. For instance, it is estimated that, out of a population of 255 million in Indonesia, at least 44 million should be paying taxes, whereas the reality is that just 27 million are registered and only 10 million actually pay income tax in full every year.[22]

A major source of government revenue, corporate income tax, is increasingly coming under pressure due to greater global economic integration, including mobility of capital. Corporate income tax contributed between 3.5% of GDP in the Philippines and 9% of GDP in Malaysia in 2012. While a declining corporate income tax rate is a worldwide trend, the issue seems to be exacerbated in South-East Asia with ASEAN integration. Since the adoption of the ASEAN Economic Community Blueprint in 2007, several countries have further reduced their corporate income tax rate and expanded tax incentives and exemptions for investors (see table 2.1). Viet Nam lowered its corporate income tax rate from 25% to 22% in 2014, and plans to lower it to 20% in 2016. In August 2015, Indonesia expanded its tax holiday from 10 to 20 years, while Thailand's new investment promotion strategy expands provisions for reduced rates. This is in contrast to the trend in OECD countries, where revenue loss from lower rates has been offset by base-broadening measures.[23] Therefore, tax coordination among ASEAN member countries seems desirable in order to avoid excessive tax competition. In addition, tax incentives can potentially erode revenues further by making enforcement more challenging. For instance, investors could use transfer pricing to funnel profits from an existing profitable company through the "tax holiday" company and completely avoid paying taxes (World Bank, 2015c).

Value-added tax (VAT) has helped to offset revenue losses from trade liberalization. VAT revenues in 2012 stood at between 2.2% of GDP in the Philippines and 4.5% of GDP in Thailand. Malaysia introduced a goods and services tax, a variant of VAT, in April 2015 to broaden its tax base and reduce its reliance on oil revenues. Despite the relative success of VAT, there seems to be room to expand its base in the subregion, as there are currently many exemptions and a zero-rating on such areas as petroleum products and legal services. The services sector in particular tends to maintain traditional sales taxes and has yet to transition to VAT, which encourages production efficiency and tax compliance. Another issue is VAT collection for small businesses. While small companies may have limited revenue potential, bringing them into the tax net produces several benefits, such as enhanced taxpayer morale and record-keeping capacities (IMF, 2011). At the same time, current VAT rates in the subregion are generally lower than in other parts of the world and there seems to be room to raise rates, especially in Malaysia and Thailand. Conceptually, VAT should facilitate compliance through a built-in incentive structure. However, automatic audits on all VAT refund claims, as practised in many countries, tend to increase compliance costs for smaller firms while overlooking unreported cash transactions which could be better tackled through risk-based auditing.

Table 2.1 **Statutory tax rates in 2015**

(Percentage)

	PIT	CIT	VAT/ sales tax	SS-EE	SS-ER	WHT
Brunei Darussalam	..	20	..	8.5	..	..
Cambodia	20	20	10	..	0.8	14
Indonesia	30	25	10	2	5.74	20
Lao People's Democratic Republic	25	24	10	5.5	6	10
Malaysia	25	25	6	11	12	..
Myanmar	25	25	5	1.5	2.5	..
Philippines	32	30	12	3.63	7.37	15
Singapore	20	17	7	20	17	..
Thailand	35	20	7	4	5	10
Viet Nam	35	22	10	8	18	..

Sources: National tax administrations and the professional services company, KPMG.

Note: PIT = personal income tax (top marginal rate); CIT = corporate income tax (top marginal rate); VAT = value-added tax (standard rates for both VAT and sales tax); SS-EE = social security contributions by employee; SS-ER = social security contributions by employer; and WHT = withholding tax on dividends. No entry indicates that such taxes are not collected.

Successful tax reform requires more effective coordination among relevant agencies and greater use of information technology in tax administration

Tax reforms can be challenging and require strengthening of institutional capacity and effective governance, which cannot be achieved overnight. Setting medium-term strategies and targets is therefore recommended. Political leadership is critical. To ensure that tax policy and administration are properly aligned, Governments could focus more on improving coordination among finance ministries, boards of investment and other bodies that grant tax incentives, regional and local governments and the revenue administration. To narrow policy gaps, a recommendation highly relevant but not limited to corporate income tax is that Governments publish tax expenditures as part of their national budget reporting to enhance transparency and encourage proper cost-benefit analysis of tax exemptions and incentives.

Countries could also intensify regional dialogue to curb excessive tax competition. With regard to personal income tax, in view of the increasing challenges of implementing a global income tax, Governments may consider adopting a dual income tax, which levies a proportional rate on capital income and a progressive rate on labour income. Tax compliance-related priorities include effectively engaging taxpayers in the process of registration, collection, audit and appeal, while making good use of information technology and modern tools of tax enforcement, such as withholding and third-party information sharing. Staff development is critical for all these activities. Better taxpayer services are needed to encourage voluntary compliance. As noted in the case of VAT, risked-based audits rather than automatic audits on all refund claims could help ease administrative pressure and improve compliance.

Additionally, it seems that corrective taxes, such as those levied on tobacco or fuel, are underutilized in South-East Asia, but they could contribute to revenues and enhance social welfare by addressing health and environmental externalities. Examples include the Philippines' excise tax on alcohol and tobacco and Viet Nam's environmental protection tax. Wealth-related taxes, such as those on property, inheritance or capital gains, are also underutilized, but could be a stable and progressive source of revenue, including for local governments. An example is Thailand's new inheritance tax and gift tax. While these taxes may not help boost revenue as much as VAT, the marginal impact could still be significant.

Endnotes

[1] For the range of the country's economic growth rates, see United Nations, Department of Economic and Social Affairs, National Accounts Main Aggregates Database. Available from http://unstats.un.org/unsd/nationalaccount/data.asp (accessed 20 December 2015).

[2] For further details, see Global Information and Early Warning System and Food and Agriculture Organization of the United Nations, GIEWS Country Briefs. Available from www.fao.org/giews/countrybrief/country.jsp?code=PRK.

[3] The first phase of construction was started in 2010 and completed in 2013 at a total cost of $6.6 billion. The project is expected to produce annually 430,000 tons of cooper and 425,000 ounces of gold.

[4] This conclusion is based on data contained in Organisation for Economic Co-operation and Development, *Pensions at a Glance 2013: Retirement-Income Systems in OECD and G20 Countries* (Paris, OECD Publishing, 2013). Available from http://dx.doi.org/10.1787/pension_glance-2013-en. It is also based on information from various other sources.

[5] For rankings under the Doing Business project, see www.doingbusiness.org/rankings and http://data.worldbank.org/indicator/IC.BUS.EASE.XQ.

[6] For more details, see European Bank for Reconstruction and Development (EBRD), "Forecasts, macro data, transition indicators". Available from www.ebrd.com/what-we-do/economic-research-and-data/data/forecasts-macro-data-transition-indicators.html; *Transition Report 2015-16* and *Transition Report 2015: Rebalancing Finance* (London, EBRD, 2015). Available from www.ebrd.com/documents/oce/pdf-transition-report-201516-english.pdf, and www.ebrd.com/news/events/transition-report-2015-rebalancing-finance-.html, respectively.

[7] For details, see www.worldbank.org/projects/P133255/pacific-catastrophe-risk-insurance-pilot-program?lang=en and pcrafi.sopac.org.

[8] The roadmap is available from www.sprep.org/2011sm22/pdfs/eng/Officials/WP_8_2_1_Att_1_PIFACC%20Roadmap.pdf

[9] Opium production, which is illegal, was reported to have dropped to about 3,300 tons in 2015, or an amount almost 50% lower than that in 2014. The area devoted to cultivation of the opium poppy fell in 2015 for the first time since 2009. For more details, see United Nations Office on Drugs and Crime and Afghanistan, Ministry of Counter-Narcotics, "Afghanistan Opium Survey 2015: executive summary". Available from www.unodc.org/documents/crop-monitoring/Afghanistan/Afg_Executive_

summary_2015_final.pdf. The full report will be available in 2016.

[10] This information is based on the Afghanistan Chamber of Commerce and Industries "ACCI Business Tendency Survey Report, June 2015". Available from www.acci.org.af/media/7th%20ACCI%20Business%20Climate%20Monitor%20Survery%20(English)_%20June%202015.pdf.

[11] Energy distributor payment arrears were estimated to be 1.4% of GDP in 2012/13, with collection challenges feeding into intercompany debt problems within the energy sector. For details, see International Monetary Fund, "Pakistan: Staff report for the 2015 Article IV consultation" (Washington, D.C., IMF, 2016). Available from www.imf.org/external/pubs/ft/scr/2016/cr1601.pdf.

[12] Based on various initial estimates reported in media.

[13] The participation rate among urban women has been largely stable in past decades. The rate among rural women decreased from about 33% in 2004/05 to 25% in 2011/12, likely due to higher school enrolment, agricultural mechanization and higher household income. As a country with a young population and increasing educational enrolment, the female participation rate, typically based on the age group of 15-64, would appear low in India because many girls are in school. Once adjustment has been made for girls aged 15-21 years, the participation rate among urban women in 2004/05 would increase from 25% to 36%. For more details, see Sonali Das and others, "Women workers in India: why so few among so many?" IMF Working Paper WP/15/55 (Washington, D.C., International Monetary Fund, 2015), and Surjit Bhalla and Ravinder Kaur, "Labour force participation of women in India: some facts, some queries", Asia Research Centre Working Paper 40 (London, London School of Economics and Political Science, 2011).

[14] Parental leave should be funded fully by the Government so that the cost involved is not a factor when employers consider hiring women. Data in a recent publication suggest that this is currently the case only in the Islamic Republic of Iran, Pakistan and Turkey. For details, see World Bank, *Women, Business and the Law 2016: Getting to Equal* (Washington, D.C., 2016).

[15] For example, a study showed that in societies where the dominant agricultural practice during the pre-industrial period required stronger body strength thus giving more economic roles to men, there is weaker female participation in job markets and politics today. For details, see Alberto Alesina, Paola Giuliano and Nathan Nunn, "On the origins of gender roles: women and the plough", *Quarterly Journal of Economics*, vol. 128, No. 2, pp. 469-530.

[16] The agricultural sector accounts for a third or up to two thirds of total employment in most countries and consists largely of small-scale subsistence farmers. In Indonesia and the Philippines, nearly a third of those employed across all sectors earn less than $2 a day.

[17] The share of dollar-denominated debt in total non-financial corporate debt as of mid-2015 has been estimated at 10% in Malaysia, 29% in the Philippines and 52% in Indonesia. For details, see Robert McCauley, Patrick McGuire and Vladyslav Sushko, "Dollar credit to emerging market economies", *BIS Quarterly Review*, 6 December 2015, pp. 27-41. Available from www.bis.org/publ/qtrpdf/r_qt1512e.htm.

[18] The latest available official data show that the economy contracted by 13.9% in 2013 compared with its positive growth rate of 5.2% in 2012.

[19] The share of higher-value exports, such as telephones, computers and related components, has increased to a third from less than 5% a decade ago, while the share of primary commodities fell.

[20] Excluding Brunei Darussalam and Timor-Leste, which derive most of their government revenues from the oil and gas sectors, with a fine line drawn between tax and non-tax revenues.

[21] This step is intended to minimize the incentive for shifting income from a personal to corporate tax base, for instance by changing the form of compensation, activity or asset.

[22] Estimates by Indonesia's Ministry of Finance, as cited in Ben Otto, "Can Indonesia boost tax revenue by 30%? Good goal, economists say, but no", *Wall Street Journal*, 14 April 2015.

[23] Countries in South-East Asia typically offer firms five to eight types of tax incentive compared with only one or two in many developed economies. The literature suggests that reduced tax rates and incentives can attract foreign investment, but only where other business conditions are good.

UNDER EMBARGO UNTIL 12.00 HRS., BANGKOK TIME, THURSDAY, 28 APRIL 2016

SHUTTERSTOCK (JOHAN LARSON)

CHAPTER

3

INCREASING PRODUCTIVITY FOR REVIVING ECONOMIC GROWTH AND SUPPORTING SUSTAINABLE DEVELOPMENT

Spectacular economic growth has been witnessed in the Asia-Pacific region over the last few decades. In most economies in the region, this growth has been driven primarily by factor accumulation, that is, by increases in the size of the labour force and by increases in the capital stock through investment, including from abroad. At the same time, significant increases in productivity, particularly in labour productivity, have also taken place throughout the region. However, the slowdown in economic growth that has been observed since 2010 has increased the difficulties faced by Asia-Pacific economies in terms of dealing with their numerous development challenges.

Rates of economic growth and productivity growth have slowed in the region

The high levels of economic and productivity growth in previous decades have enabled the region to make significant advances in development, including attainment of the first target under Millennium Development Goal 1 to "halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day".[1] This accomplishment has put the region in a well-placed position potentially to end poverty in all its forms everywhere, thereby also meeting the first goal of the 2030 Agenda for Sustainable Development. However, economic growth has slowed considerably in recent years, reaching only 4.6% in 2015 in the developing economies in the region, less than half of the rate of 9.4% that had been the average in the pre-crisis period of 2005-2007. This slowdown in rates of economic growth has also been accompanied by a slowdown in rates of productivity growth. Indeed, almost a fifth of the economic slowdown can be attributed to the deceleration in total factor productivity growth that took place during the period 2008-2013.

The declines in economic growth and productivity growth are worrying as both play a vital part in the development process. Indeed, the region's experience over recent years has shown that, while economic growth is not sufficient for development to be sustainable, it is clearly a necessary component for that to take place. If economic growth is not addressed, the slowdown will make it more difficult for the region to deal with its unfinished development agenda, which includes: (a) lifting 639 million people, equivalent to more than half of the global total of extremely poor people, out of poverty; and (b) tackling remaining challenges in the areas of health, education, gender equality, decent employment and access to safe sanitation and drinking water, by, for instance, enrolling 17.3 million children in primary school, ensuring that 70 million children are no longer underweight and providing a staggering 1.5 billion people with access to safe sanitation (ESCAP, 2015c).

In addition to the observed decline in productivity growth, it is also apparent that higher levels of productivity have not been translated into commensurate increases in real wages. Indeed, labour's share of output has declined in recent years for the region as a whole, and this situation has contributed to rising levels of inequality – of incomes and opportunities – that had taken place in the region since the 1990s, and has suppressed aggregate demand. Moreover, in many economies in the region, rising levels of debt have been supporting aggregate demand. Clearly, economic growth supported by sustained increases in real wages would be better than accumulation of private debt, as the latter tends to aggravate inequalities and often leads to severe economic instability with attendant consequences.

Domestic and regional factors should play a larger role in driving growth in the region

To make growth more sustainable and inclusive, the region should shift to a development model in which domestic and regional factors play a larger role in driving growth. Indeed, with the global financial and economic crisis of 2008 highlighting the Asia-Pacific region's vulnerability to external shocks due to its excessive reliance on exports, policymakers should view the overhang of the crisis as an opportune impetus for making a catalytic shift to such a development model – one that is intrinsically more stable and more sustainable.

Strengthening productivity is a critical element to this catalytic shift and to making growth more resilient and sustainable. While large pools of surplus labour have been absorbed in many economies, higher productivity growth is vital in fostering domestic demand, especially in those economies where the size of the labour force is forecast to stagnate due to population dynamics. Moreover, to foster domestic demand, countries will also need to pass on productivity gains to workers and strengthen investment in human resources to further improve productivity and competitiveness (ILO, 2015d).

Strengthening productivity and reversing the decline of labour's share in income is particularly important in view of the 2030 Agenda for Sustainable Development, which was adopted by the international community in September 2015.[2] The 2030 Agenda covers 17

Sustainable Development Goals and provides a framework for the formulation of future development policies. For instance, higher standards of living and greater levels of productivity (and wages) will enable countries to: "end poverty in all its forms everywhere" (Goal 1); "end hunger, achieve food security and improved nutrition and promote sustainable agriculture" (Goal 2); and "reduce inequality within and among countries" (Goal 10). In particular, a crucial component for strengthening domestic demand will be fostering productivity growth in agriculture and strengthening rural industrialization in view of the fact that more than half the region's population still lives in rural areas. Indeed, evidence from the region suggests that countries that have developed successfully have done so on the back of rapid industrialization rather than leapfrogging from agriculture to service-based economic structures.

The 2030 Agenda can play a pivotal role by guiding and facilitating the shift to such a development model, as investing in the Sustainable Development Goals will also foster productivity growth, creating a virtuous cycle between sustainable development and productivity. For instance, social policies that contribute to expanding investment in health and education to reach Goal 3 ("ensure healthy lives and promote well-being for all at all ages") and Goal 4 ("ensure inclusive and equitable quality education and promote lifelong learning opportunities for all") will strengthen productivity by improving skills in the labour force (see figure 3.1). Similarly, economic and sectoral policies may strengthen productivity if they "ensure access to affordable, reliable, sustainable and modern energy" (Goal 7) and "build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation" (Goal 9).[3]

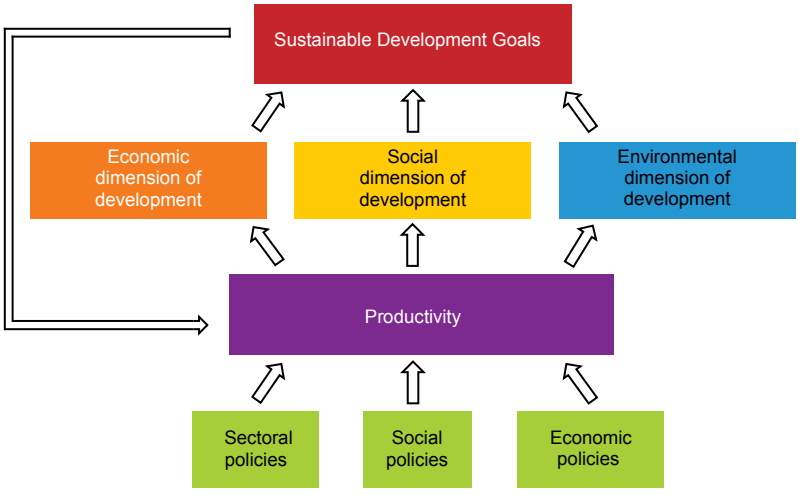
In view of the prevailing development challenges facing the Asia-Pacific region, member States therefore need to embrace fully the Sustainable Development Goals.

In section 1 of this chapter, an analysis is presented of trends in productivity in the Asia-Pacific region since the 1990s, differentiating between labour productivity and total factor productivity. Also presented in that section is a growth accounting analysis for selected Asia-Pacific economies. Section 2 contains a discussion of determinants of productivity that have been identified in the literature. In section 3, the link between productivity and the Sustainable Development Goals is drawn and their linkages in the region are analysed quantitatively. Section 4 contains a discussion of policies that are likely to increase productivity for sustainable development and analyses of the link between labour productivity and wages. Section 5 concludes.

1. ANALYSIS OF TRENDS IN PRODUCTIVITY IN THE ASIA-PACIFIC REGION

Growth in output (economic growth) typically results from the accumulation of factor inputs (usually capital and labour) in the production process, for instance by using more capital or by employing more people. Indeed, in the Asia-Pacific region, economic growth has been driven largely by factor accumulation.[4] Economic growth can also take place when firms are able to

Figure 3.1 **Framework linking productivity to the Sustainable Development Goals**



increase levels of output by using existing inputs more efficiently and effectively. This step is accomplished when firms increase *productivity*. Productivity can be assessed in terms of *levels* and in terms of *growth*. It can also be analysed at different levels, for instance across firms or across sectors, or across a country as a whole.

A country that has a higher *level of productivity* than another one is able to produce more with the same amount of inputs and is thus comparatively more competitive. In contrast, countries with higher *productivity growth* experience larger relative increases in their output than those with lower productivity growth rates. With this being said, however, across sectors industrial/manufacturing productivity tends to grow faster than agricultural productivity due to a variety of factors, including technological change, economies of agglomeration and economies of scale.[5] Moreover, as the share of the manufacturing sector in GDP increases, so does aggregate productivity growth, as labour moves from a relatively low productivity sector, such as agriculture, to a higher productivity sector, such as manufacturing (Junankar, 2014).

In most economies in the region, output growth has been driven by capital and total factor productivity

In studying the composition of economic growth in recent years for selected Asia-Pacific economies, one can see that the contribution of different factors of production to growth varies across countries due to differences in inputs, such as labour and capital and total factor productivity (TFP). In general, accumulation of physical capital and TFP are the main drivers of total output growth in most economies in the region, whereas the contribution of labour plays a less important role (see table 3.1). However, no attempt is made in this chapter to analyse the productivity of capital. For one, data are lacking on capital stock by activity and on the utilization rate of capital. Thus, unlike employment data, capital stock data are not widely available at the industry level, which limits the possibility of performing detailed cross-sectoral analyses. Furthermore, capital productivity is likely to be affected by the usage rate of capital inputs at the firm level, particularly during periods of economic slowdown. Again, data on the utilization rate of capital

Table 3.1 **Percentage contribution of input factors and total factor productivity to output growth in selected Asia-Pacific economies in various periods – growth accounting**

Countries	1990s			2000s			1990-2011		
	Physical capital	Labour force	TFP	Physical capital	Labour force	TFP	Physical capital	Labour force	TFP
Armenia	-2.7	-34.6	137.3	25.8	0.2	73.9	13.6	-14.7	101.1
Australia	49.4	-18.4	68.9	64.5	56.7	-21.2	58.0	24.6	17.4
China	45.0	8.2	46.7	63.4	4.6	32.0	55.6	6.1	38.3
Fiji	9.4	34.4	56.2	14.4	13.7	72.0	11.9	24.0	64.1
India	59.1	14.0	27.0	48.5	16.2	35.3	53.0	15.2	31.8
Indonesia	82.9	17.0	0.1	57.5	15.2	27.4	68.3	15.9	15.7
Iran (Islamic Republic of)	21.4	30.3	48.3	55.9	30.3	13.8	38.7	30.3	31.0
Japan	75.8	20.5	3.7	14.3	5.8	79.9	45.0	13.1	41.8
Kazakhstan	-23.4	-15.6	138.9	42.1	14.4	43.5	14.0	1.5	84.4
Kyrgyzstan	-4.1	17.9	86.2	21.3	21.8	56.9	8.6	19.8	71.6
Malaysia	48.3	19.5	32.2	50.8	22.0	27.2	49.7	21.0	29.3
Mongolia	15.4	1.4	83.3	23.3	21.4	55.3	19.9	12.8	67.3
New Zealand	37.5	32.2	30.3	64.9	35.0	0.1	51.2	33.6	15.2
Philippines	30.4	38.2	31.4	68.1	27.8	4.1	52.0	32.3	15.8
Republic of Korea	50.9	20.8	28.3	60.1	19.6	20.3	55.5	20.2	24.3
Russian Federation	-2.0	3.2	98.8	4.7	7.6	87.7	1.3	5.4	93.3
Singapore	59.3	21.2	19.4	40.1	9.9	50.0	49.7	15.6	34.7
Sri Lanka	21.4	25.6	53.0	22.2	28.8	48.9	21.9	27.4	50.7
Tajikistan	-12.3	3.6	108.7	-16.3	2.9	113.4	-14.6	3.2	111.4
Thailand	45.2	3.0	51.7	38.5	24.4	37.1	41.9	13.7	44.4
Turkey	75.8	17.5	6.7	69.7	13.2	17.0	72.3	15.1	12.6

Sources: ESCAP calculations, based on Penn world table 8.1. See Robert C. Feenstra, Robert Inklaar and Marcel P. Timmer, "The next generation of the Penn world table", *American Economic Review*, vol. 105, No. 10, pp. 3150-3182.

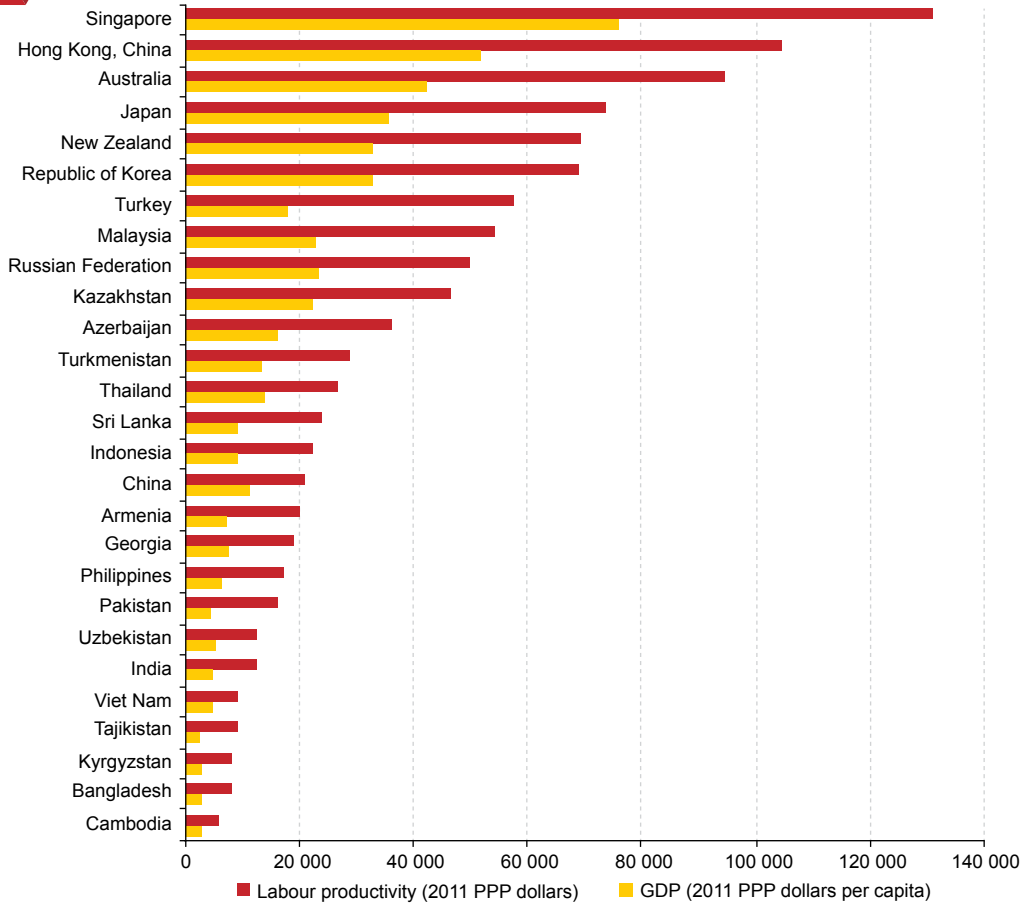
inputs are not widely available. Thus, this chapter is focused on variables which are regularly analysed at the macroeconomic level, such as total factor productivity, or variables which enable cross-sectoral analyses, such as labour productivity.

Notably, in resource-rich countries, such as the North and Central Asian economies, the contribution of TFP in total output growth is more dominant. One reason may be due to the fact that extracting natural resources is a relatively more technologically intensive process than that of other economic activities. Yet, additional factors, such as the transition from a centrally planned economy, are also likely to have played a large role.[6] In general, the role of TFP in output growth can be explained by technological absorption (Park, 2010). However, due to measurement issues, as TFP is determined as a residual, the concept of TFP technically also encompasses a whole array of other factors that are not directly related to productivity.

1.1. Labour productivity

Productivity is measured relative to an input. Thus, *labour productivity* refers to the amount of output that is produced relative to the amount of labour that is used. It has been argued that "[improving] a country's ability to [raise]… its standard of living over time depends almost entirely on its ability to raise its output per worker" (Krugman, 1992). One simple way to measure labour productivity is by calculating the ratio of output (GDP) per employed worker.[7] As shown in figure 3.2, labour productivity can differ significantly from GDP per person due to differences in the size of the labour force relative to that of the total population.[8] Correspondingly, in some economies in the region there are large differences between labour productivity and output per person: in Tajikistan, labour productivity is 4.6 times greater than GDP per capita; in several countries, including in Cambodia, Kyrgyzstan, Pakistan, Uzbekistan and

Figure 3.2 **Labour productivity and output per person in selected economies, 2013**



Source: ESCAP calculations, based on data from the ESCAP Statistical Database.

Note: Labour productivity and GDP per capita are measured at constant 2011 PPP prices.

Viet Nam, labour productivity is more than three times greater than GDP per capita.

Growth in labour productivity is declining in the region

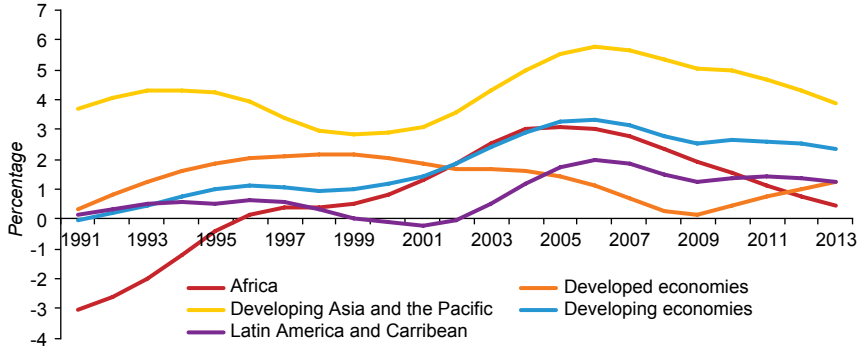
In recent years, growth in labour productivity has declined in the Asia-Pacific region. In looking at long-term trends, labour productivity growth in developing Asia-Pacific economies was the highest among developing regions of the world, at least since the 1990s, and exceeded that of developed economies by a significant margin (see figure 3.3). Indeed, due to this high growth in labour productivity, the gap in the level of productivity with developed economies has been roughly halved, with the labour productivity of developed economies being about 12 times higher in 2013 compared with 24 times higher in 1990. Yet, since the 2008 financial and economic crisis, growth in labour productivity has started to decline in the region. Moreover, with growth, labour productivity has in fact accelerated in developed economies since 2010; the margin between the two has declined significantly.

This slowdown in the growth of labour productivity may be linked to the procyclical behaviour of productivity (Hultgren, 1960), also referred to as *short-run increasing returns to labour*. However, as total factor productivity continued to grow during the past several years, the procyclicality of productivity cannot be explained by the real business cycle approach, in which TFP is considered as the key explanatory factor in business fluctuations.[9] The ongoing slowdown in labour productivity in the Asia-Pacific region could be explained mainly by labour hoarding (Bernanke and Parkinson, 1991). This is because, during the period 2007-2013, the unemployment rate in several economies in the region remained mostly stable in comparison with the significant increases recorded in developed economies. This situation may be due to costly hiring and firing, but may also stem from the fact that reducing the number of workers may require organizational change. Price rigidity could also trigger the procyclical behaviour of productivity because, during a phase of low demand, marginal costs of firms which incorporate fixed costs and wages, could exceed the prices set before the realization of the demand, particularly if firms hoard labour (Rotemberg and Summers, 1988).

Rising/declining labour productivity does not, however, necessarily mean that a rising/declining contribution is being made by the existing workforce in a particular sector. For one, changes in aggregate labour productivity can arise from a sectoral shift away from low productivity sectors to high productivity sectors. Labour productivity can increase because of a rise in organizational efficiency, upgraded technology or simply a rise in capital accumulation. In the Indian context, for instance, capital accumulation, particularly in the manufacturing sector, has been a significant phenomenon that has contributed to rapid growth in labour productivity (Kato and Mitra, 2008).

Therefore, rapid growth in labour productivity must not be seen necessarily as a positive indicator of development. Rather, the limitations associated with such growth need to be kept in view. For instance, some of the technology that is imported from developed countries may offer only meagre possibilities for labour absorption as some technology may suit only the

Figure 3.3 **Trend in labour productivity growth by region**



Sources: ESCAP calculations, based on data from the ESCAP Statistical Database and the World Development Indicators database of the World Bank.

Note: The trend in labour productivity growth is a result of using the Hodrick-Prescott filter. Labour productivity is computed as the ratio of GDP, measured at 2005 constant prices in United States dollar terms, by the number of workers.

labour market situations of labour-scarce, high-income countries. With such technology, low levels of labour demand would translate into sluggish employment growth. Thus, the skill bias of modern technology and/or rapid capital accumulation can reduce the pace of absorption of unskilled labour. This could contribute to stretches of low productivity activities, particularly in the informal sector, by compromising the residual absorption of labour. In fact, it seems that in the Asia-Pacific region, relocation of labour into sectors with higher productivity has been less of a driver of growth in labour productivity than has actual growth in labour productivity *within* sectors.

Growth in labour productivity within sectors has been more important in the region than reallocation of labour into sectors with higher productivity

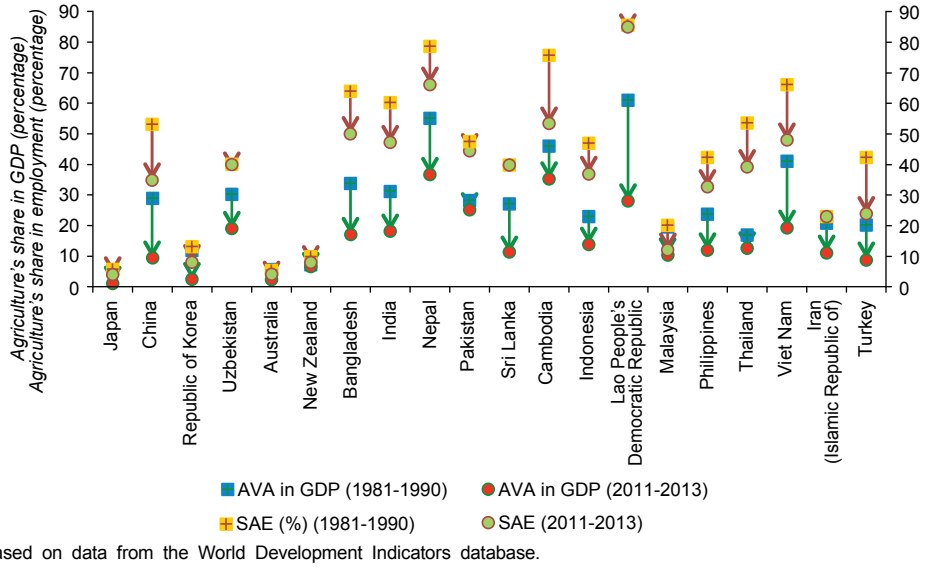
In agriculture, for instance, the value of production increased from $276 billion to $1,185 billion in aggregate terms between 1961 and 2013 in a sample of 23 countries in the region.[10] At the same time, agriculture's share in GDP declined much faster than the corresponding decline of agriculture in total employment. Specifically, agricultural value added in GDP declined by more than 50% from 19.1% for the developing countries in the region as a whole in 1990 to 9.9% in 2013, while the share of agriculture in total employment declined by about 20 percentage points to 36% of the labour force.

Many countries have not been successful in integrating "surplus labour" from agriculture into the rest of the economy

With the relative decline of agricultural value added in GDP and the share of agriculture in total employment differing across countries in the region (see figure 3.4), large gaps between the two generally indicate relatively faster growth of a national economy without a corresponding ability to absorb the expanding labour force. This declining contribution of agriculture in GDP is a major concern among policymakers, especially considering that 55% of people in the region lived in rural areas in 2014. Indeed, it could be suggested that a large number of countries in Asia and the Pacific have been unsuccessful in integrating "surplus labour" into the rest of the economy (Timmer, 2007).

To see these aspects in a better light, one can examine the *agricultural productivity gap*, which can be used as a proxy for labour misallocation across sectors.[11] Specifically, a gap that is close to one, as is the case only in Australia, New Zealand and Malaysia in the region (see figure 3.5), suggests that workers in the agricultural and other sectors are paid the value of their marginal product and that firms hire up to the point where the marginal value product of labour equals the wage. In contrast, labour appears to be particularly misallocated in China, Bangladesh, India, the Lao People's Democratic Republic and Sri Lanka (where the gap is larger than one); however,

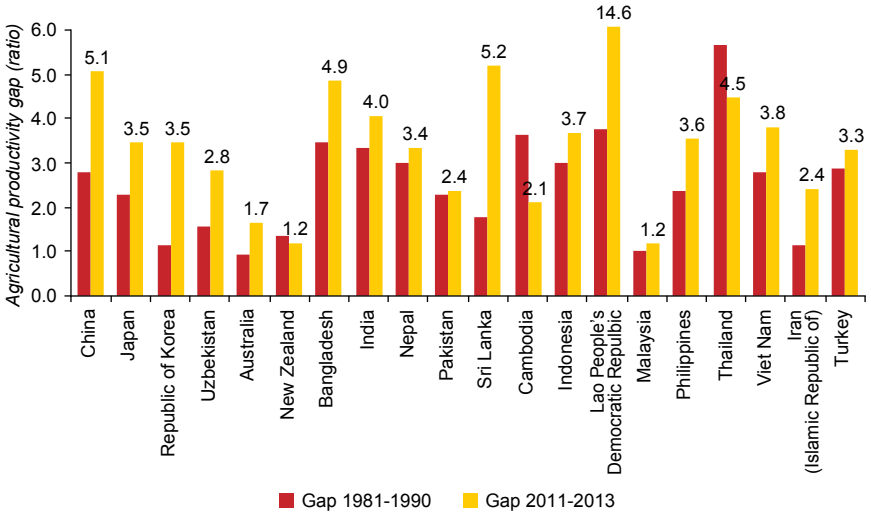
Figure 3.4 **Share of agriculture in GDP and employment**



Sources: ESCAP analysis, based on data from the World Development Indicators database.

Note: AVA = agricultural value added in GDP; and SAE = share of agriculture in total employment. Arrows in the figure indicate the direction and magnitude of change. Decadal averages were used in the graph to minimize a potential bias that may arise due to the selection of an inappropriate year for a particular year. Even this approach may have introduced some biases. For example, Uzbekistan has a limited number of observations for the earlier years, and Tajikistan was dropped because of the unavailability of data on earlier years.

Figure 3.5 Agricultural productivity gap

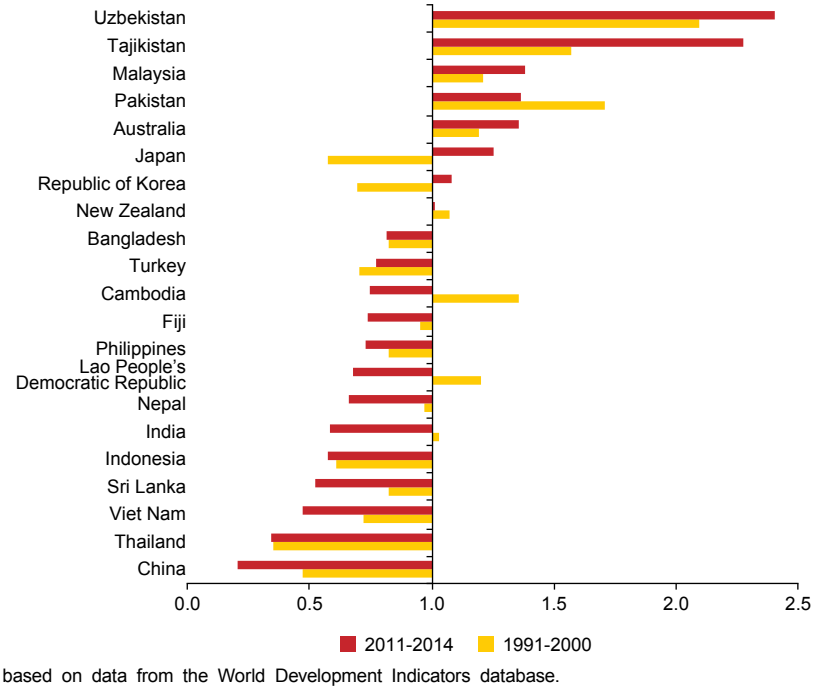


Sources: ESCAP analysis, based on data from the World Development Indicators database.

the degree of misallocation has in fact increased since the 1980s in most economies. Thus, where the gap is larger than one, aggregate output would increase even without increasing the amount of inputs employed in production if workers were reallocated out of agriculture − where the value of their marginal product is low − into other activities.

The relative position of agricultural incomes, measured by agricultural value added per worker, in comparison with GDP per capita also shows that agricultural value added per worker is below that of GDP per capita across a large number of countries; that ratio has declined significantly over the years in a large number of countries in the region. Figure 3.6 shows the ratio between the real values of agricultural value added per worker and per capita GDP for the periods 1991-2000 and 2011-2014.[12] It can be observed that values for agricultural value added per worker are below that of per capita GDP in many economies. Of

Figure 3.6 Ratio between agricultural value added per worker and per capita GDP



Sources: ESCAP analysis based on data from the World Development Indicators database.

the 23 countries surveyed, China had the lowest ratio between the two shares; that economy was followed by Thailand, Viet Nam, Sri Lanka and Indonesia in that order. In a number of countries, the gap has widened recently, meaning that agricultural workers have become relatively poorer. For example, in the case of China, agricultural value added per worker in the period 1991-2000 was $382 when per capita GDP was $813 (ratio of 0.47), but in the period 2011-2014, the values, respectively, were $721 and $3,503 (ratio of 0.21).

In this context, increasing labour productivity in agriculture is therefore important to increase incomes in the rural sector. For one, agriculture, although generally viewed as having little impact on industrialization and the larger economy, provides the basis for many other activities, including manufacturing. For instance, in several economies, including Indonesia, Pakistan, the Philippines and Viet Nam, *food, beverages and tobacco* contribute between 20% and 30% of total value added in manufacturing. In Nepal, the contribution is more than a third of total value added in manufacturing, and in Fiji, it reaches almost half (Wickramasinghe, 2016). In addition, as poverty rates in the rural sector are significantly higher than in urban sectors in many countries, accelerating productivity gains in the rural sector may have a larger impact on poverty reduction.

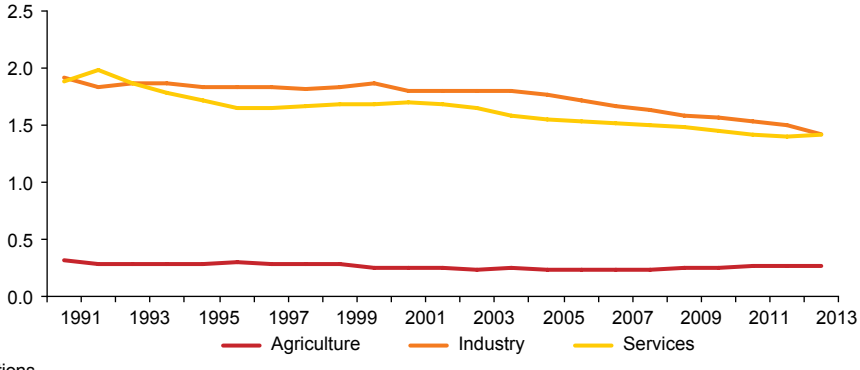
Unlike agriculture, industry's contribution to value added in GDP has remained almost constant in the Asia-Pacific region since the 1990s, decreasing only somewhat from 39% in 1990 to 37.1% in 2013.[13] In developed economies in the region, its share declined from 37.1% of GDP in 1990 to 26.6% in 2013. However, in contrast to agriculture, the share of employment in industry has expanded by more than a fifth in developing economies of the region since 1990 and now accounts for one in four workers (26.2%) (ESCAP, 2015b). In developed economies, the share of employment in industry declined by a quarter and now accounts for 24.3% of the labour force. While on a per worker basis, this share implies that productivity in industry has declined relative to other sectors in developing economies, it remains above that of other sectors (see figure 3.7). Moreover, the gap between productivity in industry to services has declined, and notably the gap to productivity in agriculture remains significant.

Value-added growth of GDP or any specific sector can be decomposed in terms of labour productivity growth and employment growth. In this regard, if labour productivity grows rapidly due to capital accumulation, the contribution to value-added generation by new additions to employment can be sluggish. Indeed, this phenomenon has been a striking feature of the organized (or formal) manufacturing sector in India (Mitra, 2013), where the correlation between productivity growth and employment growth is not negative but positive, albeit negligible.[14]

Developing economies in the region are deindustrializing too early

Many countries in the region are shifting from an agriculture-based economy to one in which services play a dominant role, a situation which has already occurred in other parts of the globe. For instance, India has evolved from being a largely agrarian economy to a service-led economy, leapfrogging the manufacturing stage in its economic transition and seeing the share of industry in value-added output in India peaking at 29.2% in 2007. Since then, that

Figure 3.7 **Relative productivity across sectors in developing Asia-Pacific economies**



Sources: ESCAP calculations.

Note: The graph shows the evolution of the ratio of value added in GDP per sector relative to the proportion of workers that are employed in that sector. A value less/greater than one implies that the proportion of workers working in that sector is greater/less than the proportion of value added in GDP that that sector accounts for.

share declined to 24.8% in 2013, a level that is below that of developed economies in the region (26.4% in 2013). Accompanying deindustrialization in India, the contribution of services to value-added output reached 57% in 2013, a level that developed economies in the region had breached only in 1980. This shift to services is coming at too early a level of development in many countries. Thus, GDP per person in India in 2013 was less than a fifth of that in developed economies in 1980.[15] With lower levels of GDP per person, demand for services will be significantly lower.

Indeed, the share of services in value added has increased by a quarter in ESCAP developing economies since the 1990s, accounting for more than 53.1% of total value added in 2013. This increase has been accompanied by a significant increase in the share of employment in services, which rose by 60% between 1990 and 2013 (reaching 37.6% of employment), compared with an increase from 20% to 71.9% of employment in developed economies. In terms of economic structure, developing economies in the region have deindustrialized and become more oriented towards services far earlier in the development process, that is, at far lower levels of income per capita than had been the case for developed economies.[16]

The early shift to a service-oriented economy that many countries in the region are experiencing may not be conducive for fostering development. One reason could be that services are not as tradable as manufactured goods; moreover, services do not usually exhibit the same technological dynamism, which therefore makes them a poor substitute for export-oriented industrialization (Rodrik, 2015). Moreover, it should be pointed out that, in general countries that have developed successfully, including, for instance, the Republic of Korea, have done so on the back of rapid industrialization.

The decomposition of aggregate labour productivity growth shows that in many Asia-Pacific economies, the contribution of the service sector to labour productivity growth is the most important one.[17] Moreover, while the agricultural sector contributed less to this growth (see table 3.2), the contribution of industry exceeded that of services only in Azerbaijan and China. Also, in terms of impact upon labour productivity, the reallocation of labour to higher productivity activities *within* sectors, as opposed to higher productivity activities *between* sectors, was more dominant in most countries, with the exceptions being Nepal and Thailand. Given the small contribution of agriculture to productivity growth and the large proportion of the labour force that is still engaged in this sector, it is thus imperative to strengthen the role of agriculture in the economy.

1.2. Total factor productivity

Total factor productivity accounts for effects in total output that are not caused by traditionally measured inputs of labour and capital. Therefore, TFP cannot be measured directly. Rather, several methodologies have been devised to measure TFP, including *growth accounting, regression-based analysis and stochastic frontier approaches*.[18] Behind these methodologies lies the assumption that factors other than pure increases in factor inputs, namely labour and capital, drive increases in output. These factors may also include overall technological change, which makes it possible to produce more output with a given amount of inputs.

Total factor productivity has grown faster in the region than in other regions, yet this growth is slowing

Starting from a low base, developing countries in Asia and the Pacific grew rapidly in their initial stages of development as they were able to accumulate significant factor inputs by drawing upon large amounts of available labour in the rural sector, thus benefiting from high growth in savings and investment. From 1990 to 2014, total factor productivity in 18 developing Asia-Pacific economies, accounting for 84% of the developing region's population and 93% of its GDP, grew at an average annual rate of 1.74%. Indeed, as in the case of labour productivity, TFP growth rates in the Asia-Pacific region have generally been significantly above the ones recorded in other regions of the world that experienced TFP growth at an average of less than 0.6% (see table 3.3).

This higher TFP growth has played an important role in explaining the growth performance of the region. For instance, without significant growth in TFP, continuous economic growth in China would not have been possible (Zhu, 2012), as the growth of TFP accounted for about 40% of GDP growth, with the growth rate of TFP being more than half the growth in output per worker (Perkins and Rawski, 2008).

Nevertheless, as in other regions of the world, excluding Africa, TFP growth has declined in the aftermath of the 2008 financial and economic crisis, from 2.79% per year for developing countries in the Asia-Pacific region during the period 2000-2007 to 0.96% for the period 2008-2014 (see table 3.3). Indeed, TFP growth increased only in Mongolia and Sri Lanka, which are

Table 3.2 **Decomposition of aggregate labour productivity growth in selected Asia-Pacific economies between 1990s and 2000s (latest year)**

(Percentage)

Countries	Within-sector effect	Reallocation-level effect	Reallocation growth effect	Agriculture	Industry	Services
Australia	105.24	-0.22	-5.02	2.52	15.94	81.54
Azerbaijan	179.67	-13.03	-66.64	1.09	86.37	12.55
Bangladesh	54.82	44.71	0.47	14.04	32.98	52.98
China	66.74	6.66	26.59	4.51	52.25	43.24
Georgia	101.46	-0.18	-1.28	1.14	33.06	65.80
India	75.28	11.66	13.06	5.64	27.50	66.86
Indonesia	53.75	36.76	9.49	4.61	42.66	52.74
Japan	93.28	17.21	-10.50	-1.84	1.42	100.42
Kyrgyzstan	-103.38	-19.08	222.46	-6.68	-110.72	17.40
Malaysia	89.79	2.93	7.28	-3.31	29.79	73.53
Mongolia	96.91	0.54	2.55	-12.67	41.45	71.22
Nepal	48.23	168.33	-116.56	1.17	27.06	71.77
New Zealand	96.15	7.42	-3.57	-2.67	-6.47	109.15
Pakistan	77.88	19.18	2.94	9.86	36.09	54.05
Philippines	64.61	31.02	4.37	0.76	24.90	74.34
Republic of Korea	147.93	16.28	-64.21	0.19	44.64	55.17
Russian Federation	102.10	70.47	-72.57	0.29	-129.85	229.56
Singapore	115.02	0.30	-15.32	-0.11	30.35	69.76
Sri Lanka	85.09	8.38	6.53	3.87	32.83	63.29
Thailand	38.79	52.76	8.45	4.10	42.97	52.93
Turkey	61.18	31.98	6.85	2.39	28.59	69.02

Sources: ESCAP analyses based on data from the ESCAP Statistics Division.

Note: Decomposition of aggregate labour productivity growth is based on the traditional decomposition formula (TRAD method). Output is valued at constant prices, 2005, at the production price. Labour productivity is measured as the ratio of GDP at production prices, 2005 constant prices, and the total number of employed persons. *Within-sector effect* measures the contribution to aggregate productivity growth due solely to productivity increases experienced within individual sectors. *Reallocation level effect* measures the contribution to productivity growth due to labour movements from sectors with below-average productivity levels to sectors with above-average labour productivity levels, the sector labour productivity level being constant. *Reallocation growth effect* measures the contribution to labour productivity growth due to labour movements towards sectors with positive labour productivity growth (or away from sectors with negative labour productivity growth).

Table 3.3 **Average annual growth in total factor productivity across regions**

(Percentage)

Regions	1990s	2000s	2000-2007	2008-2014	1990-2014
Developing Asia-Pacific economies	1.42	1.93	2.79	0.96	1.74
Africa	-0.28	0.85	0.28	1.49	0.42
Latin America	0.02	0.07	0.38	-0.29	0.05
Developed economies	0.37	0.32	0.68	-0.09	0.34
Developing economies	1.16	1.64	2.32	0.86	1.46

Sources: ESCAP calculations and estimates for the period 2012-2014, based on Penn world table 8.1. See Robert C. Feenstra, Robert Inklaar and Marcel P. Timmer, "The next generation of the Penn world table", *American Economic Review*, vol. 105, No. 10, pp. 3150-3182.

likely to have benefited, respectively, from a boom in commodities and from post-conflict recovery (see table 3.4).

The slowdown in TFP growth can also be explained by labour hoarding and its impact on the efficiency of firms. In fact, as TFP is determined by a residual, representing both technological change and technical efficiency, the actual low demand phase combined with the potential existence of labour hoarding contributed to the reduction of overall efficiency of firms at the microeconomic level and of economies in general

Table 3.4 **Total factor productivity growth per annum in selected Asia-Pacific economies**

(Average growth rate in percentage)

Countries	1990s	2000s	2000-2007	2008-2014	1990-2014
Armenia	-1.47	5.78	11.39	-1.71	2.74
Australia	1.73	-0.31	0.12	-0.88	0.46
China	4.45	2.55	3.55	1.21	3.16
Fiji	-0.38	0.03	1.16	-1.48	-0.24
India	-1.34	1.32	1.56	1.01	0.43
Indonesia	-1.34	1.16	1.22	1.07	0.20
Iran (Islamic Republic of)	0.64	-1.04	1.00	-3.76	-0.41
Japan	-1.13	0.36	0.78	-0.20	-0.25
Kazakhstan	-5.45	4.50	7.44	0.58	0.42
Kyrgyzstan	-5.50	2.09	2.62	1.38	-0.85
Malaysia	-0.41	1.03	1.81	-0.01	0.52
Mongolia	-2.17	3.77	3.77	3.78	1.34
New Zealand	0.84	-0.87	-0.42	-1.46	-0.21
Philippines	-1.00	1.23	1.32	1.11	0.41
Republic of Korea	0.46	0.65	0.96	0.25	0.57
Russian Federation	-5.52	3.81	6.28	0.51	0.01
Singapore	0.18	0.50	2.19	-1.75	0.22
Sri Lanka	2.08	2.53	1.87	3.42	2.41
Tajikistan	-8.54	10.24	9.82	10.80	3.53
Thailand	-0.69	1.30	2.35	-0.12	0.39
Turkey	-1.39	0.16	2.03	-2.34	-0.66
Weighted average	**1.29**	**1.85**	**2.69**	**0.89**	**1.64**
...for developing ESCAP economies	**1.42**	**1.93**	**2.79**	**0.96**	**1.74**

Sources: ESCAP calculations, based on Penn world table 8.1. See Robert C. Feenstra, Robert Inklaar and Marcel P. Timmer, "The next generation of the Penn world table", *American Economic Review*, vol. 105, No. 10, pp. 3150-3182.

at the macroeconomic level. Moreover, as countries in the region approach technological frontiers, the catch-up advantage will be smaller; more reliance will therefore have to be placed on ingenious innovations for TFP and economic growth.

There is considerable room to foster total factor productivity growth in the region

Also, in several economies, consumption patterns are in the process of transitioning from consuming more physical products to utilizing more services, which means that the share of the service sector in GDP will increase continually. Since productivity in the service sector is usually lower than that in the industrial sector, transformation towards a service-oriented economic structure may, however, increase downward pressure on TFP growth in the future. Nonetheless, there is still considerable room to foster TFP growth in the region. In many economies, the *level of TFP* is still far behind that of developed economies, which indicates that there are ample opportunities for catch-up effects.

Indeed, in agriculture for instance, the contribution of TFP growth to output growth has been increasing significantly in most countries in the region. Real agricultural output growth can come from several sources, including area expansion (extensification), intensive use of inputs (inputs/area) (intensification) and efficiency improvements that result from better use of existing resources (measured by total factor productivity). Thus, while the land area devoted to agriculture has declined in several countries, including Australia, Japan, Republic of Korea, Turkey and Uzbekistan, it has expanded in all those for which data are available, yet mostly at slower rates than in earlier periods (see table 3.5). In this sense, the contribution of area expansion to output growth has declined across several countries. At the same time, the contribution of intensive use of land in output growth is largely continuing in the region, yet also at slower rates than in the 1990s. Importantly, however, the contribution of TFP growth has become larger over time in most countries, indicating that a large proportion of output growth in agriculture has come from the adoption of good agricultural practices and

Table 3.5 Sources of agricultural output growth in selected Asia-Pacific economies

(Percentage)

Subregions	Countries	Output growth due to expansion of land area		Output growth due to intensive use of agricultural inputs (inputs/area)		Output growth due to growth in total factor productivity		Total agricultural output growth	
		1991-2000	2003-2012	1991-2000	2003-2012	1991-2000	2003-2012	1991-2000	2003-2012
East and North-East Asia	China	0.90	1.07	0.27	-0.72	3.99	3.20	5.16	3.55
	Japan	-0.81	-0.48	-1.80	-2.77	1.55	2.87	-1.06	-0.39
	Republic of Korea	-1.28	-1.16	0.14	-0.41	3.60	1.89	2.46	0.31
North and Central Asia	Tajikistan	-0.48	0.85	-3.96	2.16	0.34	2.17	-4.09	5.18
	Uzbekistan	-0.09	-0.17	-1.50	2.99	2.31	2.59	0.72	5.42
Pacific (developed)	Australia	-0.26	-0.81	0.71	0.11	3.12	1.64	3.57	0.94
	New Zealand	-0.18	1.30	0.66	-0.56	1.78	0.39	2.26	1.14
Pacific (developing)	Fiji	-0.01	-0.14	0.54	0.34	-1.27	-1.66	-0.74	-1.47
	Papua New Guinea	1.32	2.73	1.14	-0.47	0.01	0.08	2.46	2.34
South Asia	Bangladesh	1.21	0.55	0.71	0.68	1.03	3.04	2.95	4.27
	India	0.91	0.24	0.70	1.22	0.94	2.64	2.55	4.10
	Nepal	1.59	0.44	1.41	1.49	-0.19	1.68	2.81	3.61
	Pakistan	0.77	0.65	1.32	1.73	1.14	-0.37	3.24	2.00
	Sri Lanka	0.29	1.27	0.62	-0.09	0.17	1.96	1.08	3.15
South-East Asia	Cambodia	0.22	1.22	2.21	1.85	2.29	5.08	4.73	8.16
	Indonesia	1.83	1.16	-0.30	0.57	0.56	2.58	2.08	4.32
	Lao People's Democratic Republic	3.18	2.85	-0.12	0.94	2.22	1.54	5.29	5.32
	Malaysia	0.26	0.94	0.39	-0.85	1.81	2.91	2.46	3.01
	Philippines	-0.43	1.39	2.04	-0.69	0.46	1.80	2.06	2.50
	Thailand	0.33	1.10	-0.27	-0.63	2.34	2.22	2.39	2.70
	Viet Nam	2.44	1.31	0.92	0.03	2.34	2.71	5.69	4.05
South-West Asia	Iran (Islamic Republic of)	-0.48	1.06	1.94	-0.95	2.41	1.79	3.86	1.90
	Turkey	-0.36	-1.24	1.03	0.64	1.02	3.13	1.69	2.52

Sources: United States Department of Agriculture, "Methodology for measuring international agricultural total factor productivity (TFP) growth". Available from www.ers.usda.gov/data-products/international-agricultural-productivity/documentation-and-methods.aspx.

scientific methods of cultivation.[19] Indeed, countries that successfully managed a transition from land expansion to agricultural intensification consistently appear to have managed to increase the contribution of TFP growth over time.

In China, for instance, rapid TFP growth in agriculture, averaging 3.1% during the period 1998-2007, led to high growth of grain production, which has solved the country's food deficit problem after several years of reform. It has also made possible the reallocation of labour from agricultural to non-agricultural sectors. With labour productivity in the non-agricultural sector being more than five times higher than that in the agricultural sector, the reallocation of workers from agriculture, as previously mentioned, has been the most important source of aggregate productivity growth in China (Zhu, 2012).

2. DETERMINANTS OF PRODUCTIVITY

It is important to understand what drives productivity and to be able to identify gaps as well as to take relevant steps to accelerate productivity growth and enhance levels of productivity. Among those aspects that have a particularly significant impact are: labour quality, which includes knowledge and skills as well as health of the workforce; innovation through enhanced openness (trade, foreign direct investment and participation in global value chains); adequate infrastructure; and access to finance, to name a few.[20]

2.1. Labour quality and productivity

Labour quality in terms of knowledge and skills are essential factors that contribute to TFP growth.

Economic theory suggests that such growth can be sustained only through technological change – analysed through productivity growth – and the latter is the result of research and development activities which are knowledge-intensive.[21] Thus, at the national level, good-quality education and research and development activities are core elements of total factor productivity growth. They enable countries to tap effectively into existing knowledge globally and, more importantly, provide for absorption capabilities and skills to integrate such knowledge.

With the importance of a high-quality workforce in TFP growth having been highlighted for the OECD countries (Maudos, Pastor and Serrano, 1999), education has also had a positive impact on the rapid economic performance of 12 Asian developing economies between 1981 and 2007 (Lee and Hong, 2012).[22] In Hong Kong, China; the Republic of Korea; Singapore; and Taiwan Province of China, for instance, improving the educational attainment of the workforce contributed the equivalent of about 1% per annum additional growth in labour input during the period 1966-1990 (Young, 1994).

In this regard, the progress that Asia-Pacific economies have made in enhancing the education levels of the labour force must be acknowledged. For instance, between 1990 and 2013 the average years of schooling of adults increased from 6.2 to 8.2 years; the literacy rate and the net enrolment rate at the secondary level increased, respectively, from 69.8% to 82.9%, and from less than 50% to 66.8%. In addition, average expenditure allocated to research and development activities in the region has doubled to 1.4% of GDP since the end of the 1990s. This increase, however is still significantly lower than the average in the euro area, in OECD countries and in the United States (see figure 3.8, panel A), suggesting that the region has quite a bit of catching up to do as it lags by more than a decade the developed regions of the world. At the same time, expenditure on tertiary education is important, as universities play an important role in developing countries in raising the skills of the population and in helping people to absorb ideas from developed countries (Mathews, 2001). Indeed, public expenditure on tertiary education is associated with faster growth rates in labour productivity in the region (see figure 3.8, panel B).

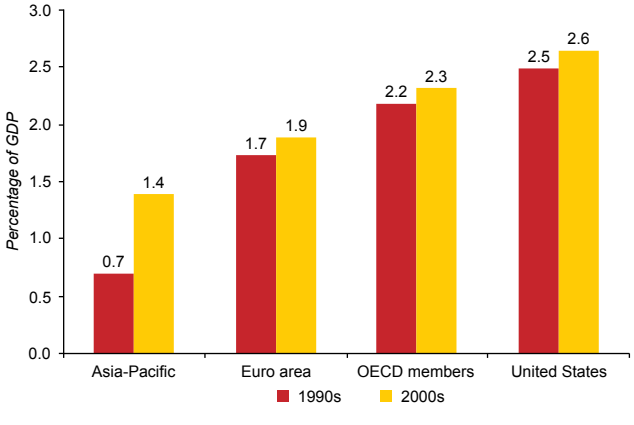
The labour force lacks important skills that are needed in a modern economy

Nevertheless, while levels of education, measured in terms of enrolment, literacy and years in schooling, have increased in most countries, the *quality* of education is a critical factor, especially as a shortage of skills would constrain the abilities of economies to take advantage of technological change, thereby limiting productivity growth, particularly in manufacturing, as well as limiting economic diversification.

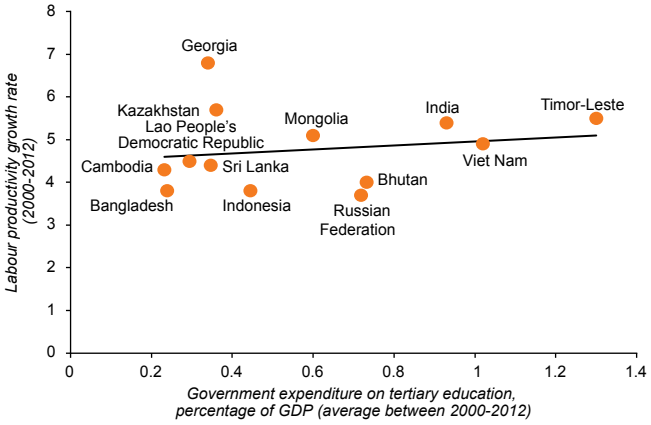
To evaluate the quality, equity and efficiency of school systems in providing young people with "key knowledge and skills that are essential for full participation

Figure 3.8 **Expenditure on research and development, and education**

Panel A: Research and development expenditures (percentage of GDP)



Panel B: Expenditure on tertiary education and growth in labour productivity



Sources: Based upon World Development Indicators of the World Bank and data from the United Nations Educational, Scientific and Cultural Organization Institute of Statistics.

Note: Weighted averages based on countries with available data contained in the ESCAP Statistical Database.

in modern societies", the OECD Programme for International Student Assessment, which is widely known as PISA, assesses the competencies of 15-year-olds in reading, mathematics and science (with a focus on mathematics). In the most recent survey for which data are available, 12 of the 65 countries and economies that were analysed are located in the Asia-Pacific region.[23] In comparing the ranking of those 65 economies, Indonesia ranked 64th, Malaysia 52nd, Thailand 50th, Kazakhstan 49th, Turkey 44th and the Russian Federation 34th. Low rankings in several of these economies point to a lack of quality in education, suggesting that the labour force in those economies may lack important skills that would be needed in the near future in a modern economy. The rankings also contrast with the relatively high standing of Viet Nam (ranked 17th), especially in view of the fact that labour productivity in Viet Nam is 60% lower than that of Indonesia (measured in 2011 PPP terms, see figure 3.2).

Interestingly, Hong Kong, China; Japan; Republic of Korea; and Singapore, which rank among the highest in terms of labour productivity in the Asia-Pacific region (see figure 3.2), come out at the top of the PISA assessment in *reading and mathematics*,[24] which points to the importance of increasing the quality of education, especially to foster science, technology and innovation.

In fact, firm-level analyses show that research and development activities, the training of the labour force and the availability of a skilled labour force contributed significantly to innovation (process and product) in several economies (see red cells in table 3.6).

2.2. Impact of openness on productivity

The degree of *openness*, as measured by exports, imports and FDI, is also considered an important determinant of productivity, particularly TFP growth. One explanation is that, as firms are exposed to different products, processes and practices, they are more likely to innovate in order to compete (Keller, 2010) and are more likely to benefit from technological diffusion (Barro and Salai-i-Martin, 1995), assuming, however, that workers are sufficiently educated and skilled to adopt new technologies. Thus, international trade is considered a key source of technology transmission and adoption (see Barro, 1997; Coe and Helpman, 1995; Frankel and Romer, 1999). This channel is particularly important for developing economies where new technology is relatively scarce, resources are limited and firms are dependent on high-quality imported inputs. However, as mentioned previously, in order to take advantage of technology that is imported from developed countries, workers must be sufficiently skilled; otherwise labour absorption will remain limited due to the skill bias of modern technology and/or rapid capital accumulation.

More open economies are generally more productive

In one sense, **imports** are generally seen as representing an increase in the level of competition for domestic firms, pushing them to invest and be more productive. Additionally, the importation of intermediate and capital goods is seen as a factor that would stimulate productivity through technology transfer from advanced countries and provide better-quality inputs (Goldberg and others, 2010; Topalova and Khandelwal, 2011), while imported services can enhance the efficiency of the industrial sector (see box 3.1). The learning spillover between foreign knowledge and domestic production is another channel in this process (see Aitken, Hanson and Harrison, 1997; Keller, 2004), assuming again that the labour force is sufficiently skilled to absorb the imported knowledge and technologies.

In this regard, productivity gains that come from reducing tariffs on intermediate goods could be twice as large as those coming from comparable reductions on final goods, as is the case for manufacturing in Indonesia (Amiti and Konings, 2007) and India (Topalova and Khandelwal, 2011). Thus, while lower tariffs will make imported goods more competitive, thereby increasing pressures on domestic firms producing those goods, they will also increase access to better inputs, thereby increasing firm-level productivity, which has a particularly large impact. In the case of India, for example, new imported inputs for manufacturing to a large extent originate in more advanced countries and exhibit higher unit value relative to existing imports. The enhanced contribution of high-quality inputs adds to productivity growth. For instance, with a firm's access to new, imported inputs increasing its ability to manufacture new products, trade reforms that took place in India between 1992 and 1997 contributed to a quarter of India's growth in manufacturing output (Goldberg and others, 2010).

For economic linkage between **exports** and productivity, it is argued that the higher productivity of exporters reflects the self-selection of more efficient producers into a highly competitive export market (Bernard and Jensen, 2004). Others emphasize that exporting improves the productivity of firms because international competition is a factor that encourages exporting firms to invest more in productive technologies, organization

Table 3.6 **Main drivers of product and process innovations in selected regional economies**

A: Product innovation

Drivers	BGD	CHN	IND	MNG	MYA	RUS	LKA	TUR
Duration of manager's experience in sector								
Research and development activities								
Training of labour								
Size of firm								
Proportion of workers having completed secondary school or having university degree*								
Usage of foreign licence								
Quality certified								
Age of firm								
Number of competitors								

Note: BGD = Bangladesh; CHN = China; IND = India; MNG = Mongolia; MYA = Myanmar; RUS = Russian Federation; LKA = Sri Lanka; and TUR = Turkey.

* Workers are production workers.

B: Process innovation**

Drivers	BGD	IND	MNG	MYA	RUS	LKA	TUR
Duration of manager's experience in sector							
Research and development activities							
Training of labour							
Size of firm							
Proportion of workers having completed secondary school or having university degree*							
Usage of foreign licence							
Quality certified							
Age of firm							
Number of competitors							

Note: BGD = Bangladesh; CHN = China; IND = India; MNG = Mongolia; MYA = Myanmar; RUS = Russian Federation; LKA = Sri Lanka; and TUR = Turkey.

* Workers are production workers. ** Data not available for China.

Positive and significant impact on innovation

Negative and significant impact on innovation

No impact

Sources: ESCAP analyses based on results from econometric analyses performed at the firm-level in each country. Data were obtained from the Enterprise Surveys of the World Bank. Available from www.enterprisesurveys.org/data.

Note: Green/orange coloured cells signify that the increase of the variable or the existence of a specific feature in the firm could result in a higher/lower probability of innovating; white coloured cells mean that the variable does not have a significant impact on innovation.

and innovation (Krugman, 1994; Rodrik, 1988). Evidence also suggests that apart from self-selection, exporting firms gain new knowledge and expertise, and at times access to technical expertise through from their buyers, and improve their efficiency. This is the 'learning-by-exporting' hypothesis (Wagner, 2007; De Loecker, 2007). Empirically, for the period 1994-2008, trade intensity in India was found to be positive and significant in metal and metal products, non-metallic mineral products and transport equipment, all of which are relatively more exposed to foreign competition.[25] The impact of greater trade intensity on total factor productivity was estimated at 5-10% in these industries. The effect on overall manufacturing was found to be about 2%, which is lower than expected (Mitra, Sharma and Veganzones-Varoudakis, 2011; 2014).

It is shown in table 3.7 that, since the global financial and economic crisis of 2008, productivity and openness, defined as the sum of imports and exports relative to GDP, have declined in the region.

Foreign direct investment is a key channel for the transfer of technology via the generation of positive

Box 3.1

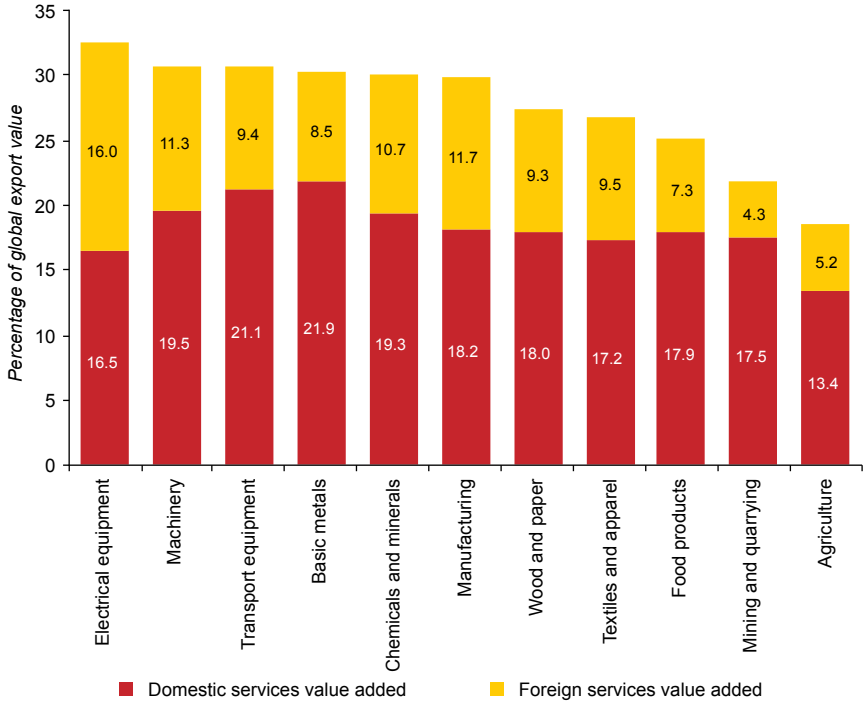
Industry-service linkages: implications for productivity improvement in Asia-Pacific economies

Evidence on the use of services by manufacturing firms, described as "servicification", has revealed that the availability of cost-efficient services is crucial for productivity improvement overall. Based on data on trade-in-value added, the average service content of industrial exports from the Asia-Pacific region is as high as 30%. The share of services is predominant in the high-technology sector, that is, electrical and optical equipment (32.5%) (see figure below). More than two thirds of the service inputs into industrial production come from distribution services (9%), business services (7.5%) and logistics-related services (5.2%).[a] Additionally, the contribution of imported services has been rising over time. The share of imported services in industrial exports from the Asia-Pacific region increased from 7.6% to 11.1% over the past decade, and import growth has been predominant in high-technology exports.

Given the strong linkages between manufacturing and services as well as the increasing importance of imported services, Governments of developing economies in the Asia-Pacific region are under considerable pressure to find balance between assisting domestic service providers and promoting the overall productivity of their economies. Availability of imported services could enhance the efficiency of the industrial sector and increase their export competitiveness. On the other hand, too much reliance on imported services may limit the long-term opportunities to strengthen the productivity of the domestic service sector.

The general policy direction should therefore be focused on creating competitive market conditions and developing a well-functioning domestic service sector that meets high-quality standards. For example, ensuring access to the grid or network for new entrants in the telecommunications or electricity sectors should help create equal opportunities and result in pro-competitive efficiency gains. The openness of financial services with a good regulatory framework could enhance competition and stability in the financial sector as well as contribute to overall macrostability. In addition, it is important to have a comprehensive set of policies in place to encourage spillovers and technological diffusion from foreign to domestic providers, which may include, for example public investment to upgrade and improve accessibility to backbone infrastructure, such as railways, ports, telecommunications systems, health care and education. The provision of education and training (for example in information technology, languages and professional skills) as well as greater domestic and international labour mobility will enable domestic firms as well as individuals to take advantage of service-export opportunities.

Services content in gross exports of Asia-Pacific economies, by industrial sector, 2009



Source: United Nations, Economic and Social Commission for Asia and the Pacific, Asia-Pacific Trade and Investment Report 2015: Supporting Participation in Value Chains (Sales No. E.15.II.F.15), p. 140.

[a] Distribution services include wholesale, retail, and hotel and restaurant services. Business services include such services as legal and accounting services, research and development, advertising and market research, engineering activities and ICT services. Logistic-related services include transport and storage, post and communications.

Table 3.7 **Average change in openness and labour productivity between 2000-2007 and 2008-2013 in selected Asia-Pacific countries**

Countries	Change in openness (Percentage of GDP)	Change in labour productivity growth (Percentage)
Australia	-0.01	-0.49
Azerbaijan	-3.02	-13.73
Brunei Darussalam	-8.30	-1.06
Cambodia	-1.00	-2.82
China	-2.91	-1.59
Georgia	-0.54	-5.22
Iran (Islamic Republic of)	-0.70	-3.15
Japan	-3.90	-0.51
Kazakhstan	-6.89	-5.17
Kyrgyzstan	-5.16	-0.03
Malaysia	-0.27	-1.09
Maldives	-2.19	-2.00
New Zealand	-4.71	-0.46
Pakistan	-0.72	-1.57
Philippines	-0.02	-0.45
Republic of Korea	-1.00	-1.76
Russian Federation	-3.28	-4.97
Samoa	-6.67	-4.98
Singapore	-9.73	-0.61
Thailand	-1.60	-1.16
Vanuatu	-8.66	-0.87
Viet Nam	-2.40	-0.73

Sources: ESCAP, based on data from the ESCAP Statistics Division.

externalities through knowledge spillovers into the domestic economy, for instance by linking local firms to foreign firms. However, such results seem to be conditional upon the host country having a minimum stock of skilled workers (Borensztein, De Gregorio and Lee, 1998). Levels of FDI often also reflect the overall macroeconomic environment in that FDI is more attracted to countries where inflation is low and stable and where fiscal and monetary policies are considered "sound" – ultimately, an environment that is conducive to higher growth in productivity (Loko and Diouf, 2009).

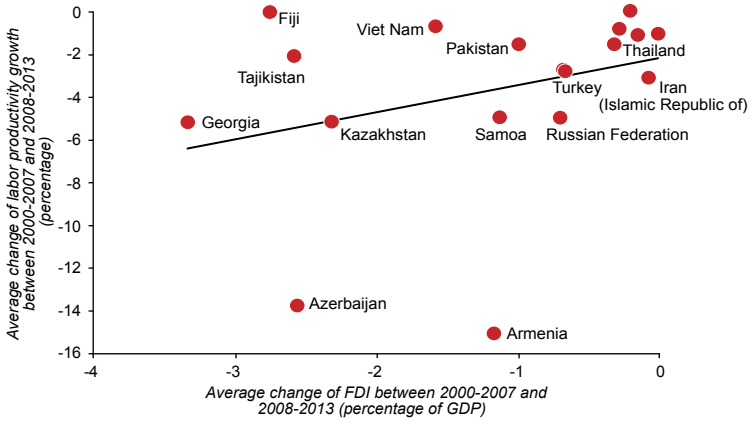
An estimate involving 25 Asia-Pacific economies, covering the period 1990-2013, confirmed that countries with a greater share of industry in value added are more productive as they have higher levels of output per worker, whereas countries that have a higher share of agriculture in value added have a lower level of output per worker. That study also confirmed that countries with a higher level of skilled workers produce a higher level of output per worker. Moreover, higher levels of skilled workers and greater inflows of FDI have a positive impact on labour productivity growth in general, while a higher share of industry in value added does not have an impact on the growth of labour productivity.

Data analysis confirms that the expansion of trade that has taken place in the Asia-Pacific region over the past 25 years and the dramatic increase in inflows of FDI into the region have contributed to an overall increase in labour productivity. For instance, FDI inflows increased from about $34 billion in 1990 to $545 billion in 2013, while the value of international trade (exports and imports) was estimated to have reached $13,712 billion in 2013 compared with $1,506 billion in 1990. Yet, since the global 2008 financial and economic crisis, FDI inflows into some countries in the region have been declining. In countries where the decline in inflows has been relatively larger, there has also been a larger decline in the growth of labour productivity (see figure 3.9).

2.3. Infrastructure and productivity

The importance of *infrastructure* vis-à-vis productivity is widely recognized in the literature. For example, public infrastructure is considered as a crucial factor for enhancing productivity and technical efficiency

Figure 3.9 **Decline in foreign direct investment and labour productivity growth in selected economies in the Asia-Pacific region**



Source: ESCAP, based on World Development Indicators of the World Bank.

through complementary relationships with other factors of production (for example, see Lucas, 1988; Anwar, 1995; Barro and Sala-i-Martin, 1995).[26] Better infrastructure also bolsters labour productivity by reducing the time employees spend in commuting to work, by improving health and education outcomes and allowing for improvements in economies of scale (Straub and Terada-Hagiwara, 2010). With poor road and telecommunications networks raising transport and logistics costs, better infrastructure would enable better market access, while better energy infrastructure is critical to improving productivity of the industrial sector.

Infrastructure has an important impact on productivity

The importance of infrastructure to productivity is highlighted by the argument that one of the main causes of productivity slowdowns in the United States during the 1970s and 1980s was insufficient investment in infrastructure (Aschauer, 1989). Indeed, it has been argued that the differential evolution of infrastructure in Latin America compared with seven Asian economies (Hong Kong, China; Indonesia; Malaysia; Republic of Korea; Singapore; Taiwan Province of China; and Thailand) widened gaps by some 30% in GDP per worker in favour of Asia between 1980 and 1997 (Calderón and Servén, 2003), whereas more than one quarter of the differential growth rate between Africa and four economies in Asia (Indonesia, Malaysia, Philippines and Thailand) could be attributed to the difference in effective use of infrastructure resources (Hulten, 1996).

In Australia, for instance, public infrastructure has been found to have an important impact on productivity in private sector industries, with rates of return to public capital estimated at about 25% in terms of cost savings and 68% in terms of output, not even taking into account the benefits that public infrastructure affords consumers (Satya, 2003). In Japan, public capital (infrastructure) has also been found to contribute to higher productivity, although the higher the share of investment in public infrastructure that was devoted to the agricultural and natural disaster prevention sectors, the lower was the effect on private production (Mizutani and Tanaka, 2010).

In the case of India, infrastructure has a moderate to large impact on the performance and productivity of manufacturing (Mitra, Varoudakis and Véganzonès-Varoudakis, 2002; Hulten, Bennathan and Srinivasan, 2006; and Sharma and Sehgal, 2010). For instance, infrastructure explains up to 65% of growth of TFP in transport equipment, 32% in metal and metal products and 30% in textiles (Mitra, Sharma and Véganzonès-Varoudakis, 2011; 2012; and 2014). In other industries, the impact of infrastructure varies from being large to moderate, except in the case of chemicals which has been found to be statistically insignificant. On average, results for India suggest that, for overall manufacturing, a 1% increase in infrastructure leads to a 0.32% increase in the growth of TFP. Indeed, the shortage of infrastructure provision in India hampers the performance of manufacturing industries (Hulten, Bennathan and Srinivasan, 2006).

For the Asia-Pacific region, *infrastructure and connectivity* (as measured by access to electricity, the Internet and mobile telephones) are important drivers of labour productivity. Yet, in several countries, poor infrastructure for energy supply and distribution is

already a major barrier to growth in productivity, output and employment, and thus to improving the welfare of the societies concerned. Moreover, investment in infrastructure in urban areas in the region is particularly important as urbanization will increasingly become a driver of productivity, as the share of agricultural workers declines and shifts instead towards manufacturing and services. In the same study, analysis showed that lack of transport infrastructure and trade facilitation systems increases production costs and reduces productivity by, for instance, contributing to delays when importing or exporting shipments.

2.4. Finance and productivity

The *availability of finance* can have an important positive impact on productivity. For one, given the region's infrastructure deficit, the availability of financing to reduce this deficit would boost productivity by, for instance, reducing the costs of trade and widening access to information and communications technology (ICT). In addition, an important service is provided by the finance sector, which acts as an intermediary and screens firms in order to identify those with promising prospects that make them worth funding. In many economies in the region, however, financial markets are underdeveloped. Greater financial development would thus clearly foster capital deepening, that is, the availability of more capital, and thus would strengthen the growth of productivity in those economies by supporting productivity growth within firms (Levine and Warusawitharana, 2014).

Providing small and medium-sized enterprises with finance is particularly important to foster productivity in the region, considering that such enterprises during the period 2007-2012 accounted for 98% of all enterprises in Asia and employed two thirds of the national labour force on average (ADB, 2013) (box 3.2 below).

Box 3.2

Small and medium-sized enterprises and their access to finance

Small and medium-sized enterprises (SMEs) form a critical component of the industrial sector, having contributed on average 38% of manufacturing value added in Asia between 2007 and 2012 and having brought in about 30% of total export value during that period. However, the relevance of SMEs varies substantially across countries, ranging from 28% of total employment in Kazakhstan to 97% in Indonesia in 2012.[a] Fostering SMEs, many of which are located in the informal sector, and ensuring that they become more productive are therefore critical steps for achieving sustainable development of the Asia-Pacific region in general and for increasing productivity in regional economies in particular.

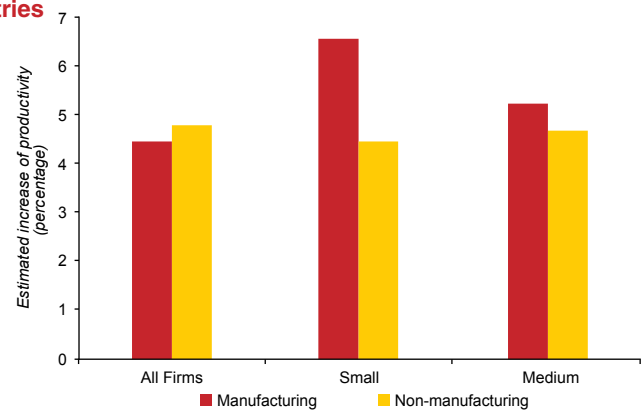
Despite their importance, SMEs face several constraints in expanding activities and becoming more productive. Of these, lack of access to finance is critical. Thus, cross-country research points to substantial evidence that small firms face larger constraints and have less access to formal sources of external finance, which may be one of the factors holding back SMEs from contributing more to economic growth.[b] Indeed, access to and cost of finance are often ranked among the most constraining features of the business environment faced by SMEs.[c] As such, the removal of credit constraints for investment in the manufacturing sector in developing countries has proven relevant for development.[d] Addressing financial and institutional development is therefore critical to strengthening industry and unleashing SMEs' growth and accelerating sustainable development in the Asia-Pacific region. This statement is especially true for SMEs in the manufacturing sector, as their productivity is strongly correlated to their access to finance.[e] Indeed, the impact of better access to finance contributes significantly to an increase in productivity, as depicted in the figure below, which shows that the productivity of small firms in the manufacturing sector could increase by 6.6% if the rating of this factor improves by one point on a scale of five levels. Therefore, a business environment allowing firms to access credit for their investments creates favourable conditions for economic growth. In other words, credit is essential for development.[f]

Various policy options can be considered that would strengthen SMEs and thereby foster development. Such options include, for instance, credit guarantee schemes, the development of credit information systems and the use of equity financing solutions.[g]

Credit guarantee schemes have been used in India, Japan and Pakistan for example to mitigate risks associated with lending to SMEs and to increase the access of SMEs to short-term and long-term loans. However, policymakers should also carefully consider issues related to moral hazard, as banks may

Box 3.2 *(continued)*

Estimated impact of an improvement in the access to finance on the level of productivity in selected Asia-Pacific countries



Source: Filipe Lage de Sousa, "Obstacles to productivity in Asia and Pacific region: finance reigns", Working Paper (Bangkok, ESCAP, forthcoming).

Note: The improvement in the access to finance is measured on the basis of a score ranging between zero ("finance is not an obstacle") and four ("finance is a severe obstacle").

relax stringent assessment of applications in response to credit guarantee schemes. In addition, credit guarantee schemes may have high administrative costs and contribute to delays in gaining access to funds. Moreover, credit guarantee schemes could threaten fiscal sustainability if the Government faces the situation of having to honour a high level of contingent liabilities.

The development of credit information systems, through data flows from SMEs to credit bureaus and registries, can help SMEs to gain access to loans as such systems reduce the asymmetry of information and help financial institutions to have a broader picture of the market. These data can be used for the credit rating of SMEs as is the case in India, Malaysia and Singapore. However, the development of a credit rating system requires national authorities to be mindful of, among other things, costs associated with the initial rating exercise and the maintenance of the database and of potential conflicts of interest between clients and the credit agency due to the remuneration of the latter.

Equity financing solutions can contribute to the development of SMEs at an early stage of the business lifecycle of an SME, or when it does not have a proven track record. Such solutions include angel finance schemes, such as the Singapore-based "Business Angel Network Southeast Asia". They also include venture capital firms, as have been developed in India for the ICT industry and the biotechnology sector, as well as stock market and initial public offerings, such as those in China, India, New Zealand, the Philippines, the Republic of Korea, Thailand and Viet Nam.

"SMEs are the emerging private sector in poor countries, and thus form the base for private sector-led growth".[h] Their development, therefore, requires reforming the institutional framework and providing financial support from the Government, but also providing SMEs with business development services to assist them in their activities.

[a] All figures are from the Asian Development Bank, special chapter on "Asia's economic transformation: where to, how, and how fast?", in *Key Indicators for Asia and the Pacific 2013*, (Mandaluyong City, Philippines, 2013).
[b] Thorsten Beck and A. Demirguc-Kunt, "Small and medium-size enterprises: access to finance as a growth constraint", *Journal of Banking and Finance*, vol. 30, No. 11 (2006), pp. 2931-2943.
[c] T.H.L. Beck, "Financing constraints of SMEs in developing countries: evidence, determinants and solutions", in *Financing Innovation-oriented Businesses to Promote Entrepreneurship* (n.p., 2007).
[d] Abhijit V. Banerjee and Ester Duflo, "Do firms want to borrow more? Testing credit constraints using a directed lending program", *Review of Economic Studies*, vol. 81, No. 2 (2014), pp. 572-607.
[e] Filipe Lage de Sousa, "Obstacles to productivity in Asia and Pacific region: finance reigns", Working Paper (Bangkok, ESCAP, forthcoming). Limited access to credit has also been shown to hamper economic growth, especially long-term growth. See Abhijit J. Banerjee and Andrew F. Newman, "Occupational choice and the process of development", *Journal of Political Economy*, vol. 101, No. 2 (1993), pp. 274-298; and Oded Galor and Joseph Zeira, "Income distribution and macroeconomics", *Review of Economics Studies*, vol. 60, No. 1 (1993), pp. 35-52.
[f] Ross Levine, "Finance and growth: theory and evidence", in *Handbook of Economic Growth*, vol. 1A (Amsterdam, Elsevier B.V., 2005), pp. 865-934.
[g] Nick Freeman, "Financing small and medium sized enterprises for sustainable development: a view from the Asia-Pacific region", ESCAP Macroeconomic Policy and Development Division Working Paper, WP/15/05. Available from www.unescap.org/sites/default/files/5-ESCAP_SME%20finance_July2015_share_2.pdf.
[h] Kristen Hallberg, "A market-oriented strategy for small and medium scale enterprises", International Finance Corporation Discussion Paper, No. 40 (Washington, D.C., World Bank Publications, 2000).

Finance is important for productivity, but the relationship between these two factors is not linear

It is important to note, however, that the relationship between finance and growth is not linear, as too much financial development can in fact inhibit the growth of productivity (Chopra, 2015). Thus, while financial development is good up to a point, it can become a drag on growth, especially when growth of the financial sector disproportionately benefits projects where it is easy to pledge collateral but where productivity is low, such as in construction (Cecchetti and Kharroubi, 2012). Similarly, a fast-growing financial sector can be detrimental to aggregate productivity growth if a high demand for skilled labour in financial institutions crowds out more productive sectors. Indeed, empirical evidence suggests that during financial booms the growth of productivity falls disproportionately in manufacturing industries that are research- and development-intensive (Cecchetti and Kharroubi, 2015)

In addition, the availability of too much credit can undermine the growth of productivity by inducing labour reallocation towards sectors characterized by lower-productivity growth (Borio and others, 2015). Moreover, financial development may have only a limited effect on growth in economies that are already close to the productivity frontier (Aghion, Howitt and Mayer-Foulkes, 2005).

3. PRODUCTIVITY AND SUSTAINABLE DEVELOPMENT: SOME EXAMPLES

The Sustainable Development Goals and productivity are interlinked

Increasing productivity and accelerating growth as well as making sure that growth is more inclusive are particularly important to close the development gaps in the region. These issues are also important to enable countries to move from a development model that is currently driven by exports to developed economies to one in which domestic and regional demand plays a greater role, thereby making growth more sustainable. Emphasis on domestic and regional demand becomes all the more important considering the recent persistent decline in trade flows and the relationship between trade and productivity. Thus, policies that promote domestic sources of demand, such as investments in the quality of the workforce, can simultaneously support growth of productivity and help countries reduce their reliance on exports to drive growth.

Critically, focusing on productivity provides an overarching framework for countries to tackle the achievement of several Sustainable Development Goals. To highlight some of the interlinkages between productivity and those Goals, including the virtuous link between the two, this section is focused on six Sustainable Development Goals as examples: end poverty in all its forms everywhere (Goal 1); end hunger, achieve food security and improved nutrition and promote sustainable agriculture (Goal 2); ensure inclusive and equitable quality education and promote lifelong learning opportunities for all (Goal 4); promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all (Goal 8); build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation (Goal 9); and take urgent action to combat climate change and its impacts (Goal 13).

3.1. Ending poverty and hunger by promoting sustainable agriculture

Raising agricultural productivity must be at the centre of the focus to end poverty (Goal 1) and end hunger and achieve food security (Goal 2). Recent economic growth experiences in the world, in the context of issues of inclusiveness and sustainability, have shown that a more strategic approach is required to alleviate poverty, in which active development of the agricultural sector and the rural economy is essential for stimulating economic growth, realizing equity, and economic and political stability: the so-called “development trilogy” (Timmer, 2015).

Increasing productivity, especially in the agricultural sector, is important

Tackling poverty in rural areas is particularly important as more than half the population in the developing economies of Asia and the Pacific live in rural areas, and this population represents a significant proportion of the 1.4 billion poor people living on less than $3.10 per day (2011 PPP). Indeed, about 40% of the workers in Asia-Pacific developing economies are employed in the agricultural sector. Moreover, while the prevalence of undernourishment has declined significantly in the Asia-Pacific region, having fallen from 23% from the early 1990s to less than 14% today, about 500 million people remain undernourished.[27] The great bulk of the remaining poor and food-insecure people live on agriculture and inhabit rural areas. As such, significant challenges remain to end hunger and attain Goal 2.

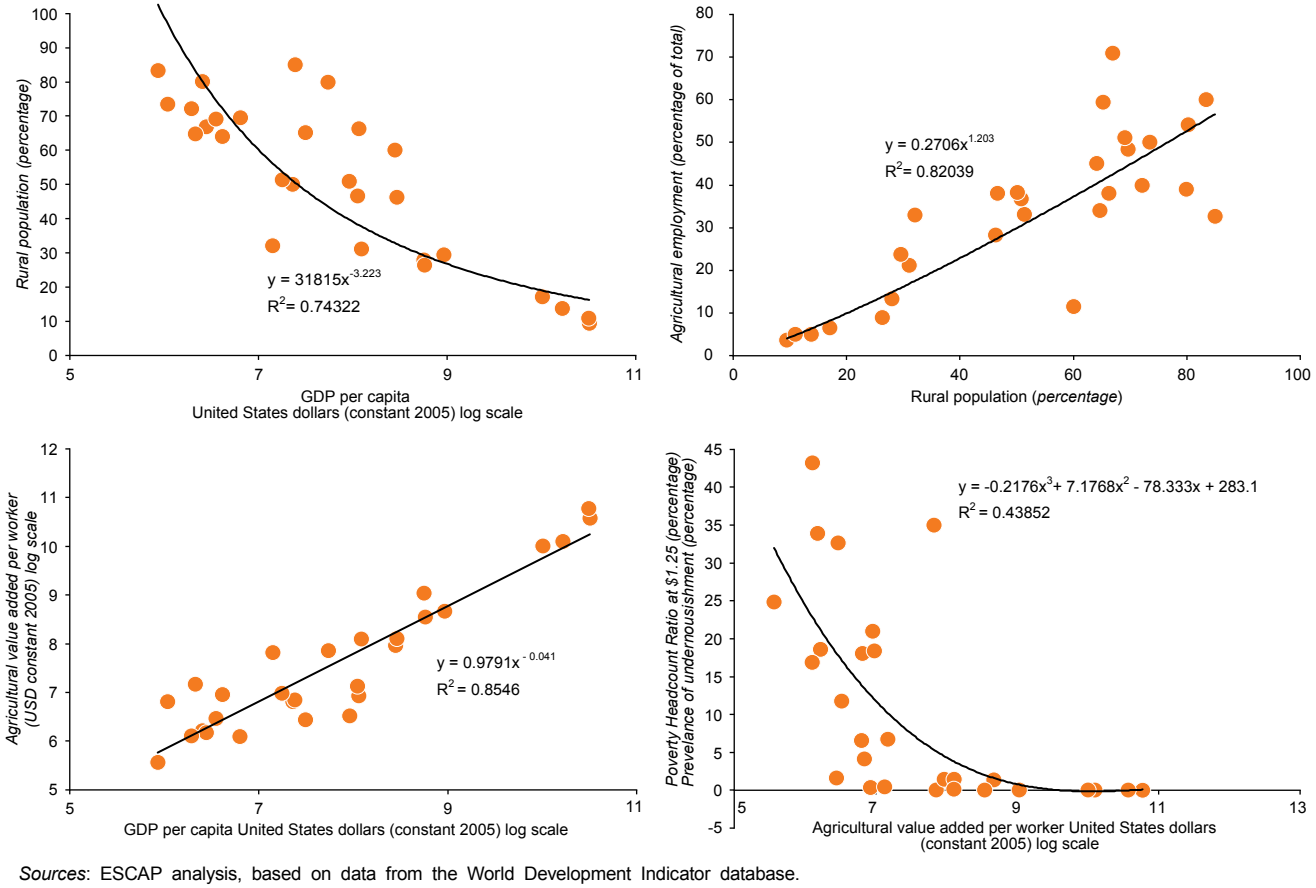
Reduction in the prevalence of undernourishment depends upon several socioeconomic factors as

well as actions by Governments. For instance, at the macroeconomic level, household food security, care of children and mothers, and access to health services are important strategies to reduce hunger, particularly with regard to the nutritional status of children (Smith and Haddad, 2002).[28] While the role of economic growth is a core element in the reduction of undernourishment, it is particularly critical that such growth also reaches poorer people (FAO, WFP and IFAD, 2012). Moreover, government interventions, such as enhancing access to health services and "ensuring healthy lives" (part of Goal 3), improving water sources and sanitation (part of Goal 6), investing in productive sectors, strenghtening of institutional frameworks and improving the business environment, among other measures, are also critical to spurring inclusive economic growth. Agricultural growth thus has a critical role to play in achieving the objective of "zero hunger".

Thus, increasing productivity, especially in the agricultural sector, contributes to the reduction of poverty directly by positively affecting rural households' income obtained from agricultural and non-agricultural activities. In addition, growth in agricultural productivity and the associated increase in real wages reduce the food insecurity of poor households, as household incomes tend to be positively correlated with output per worker in agriculture. Such productivity also contributes indirectly to the well-being of the poor by improving the interaction between non-agricultural and agricultural sectors, such as through additional sales to rural households (Irz and others, 2001).

Cross-country data on GDP per capita, the share of agricultural employment in total employment, agriculture value added per worker, the share of rural population, poverty headcount ratios and the prevalence of undernourishment in the region confirm the relationship between agriculture and development. For instance, a rise in GDP per capita implies a reduction by a significant margin in the share of the rural population, especially at lower levels of income (top left panel of figure 3.10). At the same time,

Figure 3.10 **Agricultural productivity, rural residence, poverty and food insecurity**



Sources: ESCAP analysis, based on data from the World Development Indicator database.

people living in rural areas are highly likely to be working in the agricultural sector (top right panel), while GDP per capita is positively correlated with agriculture value added per worker, meaning that people in low-income countries also earn relatively less from agriculture (bottom left panel). The bottom right panel shows that agriculture value added per worker is strongly and negatively correlated with the indicators of poverty and food insecurity; it also shows that a rise in agriculture value added per worker induces a greater reduction in poverty and food insecurity at lower levels of income than at higher levels. The panels thus highlight the fact that being rural is synonymous with having a small amount of cash income, being poor and food-insecure.

Empirical analysis confirms that "pro-poor" growth strategies aimed at reducing poverty contribute significantly to poverty alleviation. Studies have also shown that agricultural income growth is more effective in reducing poverty than growth in other sectors; that the welfare effects of non-agricultural growth are smaller among poorer households (Ligon and Sadoulet, 2011; FAO, 2012); that agricultural growth reduces poverty many times more than identical growth in the non-agricultural sector (excluding sub-Saharan Africa) (FAO, 2012); and that, in different sets of developing countries in Asia and Africa, an increase in agricultural GDP could be effective in reducing poverty, with the impact being greater in low-income countries than in resource-rich countries (Christiaensen, Demery and Kuhl, 2011).

In the case of India, Ravallion and Datt (1996) and Datt and Ravallion (1998) concurred on the role of agriculture or an increase in agricultural productivity in poverty reduction, while the expansion of a labour-intensive sector should have a greater impact on poverty alleviation, according to Loayza and Raddatz (2010). In this sense, it is critical that countries increase their growth of agricultural productivity in order to make a meaningful impact on the alleviation of poverty (Timmer, 2015), especially as sectoral productivity gaps appear to have widened in recent years because of slow growth and, in some cases, stagnation.

Over the last few decades, fertilizer and agricultural machinery have played an important role in the Asia-Pacific region by making the agricultural sector workforce more productive, thus contributing to higher yields in agriculture. Greater agricultural yields, in turn, have had a positive impact on economic growth and on poverty reduction (see box 3.3). For instance, it

Box 3.3

Increasing productivity in agriculture to lift people out of poverty: projections to 2030

The agricultural productivity gap in the Asia-Pacific region points to a misallocation of labour in many countries. The income level of workers in the agricultural sector is likely to be low because relatively inefficient production methods are being used or because the actual number of workers in this sector is high. In fact, about 36% of the labour force is employed in the agricultural sector, which contributes to less than 10% of the total output of ESCAP developing economies.

Importantly, this situation needs to be analysed, taking into account expanding populations and uncertainty related to the consequences of climate change. Thus, the impact of climate change on agricultural productivity will differ depending on a country's latitude and longitude, the altitude of the field and crops being planted, among other such factors. Farmers need to be ready to cope with such changes. Increasing agricultural productivity and concomitantly the level of income of people engaged in agricultural activities therefore represents a major challenge over the next several decades.

To increase agricultural productivity (measured as the value added per unit of cropland), farmers can, for instance: (a) make better use of available inputs and access innovative knowledge represented by an increase in total factor productivity; (b) increase mechanization of agriculture in those countries that are lagging behind in terms of usage of these assets and inputs; and (c) increase usage of fertilizers which are assumed to have a lower environmental footprint.

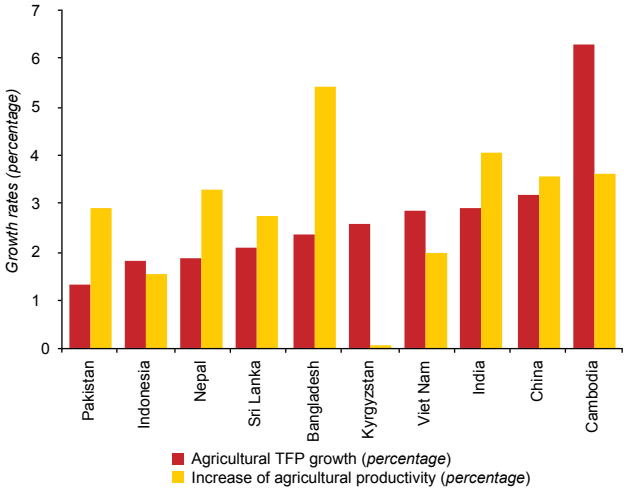
The analysis below of the role of agricultural productivity in poverty alleviation is based on a system of equations which enable estimating and projecting GDP per capita, at 2011 PPP, constant prices, and analysing the differences in poverty headcounts between a baseline scenario and a scenario in which: (a) the growth rate of productivity (total factor productivity) and yields are assumed to be the average growth of

Box 3.3 *(continued)*

the last available five years for each country; (b) any decline in usage of farm machines at the country level that had been observed in the past is in fact reversed; and (c) growth of fertilizer use remains unchanged.

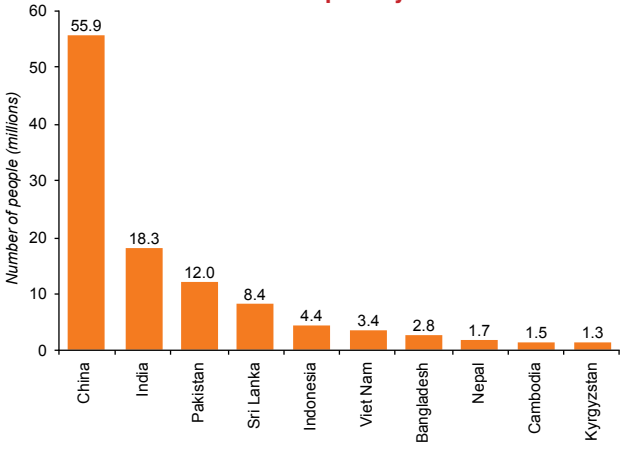
In figure A, the key assumptions are presented which have been used to perform the analysis, that is, how high total factor productivity (TFP) growth in agriculture is and by how much it is increased given the assumptions outlined above.

Figure A: Growth of agricultural TFP and productivity



Source: ESCAP calculations.

Figure B: Millions of people lifted out of poverty



Source: ESCAP calculations.

In figure B, the additional number of people lifted of poverty in selected Asian countries is presented. In countries with a high GDP-poverty elasticity, such as China and India, the simulated increase in agricultural productivity could lift at least 56 million and 18 million, respectively, out of extreme poverty during the period 2016-2030. In Kyrgyzstan and Viet Nam, the impact of higher productivity is more limited as poverty rates in these countries are already well below 15%.

Overall, the agricultural sector can clearly play a significant role in poverty alleviation in the region, as at least 110 million people could be lifted out of extreme poverty if agricultural productivity is raised.

is estimated that a 1% increase in agricultural yields resulted, on average and with everything else being equal, in an overall increase of 0.07% of GDP per capita over the period 1990-2011.[29]

Linkages between agricultural and non-agricultural sectors are important, especially to reduce poverty

The large number of additional people that could be lifted out of poverty in the region if agricultural productivity is increased indicates that interlinkages between the agricultural and non-agricultural sectors are still highly relevant in the Asia-Pacific region. Moreover, greater agricultural productivity would not only generate additional income to be used for non-tradable and tradable goods, but would also contribute to lower food prices. This outcome would in turn increase food security, which would contribute towards attainment of Sustainable Development Goal 2, and would lead to an increase in real consumption, which would be particularly beneficial to poor households.

However, the occurrence of these positive externalities would also depend on other factors, such as the labour participation rate of people identified as poor in the process, the size of farms, and access to and adoption by farmers of adequate technologies, including information and communications technologies. For instance, small farms may not be able to fully benefit from such an agricultural strategy if they are unable to access credit or if they lack access to appropriate

machines to increase their productivity (Dethier and Effenberger, 2012). In cases where levels of productivity are low, consolidating farms may in some circumstances enable a critical move forward. Yet, it should be recognized that small farms are efficient in some environments but large farms are efficient in others under different conditions. For instance, in Uzbekistan a shift from large-scale collective farming to small-scale individual farming contributed to a productivity surge between 1998 and 2012, during which labour productivity in agriculture grew by 2.8 times and crop yields of basic agricultural products increased significantly (Pomfret, 2016).

3.2. Ensuring good-quality education, promoting productive employment and sustainable industrialization

The counterfactual analyses discussed above show that strengthening agriculture and increasing levels of productivity in the rural sector play an important role in ending poverty (part of Goal 1) and in ending hunger and achieving food security (part of Goal 2). In doing so, it is important to consider a broader development strategy, especially as higher levels of productivity in agriculture would free-up labour from that sector, which would then be available to work in the non-agricultural sector. To accommodate this "agricultural push" of labour (Christiaensen, Demery and Kuhl, 2011), it is important that such a strategy be aimed at providing full and productive employment and decent work for all to ensure that economic growth is sustainable and inclusive. Such a strategy would contribute towards attainment of Goal 8.

Industrialization is required to develop successfully

Moreover, as outlined above, countries that have developed successfully have generally done so on the back of rapid industrialization. Yet, many countries in the region are shifting to service-based economies at levels of income per capita that are far lower than was the case in developed economies. It is therefore important that efforts be increased to help developing economies industrialize while strengthening agriculture in view of its links with the industrial sector.

Approaches to strengthen the role of agriculture in this context include diversifying into high-value crops, focusing on quality and standards, and strengthening investment in research and development (ESCAP, 2008). Appropriate strategies and policies to help absorb the agricultural push of labour from the agricultural sector and enable higher growth of productivity also include developing the non-farm sector. This change can be achieved by emphasizing development of the rural sector so that structural change ultimately follows an agriculture-industry-service sequence, for instance by fostering rural industrialization through small-scale industries. Doing so can strengthen linkages between agricultural and non-agricultural sectors, which would in turn lead to backward-forward and production-consumption linkages within agriculture and between the agricultural and non-agricultural sectors (ESCAP, 2015b). Doing so would promote inclusive and sustainable industrialization and innovation, thereby strengthening progress towards attainment of Goal 9.

For instance, in Bangladesh, the structural shift in the rural non-farm sector, especially since the 1990s, in favour of micro and small-sized enterprises instead of exclusive dependence on self-employment activities that characterized the earlier period, has led to a rise in employment opportunities in the rural non-farm sector and has improved productivity and enhanced wages. Indeed, agroprocessing and the marketing of processed food now have the potential to emerge as new engines of inclusive growth in Bangladesh (Mujeri, 2014).

Sustained growth of productivity requires a highly educated labour force

The above discussion makes it clear that absorbing the agricultural push of labour through rural industrialization will require additional training of low-skilled labour, particularly when considering the skill bias in modern technology, which, if unaddressed, will reduce the scope for absorption of unskilled surplus labour. In this regard, considering that "The automatism of *laissez-faire* never worked properly in that field" (Rosenstein-Rodan, 1943, pp. 204-205), strong government participation is needed to transform rural workers into full-time industrial workers. Doing so will require providing good-quality education and ensuring that national populations have access to lifelong learning, thereby attaining Goal 4, so that their skills become relevant – and remain so – to an industrializing framework.

Achieving sustained growth of productivity by consistently increasing the value added of output requires a highly educated labour force. However, the absorptive capacity needed to take full advantage of technology transfer is often lacking in developing countries, as is the capacity to design new pathways to production and new markets (UNESCO, 2014). Indeed, despite the virtuous circle between spending

on research and development, innovation, productivity and levels of income, which lead to sustained economic growth by mutually reinforcing one another (Crespi and Zuniga, 2012), levels of spending on research and development in the region remain quite low, as highlighted above.

In many developing countries, research and development is hampered by underdeveloped financial markets (Goedhuys, Janz and Mohnen, 2008). Moreover, firms may lack incentives to invest in innovation the farther away they are from the technological frontier, as the perceived returns to investment may be considered too low. Nevertheless, some newly industrialized economies have been successful at transforming research and development into innovation (UNESCO, 2014). In addition, the case of the Republic of Korea demonstrates that research and development expenditure can increase rapidly: between 1999 and 2013 alone, research and development expenditure in that country more than doubled to 4.15% of GDP – the highest rate in the region – compared with 3.47% of GDP in Japan in 2013, the second highest rate.[30]

Vocational schools must be strengthened and teaching curricula reformed

Strengthening research and development comprises one avenue to strengthen skills of the labour force. Another is to expand undergraduate and technical education to raise the overall level of skills, particularly as higher education is critical to providing the skills required to apply current technologies as well as to be able to assimilate, adapt and develop new technologies. Another important aspect is to strengthen vocational schools in the region and to reform teaching curricula to make them more relevant to today's environment, as the impact of education and training on productivity rests on their relevance to the needs in labour markets.

For instance, in Viet Nam the Government launched its vocational training-education development strategy during the period 2001-2010, the objective of which was to improve the quality of education, strengthen intellectual standards by moving towards compulsory lower secondary education by 2010 and improve human resources in the economy. By establishing facilities for public vocational training institutions and encouraging enterprises to provide on-the-job training to improve the skills and qualifications of their workers, some favourable results were achieved by 2010: the number of graduates from vocational schools, technical colleges and tertiary institutions rose by 3.08 times, 2.69 times and 2.35 times, respectively. The strategy for the development of education has since been renewed in Viet Nam for the period to 2020.

Better infrastructure is needed to lift productivity

Greater industrialization will also require better access to infrastructure. Indeed, investments in infrastructure – transport, irrigation, energy, and information and communications technology – are crucial in achieving sustainable development and in strengthening productivity. For instance, while rural infrastructure can raise agricultural productivity in particular (Llanto, 2013), it also provides a good stimulus to the growth of the rural economy and contributes to greater productivity by reducing loss and inefficiency. In terms of the power infrastructure, firm-level analysis shows that, among Asia-Pacific countries, the percentage of firms using or sharing a generator in order to gain access to electrical power varies between 5.3% in Armenia and 75.7% in Myanmar (see figure 3.11); the average duration of a typical electrical outage varies between about 30 minutes in China and about 16.9 hours in Pakistan. In the latter case, losses due to electrical outages are estimated by firms to amount to 33.8% of total annual sales. Improving both access and the reliability of such infrastructure would increase firms' profitability and would encourage additional investment.

Increases in labour productivity must translate into commensurate increases in income

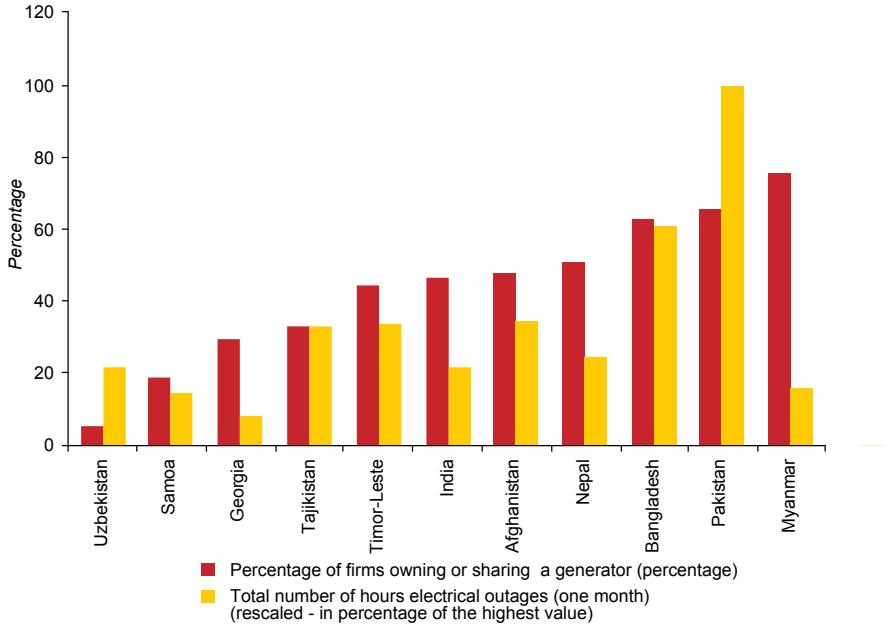
In parallel with the positive impact of greater agricultural yields on economic growth in the Asia-Pacific region (see above), higher productivity in the industrial sector should have a similar impact on overall economic growth. Yet, to ensure that the economies in the region are able to shift to a development model in which domestic and regional demand plays a greater role, increases in labour productivity will have to be translated into commensurate increases in levels of income – something that has not been the case in the region in the past (see box 3.4).

3.3. Combating climate change and its impacts

The effects of climate change are profound and far-reaching (Field and others, 2014). Among the numerous challenges that need to be addressed, climate change is expected to have impacts on productivity in particular. For one, climate change is expected to have adverse impacts on agricultural productivity. With agriculture being important in terms of GDP and much more critical in terms of

Figure 3.11

Status of firms regarding generator usage and duration of electrical outages in selected Asia-Pacific economies for most recent available year



Sources: ESCAP, based on data from Enterprise Surveys of the World Bank. Data extracted through the World Bank data portal on 22 March 2016

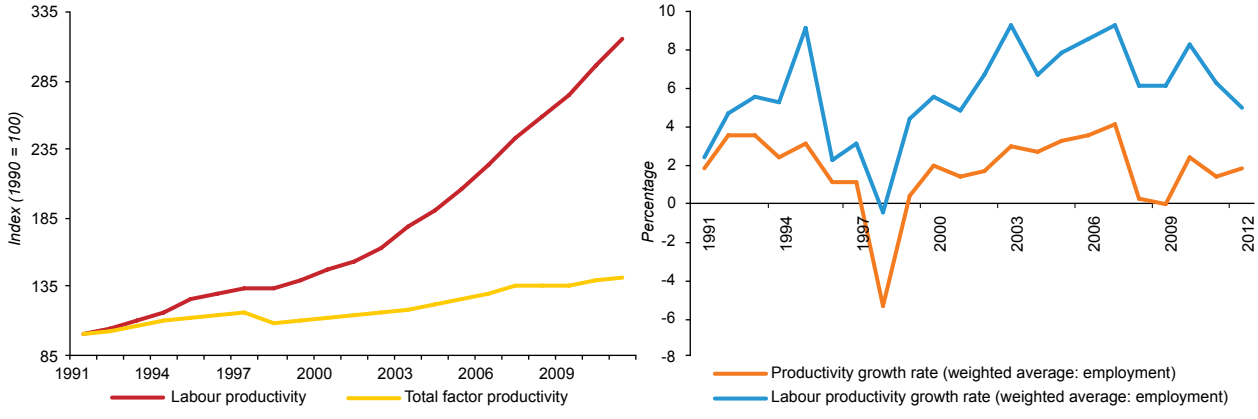
Box 3.4

Increasing real wages

Notwithstanding recent declines in the rate of growth of total factor productivity, levels of that measure have increased significantly in the Asia-Pacific region since the 1990s. Increases in the level of labour productivity have been even greater (see figure A). As a reflection of higher levels of labour productivity, the region has also seen significant improvements in wage levels. Thus, in 2013, real wages in the region were more than 2.4 times as high as in 1999 compared with a global increase of only one third.[a]

Figure A

Total factor productivity and labour productivity in Asia and the Pacific (Cumulative Latin hypercube sampling; index, 1990 = 100; and annual growth rates – right-hand side)



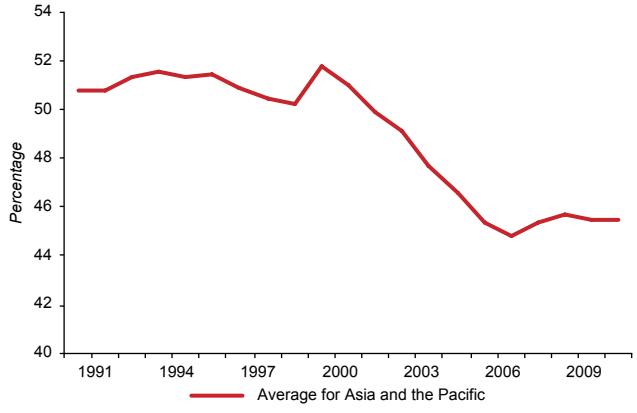
Source: ESCAP calculations, based on the Key Indicators of the Labour Market (KILM) database of the International Labour Organization and Penn world table 8.1. See Robert C. Feenstra, Robert Inklaar and Marcel P. Timmer, "The next generation of the Penn world table", *American Economic Review*, vol. 105, No. 10 (2015), pp. 3150-3182.

Box 3.4 *(continued)*

However, growth in real wages has not been commensurate with the observed increases in productivity levels. As a consequence, labour's share in total income has declined in the Asia-Pacific region in recent years (see figure B),[b] which represents a shift from wages to capital income, as a declining share of wages in total income implies that a larger share of income is going to owners of capital. While shifts from labour-intensive to capital-intensive economic structures have supported economic growth, they have also reduced the capacity of some economies to provide rapid growth of employment. Indeed, such a shift from wages to profits is associated with higher inequality that has taken place across the developed and developing world. Moreover, the shift to capital-intensive economic structures has also expanded the inputs of energy and resources, which have contributed to growing environmental pressures.[c]

One important reason behind the relative decline in real wages is that economic growth has been led primarily by exports. Under such circumstances, wage increases tend to be limited and domestic labour employed in export industries tend not to share the productivity gains through equi-proportionate increases in real wages, so that product prices can be maintained, or even reduced to increase international competitiveness. Such a strategy can, however, be self-defeating, as when supply grows faster than domestic demand; in that case, innovation and productive investment may in fact be discouraged.[d] Importantly, such wage-compression dynamics negatively affect demand in the economy. Reversing this decline would therefore be important in fostering domestic and regional demand and ensuring that growth is sustained in the region and is more inclusive.

Figure B
Labour income share in Asia and the Pacific from 1991 to 2011 (Percentage of output)



Source: ESCAP calculations, based on Penn world table 8.1. See Robert C. Feenstra, Robert Inklaar and Marcel P. Timmer, "The next generation of the Penn world table", *American Economic Review*, vol. 105, No. 10 (2015), pp. 3150-3182.

Productivity gains therefore need to be passed on to workers in the form of higher real wages to enable and support greater domestic demand. Otherwise, there is a risk that increases in domestic demand, especially consumption, will end up being financed by borrowings. To some extent, the weak link between productivity and wages that has been observed in the region in recent years may be a result of the surplus labour model in which wages are not determined by the productivity of labour.[e] Yet, it may also be the result of weak or absent collective bargaining mechanisms and of weak labour market institutions.

[a] International Labour Organization Regional Office for Asia and the Pacific, "Wages in Asia and the Pacific: dynamic but uneven progress", Global Wage Report 2014/15: Asia and the Pacific Supplement. Available from www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/---sro-bangkok/documents/publication/wcms_325219.pdf.
[b] It should be noted, however, that in most economies in South-East Asia for which data are available, the wage share in total income has in fact been increasing since the turn of the century.
[c] United Nations, Economic and Social Commission for Asia and the Pacific, United Nations Environment Programme and Asian Development Bank, *Green Growth, Resources and Resilience: Environmental Sustainability in Asia and the Pacific* (ST/ESCAP/2600). Available from www.unescap.org/esd/environment/flagpubs/GGRAP.
[d] United Nations Conference on Trade and Development, *Trade and Development Report 2010: Employment, Globalization and Development* (Sales No. E.10.II.D.3).
[e] W. Arthur Lewis, "Economic development with unlimited supplies of labour", Manchester School, vol. 22, No. 2 (1954), pp. 139-191.

providing livelihoods in developing countries, even a small percentage loss in agricultural productivity could impose large income losses in developing countries. Yet, the impact of climate change on agriculture will not, however, be uniform in the Asia-Pacific region. For instance, in East and South-East Asia crop yields are projected to increase by up to 20% by the middle of the twenty-first century. However, impacts on agricultural productivity are likely to be negative in the North and Central Asian and South and South-West Asian subregions, where yields might decrease by up to 30% in Central and South Asia (Smith and others, 2007).

Impacts of climate change on labour productivity are also likely to be negative. Historically, economic growth rates have been found to decrease with absolute latitude, which can be used as a proxy for temperature. As a result, income levels in hotter countries tend to be lower than in cooler countries, which may reflect labour productivity losses (Dell, Jones and Olken, 2008). The impact of greater increases in average temperature resulting from climate change is likely to amplify this phenomenon by producing a disproportionately stronger effect on the world's poor. Thus, warmer-than-average years generally contribute to negative output shocks in hot countries, but positive output experiences in cold countries. For instance, in hot environments, such as India and Thailand, annual output per capita decreases by up to 3.9% per degree Celsius compared with an increase of up to 4.1% in the colder countries of Canada and Sweden (Heal and Park, 2013).

In the context of climate change and its negative impacts, including those on growth in productivity, it is worth highlighting that boosting productivity is generally seen as a predominantly economic concern. Typically, little attention is paid to the efficiency of the economic system in terms of intensity of resource use, particularly energy, and associated environmental degradation. The current dominant development approach tends to favour the phenomenon known as "grow now, clean up later" without assessing the significant socioeconomic and environmental costs – expenditure borne most often by the most vulnerable in society. Climate change resulting from this approach negatively affects growth of productivity.

Moreover, efforts to increase both labour and total factor productivity often end up reflecting substitutions between human, natural and manufactured capital inputs. In other words, productivity improvements rely on increased intensity of energy use and other forms of capital in a disproportionate manner, with undesirable consequences for society, including environmental degradation. Reducing or, at the very least, mitigating the consequences of such trade-offs between the economic, social and environmental spheres requires rethinking the notion of productivity. In a nutshell, policies geared towards enhancing productivity should internalize all aspects of various implications, particularly those related to energy use. Among its many benefits, this approach would reduce vulnerability to rising and volatile energy and resource prices and create savings that could be better invested in socioeconomic progress.

4. POLICIES TO INCREASE PRODUCTIVITY TO REVIVE ECONOMIC GROWTH AND SUPPORT SUSTAINABLE DEVELOPMENT

Given the declining trend in productivity growth and its relationship with the Sustainable Development Goals, countries in the region would benefit tremendously by focusing on policies that foster growth in productivity. Doing so would facilitate the pursuit of the Sustainable Development Goals as well as improve the prospects for economic growth. At the same time, moving towards attainment of the Sustainable Development Goals will have a positive impact on productivity, as outlined above, thereby leading to a virtuous cycle between sustainable development and productivity growth.

Appropriate sectoral and economic policies as well as social policies form the primary entry point for countries to foster productivity growth and move towards attainment of the Sustainable Development Goals (see figure 3.1). These would affect economic, social and environmental dimensions of development and thereby strengthen sustainable development. This section contains an outline of some of these relevant policies.

4.1. Economic and sectoral policies

Policies to strengthen the role of agriculture and industry, particularly through rural industrialization, are especially relevant in the Asia-Pacific region in view of the proportion of persons that continue to depend on the rural sector for their livelihood. Notwithstanding the important role that services can play, countries therefore need to pay particular attention to fostering productivity in agriculture and in industry.

Fostering productivity in agriculture

Fostering productivity in the rural sector will be key to strengthening domestic demand. Notwithstanding

the tremendous transformation and despite rapid urbanization that the Asia-Pacific region has undergone in the last 5-6 decades, more than half the region's population, equivalent to 2.1 billion people, continue to live in rural areas. Although non-farm income is becoming an increasingly important part of household income, the rural sector relies heavily on agriculture, especially considering that, while the region is no longer dependent on exports or imports of raw material as in the past, the share of food, beverages and tobacco in manufacturing has generally increased. In this sense, raising productivity in agriculture is a vital element for strengthening domestic demand.

Industrializing agriculture and raising agricultural productivity is critical

The declining contribution of agriculture to national income and the high dependency of a disproportionately large number of people on agriculture for their livelihood on one hand and the apparent mismatch between economic growth and the capacity for absorbing labour that became "surplus" in the transistion from the agricultural to non-agricultural sectors on the other have received considerable attention from policymakers in recent years owing to their implications for poverty, food security, sustainable urbanization and sustainable development.

A challenge for the region is therefore to simultaneously effect the convergence of labour productivity across the agricultural, industrial and services sectors. There is a need to make growth more inclusive by providing rural areas with growth dividends and thus contribute to the elimination of poverty and hunger. Industrializing agriculture and raising agricultural productivity must be at the centre of this effort in view of the great mass of the remaining poor and food-insecure people who live on agriculture and inhabit rural areas. Policymakers should remember that growth in agriculture not only stimulates economic growth but also contributes to equity and political stability.

In spite of very different national circumstances and resource endowments, policies that have helped countries in raising agricultural productivity have several common elements. First, economic reforms in more successful countries started with reforms that supported the poorest segments of society, usually those in the rural and agricultural sectors. The cases of China in recent times and the Republic of Korea in the 1950s are prominent examples. For instance, in China reforms started in late 1978 with the decentralization of agricultural production through the contract responsibility system, which provided farmers with flexibility to decide what they wanted to grow and how much to produce and sell (FAO, 2009; Von Braun, Gulati and Fan, 2005); subsequently, the Government liberalized the pricing and marketing of agricultural goods. Those reforms contributed to the acceleration of agricultural growth from below 3% per annum prior to the reforms to more than 7% after the reforms. Farm incomes rose by as much as 15% during the period 1978-1984 (Von Braun, Gulati and Fan, 2005). Second, these policy reforms were targeted not merely to gain political expediency but all attempts were made to actually improve economic efficiency in the utilization of resources, especially land. Third, in all successful transformations, public policy facilitated the process by: establishing an enabling environment for farms and agro-firms to operate smoothly; making possible investment in rural infrastructure, such as roads, irrigation systems and ICT; easing access to credit to promote entrepreneurship through mechanisms to reduce or eliminate collateral requirements; investing in research and development; and providing extension services.

In contrast, countries that attempted to coerce farmers and agro-firms to deliver results through a combination of policy instruments and controls, such as price fixing, subsidies and mandatory procurement requirements, largely failed to raise agricultural productivity sustainably beyond a certain level.[31]

One important element for increasing productivity in agriculture will be to recognize the interconnections between the agricultural, industrial and services sectors. As the three sectors are interwoven, the issue of large and unsustainable "surplus labour" in agriculture cannot be solved within the boundaries of agriculture alone. Policies, strategies and action plans are therefore needed that will effect a convergence of labour productivity across the three sectors over time. Government policy should thus remove regulations that limit the movement of labour and capital across sectors; facilitate such movements by retraining workers to carry out different functions, such as training farmers in operating machines and training industrial workers to better utilize technical services in rural areas; and offer productivity-based financial incentives for encouraging such movements.

Another important element will be to ensure that the development of value chains does not result in the overexploitation of resources within a given landscape. Rather, agricultural value chains must be sustainable over time by conforming to environmental, economic and social boundaries in a given setting.

Policy should also be focused on an efficient allocation of resources, particularly land. For example, what is important is the efficient organization of land within a given environment rather than whether or not small farms or large farms are efficient.[32] For instance, in India small farms are largely efficient but lack economies of scale (ICAR, 2010). In Turkey's Tenth Development Plan (2014-2018) important "problem areas" have been identified; they include the small and fragmented structure of agricultural businesses. The same principle applies to technology choice, where the issue is not whether more mechanisation is the correct option, but rather which technology and machinery would be more efficient for producing a given commodity. Similarly, enhancing the quality and efficiency of extension services should be the main criterion for choosing and recommending extension services, not whether the private or the public sector should deliver them.

Research and development in agriculture must be strengthened

Institutional foundations must be strengthened for undertaking technology-related research and development activities as well as policy formulation and analysis, including data collection. With growth and productivity in agriculture having stalled and the green revolution that boosted agricultural yields in the 1970s having bypassed millions, agriculture urgently needs another revolution (ESCAP, 2008). Yet, while the region has a large number of research and development institutions, small countries generally have inadequate capacity for such activities. Moreover, even when research and development institutions exist, many of them are not geared towards undertaking fundamental research but are focused mainly on applied or translational research.[33] In contrast, policy research affecting agriculture and its links to industrial and services sectors is rare.

The region needs to invest more in fundamental research and development and policy research, and strengthen networking arrangements that link public research and development institutions, academic institutions, civil society organizations, the private sector and farmers. Asia and the Pacific should be focused on fundamental issues facing agriculture from a technical point of view, such as minimizing exploitable yield gaps, identifying good farming practices to raise yields and developing new crop varieties with certain required qualities. In Turkey, investing in research and development has been a major part of the country's agricultural development efforts, with the Government having established gene banks in recent years; it also supports the development of new product varieties through biotechnology, nanotechnology and techno-parks, as well as the use of renewable energy in agriculture. With particular regard to the development of new product varieties, greater international effort, involving triangular cooperation may be required; regional economic organizations could play a decisive role in such efforts.

More efforts also need to be made to strengthen agricultural skills development and training. Although the region needs more agricultural scientists, policy and programme analysts, statisticians, technology experts, logistic managers and the like, research and development expenditures are declining in many countries. In such an increasingly resource-scarce environment, new and innovative technologies and agricultural practices, such as precision agriculture, laser-guided land preparation and automated agricultural systems, will become the norm because they conserve resources. Future agricultural competition and productivity will depend on how the region is able to innovate, identify, adapt or adopt new technologies. All such technologies require better human skills, and countries in the region will have to lay the foundation for this transition by attracting and training youth to be part of the "new agriculture", which will pose a challenge given that in many countries large proportions of young people tend to migrate to urban areas.

Fostering productivity in industry

While in several economies in the region a rapid transformation from agriculture to services is taking place, history suggests that countries that have developed successfully have done so based upon rapid industrialization. In this regard, for development to be sustainable, it is impossible to leapfrog industrialization. Rapid growth of productivity in industry, particularly in the manufacturing sector, is usually considered as necessary to raise profitability and wages in this sector, which in turn generates demand for goods produced in other sectors, enabling them to experience rapid expansion in output, productivity and wages. Moreover, technology spillover effects from the manufacturing sector can be transmitted to other sectors. Strengthening productivity in this sector is therefore an important element in strengthening domestic and regional demand.

Total factor productivity in manufacturing must be increased

Manufacturing is capable of experiencing rapid productivity gains largely through technical progress,

innovation, externalities, economies of scale and knowledge spillover (Kaldor, 1966; Murphy, Schleifer and Vishny, 1989). These productivity gains can be further realized at the macroeconomic level through structural transformation and changes in resource allocation from less to more productive firms and sectors (Bernard and Jensen, 2004). In particular, improving total factor productivity in manufacturing is recognized as an effective way for enhancing overall performance and catching up with other better performers; this process describes the "convergence hypothesis".

Several policies have been put forward to increase productivity in industry. These include: trade reforms; skills-upgrading programmes for the workforce; infrastructure-related programmes, which refer not only to physical but also financial and social infrastructure; efforts to improve accessibility of the enterprises to ICT, and proactive measures to encourage FDI and innovation.

For instance, FDI is expected to bring into countries foreign capital and foreign technology which would contribute to productivity growth not only directly but also through spillover effects. Similarly, innovations are expected to develop technology which would contribute to productivity and employment. Also, there are sufficient indications for improvements to be followed in terms of allocative efficiency, that is, resources to be diverted towards sectors of higher productivity away from sectors of lower productivity. For instance, in India major policy changes have been witnessed in the manufacturing sector since 1991, because industrial delicensing and the removal of restrictions on foreign investment have modified the profile of this sector considerably (Aghion and others, 2008). In addition, the Government of India has launched several initiatives and policies to increase productivity and the role of manufacturing in the economy (see box 3.5).

Trade policies can stimulate exports and imports, especially of intermediate and capital goods, which can lead to gains in productivity. In addition, encouraging firms to innovate and conduct research and development activities through fiscal incentives and financial benefits that are aimed at making industry (in particular, manufacturing) and services more efficient, technologically up to date and competitive, can also lead to growth in productivity (Sharma, 2012; UNIDO, 2005). In particular, non-traditional ICT-intensive services, which are characterized by growing tradability, increasing technological sophistication and low transport costs, are at the forefront of a third industrial revolution which started showing up in terms of a revival in productivity growth in the 2000s (Ghani, 2010).

This being said, however, there is of course a trade-off between providing fiscal incentives and the need in the region to raise more fiscal revenues to strengthen development (ESCAP, 2014a). With many of the economies in the region having low tax-to-GDP ratios, actual public resources that are spent on, for instance, enhancing research and development expenditure, or on infrastructure-related investment, may be very low, despite being relatively important in terms of percentage of overall government expenditure. In this regard, as outlined in chapter 1, ensuring fiscal sustainability through the raising of adequate revenues plays an important part in supporting long-term national development priorities, which includes accelerating productivity growth rates.

4.2. Social policies

Various social policies can contribute to increasing productivity for reviving economic growth and supporting sustainable development. For instance, policies that increase the share of labour in national income are important to strengthen domestic demand, and thereby contribute to a more sustainable model of development in which domestic and regional factors play a larger role than relying primarily on export demand of developed economies. Other policy tools include, for instance, minimum wage policies, greater social protection and social transfers that could support aggregate demand during times of crisis, as well as public employment guarantees, taking possible fiscal constraints into account.

Wages and social protection

To catalyse a shift to a development model in which domestic and regional demand play a larger role in driving the region's demand, gains in labour productivity must be translated into commensurate gains in wage levels, which has not been the case in recent years, as witnessed by the declining proportion of the share of wage income in output. Rising inequality and relatively weak wage-setting institutions in many countries mean that the benefits of growth often have not been spread as widely as would have been feasible (ILO, 2015d). Moreover, the weak link between productivity and wages may also be due to surplus labour, such that wages are not determined by the productivity of labour.

In this regard, minimum wages can act as an important policy tool to ensure that wage levels are increased.

Box 3.5 **Initiatives to foster industry in India**

India's "National Manufacturing Policy" of 2011 was designed to create 100 million more jobs and contribute 25% to the country's GDP in a decade.

The policy addresses in great detail environmental and regulatory issues, labour laws and taxation, but it is the proposed creation of national manufacturing investment zones, or NIMZs, which are clusters of manufacturing units that represent a unique way of integrating industrial infrastructure to achieve economies of scale, that have become the focus of attention. NIMZs will be developed as integrated industrial townships with world-class infrastructure and land use based on zoning, and clean and energy-efficient technology. Each zone will be at least 5,000 hectares in size. NIMZs will be built on non-agricultural land with adequate water supply, and ownership will be with state governments.

The new policy is aimed at introducing flexibility into the labour market by offering employers greater freedom in hiring and firing. It also enables so-called sunset industrial units, that is, firms/sectors that remain important to the economy but are losing favour with investors due to such factors as declining employment-generation capacity and profits or comparatively higher environmental costs, to follow a simplified exit mechanism. At the same time, the policy maintains workers' rights which otherwise might run the risk of being compromised in the name of flexibility.

"Make in India" under the current Government is now a flagship initiative. An important feature of the manufacturing policy is its financial and development incentives for small and medium-sized enterprises. On the whole, the promise of the policy is to increase the share of the manufacturing sector in the country's gross domestic product from the existing 16% share to 25% by 2020. The formation of "smart cities" is an attempt to reduce the cost of investment and reap the benefits of concentration. The new policy and the creation of NIMZs would seem to subscribe to the view that concentration can lead to enhanced productivity.

In order to raise the share of the manufacturing sector, the Government has identified 25 focus sectors for development; 100% FDI is allowed in all sectors, except space (74%), defense (49%) and the news media (26%). Key emphasis of the "Make in India" campaign is to improve the ease of doing business in these sectors through faster clearances, transparency for permits and financing, as well as efficient e-governance mechanisms.

Since the launch of Make in India in September 2014, FDI into the country has witnessed a 48 percent jump in the seven-month period between October 2014 and April 2015, and a 31 percent increase, valued at US $9.50 billion, between April and June 2015. It is still early days, and critical infrastructural developments are needed to convert investment into manufacturing gains. Nevertheless, *Make in India* affirms that India is open for business.[a]

The current Government has also launched the "Skill India" initiative and the "Start Up India Stand Up India" scheme. The objective of the Skill India initiative is to create opportunities for youth and to develop more of those sectors which had been involved in skills development in the past and to identify new sectors for skills development; this campaign was launched in July 2015 to prepare graduates and workers alike for the skills needed by industry. It is aimed at imparting training to 400 million young people by 2022 through the National Skill Development Corporation.[b] Start Up India Stand Up India comprises a 19-point action plan for start-up enterprises in India and is aimed at boosting entrepreneurship and generating employment for the youth.

[a] For additional details, see www.india-briefing.com/news/indias-economic-initiatives-magnet-investments-11247.html/#sthash.XWIa3aDn.dpuf.
[b] http://pibphoto.nic.in/documents/rlink/2015/jul/p201571502.pdf.

For instance, in Thailand minimum wages were increased significantly in 2013 following a decade of flat real wages. Similarly, in the Republic of Korea minimum wages grew faster than inflation between 2012 and 2014, whereas significant increases in minimum wages have revived wage growth in Viet Nam. In Cambodia, minimum wages in the garment industry increased to $128 per month starting on 1 January 2015 compared to $61 per month in 2013, and in Malaysia the country's first-ever minimum wage standards were implemented at the beginning of 2013. These developments will help stimulate

domestic demand and enable the region to move towards a development model that relies relatively less on exports and facilitates sustainable development instead of just promoting economic growth.

However, while minimum wages are an important wage-fixing tool, they are more relevant for less skilled workers. In contrast, wages for higher paid workers are usually better determined directly by employers and employees or trade unions. In this regard, Governments should strengthen the context needed for this to happen.[34]

Strengthening social protection is a further important tool to foster domestic demand. Thus, providing unemployment insurance and strengthening access to old-age pensions would, for instance, not only protect the vulnerable in times of crisis and contribute to reducing inequality, but would also decrease the need for precautionary savings and would strengthen demand. Similarly, providing an employment guarantee, such as has been done in India with the Mahatma Gandhi National Rural Employment Guarantee Act, would not only form an important pillar in the efforts to eradicate poverty and strengthen domestic demand, but also enable more consumption. Importantly, such schemes would not be expensive; they are well within the reach of most developing countries in the region, especially when considering the existing tax potential of the region.[35]

Reforming education for innovation and productivity

Despite efforts in Asia-Pacific economies to improve access to and the quality of education systems, the region has not yet become a technological or innovational leader. In fact, while economies in the region host multinational enterprises and have proven themselves as being able to adopt foreign technologies, increasing productivity may also require more creativity and indigenous innovative skills. Moreover, a prerequisite for workers to be able to use new technology and capital productively is that they have the appropriate skills and abilities that are required to do so. Key examples of policy areas that should be considered to foster productivity therefore also include not only improving the availability and quality of physical as well as information and communication infrastructure, but also expanding investment in education, with a particular focus on improving its quality and increasing the focus on science, technology and innovation. Policy attention is also increasingly being paid to technical and vocational education and training, which comprises formal, non-formal and informal learning for the world of work.

In this regard, education and training systems need to be adapted to provide new skills, competencies and abilities. Reassessing training and educational systems by taking into account such criteria as quantity, quality and relevance of teaching methods and teaching material would therefore be an important step in strengthening the innovation potential of the region. For instance, Asia-Pacific countries should develop educational systems that draw more upon "lifelong learning" systems for all which offer a more active role for learners over their lifetime than "traditional learning" systems where teachers are the source of knowledge, as such systems are less supportive of a knowledge-based economy and thus of innovation.

Improving the skills of the labour force is particularly important for highly labour-intensive industries that are often characterized by low-wage employment, such as the garment industry. Although mechanization and automation have not yet diminished the importance of workers in industry, some industries are vulnerable to potentially large-scale layoffs when pressures for wage increases rise. It should be pointed out that several countries have already seen socioeconomic unrest stemming from low wages, low standards of safety and security, and an overall weak implementation of labour laws and compliance with ILO conventions, all of which factors have led to an increase in labour costs. Providing workers with a larger, more broad-based skills set would therefore be important to increase their employability in other industries. Thus, for former employees of multinational enterprises, the combination of training and their experience in such enterprises could help create competitive firms or firms able to supply parts of products which meet the standards of multinational enterprises (Fosfuri, Motta and Rønde, 2001; Görg and Greenaway, 2004), provided that adequate entrepreneurial policies are implemented in the country.

5. CONCLUSIONS

The strong economic growth witnessed in the Asia-Pacific region over the last few decades was primarily driven by factor accumulation. Yet, at the same time, significant increases in productivity, particularly in labour productivity, have also taken place in the region. Since the 2008 economic and financial crisis, economic growth and productivity growth have, however, been on a downward trend. This is worrying as both are vital for development.

To bolster Asia-Pacific economic growth in the light of the fragile global economic conditions, priority must be given to stimulating domestic and regional demand.

In this chapter, it has been argued that doing so will require higher levels of productivity.

While many countries in the region are shifting from an agriculture-based economy to one in which services plays a dominant role, greater emphasis must be placed on strengthening productivity in agriculture. At the same time, appropriate strategies and policies are needed to foster rural industrialization and absorb the push of labour from the agricultural sector. For one, the current shift to a serviced-based economy is coming at an early stage in the region's developing countries. In addition, with almost 4 of every 10 workers still engaged in agriculture and more than half the developing region's population living in rural areas, development of the rural economy remains pivotal to making growth more sustainable. Increasing productivity in agriculture and industrializing the rural sector will therefore be vital to strengthening domestic demand.

In addition to policies that foster productivity growth and thereby increase aggregate supply, catalysing a shift to a growth model in which domestic and regional factors play a relatively larger role also need to be accompanied by policies that strengthen aggregate demand. In this respect, productivity gains need to be shared more equally with workers. Thus, increases in productivity must be coupled with commensurate increases in real wages to enhance the well-being of societies.

The Sustainable Development Goals provide a critical entry point to strengthening productivity. While strengthening productivity will contribute to the success of a number of the Sustainable Development Goals, investing in their achievement will also nurture productivity growth, creating a virtuous cycle between sustainable development, productivity and economic growth.

Annex Sustainable Development Goals

Goal 1. End poverty in all its forms everywhere
Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3. Ensure healthy lives and promote well-being for all at all ages
Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5. Achieve gender equality and empower all women and girls
Goal 6. Ensure availability and sustainable management of water and sanitation for all
Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10. Reduce inequality within and among countries
Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12. Ensure sustainable consumption and production patterns
Goal 13. Take urgent action to combat climate change and its impacts
Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable development

Endnotes

[1] Since the adoption of the Millennium Declaration in September 2000, the line for measuring extreme poverty has been updated twice: first, in 2008 when this indicator was updated to $1.25 a day measured at 2005 international prices adjusted for purchasing power parity (PPP); and second, in 2015 when the indicator was updated to $1.90 a day measured at 2011 international prices adjusted for PPP.

[2] General Assembly resolution 70/1.

[3] See annex for a complete list of the Sustainable Development Goals.

[4] For instance, a number of authors have claimed that the main source of economic growth in Asia is the rapid accumulation of capital: Susan M. Collins and Barry P. Bosworth, "Economic growth in East Asia: accumulation versus assimilation", Brookings Papers on Economic Activity, No. 2, 1996, pp. 135-203; Kim Jong-Il and Lawrence J. Lau, "The sources of economic growth of the East Asian newly industrialized countries", *Journal of the Japanese and International Economies*, vol. 8, No. 3, pp. 235-271; and Alwyn Young, "The tyranny of numbers: confronting the statistical realities of the East Asian growth experience", National Bureau of Economic Research Working Paper No. 4680. Yet, the literature is not undivided on these issues. For instance, subsequent to 2002, the importance of TFP, as opposed to factor accumulation, in growth for developing Asian economies has become more prominent, according to Donghyun Park and Jungsoo Park, "Drivers of developing Asia's growth: past and future", Asian Development Bank Economics Working Paper Series 235; for a critical survey, see Jesus Felipe, "Total factor productivity growth in East Asia: a critical survey", *Journal of Development Studies*, vol. 35, No. 4, pp. 1-41.

[5] The term *economies of agglomeration* refers to the benefits of firms, such as being located near each other, whereas *economies of scale* refers to benefits of firms increasing their size.

[6] In the case of North and Central Asian economies, it is worth noting that these economies went through a transition towards a market-based economy during the 1990s and experienced a collapse of their production. This situation may explain the negative or low contribution of input factors to output growth and the larger contribution of total factor productivity to output growth, as noted in Robert C. Feenstra, Robert Inklaar and Marcel P. Timmer, "The next generation of the Penn world table", *American Economic Review*, vol. 105, No. 10, pp. 3150-3182.

[7] Using a simple headcount of employed persons can hide changes in average hours worked, caused by the evolution of part-time work or the effect of variations in overtime, absence from work or shifts in normal hours. In such cases, the use of *hours* actually worked per worker would be a preferable measure to its use in the denominator. However, lack of data availability on hours worked per worker is a limiting factor in many developing countries. Moreover, the correlations between using either hours worked or headcount of employed persons are quite strong, at least in countries that are members of the Organisation for Economic Co-operation and Development. See Rebecca Freeman, "Labour productivity indicators: comparison of two OECD databases – productivity differentials and the Balassa-Samuelson effect", OECD Statistics Directorate, July 2008.

[8] Employment-to-population ratios in the region range from more than 80% in Cambodia to less than 37% in Timor-Leste.

[9] Indeed, the Hodrick-Prescott filter removes the cyclical fluctuations from the productivity series in figure 2 above).

[10] Australia, Bangladesh, Cambodia, China, Fiji, India, Indonesia, Iran (Islamic Republic of), Japan, Lao People's Democratic Republic, Malaysia, Nepal, New Zealand, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Sri Lanka, Tajikistan, Thailand, Turkey, Uzbekistan and Viet Nam.

[11] The agricultural productivity gap is defined as $\frac{(1-y_a) / 1-l_a)}{y_a / l_a}$, where y_a is the share of agriculture in GDP and l_a is the share of agriculture in total employment. The ratio must be equal to one under the assumption of a competitive labour market, which implies that workers are paid the value of their marginal product and that firms hire up to the point where the marginal value product of labour equals the wage. This measure has some biases coming from various sources and data noise, yet even after considering sector differences in, for instance hours worked and the skill level of workers as well as alternative measures of sector output constructed from household survey data, a puzzlingly large gap remains. See Douglas Gollin, David Lagakos and Michael E. Waugh, "The agricultural productivity gap", National Bureau of Economic Research Working Paper No. 19628, November 2013.

[12] The value must be equivalent to one when values for value added in agriculture per worker are equal to per capita GDP; values below one indicate situations where agricultural value added per worker is lower than per capita GDP.

[13] Industry's share in GDP declined from approximately 39% in 1990 to 37.1% in 2013.

[14] Based on the decomposition of value-added growth in terms of employment growth and labour productivity growth, it has been noted that only a handful among the 62 groups within the organized (formal) manufacturing sector experienced rapid productivity growth of at least 5% per annum and employment growth of at least 4% per annum simultaneously. In this regard, see Arup Mitra, "Can industry be the key to pro-poor growth? An exploratory analysis for India", ILO-Asia-Pacific Working Paper Series (New Delhi, International Labour Organization, 2013).

[15] GDP per person was equivalent to $3,269 in constant 2005 terms at purchasing power parity (PPP) in India in 2013. In developed economies, it was $18,149 in 1980 (also in constant 2005 terms at PPP).

[16] Services have accounted for more than 50% of value added in GDP since 2000 in developing economies in the region when GDP per capita was $3,131 (in constant 2005 terms at PPP). This level is barely a fifth of the GDP per capita levels of more than $15,000 (at PPP) that existed in 1970 in developed economies in the region, when services contributed 50% of value added in GDP.

[17] This aspect is also confirmed by Asian Development Bangkok, *Key Indicators for Asia and the Pacific 2013*, special chapter on "Asia's economic transformation: where to, how, and how fast?" (Mandaluyong City, Philippines, ADB, 2013).

[18] For growth accounting, see Robert M. Solow, "A contribution to the theory of economic growth", *Quarterly Journal of Economics*, vol. 70, No. 1, pp. 65-94. For the stochastic frontier approach, see Denis J. Aigner, C.A. Knox Lovell and Peter Schmidt, "Formulation and estimation of stochastic frontier production function models", Journal of Econometrics, vol. 6, No. 1, pp. 21-37; and Wim Meeusen and Julien Van den Broeck, "Efficiency estimation from Cobb-Douglas production functions with composed error", *International Economic Review*, vol. 18, No. 2, pp. 435-444.

[19] These methods include growth in the efficiency of using existing resources and crop and livestock varieties arising from the use of high-yielding, disease-resistant and drought-tolerant varieties; the implementation of efficient and timely cultivation and harvesting practices; and the application of agricultural practices that control more precisely the use of water, fertilizer and other agricultural inputs ("precision agriculture"); providing better education in rural areas that enhances community understanding of modern agricultural practices; institutional innovation; and improved quality of resources.

[20] For an extensive review of determinants of productivity, see Anders Isaksson, "Determinants of total factor productivity: a literature review", Research and Statistics Branch Staff Working Paper 02/2007 (Vienna, United Nations Industrial Development Organization, 2007).

[21] Technological progress was considered to be exogenous in the neoclassical models of growth. See Robert M. Solow, "A contribution to the theory of economic growth", *Quarterly Journal of Economics*, vol. 70, No. 1, pp. 65-94. Such progress has since been included as an endogenous process of growth by, for instance, considering spillovers (externalities) of the skilled workforce. See P.M. Romer, "Increasing returns and long-run growth", *The Journal of Political Economy*, vol. 94, No. 5, pp. 1002-1037.

[22] These economies comprise China; Hong Kong China; India; Indonesia; Malaysia; Pakistan; Philippines; Republic of Korea; Singapore; Taiwan Province of China; Thailand; and Viet Nam.

[23] Hong Kong, China; Indonesia; Kazakhstan; Macao, China; Malaysia; Russian Federation; Shanghai, China; Singapore; Taiwan Province of China; Thailand; Turkey; and Viet Nam.

[24] Hong Kong, China; Japan; and Singapore also ranked highest in *science*.

[25] Trade intensity is captured by the ratio of total exports plus imports to the value of total sales of the industry.

[26] While there is no standard definition of *infrastructure* across economic studies, the term public infrastructure includes not only transport and energy infrastructure, but also, among other things, *social* infrastructure, such as educational infrastructure (schools and universities) and health infrastructure (hospitals and health services). For a discussion on these aspects, see Gianpiero Torrisi, "Public infrastructure: definition, classification and measurement issues", *Economics, Management, and Financial Markets*, vol. 4, No. 3, pp. 100-124.

[27] Food Security Indicators of the Food and Agriculture Organization of the United Nations, released on 12 October 2015. The prevalence of undernourishment expresses the probability that a randomly selected individual from the population consumes an amount of calories that is insufficient to cover his/her energy requirement for an active and healthy life. The indicator is computed by comparing a probability distribution of habitual daily dietary energy consumption with a threshold level called the minimum dietary energy requirement. Both factors

are based on the notion of an average individual in the reference population.

[28] For determinants at the microeconomic level, see Gustava Anríquez, Silvio Daidone and Erdgin Mane, "Rising food prices and undernourishment: a cross-country inquiry", *Food Policy*, vol. 38, No. C, pp. 190-202.Those authors provided some evidence on the characteristics of households in different Asian developing countries and identified as potentially important factors: (a) income of the household; (b) education of the head of the household; and (c) access to cropland. An attempt to address the same type of issues by considering the increasing urbanization of developing countries is contained in Alberto Zezza and Luca Tasciotti, "Urban agriculture, poverty, and food security: empirical evidence from a sample of developing countries", *Food Policy*, vol. 35, No. 4, pp. 265-273. Those authors also suggested that agriculture can help the poorest households.

[29] This result is in line with that of other authors who analysed the impact of agricultural GDP on non-agricultural GDP to support the role of agriculture in poverty eradication strategies. See Luc Christiaensen, Lionel Demery and Jesper Kuhl, "The (evolving) role of agriculture in poverty reduction: an empirical perspective", *Journal of Development Economics*, vol. 96, No. 2, pp. 239-254.

[30] Expenditure on research and development was third highest in Singapore, reaching 2% of GDP in 2012 (latest data available).

[31] For instance, in Indonesia, all three policies were applied together, but failed to produce the desired result of improved productivity. Thus, input subsidies in the form of fertilizer subsidies and price support for paddy farmers have been used in Indonesia since the beginning of the 1970s. While the initial objective had been to stabilize rice prices, later on it was directed towards raising the domestic price of rice and increasing self-sufficiency. See Dalili Cervantes-Gody and Joe Dewbre, "Economic importance of agriculture for sustainable development and poverty reduction: findings from a case study of Indonesia", Global Forum on Agriculture, 23-30 November 2010, Policies for Agricultural Development, Poverty Reduction and Food Security, OECD Headquarters, Paris. Mandatory procurement policies and production of sugar largely fell after 1997, yet rice imports were banned in 2004, and trade protection for rice remained high. While TFP could explain up to 60% of agricultural growth in Indonesia during the period 2003-2012, this increase was largely attributed to a gradual shift from the production of food staples to higher-value perennial, horticultural and livestock products rather than to commodities that were provided with subsidies and price support. See Keith O. Fuglie, "Productivity growth and technology capital in the global agricultural economy", in *Productivity Growth in Agriculture: An International Perspective*, K.O. Fuglie, S.L. Wang and V.E. Ball, eds. (Wallingford, United Kingdom, CAB International, 2012).

[32] In some environments, small farms are efficient whereas large farms are more efficient in others under different conditions.

[33] *Translational research* applies findings from basic science to enhance human health and well-being. It is thus not geared towards enhancing production by making it more effective or efficient.

[34] Such a move is covered in the Right to Organise and Collective Bargaining Convention, 1949 (No. 98) of the International Labour Organization. That convention, the name of which was changed when it entered into force in 1951, may be accessed at www.ilo.org/dyn/normlex/en/f?p=NORMLEXPUB:12100:0::NO::P12100_ILO_CODE:C098.

[35] Highlights of the costs involved for these programmes are available in United Nations, Economic and Social Commission for Asia and the Pacific, *Economic and Social Survey for Asia and the Pacific 2013: Forward-looking Macroeconomic Policies for Inclusive and Sustainable Development* (Sales No. E.13.II.F.2). The 2014 issue of that publication points to existing tax potential. See *Economic and Social Survey for Asia and the Pacific 2014: Regional Connectivity for Shared Prosperity* (Sales No. E.14.II.F.4).

UNDER EMBARGO UNTIL 12.00 HRS., BANGKOK TIME, THURSDAY, 28 APRIL 2016

REFERENCES

Aghion, Philippe, Peter Howitt, and David Mayer-Foulkes (2005). The effect of financial development on convergence: theory and evidence. *Quarterly Journal of Economics*, vol. 120, No. 1, pp. 173-222.

Aghion, Philippe, and others (2008). The unequal effects of liberalization: evidence from dismantling the license raj in India. *American Economic Review,* vol. 98, No. 4, pp. 1397-1412.

Agénor, Pierre-Richard, Jan Mares, and Piritta Sorsa (2015). Gender equality and economic growth in India: a quantitative framework. OECD Economics Department Working Papers, No. 1263. Paris: OECD Publishing.

Aitken, Brian, Gordon H. Hanson, and Ann E. Harrison (1997). Spillovers, foreign investment, and export behavior. *Journal of International Economics*, vol. 43, Issue 1-2, pp. 103-132.

Amiti, Mary, and Jozef Konings (2007). Trade liberalization, intermediate inputs, and productivity: evidence from Indonesia. *American Economic Review*, vol. 97, No. 5, pp. 1611–1638.

Anwar, Sajid (1995). An impure public input as a determinant of trade. *Finnish Economic Papers*, vol. 8, Issue 2, pp. 91-95.

Aschauer, David Alan (1989). Is public expenditure productive? *Journal of Monetary Economics*, vol. 23, Issue 2, pp. 177-200.

Asian Development Bank (ADB) (2010). The rise of Asia's middle class. In *Key Indicators for Asia and the Pacific 2010*. Available from www.adb.org/sites/default/files/publication/27726/ki2010-special-chapter.pdf.

_____ (2013). *Key Indicators for Asia and the Pacific 2013. Special chapter: Asia's economic transformation: where to, how, and how fast?* Manila.

Atkinson, Anthony, Thomas Piketty, and Emmanuel Saez (2011). Top incomes in the long run of history. Journal of Economic Literature, vol. 49, Issue 1, pp. 3-71.

Australia, Bureau of Statistics (2016). *Private New Capital Expenditure and Expected Expenditure*. December quarter. Sydney: Australian Bureau of Statistics.

Bank for International Settlement (BIS) (2015). When the financial becomes real. In *85th Annual Report*. Basel, Switzerland: BIS. Available from www.bis.org/publ/arpdf/ar2015e3.htm.

Bank of Korea (2015). The 2015 Financial and Welfare Survey of Households. (In Korean).

Bank of Thailand (2014). Impact of household debt on Thailand's economic and financial stability. In *Financial Stability Report 2014*. Available from www.bot.or.th/English/FinancialInstitutions/Publications/FSR_Doc/FSR2014e.pdf.

Barro, Robert J. (1997). *Determinants of Economic Growth: A Cross-Country Empirical Study*. Cambridge, MA: MIT Press.

_____, and Xavier Sala-i-Martin (1995). *Economic Growth*. New York: McGraw-Hill.

Bernanke, Ben S., and Martin L. Parkinson (1991). Procyclical labor productivity and competing theories of the business cycle: some evidence from interwar U.S. manufacturing industries. *Journal of Political Economy*, vol. 99, No. 3, pp. 439-459.

Bernard, Andrew. B., and J. Bradford Jensen (2004). Exporting and productivity in the USA. Oxford *Review of Economic Policy*, vol. 20, No. 3, pp. 343–357.

Borensztein, Eduardo, Jose De Gregorio, and Jong-Wha Lee (1998). How does foreign direct investment affect economic growth? *Journal of International Economics*, vol. 45, Issue 1, pp. 115-135.

Borio, Claudio, and others (2015). Labour reallocation and productivity dynamics: financial causes, real consequences. BIS Working Papers No. 534. Basel, Switzerland: Bank for International Settlements.

Cabezon, Ezequiel, and others (2015). Enhancing macroeconomic resilience to natural disasters and climate change in the small States of the Pacific. IMF Working Paper WP/15/125, Washington, D.C.: International Monetary Fund. Available from www.imf.org/external/pubs/ft/wp/2015/wp15125.pdf.

Calderón, Cesar, and Luis Servén (2003). The output cost of Latin America's infrastructure gap. In *The Limits of Stabilization: Infrastructure, Public Deficits and Growth in Latin America*, William Easterly and Luis Servén, eds. Washington, D.C.: Stanford University Press.

Capital Economics (2015). Should we worry about money flooding out of Asia?, 14 December. Available from www.capitaleconomics.com/emerging-asia-economics/emerging-asia-economics-focus/should-we-worry-about-money-flooding-out-of-asia-33301/.

Cecchetti, Stephen G., and Enisse Kharroubi (2012). Reassessing the impact of finance on growth. BIS Working Papers No. 381. Basel, Switzerland: Bank for International Settlements.

_____ (2015). Why does financial sector growth crowd out real economic growth? BIS Working Papers No. 490. Basel, Switzerland: Bank for International Settlements.

Cerutti, Eugenio, Stijn Claessens, and Luc Laeven (2015). The use and effectiveness of macroprudential policies: new evidence. IMF Working Paper WP/15/61. Washington, D.C.: International Monetary Fund.

Chadha, Rajesh, and others (2009). Moving to goods and services tax in India: impact on India's growth and international trade. National Council of Applied Economic Research Working Paper No. 103. New Delhi, December 2009.

Chow, Julian (2015). Stress testing corporate balance sheets in emerging economies. IMF Working Paper WP/15/216. Washington, D.C.: International Monetary Fund.

Chopra, Ajai (2015). Financing productivity- and innovation-led growth in developing Asia: international lessons and policy issues. Working Paper Series 15-6. Washington, D.C.: Peterson Institute for International Economics.

Chui, Michael, Ingo Fender, and Vladyslav Sushko (2014). Risks related to EME corporate balance sheets: the role of leverage and currency mismatch. BIS Quarterly Review, September. Basel, Switzerland: Bank for International Settlements.

Christiaensen, Luc, Lionel Demery, and Jesper Kühl (2011). The (evolving) role of agriculture in poverty reduction − an empirical perspective. *Journal of Development Economics*, vol. 96, Issue 2, pp. 239-254.

Coe, David T., and Elhanan Helpman (1995). International R&D spillovers, *European Economic Review*, vol. 39, Issue 5, pp. 859-887.

Credit Suisse Research Institute (2015). Global Wealth Report 2015. Available from https://publications.credit-suisse.com/tasks/render/file/?fileID=F2425415-DCA7-80B8-EAD989AF9341D47E.

Crespi, Gustavo, and Pluvia Zuniga (2012). Innovation and productivity: evidence from six Latin American countries. *World Development*, vol. 40, No. 2, pp. 273-290.

Datt, Gaurav, and Martin Ravallion (1998). Farm productivity and rural poverty in India. Journal of Development Studies, vol. 34, No. 4, pp. 62-85.

De Loecker, Jan (2007). Do exports generate higher productivity? Evidence from Slovenia. *Journal of International Economics*, vol. 73, No. 1, pp. 69-98.

Dell, Melissa, Benjamin F. Jones, and Benjamin A. Olken (2008). Climate change and economic growth: evidence from the last half century. NBER Working Paper No. 14132. Cambridge, MA: National Bureau of Economic Research.

Dethier, Jean-Jacques, and Alexandra Effenberger (2012). Agriculture and development: a brief review of the literature. *Economic Systems*, vol. 36, No. 2, pp. 175-205.

Dobbs, Richard, and others (2011). *Urban World: Mapping the Economic Power of Cities*, McKinsey Global Institute. E-book.

Dynan, Karen, and Donald Kohn (2007). The rise in U.S. household indebtedness: causes and consequences. Finance and Economics Discussion Series 2007-37. Washington, D.C.: Federal Reserve Board.

Economist (2015). Debt in China: deleveraging delayed, 24 October. Available from www.economist.com/news/finance-and-economics/21676837-credit-growth-still-outstripping-economic-growth-deleveraging-delayed.

Elborgh-Woytek, Katrin, and others (2013). Women, work, and the economy: macroeconomic gains from gender equity. IMF Staff Discussion Note SDN/13/10. Washington, D.C.: International Monetary Fund. Available from www.imf.org/external/pubs/ft/sdn/2013/sdn1310.pdf.

Fernandes, Ana M. (2007). Structure and performance of the services sector in transition economies. Policy Research Working Paper, No. 4357. Washington, D.C.: World Bank. Available from http://elibrary.worldbank.org/doi/pdf/10.1596/1813-9450-4357.

Field, C. B., and others, eds. (2014). *Climate Change 2014: Mitigation of Climate Change − Working Group III contribution to the IPCC Fifth Assessment Report*. New York: Cambridge University Press.

Food and Agriculture Organization of the United Nations (FAO) (2009). Agricultural reforms and trade liberalization in China and selected Asian countries: lessons of three decades. Policy Assistance Series 6: Bangkok: FAO Regional Office for Asia and the Pacific.

_____ (2012). *State of Agriculture in the World 2012: Investing in Agriculture for a Better Future*. Rome: FAO. Available from www.fao.org/docrep/017/i3028e/i3028e.pdf.

_____, World Food Programme (WFP), and International Fund for Agricultural Development (IFAD) (2012). *The State of Food Insecurity in the World 2012: Economic Growth is Necessary but Not Sufficient to Accelerate Reduction of Hunger and Malnutrition*. Rome: FAO.

Foreign Policy (2012). *The most dynamic cities of 2025*, September/October 2012. Available from http://foreignpolicy.com/2012/08/13/introducing-the-most-dynamic-cities-of-2025/.

Fosfuri, Andrea, Massimo Motta, and Thomas Rønde (2001). Foreign direct investment and spillovers through workers' mobility. *Journal of International Economics*, vol. 53, No. 1, pp. 205-222.

Frankel, Jeffrey A., and David Romer (1999). *Does trade cause growth? American Economic Review*, vol. 89, No. 3, pp. 379-399.

Ghani, Ejaz (2010). *The Service Revolution in South Asia*. Oxford: Oxford University Press.

Goedhuys, Micheline, Nobert Janz, and Pierre Mohnen (2008). Knowledge-based productivity in 'low-tech' industries: evidence from firms in developing countries. UNU-MERIT Working Paper Series No. 2008-007. Maastricht, Netherlands: United Nations University – Maastricht Economic and Social Research and Training Centre on Innovation and Technology.

Goldberg, Pinelopi Koujianou, and others (2010). Imported intermediate inputs and domestic product growth: evidence from India. *Quarterly Journal of Economics*, vol. 125, No. 4, pp. 1727–1767.

Görg, Holger, and David Greenaway (2004). Much ado about nothing? Do domestic firms really benefit from foreign investment? *World Bank Research Observer*, vol. 19, Issue 2, pp. 171-191.

Hawkins, John, and Philip Turner (2000). Managing foreign debt and liquidity risks in emerging economies: an overview. Policy Papers No. 8 – Managing Foreign Debt and Liquidity Risks. Basel, Switzerland: Bank for International Settlements.

Heal, Geoffrey, and Jisung Park (2013). Feeling the heat: temperature, physiology and the wealth of nations. NBER Working Paper No. 19725. Cambridge, MA: National Bureau of Economic Research.

Hulten, Charles R. (1996). Infrastructure capital and economic growth: how well you use it may be more important than how much you have. NBER Working Paper No. 5847. Cambridge, MA: National Bureau of Economic Research.

_____, E. Bennathan, and S. Srinivasan (2006), Infrastructure, externalities, and economic development: a study of the Indian manufacturing industry. *World Bank Economic Review*, vol. 20, No. 2, pp. 291-308.

Hultgren, T. (1960). Changes in labor cost during cycles in production and business. Occasional Paper No. 74. New York: National Bureau of Economic Research.

Indian Council for Agricultural Research (ICAR) (2010). *Degraded and Wastelands of India: Status and Spatial Distribution*. New Delhi: Indian Council for Agricultural Research.

Institute of International Finance (IIF) (2016). January 2016 capital flows to emerging markets. Available from www.iif.com/publication/capital-flows/january-2016-capital-flows-emerging-markets.

International Labour Organization (ILO) (2014). *Global Wage Report 2014/15: Wages and Income Inequality*. Geneva.

_____ (2015a). Reduce inequality, accelerate growth, generate decentwork. Statement by Mr. Guy Ryder, Director-General International Labour Organization at the International Monetary and Financial Committee. Lima, Peru, 9 October. Available from www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/statement/wcms_413179.pdf.

_____ (2015b). *Comparative Analysis of Policies for Youth Employment in Asia and the Pacific*. Geneva. Available from www.ilo.org/wcmsp5/groups/public/---ed_emp/documents/publication/wcms_336124.pdf.

_____ (2015c). Trends in collective bargaining coverage: stability, erosion or decline? Labour Relations and Collective Bargaining, Issue Brief No.1. Available from www.ilo.org/public/english/iira/pdf/labourrelations.pdf.

_____ (2015d). *Competitiveness, Productivity and Jobs: Promoting Sustainable Enterprises in Asia and the Pacific*. Geneva.

_____ (2016). *World Employment and Social Outlook – Trends 2016*. Geneva.

_____, and Asian Development Bank (ADB) (2014). *ASEAN Community 2015: Managing integration for better jobs and shared prosperity*. Available from www.ilo.org/wcmsp5/groups/public/---asia/---ro-bangkok/documents/publication/wcms_300672.pdf.

International Monetary Fund (IMF) (2011). *Revenue Mobilization in Developing Countries*. Washington, D.C. Available from www.imf.org/external/np/pp/eng/2011/030811.pdf.

_____ (2014). Corporate leverage in Asia: a fault line? In *Regional Economic Outlook: Asia and Pacific*, April 2014. Chapter 2. Washington, D.C.: International Monetary Fund.

_____ (2015). Corporate leverage in emerging markets – a concern? In *Global Financial Stability Report*, October 2015. Chapter 3. Washington, D.C.: International Monetary Fund.

_____ (2016a). *World Economic Outlook Update*, January 2016. Washington, D.C.: International Monetary Fund. Available from www.imf.org/external/pubs/ft/weo/2016/update/01/.

_____ (2016b). Country report for the Islamic Republic of Iran. Washington, D.C. Available from www.imf.org/external/country/IRN.

Irz, Xavier, and others (2001). Agricultural productivity growth and poverty alleviation. *Development Policy Review*, vol. 19, Issue 4, pp. 449-466.

Junankar, Pramod Nagorao (2014). Is there a trade-off between employment and productivity? Employment Working Paper No. 167. Geneva: International Labour Organization.

Kaldor, Nicholas (1966). *Causes of the slow rate of economic growth of the United Kingdom: an inaugural lecture*. London: Cambridge University Press.

Kato, Atsushi, and Arup Mitra (2008). Imported technology and employment: evidence from panel data on Indian manufacturing firms. In *High-tech Industries, Employment and Competitiveness*. New Delhi: Routledge.

Keller, W. (2004). International technology diffusion. J*ournal of Economic Literature*, vol. 42, pp. 752–782.

_____ (2010). International trade, foreign direct investment, and technology spillovers. In *Handbook of the Economics of Innovation*, B. Hall and N. Rosenberg, eds. Amsterdam: North-Holland.

Kotarski, Kristijan (2015). The financial origins of China's rising inequality. East Asia Forum, 10 October. Available from www.eastasiaforum.org/2015/10/10/the-financial-origins-of-chinas-rising-inequality/.

Krugman, Paul (1992). *The Age of Diminished Expectations: US Economic Policy in the 1980s*. Cambridge, MA: MIT Press.

_____ (1994). *Rethinking International Trade*. Cambridge, MA: MIT Press.

Lee, Jong-Wha, and Kiseok Hong (2012). *Economic growth in Asia: determinants and prospects*. *Japan and the World Economy*, vol. 24, Issue 2, pp. 101-113.

Levine, Oliver, and Missaka Warusawitharana (2014). *Finance and Productivity Growth: Firm-level Evidence*. Finance and Economics Discussion Series. Available from www.federalreserve.gov/pubs/feds/2014/201417/201417pap.pdf.

Ligon, Ethan A., and Elisabeth Sadoulet (2011). Estimating the effects of aggregate agricultural growth on the distribution of expenditures. CUDARE Working Paper Series No. 1115. Berkeley: University of California at Berkeley, Department of Agricultural and Resource Economics and Policy.

Llanto, Gilberto (2013). Productivity growth in Philippine agriculture: the impact of infrastructure on agricultural productivity. Los Baños, Philippines: Southeast Asian Regional Center for Graduate Study and Research in Agriculture (SEARCA), Department of Agriculture-Bureau of Agricultural Research (DA-BAR) and Philippine Rice Research Institute (PhilRice).

Loayza, Norman V., and Claudio Raddatz (2010). The composition of growth matters for poverty alleviation. *Journal of Development Economics*, vol. 93, No. 1, pp. 137-151.

Loko, Boileau, and Mame Astou Diouf (2009). Revisiting the determinants of productivity growth: what's new? *IMF Working Papers* 09/225. Washington, D.C.: International Monetary Fund.

Lucas, Robert E. (1988). On the mechanics of economic development. *Journal of Monetary Economics*, vol. 22, No. 1, pp. 3-42.

Ly Caroline and Kristina Yarrow (2014). Partnering to end extreme poverty in Asia through universal health coverage. USAID. Available from www.usaid.gov/sites/default/files/documents/1864/UHC-and-extreme-Poverty-Asia.pdf.

Mathews, J. A. (2001). National systems of economic learning: the case of technology diffusion management in East Asia. *International Journal of Technology Management*, vol. 22, Nos. 5-6, pp. 455-479.

Maudos, Joaquín, José Manuel Pastor, and Lorenzo Serrano (1999). Total factor productivity measurement and human capital in OECD countries. Economics Letters, vol. 63, Issue 1, pp. 39-44.

McCauley, Robert, Patrick McGuire, and Vladyslav Sushko (2015). Global dollar credit: links to US monetary policy and leverage. BIS Working Papers No 483. Basel, Switzerland: Bank for International Settlements.

McKinsey Global Institute (2015). *The Power of Parity: How Advancing Women's Equality Can Add $12 Trillion to Global Growth*. McKinsey and Company. E-book.

Mitra, Arup (2013). Can industry be the key to pro-poor growth? An exploratory analysis for India. ILO-Asia-Pacific Working Paper Series, December. New Delhi: International Labour Organization Decent Work Team for South Asia and Country Office for India.

_____, Aristomene Varoudakis, and Marie-Ange Véganzonès-Varoudakis (2002). Productivity and technical efficiency in Indian states' manufacturing: the role of infrastructure. *Economic Development and Cultural Change*, vol. 50, Issue 2, pp. 395-426.

Mitra, Arup, Chandan Sharma, and Marie-Ange Véganzonès-Varoudakis (2011). Total factor productivity and technical efficiency of Indian manufacturing: the role of infrastructure and information and communication technology. *CERDI, Etudes et Documents*, E 2011.15. Clermont-Ferrand, France: Cetre d'Etudes et de Recherches sur le Développement International.

_____ (2012). Estimating impact of infrastructure on productivity and efficiency of Indian manufacturing. *Applied Economics Letters*, vol. 19, No. 8, pp. 779-783.

_____ (2014). Trade liberalization, technology transfer, and firms' productive performance: the case of Indian manufacturing. *Journal of Asian Economics*, vol. 33, pp. 1–15.

Mizutani, Funitoshi, and Tomoyasu Tanaka (2010). Productivity effects and determinants of public infrastructure investment. *Annals of Regional Science*, vol. 44, Issue 3, pp. 493-521.

Mujeri, Mustafa K. (2014). Making growth more inclusive in Asia and the Pacific: a case study of Bangladesh. Background paper prepared for the *Economic and Social Survey of Asia and the Pacific 2015*. Bangkok: United Nations, Economic and Social Commission for Asia and the Pacific.

Murphy, Kevin M., Andrei Schleifer, and Robert W. Vishny (1989). Industrialization and the Big Push. *Journal of Political Economy*, vol. 97, Issue 5, pp. 1003-1026.

Muthitacharoen, Athiphat, Phacharaphot Nuntramas, and Pasit Chotewattanakul (2014). Rising household debt: implications for economic stability. Paper presented at Bank of Thailand Symposium 2014. Available from www.bot.or.th/Thai/MonetaryPolicy/ArticleAndResearch/SymposiumDocument/Paper4_2557.pdf.

Mwase, Nkunde, and Francis Kumah (2015). Revisiting the concept of dollarization: the global financial crisis and dollarization in low-income countries. IMF Working Paper WP/15/12.Washington, D.C.: International Monetary Fund.

Negara, Siwage Dharma (2016). Indonesia's 2016 Budget: optimism amidst global uncertainties. *ISEAS Perspective*, Issue 2016, No. 3. Singapore: ISEAS − Yusof Ishak Institute.

Park, J. (2010). Total factor productivity growth for 12 Asian economies: the past and the future. *Japan and the World Economy*, vol. 24, pp. 114-127.

Perkins, Dwight, and Thomas G. Rawski (2008). Forecasting China's growth to 2025. In *China's Great Economic Transformation*, Loren Brandt and Thomas G. Rawski, eds. New York: Cambridge University Press.

Pescatori, Andrea, Damiano Sandri, and John Simon (2014). Debt and growth: is there a magic threshold? Working Paper 14/34. Washington, D.C.: International Monetary Fund. Available from www.imf.org/external/pubs/ft/wp/2014/wp1434.pdf.

Poesoro, Adri A.L. (2015). Narrowing tax gap: cross countries experience. Tax Law Design and Policy Working Paper Series No. 0915, February. Jakarta: Danny Darussalam Tax Center.

Pomfret, Richard (2016). Country study on productivity: Kazakhstan. Background paper prepared for the Economic and Social Survey of Asia and the Pacific 2016. Bangkok: ESCAP.

Ravallion, Martin, and Gaurav Datt (1996). How important to India's poor is the sectoral composition of economic growth? *World Bank Economic Review*, vol. 10, No. 1, pp. 1-25.

Reuters (2016). China FX reserves fall almost $100 bln to lowest since May 2012, 6 Feburary. Available from www.reuters.com/article/china-economy-reserves-idUSL3N15M037.

Reva, Anna (2015). Toward a more business friendly tax regime: key challenges in South Asia. Policy Research Working Paper 7513.Washington, D.C.: World Bank.

Rodrik, Dani (1988). Imperfect competition, scale economies and trade policy in developing countries. In *Trade Policy Issues and Empirical Analysis*, R. E. Baldwin, ed. Chicago: University of Chicago Press.

_____ (2015). Back to fundamentals in emerging markets. Nikkei Asian Review, 14 August. Available from http://asia.nikkei.com/Viewpoints/Economeister/Back-to-fundamentals-in-emerging-markets.

Rosenstein-Rodan, P.N. (1943). Problems of industrialisation of Eastern and Southern-Eastern Europe. Economic Journal, vol. 53, Issue 210/211, pp. 202-211.

Rotemberg, J., and L. Summers (1988). Labor hoarding, inflexible prices, and procylical productivity. NBER Working Paper No. 2591. Cambridge, MA: National Bureau of Economic Research.

Rutkowsky, Ryan (2015). Deleveraging the State in China. China Economic Watch, 26 January. Peterson Institute for International Economics. Available from http://blogs.piie.com/china/?p=4239.

Satya, P. (2003). Effects of public infrastructure on cost structure and productivity in the private sector. *Economic Record*, vol. 79, Issue 247, pp. 446-461.

Sharma, C. (2012). R&D and firm performance: evidence from the Indian pharmaceutical industry. *Journal of the Asia Pacific Economy*, vol. 17, pp. 332–342.

_____, and Sanjay Sehgal (2010). Impact of infrastructure on output, productivity and efficiency. I*ndian Growth and Development Review*, vol. 3, Issue 2, pp. 100-121.

Smith, L. C., and L. Haddad (2002). How potent is economic growth in reducing undernutrition? What are the pathways of impact? New cross-country evidence. *Economic Development and Cultural Change*, vol. 51, Issue 1, pp. 55-76.

Smith, P., and others (2007). Agriculture. In *Climate Change 2007: Mitigation of Climate Change − Working Group III contribution to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*, B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, and L.A. Meyer, eds. Cambridge, MA and New York: Cambridge University Press.

Straub, Stéphane, and Akiko Terada-Hagiwara (2010). Infrastructure and growth in developing Asia. ADB Economics Working Paper Series No. 231. Manila: Asian Development Bank.

TASS News Agency (2016). Capital outflow from Russia in 2015 totals $57 bln — official. 12 February. Available from http://tass.ru/en/economy/856230.

Timmer, Peter C. (2007). The structural transformation and the changing role of agriculture in economic development: empirics and implications, Wendt Lecture. 30 October. Washington, D.C.: American Enterprise Institute.

_____ (2015). *Food Security and Scarcity: Why Ending Hunger is So Hard*. Philadelphia, PA: University of Pennsylvania Press.

Topalova, Petia, and Amit Khandelwal (2011). Trade liberalization and firm productivity: the case of India. *Review of Economics and Statistics*, vol. 93, Issue 3, pp. 995-1009.

United Nations (2001). *Replacement Migration: Is It a Solution to Declining and Ageing Populations*? Sales No. E.01.XIII.19. Available from www.un.org/esa/population/publications/migration/migration.htm.

_____ (2015). *World Population Prospects, 2015 Revision*. Available from www.un.org/en/development/desa/publications/world-population-prospects-2015-revision.html.

_____ (2016). *World Economic Situation and Prospects 2016*. Sales No. E.16.II.C.2. Available from www.un.org/en/development/desa/policy/wesp/wesp_current/2016wesp_full_en.pdf.

United Nations University (2014). *World Risk Report*. Available from http://i.unu.edu/media/ehs.unu.edu/news/4070/11895.pdf.

United Nations Conference on Trade and Development (UNCTAD) (2016). Global Investment Trends Monitor. Available from http://unctad.org/en/PublicationsLibrary/webdiaeia2016d1_en.pdf.

United Nations, Economic and Social Commission for Asia and the Pacific (ESCAP) (2008). *Economic and Social Survey for Asia and the Pacific 2008: Sustaining Growth and Sharing Prosperity*. Sales No. E.08.II.F.7.

_____ (2014a). *Economic and Social Survey for Asia and the Pacific 2014: Regional Connectivity for Shared Prosperity*. Sales No. E.14.II.F.4.

_____ (2014b). *Statistical Yearbook for Asia and the Pacific 2014*. ST/ESCAP/2704.

_____ (2015a). *Asia-Pacific Trade and Investment Report 2015: Supporting Participation in Value Chains*. Sales No. E.15.II.F.15. Available from www.unescap.org/resources/asia-pacific-trade-and-investment-report-2015-supporting-participation-value-chains.

_____ (2015b). *Economic and Social Survey of Asia and the Pacific 2015: Making Growth More Inclusive for Sustainable Development*. Sales No. E.15.II.F.7.

_____ (2015c). *Statistical Yearbook for Asia and the Pacific 2015*. Available from www.unescap.org/resources/statistical-yearbook-asia-and-pacific-2015.

_____ (2015d). *Economic and Social Survey of Asia and the Pacific 2015: Year-End Update*. ST/ESCAP/2743.

_____ (2015e). *Asia-Pacific Disaster Report 2015: Disaster without Borders: Regional Resilience for Sustainable Development*. Bangkok: United Nations.

_____ (2016). *South and South-West Asia Development Report 2016* (forthcoming).

United Nations Educational, Scientific and Cultural Organization (UNESCO) (2014). *Higher Education in Asia: Expanding Out, Expanding Up*. Montreal, Canada: UNESCO Institute for Statistics (UIS).

United Nations Human Settlements Programme (UN-Habitat) (2012). *State of the World's Cities Report 2012/2013*. Nairobi: UN-Habitat.

_____, and United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). (2015). *The State of Asian and Pacific Cities 2015: Urban Transformations – shifting from quantity to quality*. Available from www.unescap.org/sites/default/files/The%20State%20of%20Asian%20and%20Pacific%20Cities%202015.pdf.

United Nations Industrial Development Organization (UNIDO) (2005). *Indian Manufacturing Industry: Technology Status and Prospects*. Vienna: UNIDO.

Von Braun, Joachim, Ashok Gulati, and Shenggen Fan (2005). Agricultural and economic development strategies and the transformation of China and India. Essay. Washington, D.C.: International Food Policy Research Institute (IFPRI).

Wagner, Joachim (2007). Exports and productivity: a survey of the evidence from firm-level data. *World Economy* vol. 30, No. 1, pp. 60-82.

Wickramasinghe, Upali (2016). Fostering productivity in the rural and agricultural sector for inclusive growth and sustainable development in Asia and the Pacific. Background paper prepared for the Economic and Social Survey of Asia and the Pacific 2016. Bangkok: ESCAP

World Bank (2011). *World Development Report 2012: Gender Equality and Developmen*t. Washington, D.C.: World Bank Group.

_____ (2015a). *Indonesia Economic Quarterly*, December 2015. Washington, D.C.

_____ (2015b). *Malaysia Economic Monitor*, December 2015. Washington, D.C.

_____ (2015c). *East Asia and Pacific Economic Update*, October 2015: Staying the Course. Washington, D.C.

_____ (2016a). PovCal database. Available from http://iresearch.worldbank.org/PovcalNet/.

_____ (2016b), *Women, Business and the Law 2016: Getting to Equal*. Washington, D.C.

World Economic Forum (2015). *The Global Gender Gap Report 2015*. Geneva. Available from www3.weforum.org/docs/GGGR2015/cover.pdf.

Yoshino, Naoyuki and Umid Abidhadjaev (2015). An impact evaluation of investment in infrastructure: the case of the railway connection in Uzbekistan. ADBI Working Paper Series No. 548. Tokyo: Asian Development Bank Institute. Available from www.adb.org/publications/impact-evaluation-investment-infrastructure-case-railway-connection-uzbekistan.

Young, Alwyn (1994). The tyranny of numbers: confronting the statistical realities of the East Asian growth experience. NBER Working Paper No. 4680. Cambridge, MA: National Bureau of Economic Research.

Zhu, Xiaodong (2012). Understanding China's growth: past, present and future. Journal of Economic Perspectives, vol. 26, No. 4, pp. 103–124.

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The pace of economic expansion in Asia and the Pacific has slowed considerably in recent years; with the outlook clouded by uncertainty, growth is expected to plateau at about 5% for both 2016 and 2017. Sluggish exports played a significant role in this slowdown, but so did moderate domestic demand. Worse, a confluence of downside risks could lead to further moderation in the pace of growth. Key risks discussed in the 2016 edition of the *Economic and Social Survey of Asia and the Pacific* are: a somewhat uncertain outlook for the economy of China against the backdrop of a fragile global economic recovery; volatility in exchange rates, including that due to low oil prices for commodity exporters; growing levels of private household and corporate debt; and an ambiguous path of interest rate increases that may be pursued by the United States of America.

In taking advantage of low inflation, many economies have lowered their interest rates to support growth. It is argued in the *Survey*, however, that further loosening would be difficult due to considerations about capital outflow and financial stability. While many Governments have sufficient fiscal space to scale up development expenditures in areas such as education, health and infrastructure, they also need to expand their tax bases, particularly as stronger fiscal positions will be required to cope with the consequences of the economic slowdown for efforts to end poverty, reduce inequality and improve employment prospects.

Also highlighted in the *Survey* are the multi-faceted challenges emerging due to the rising middle class and rapid urbanization in the Asia-Pacific region will test the capacities of Governments to revive economic growth and pursue sustainable development.

It is recommended in the *Survey* for 2016 that to bolster economic growth in Asia and the Pacific and effectively pursue the 2030 Agenda for Sustainable Development, Governments will need to strengthen efforts to stimulate domestic and regional demand. In addition to raising the level of public spending, steady growth in real wages will be required to sustain increases in domestic demand. However, growth in productivity – after having increased markedly over the last couple of decades – has declined in recent years. This situation is worrying not only as wage growth has lagged productivity growth, but also as wage growth ultimately depends on productivity growth. Thus, if the region is to shift to a more sustainable development strategy that is driven by domestic demand, greater focus must be placed on productivity along with commensurate increases in real wages. Thus, it is argued in the *Survey* for 2016 that a productivity-driven, wage-led approach would enable countries to increase their aggregate supply and their aggregate demand, thereby enhancing the well-being of their societies.

In emphasizing the need for higher labour productivity in agriculture, the importance of industrialization, especially in rural areas, is also underscored. The *Survey* contains a warning to developing economies concerning their rapid transformation towards the services sector and leap-frogging manufacturing; however, it also contains numerous proposals to increase productivity, including an emphasis on the importance of higher-quality education to promote innovation and enhance skills.

"The 2016 edition of the ESCAP Economic and Social Survey of Asia and the Pacific highlights the importance of increasing productivity to reinvigorate economic growth and support sustainable development. The Survey provides a detailed analysis of factors that have caused the recent economic and productivity slowdown in the region, and examines their implications for eradicating poverty, reducing inequality and improving employment prospects.... I commend ESCAP for this insightful and thorough analysis. On the basis of this report, policymakers in the Asia-Pacific region and beyond will be better able to design and adapt national policies to support productivity-driven economic growth and sustainable development."

BAN Ki-moon
Secretary-General of the United Nations

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