

Cross-Border Labor Mobility and Human Capital Development in Aging Asia

A stylized globe in shades of blue and green, with a network of glowing yellow and orange lines connecting various points across the continents, symbolizing global connectivity and labor mobility.

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AEIR 2018 Inception Workshop on Regional Public Goods

14 December 2017 | Asian Development Bank HQ

Outline

- Aging and Demographic changes in Asia: Snap Shots
- Regional Labor and Skill mobility
- Human Capital Development in Aging Asia
- Policy Considerations

Figure 1. Aging and demographic change in Asia and the Pacific

(a) 2017

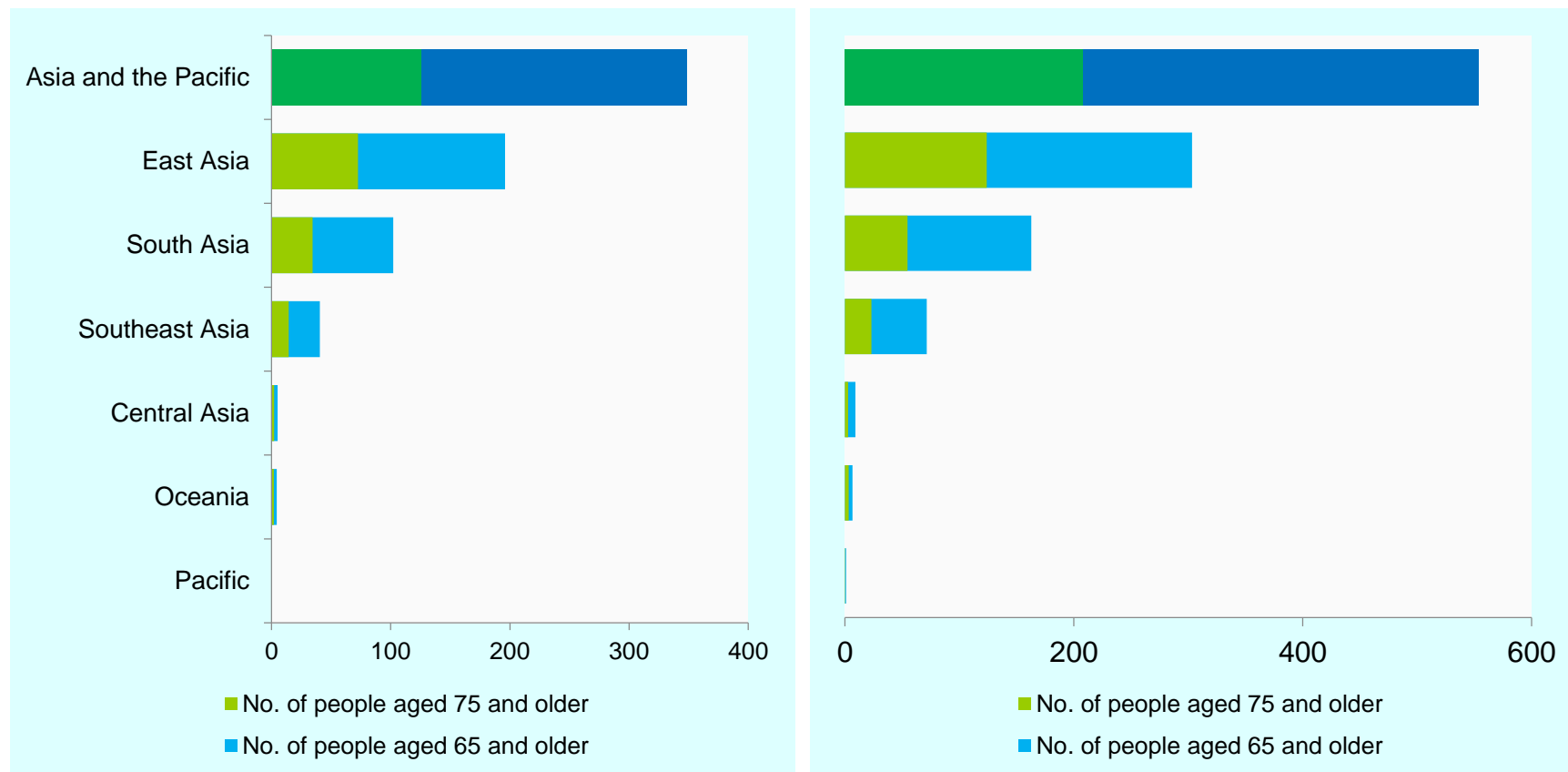


(b) 2050



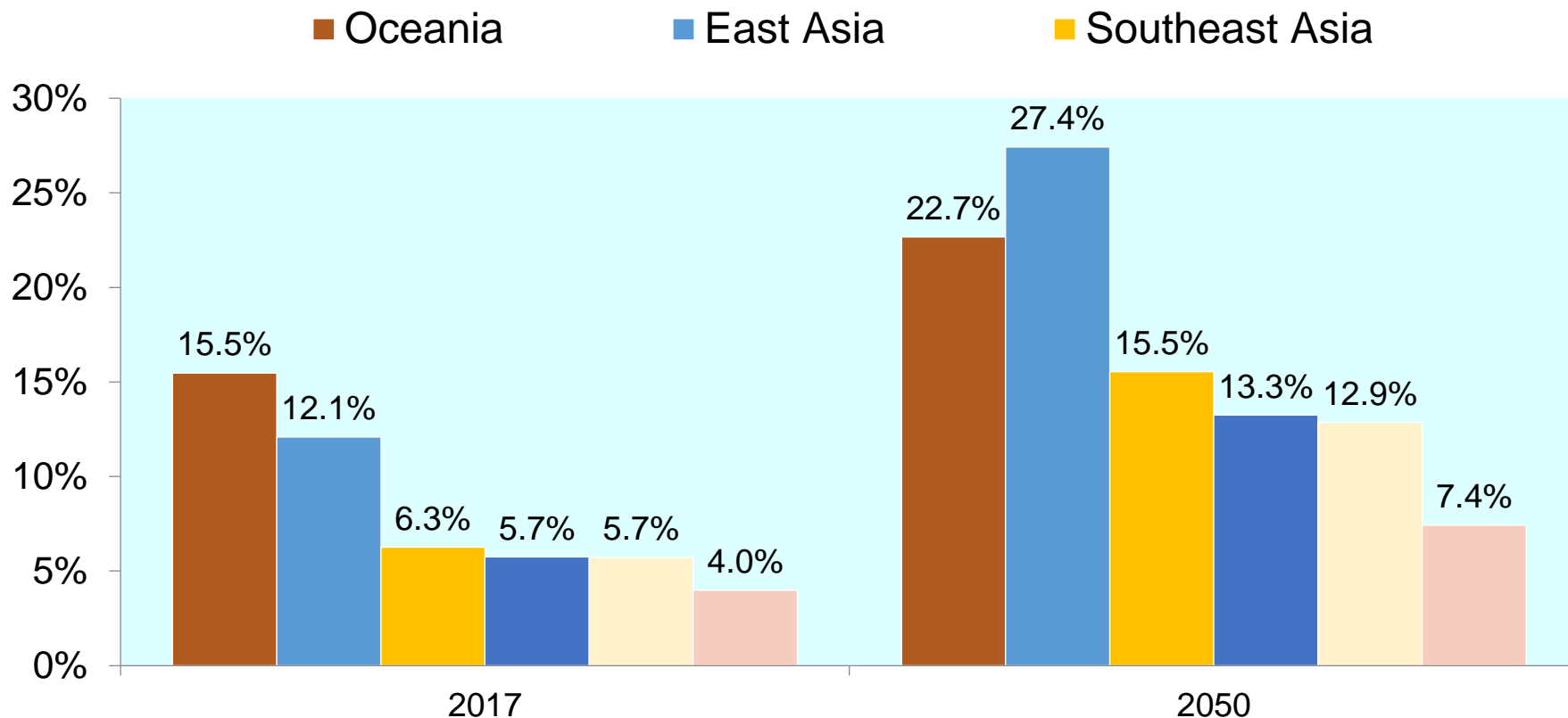
Source: ADB calculations using data from United Nations Population Division.

Figure 2. Older population in Asia and the Pacific, 2017 (millions)



Source: United Nations World Population Prospects 2017

Figure 3. Size of older population in Asia, 2017 and 2050 (% of population)



Source: ADB calculations using data from United Nations Population Division.

Figure 4. Population pyramid 2030

PRC

India



Source: ADB calculations using data from United Nations Population Division.

Figure 5. Population pyramid 2030

Thailand



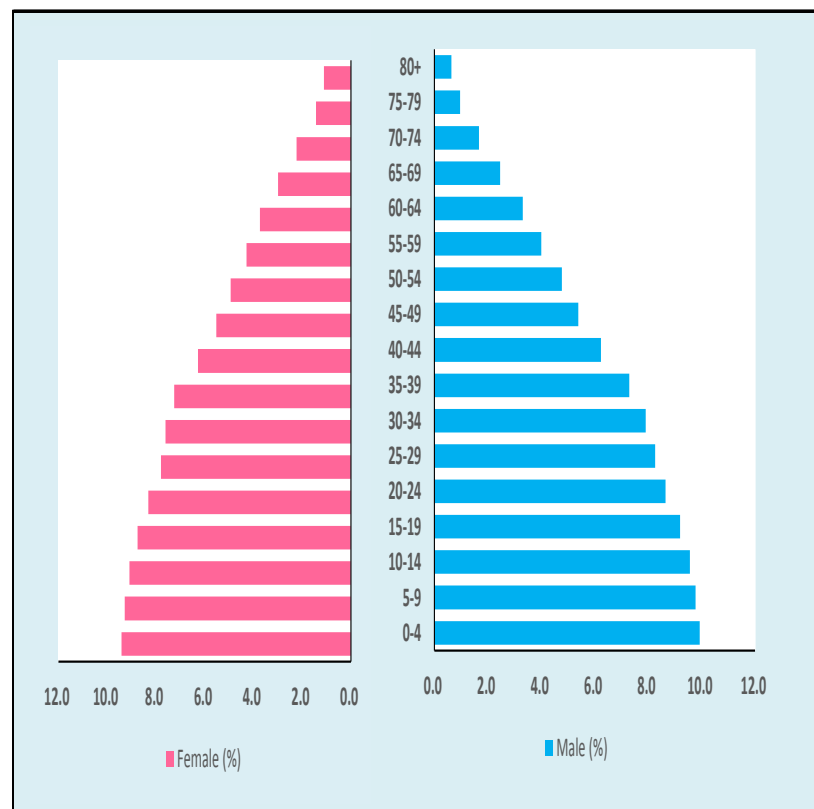
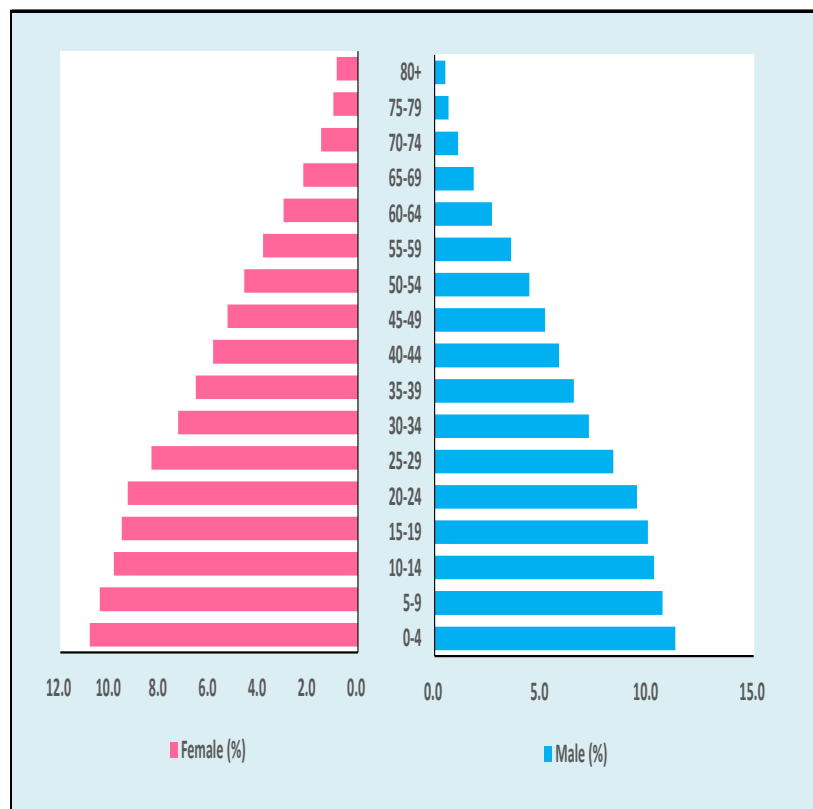
Japan



Figure 6. Philippines

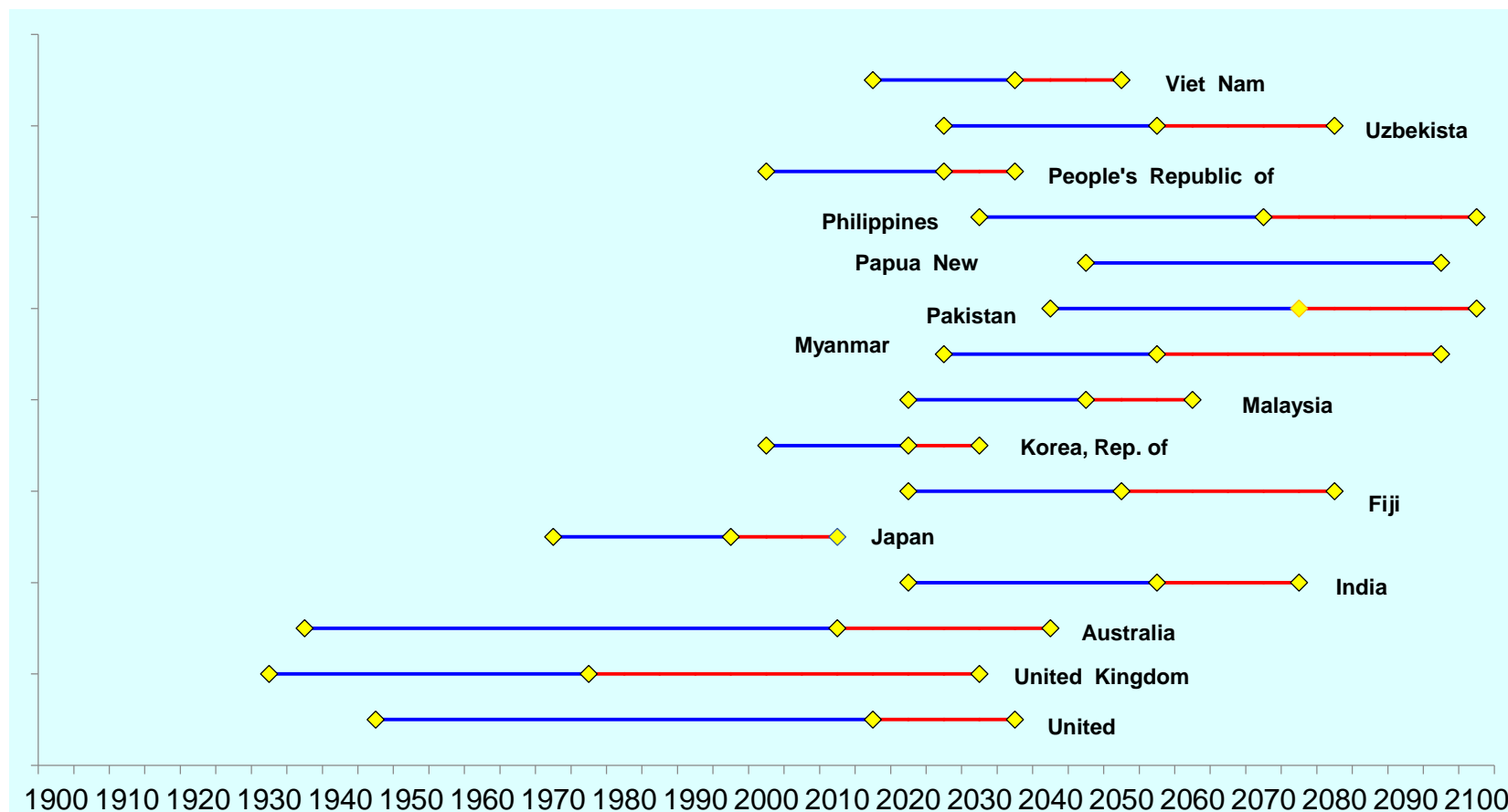
(a) 2017

(b) 2030



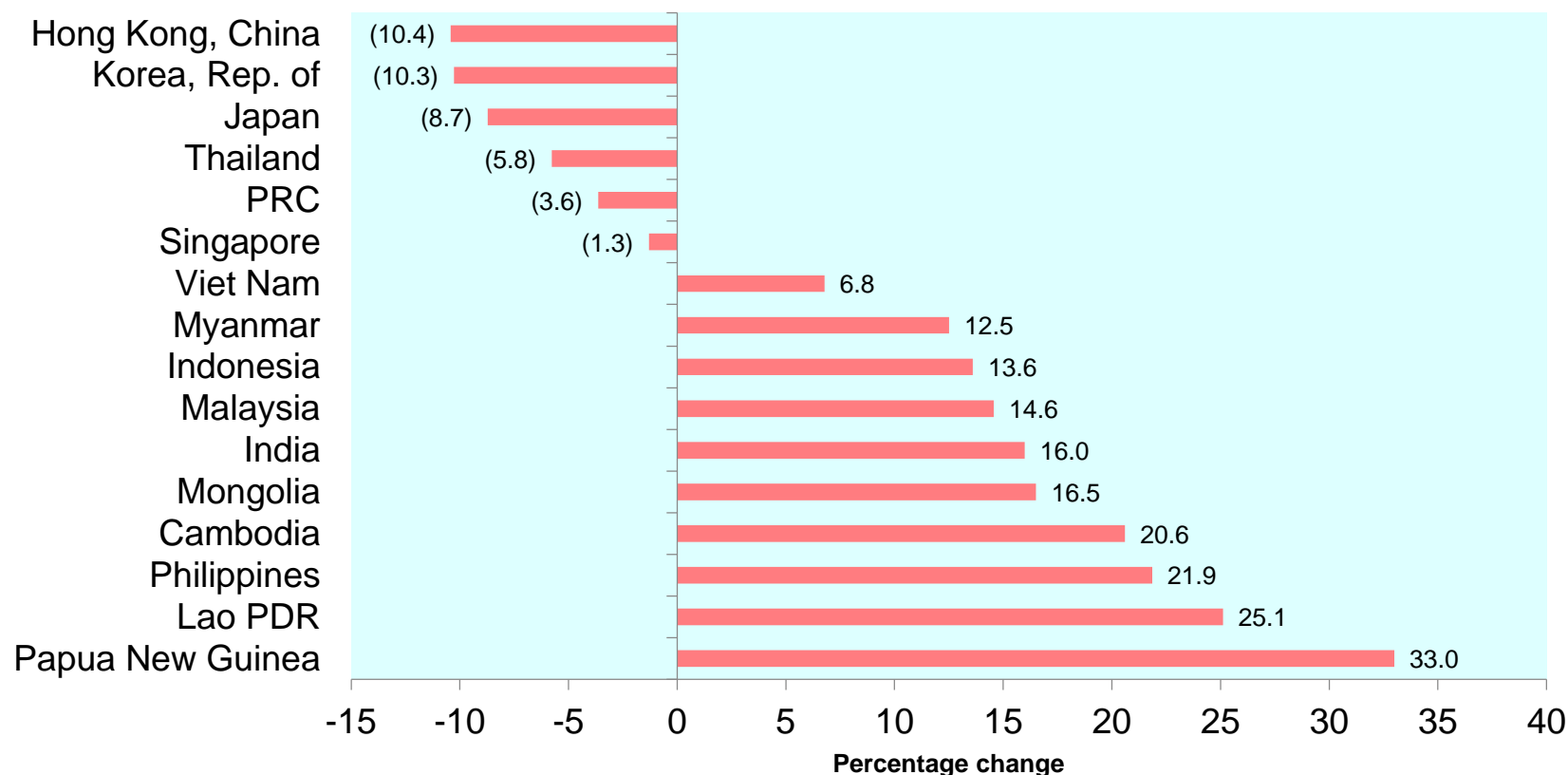
Source: ADB calculations using data from United Nations Population Division.

Figure 7. Speed of population aging



Note: The **blue line** refers to the number of years it takes for the share of 65+ population to rise from 7% to 14%. The **red line** refers to the number of years it takes for the share of the 65+ population to increase from 14% to 21%. Source: ADB calculations using data from United Nations Population Division.

Figure 8. Percentage change in population aged 15-64 years between 2017 and 2030



Source: ADB calculations using data from United Nations Population Division.

Role of technology in an aging world

- Aging leads to greater automation and more incentive to use and develop robots across countries (Acemoglu and Restrepo 2017)
 - Age structure of workers accounts for 40% of variation of investment in robotics across countries (OECD +20)
 - Relative scarcity of middle-aged workers are seen prompting the adoption of robotics
 - The age structure also correlated to adoption of other automation technologies (vending machine, ATM)
- Aged workforce result in the delay in the introduction of technology, and this will result in the decline of productivity as in the case of Germany (Wailuk 2013)

Automation affects some jobs more than others

Figure 10. Probability of Computerization in the US

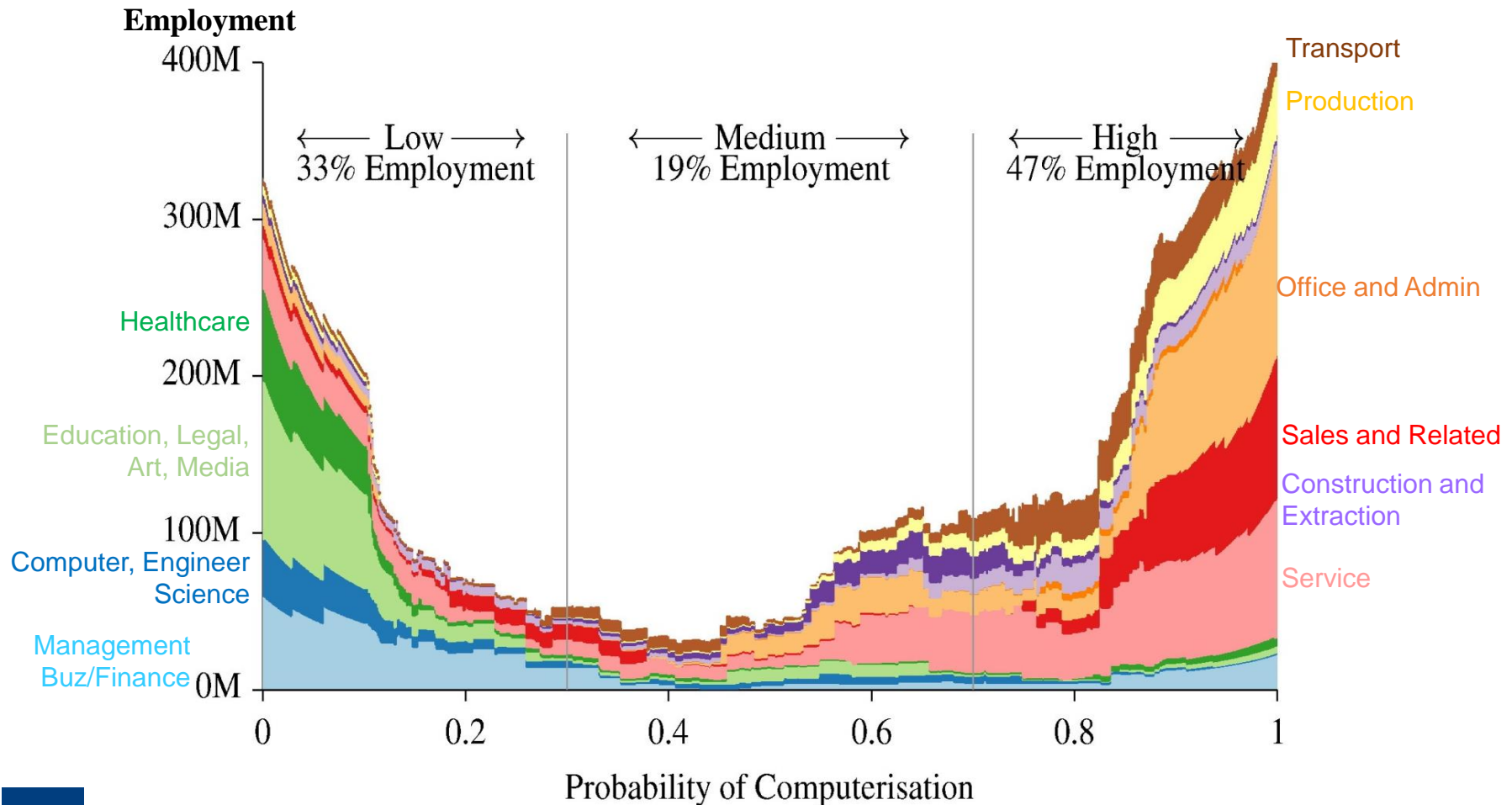


Figure 9.

Advanced/Aged population

- Contracting workforce
- Need for all types of workers including skilled, care and manual workers
- “Excess” educational capacity in higher education facilities
- Capacity to develop e-education platforms

Middle Income/ Aging population

- Contracting workforce
- Need for developing pool of skilled workforce
- Lack of educational facility and OJTs to develop skilled workers
- Need for care workers

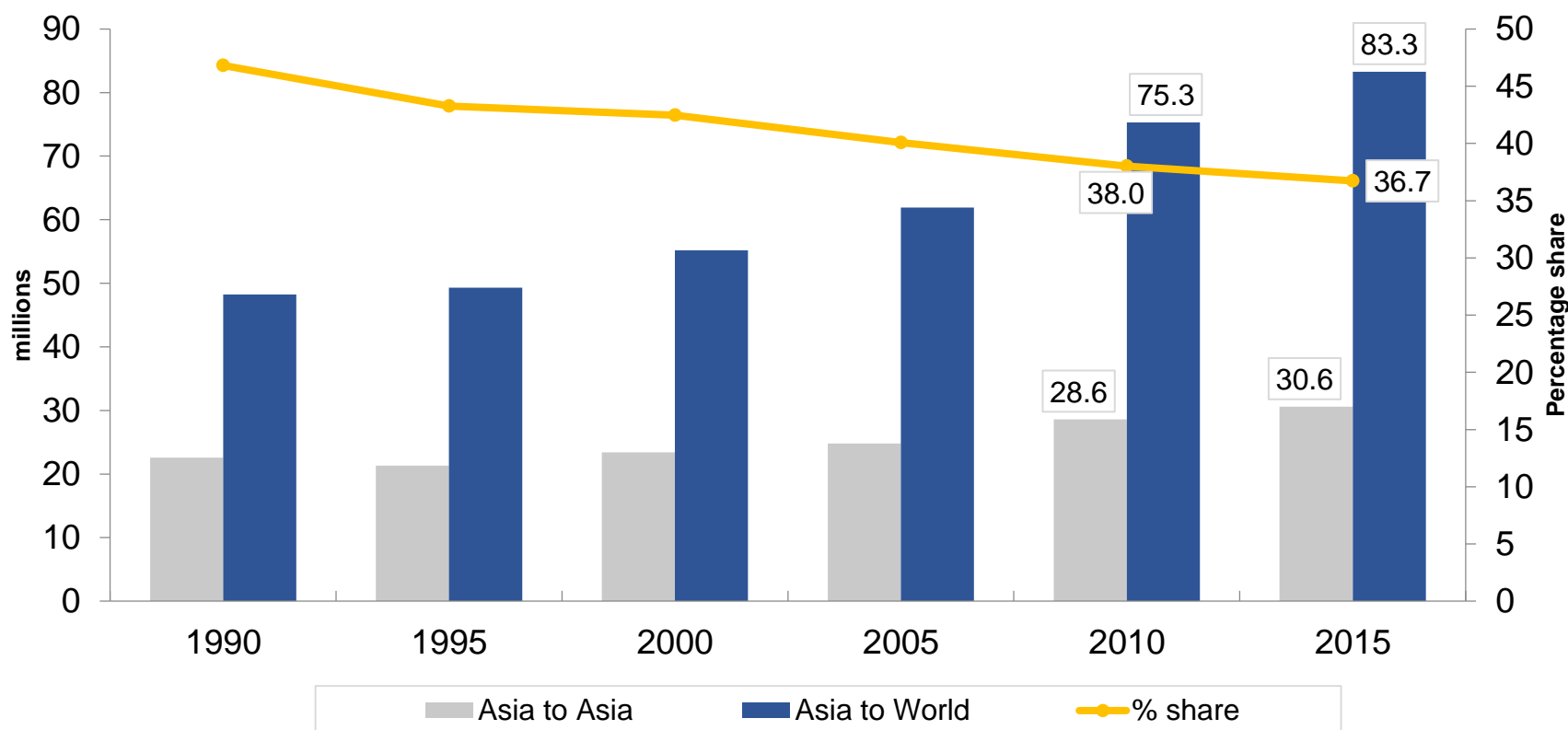
Middle-Low Income/ Young population

- Growing work forth and youth population
- Lack of job opportunities
- Growing needs for educational facilities and OJT

Rationale for RPGs for regional labor market in aging Asia

- Efficient allocation of human resources of varied skill levels
 - Highly skilled
 - Care workers and others
- Addressing needs for skill development in developing Asia

Figure 10. International Migration from Asia (millions, % share)



Notes: % share = migrants from Asia to World / total global migrants * 100

Source: ADB calculations using data from "Trends in International Migrant Stock: The 2015 Revision", United Nations Population Division.



Regional Labor and Skill Mobility

Foreign Nurses in Singapore

Table 1 Number of Registered Nurse in Singapore by Nationality

Nationality	2010	% to All nurses	% to Non-Singaporean	2016	% to All nurses	% to Non-Singaporean
Singaporean	18,176	84.2		21,936	69.4	
Malaysian	468	2.2	13.8	2,230	7.1	23.0
Chinese (PRC)	578	2.7	17.0	955	3.0	9.9
Filipino	1,760	8.2	51.8	4,942	15.6	51.1
Indian	220	1.0	6.5	544	1.7	5.6
Myanmar	165	0.8	4.9	742	2.3	7.7
Others	208	1.0	6.1	266	0.8	2.7
All Nurses	21,575	100.0		31,615	100.0	
Non-Singaporean Nurses	3,399		100.0	9,679		100.0

PRC = People's Republic of China.

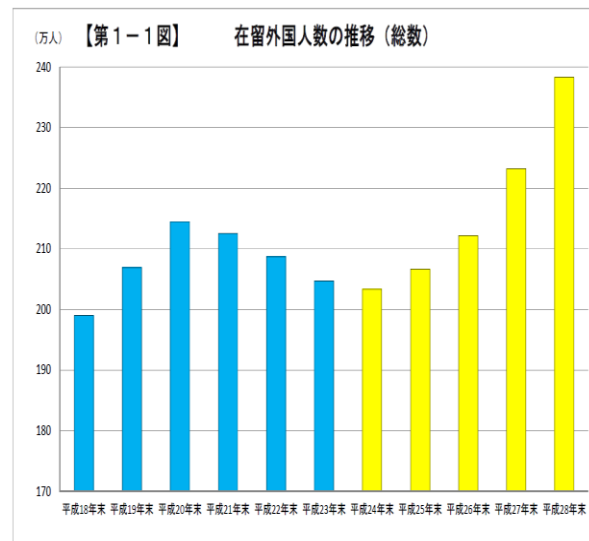
Source: Singapore Nursing Board. 2016 and 2010 Annual Reports.

Aging population opens doors to foreign workforce

Case of Japan



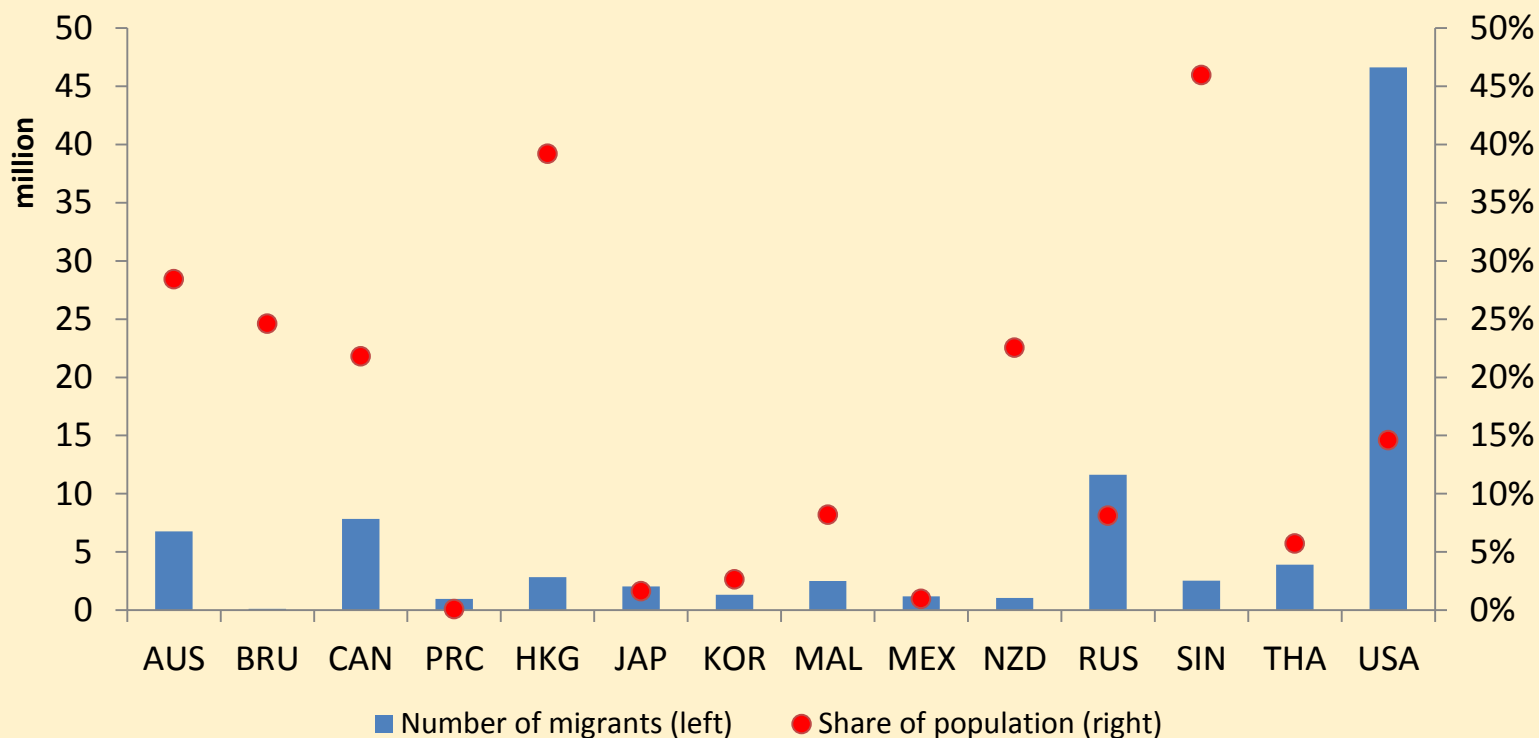
Foreign Residents in Japan



- **Rapidly increasing foreign residents:** 2.38 million -6.7% growth for Dec 2016, 5.2% growth for Dec 2015
- **Economic Partnership Agreement** : nurses /care workers from Philippines (2006), Indonesia (2007) and Viet Nam (2008)
- **Pilot scheme** on the employment of foreign domestic workers (2015)
- **Technical Intern Trainees**—expanding sectors (construction, services, and elderly care)
- **Point system** and easy access to permanent residency among highly skilled migrants

Varying openness to migration

Figure 11. Migrants in APEC economies, 2015
(number and share of population)



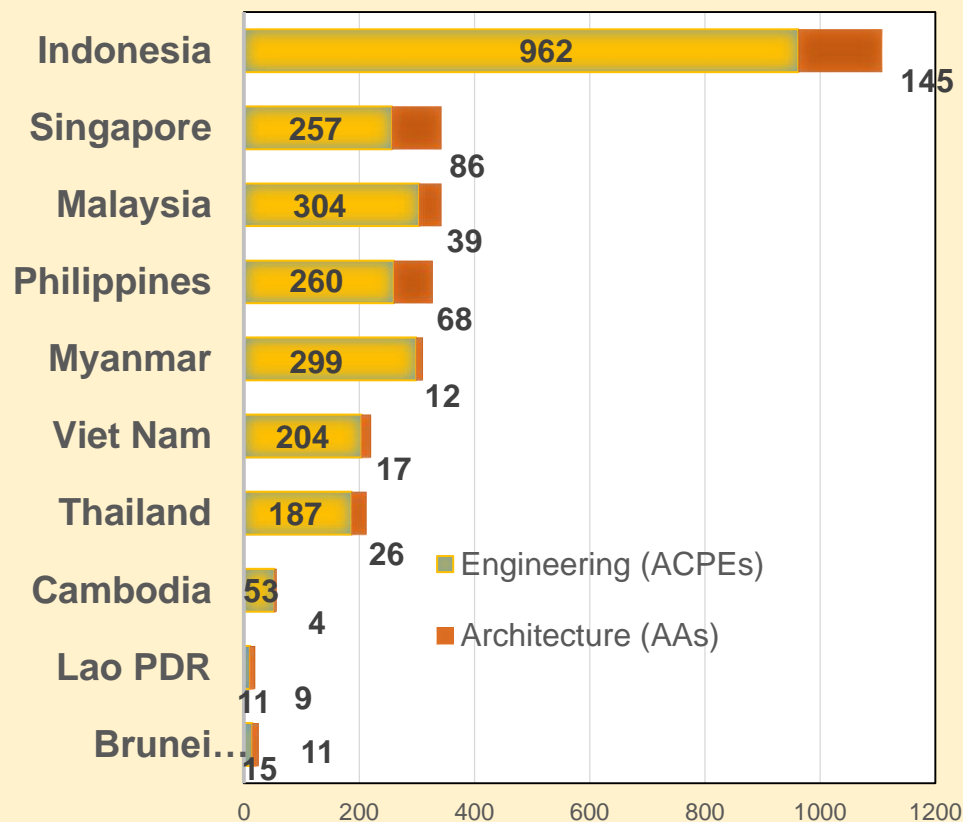
Source: United Nations Department of Economics and Social Affairs Population Division

Barriers to temporary labor mobility

- Some skills are not portable - Skill recognition mostly rely on host country schemes except for some skills that are standardized through international and regionally standardization (APEC/ASEAN, Commonwealth etc.)
- Where skills are portable, they are not linked to job opportunities, not widely known to professional organizations
- Cost of oversea employment is high
- Imperfect competition- restricted entry of recruiters in some country of origin of migrants, information asymmetry due to distance/language

Mutual Recognition Arrangements

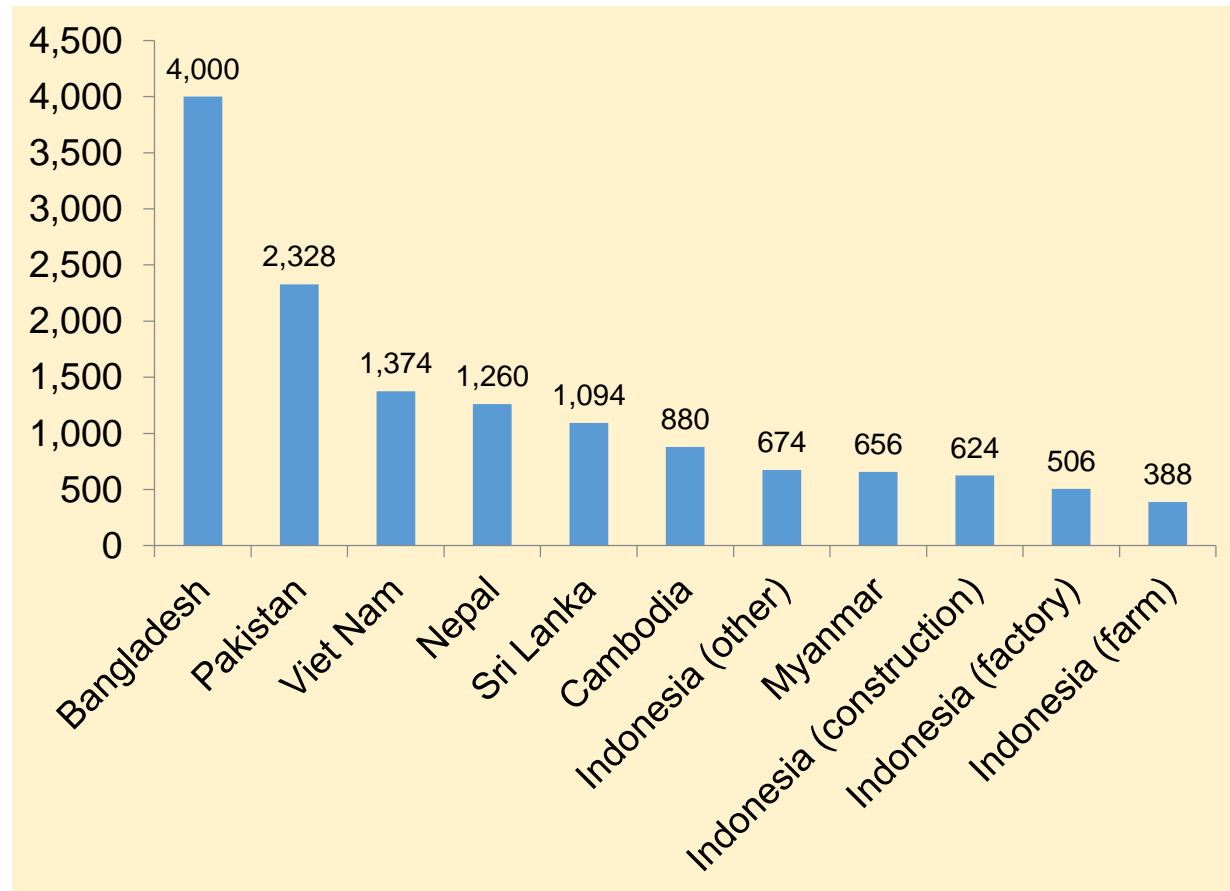
Figure 12. ASEAN Engineers and Architects (as of September 2017)



ACPE - ASEAN Chartered Professional Engineers, AA - ASEAN Architect Register, Lao PDR = Lao People's Demo. Republic Source: ASEAN Secretariat.

High Cost of Migration

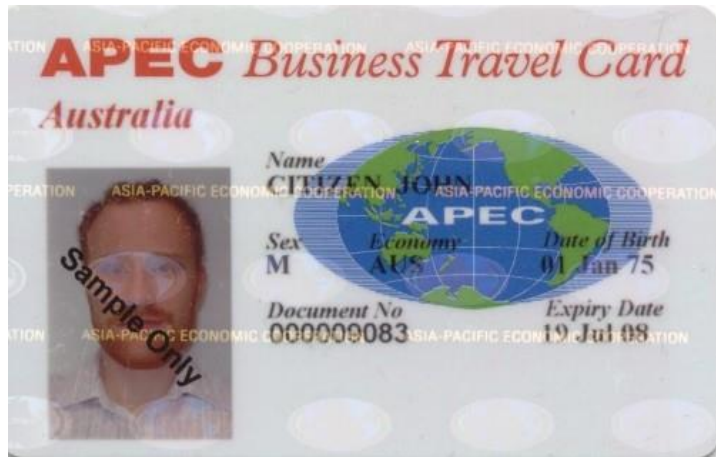
Figure 13 Migration Cost to Malaysia by Source Country



Source: World Bank. 2017. Migrating to Opportunity.

<https://openknowledge.worldbank.org/bitstream/handle/10986/28342/9781464811067.pdf?sequence=22&isAllowed=y>

Regional Mobility Schemes





Human Capital Development in Aging Asia

Future Jobs

- Education and skills plays a critical part in 4th industrialization, moving up global value chain and specialization of production. A pool of qualified and skilled workers are is needed for many countries to make transition from middle-income country.
- The Second Demographic Dividend”- Declining fertility itself is associated with more resources per child to build human capital (Mason et al 2016).
- But this cannot be taken for granted, given the limited fiscal space of many middle-income countries, high velocity of aging, and lack of quality service providers.
- How can workers in DMC access quality education and OJT ? How can RCI and RPG contribute?

Figure 14. Educational Attainment Middle income v. Advance economies (%)

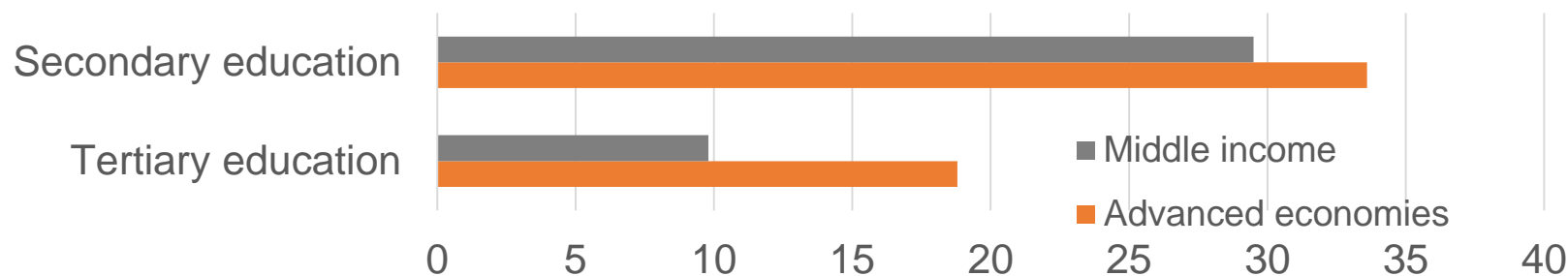
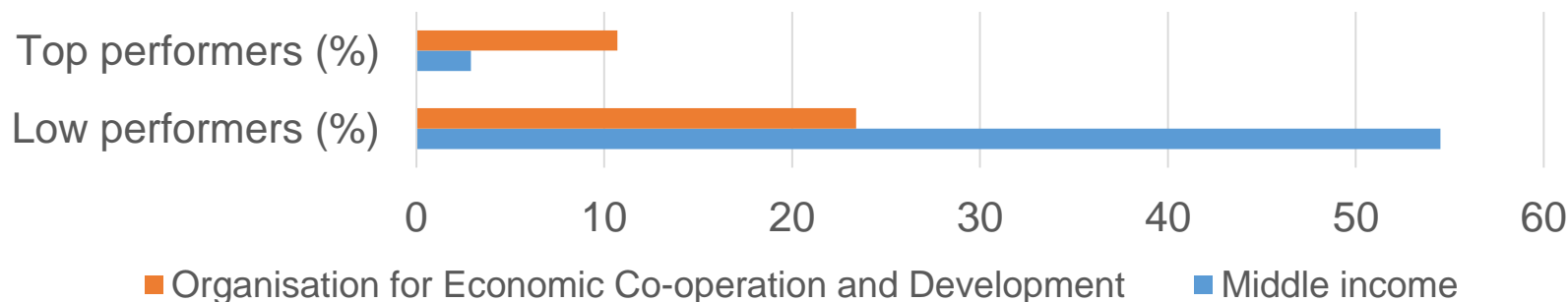


Figure 15. Performance on standardized math test, middle income versus OECD economies

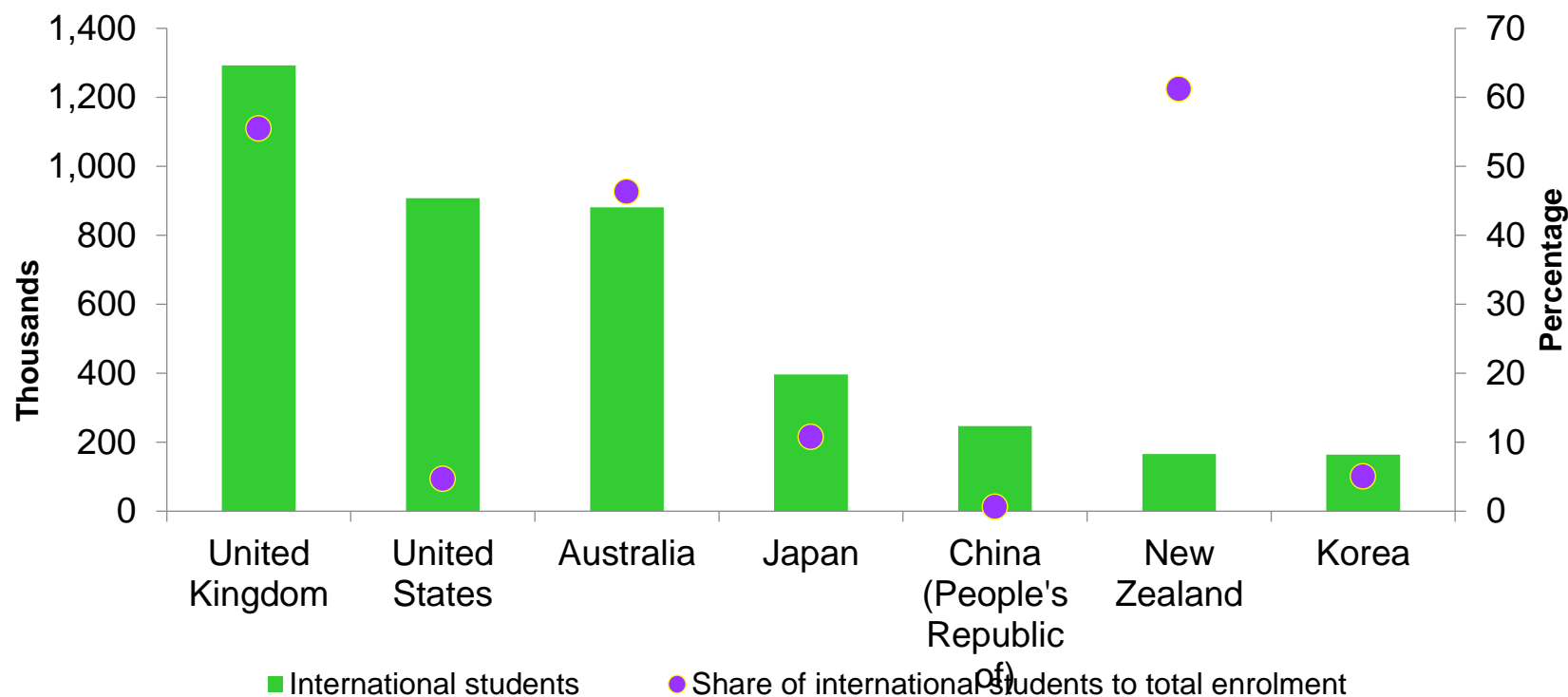


Regional University Networks and E-Learning Platforms



Data on International Students

Figure 16. Selected Destination Countries of International Students



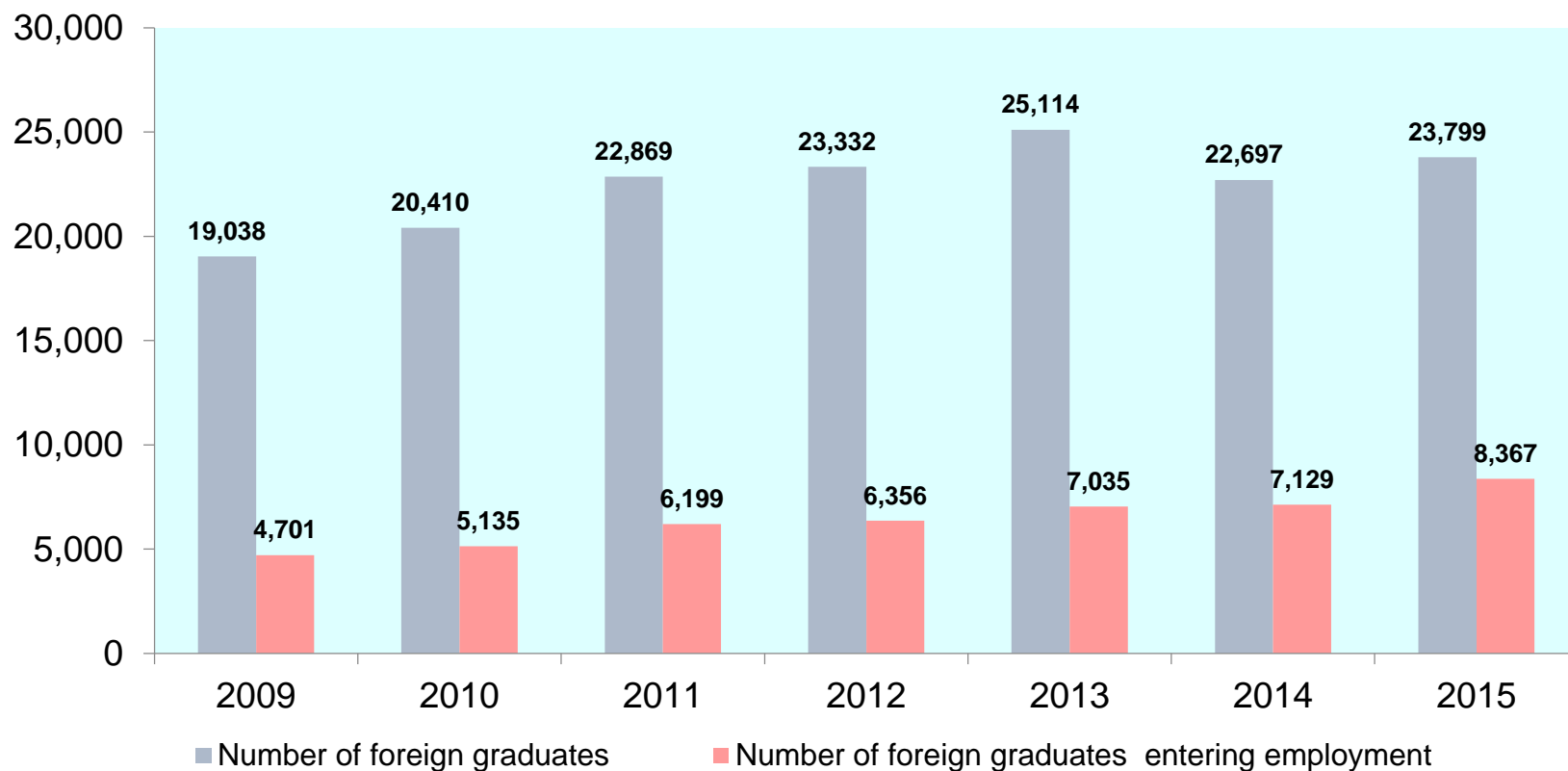
Note: Data on international students is irrespective of residency status. Total enrolment data is based on enrolment by field except Japan which is based on enrolment by institution.

Source: OECD Education Statistics at http://stats.oecd.org/BrandedView.aspx?oecd_bv_id=edu-data-en&doi=33c390e6-en

Regional Platform for Human Capital Development

- Partnership on higher education and stimulating knowledge exchange
- Graduate employment and skill development scheme

Figure 17. Employment of Foreign Graduates



Source: Ministry of Education, Culture, Sports, Science and Technology—Japan

Key Messages

- Asian countries are going through different stages of demographic transition
- Labor mobility framework and human capital development mechanism and are increasingly important and promising forms of RPGs in Aging Asia
- Standardizing and simplifying procedures (region-wide skills and qualification recognition framework, streamlined and harmonized immigration requirement, transparency in the market) to address human resource challenge
- Strengthening institutional partnership and collaboration in higher education by linking it to professional trainings to develop regional human capital

Thank you!

For comments and questions, you may email:
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SPARE SLIDES

Key Messages

- Aging and demographic changes in Asia offer opportunities and challenges for the goal of maintaining pool of trained human capital in the region.
- Labor mobility framework and human capital development mechanism can be considered increasingly important forms of RPGs in Aging Asia.
- Labor mobility in the region can be more actively facilitated and made safe by harmonizing, standardizing and simplifying national policies and practices across the region.
- Human capital development in the region can be scaled up through cross-country cooperation and collaboration.

Large gain by liberating movement of people

Figure 18. Efficiency Gain from Elimination of International Barriers (% of world GDP)

All policy barriers to merchandise trade

1.8	Goldin, Knudsen, and van der Mensbrugghe (1993)
4.1	Dessus, Fukasaku, and Safadi (1999)
0.9	Anderson, Francois, Hertel, Hoekman, and Martin (2000)
0.7	Anderson and Martin (2005)

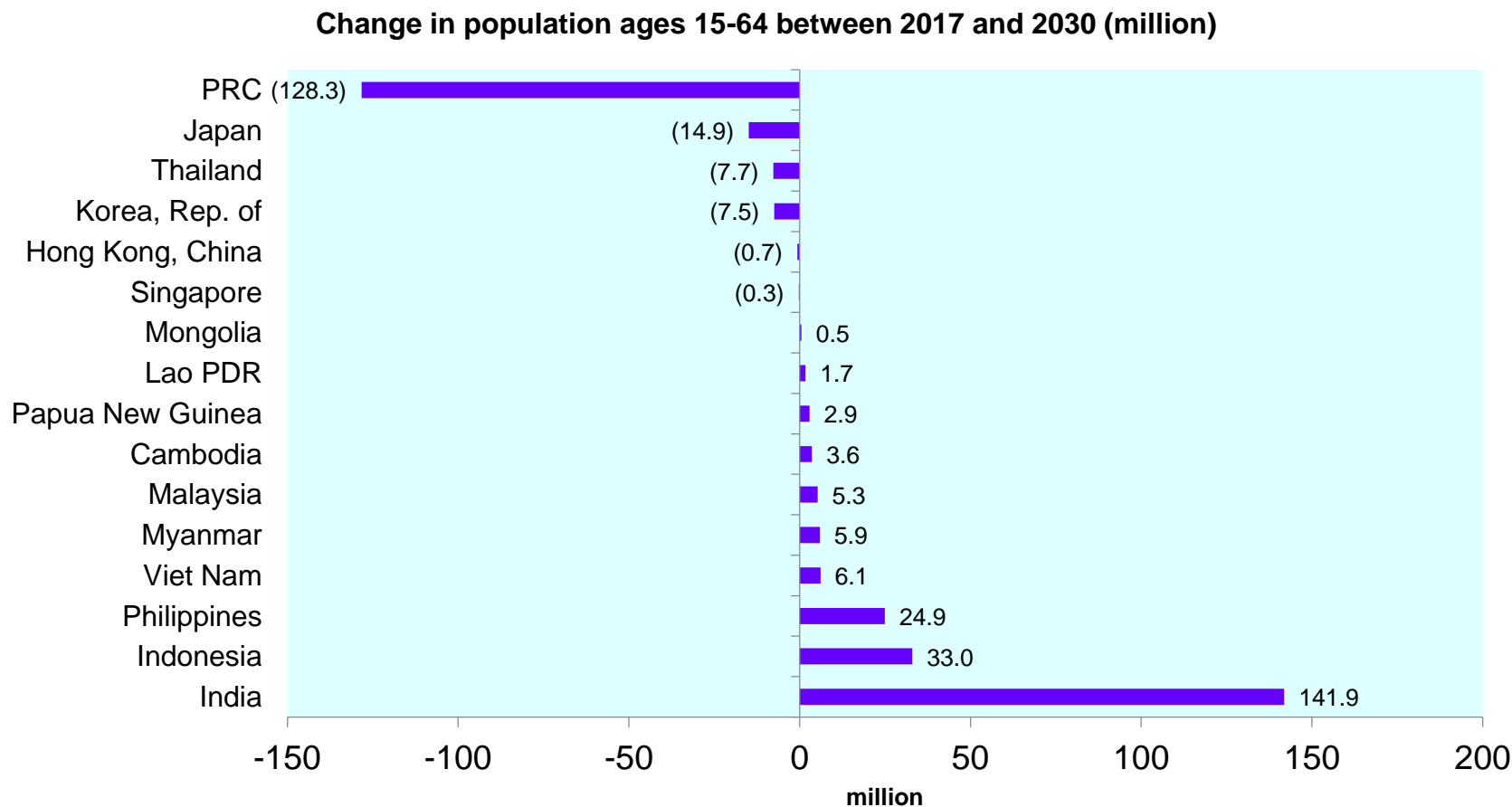
All barriers to capital flows

1.7	Gourinchas and Jeanne (2006)
0.1	Caselli and Feyrer (2007)

All barriers to labor mobility

147.3	Hamilton and Whalley (1984)
96.5	Moses and Letnes (2004)
67	Iregui (2005)
122	Klein and Ventura (2007)

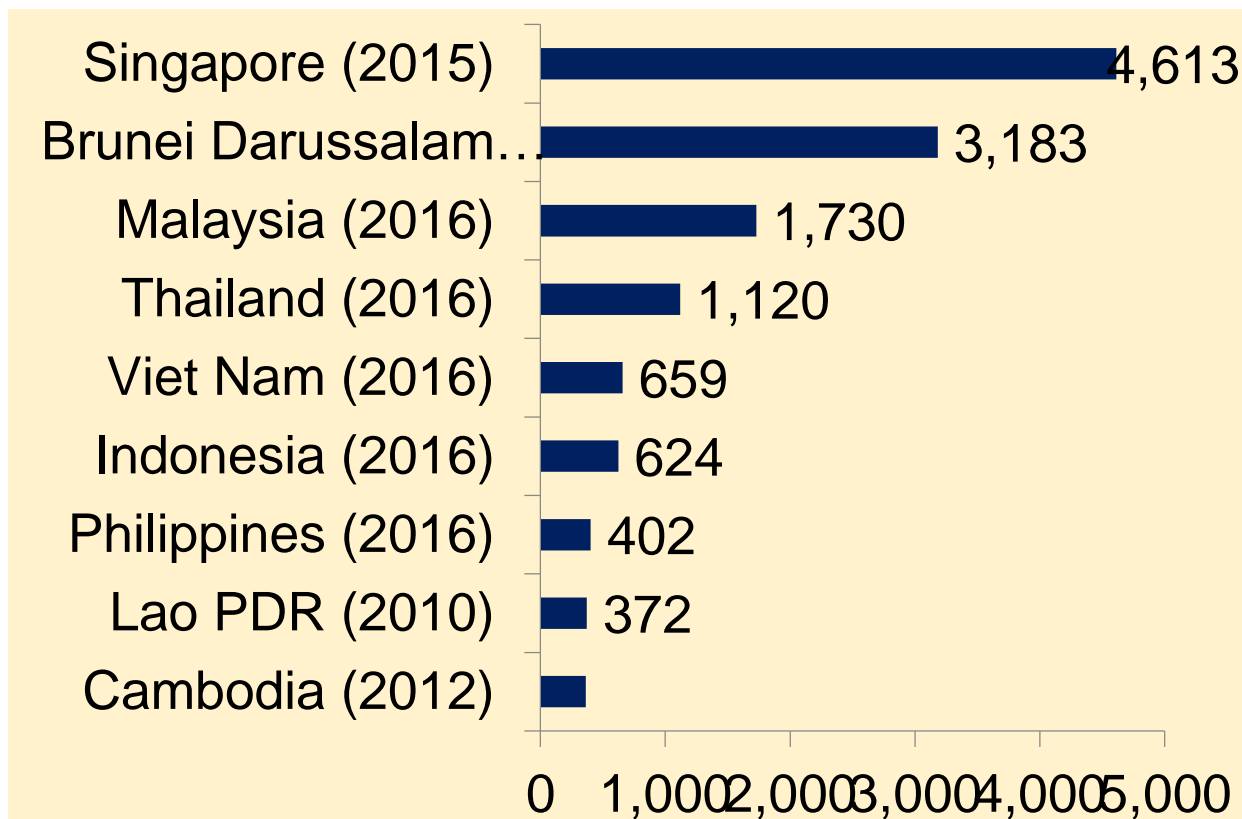
Figure X. Change in population aged 15-64 years between 2017 and 2030 (million)



Source: ADB calculations using data from United Nations Population Division.

Wage gap across the region

Figure 19. Average monthly earnings of employees



Lao PDR = Lao People's Democratic Republic

Source: International Labor Organization. Key Indicators of the Labor Market (KILM).

http://www.ilo.org/ilostat/faces/oracle/webcenter/portalapp/pagehierarchy/Page3.jspx?MBI_I

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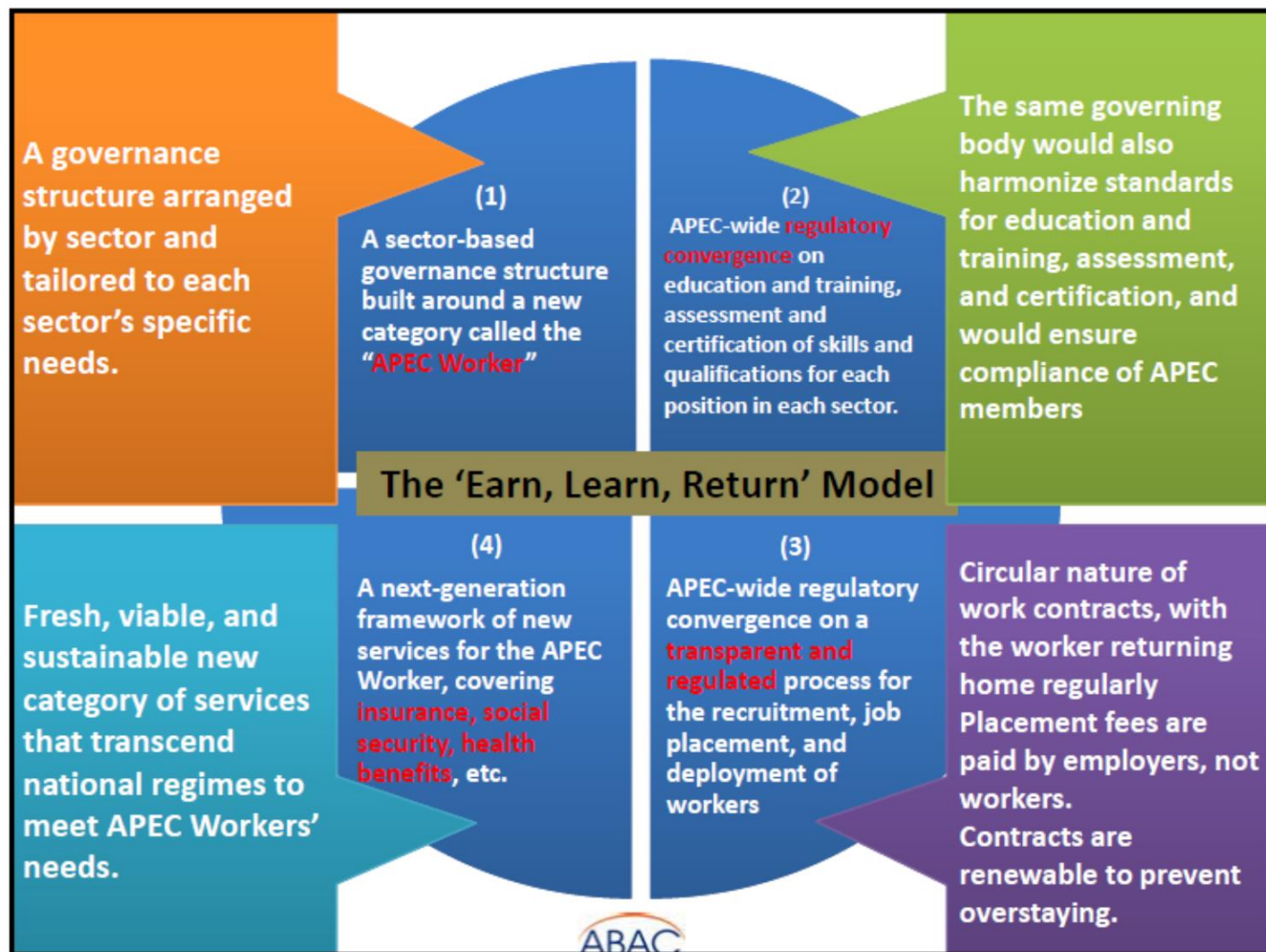
Figure 24. Integration in Asia: Intraregional shares (% of total)



Source: ADB Asian Economic Integration Report 2017.

Learn, Earn, Return

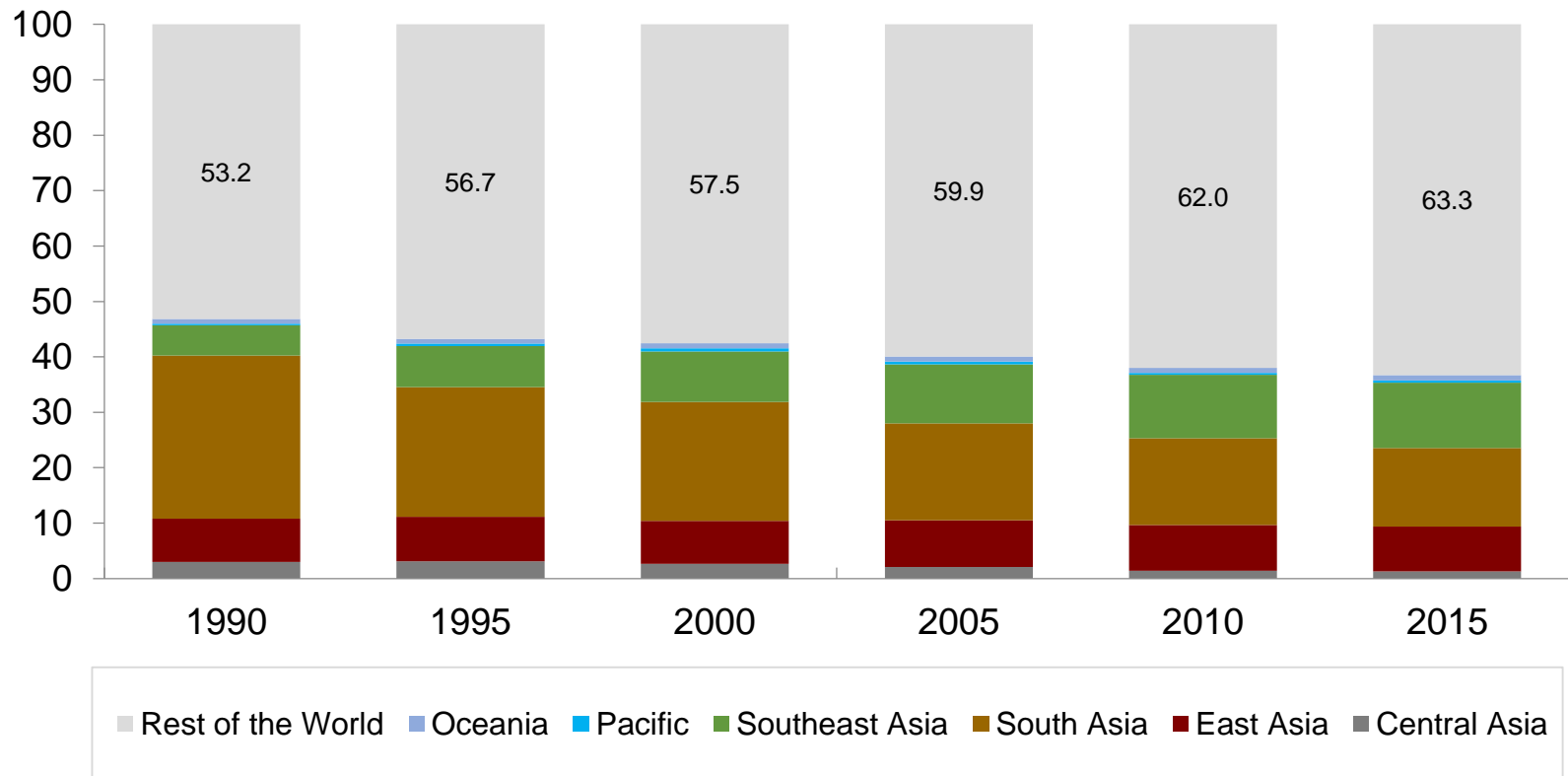
APEC/ABAC Mobility Framework



Labor Mobility and the Problem of Free-riding

- Problem of free-riding; public human capital investment drained by the outmigration of the skilled (eg. doctors, engineers trained by public universities), through partly compensated by remittances (in short term) and future investment/return (in a long run)
 - Likely causing undersupply of the education services (eg, states and more likely donors country increasingly more shy to provide funds for higher education where most graduates go abroad) Need to promote brain circulation and linkages.

Figure 26. Intraregional migration by subregion (% of total outbound migration from Asia)



Source: ADB calculations using data from "Bilateral Remittance Estimates for 2015 using Migrant Stocks, Host Country Incomes, and Origin Country Incomes", World Bank Migration and Remittances database.

Definition

Human Capital Development

Education, skill/vocational training, health service and labor standards are traditionally considered national public goods and provided by the governments given their positive externalities. Many of these services are also supplied by private providers especially in areas such as higher education and skills training.

Cross-border labor mobility

Movement of workers of various skill levels crossing borders for the purpose of employment and delivery of services. Labor mobility in the region is primarily individual and industry-driven and managed by host country scheme complemented by bilateral schemes (eg. Thailand, Malaysia, bilateral MOUs). Bilateral and multilateral trade agreements also facilitate labor mobility in some cases. Some regional organizations such as European Union (EU), The East African Community (EAC), and Economic Community of West African States (ECOWAS) practices the freedom of movement of people for the purpose of employment within the Community.

- Skills/qualification recognition
 - Standardization limited to certain occupations
 - Some vocational skills internationally certified
- Employment Process
 - Origin countries
 - Employment clearance
 - Monitoring recruitment service providers
 - Destination countries
 - labor market tests
 - immigration security clearance
 - Requirements
 - Social security arrangement
 - Family unification