

Chapter 1

Macroeconomic assessment and economic outlook

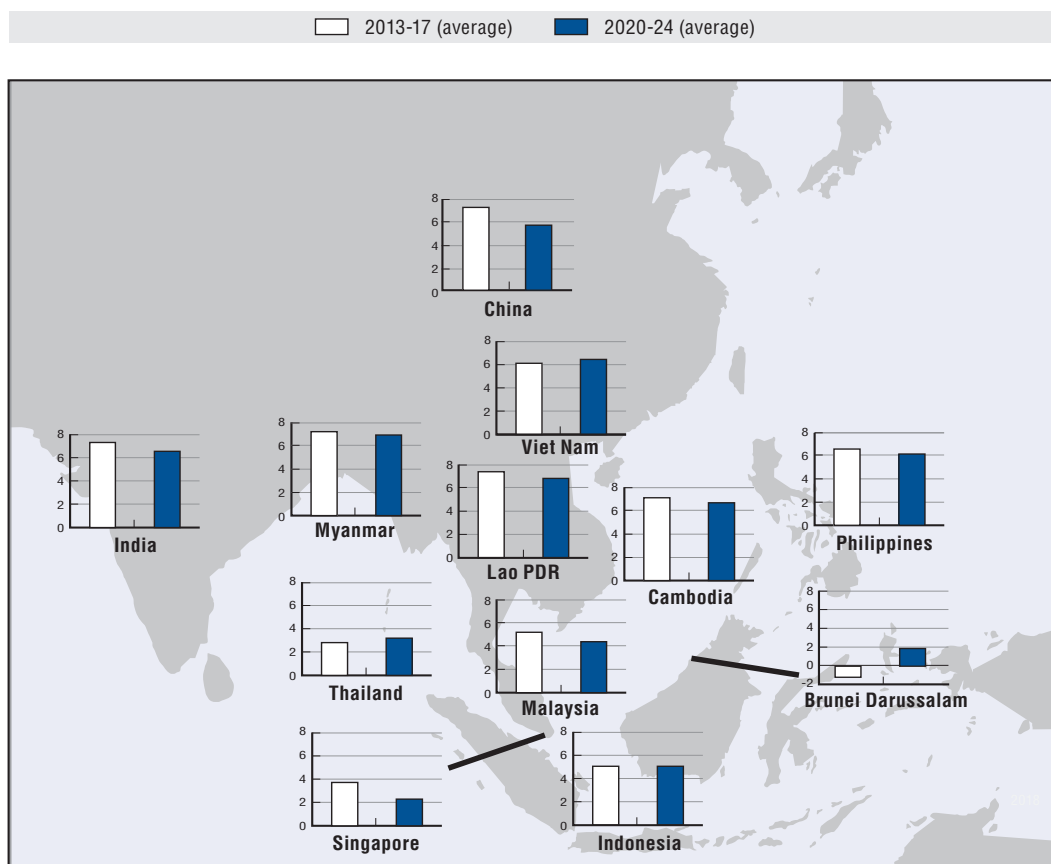
Emerging Asian economies – Southeast Asia, China and India – experienced further moderation of economic growth midway through 2019. The resilience of private consumption anchored the growth push, as in the past. However, exports continued to reel from trade tension headwinds accompanied by a softening of fixed investment. Moving forward, beyond tariff-related uncertainties, the grimmer growth picture in advanced economies is dampening external prospects despite historic low interest rates. Monetary tools have been used within and outside the region to ease economic frictions. The challenge for Emerging Asian economies is to reinforce the effectiveness of these policies. Strengthening local government involvement in disaster resilience initiatives to address environmental and climate risks is also vital.

Introduction

Emerging Asian economies – Southeast Asia, China and India – experienced further moderation of economic growth midway through 2019. The resilience of private consumption anchored the growth push, as in the past. However, exports continued to reel from trade tension headwinds accompanied by a softening of fixed investment. Moving forward, beyond tariff-related uncertainties, the grimmer growth picture in advanced economies is dampening external prospects despite historic low interest rates.

Monetary tools have been used within and outside the region to spur economic growth. The challenge for Emerging Asian economies is to reinforce the effectiveness of these policies, while some of them are also considering other stimulus measures. Strengthening local government involvement in disaster resilience initiatives to address environmental and climate risks is also vital. Overall, Emerging Asia's GDP growth in 2019 and 2020 is expected to come in at a slower pace than the rates projected in the *Outlook Update* in July 2019 (OECD, 2019a). In the medium term, the region's performance from 2020-24 is also anticipated to be less impressive than from 2013-17 (Figure 1.1).

Figure 1.1. Real GDP growth in Southeast Asia, China and India



Source: OECD Development Centre, Medium-term Projection Framework (MPF-2020).

StatLink <https://doi.org/10.1787/888934063176>

Overview and main findings

Gross domestic product (GDP) growth in Emerging Asia is forecast to come in at 5.7% on average in 2020-24 (Table 1.1), based on the OECD Development Centre's *Medium-term Projection Framework 2020* (Box 1.1). Trade tensions between the United States and China

are continuing, and the broadening economic weakness in advanced economies adds substantial uncertainty to export prospects. Stability in the labour market, and in certain cases inflows of income from overseas workers, will sustain domestic consumption. Realisation of infrastructure projects that are already in the pipeline should provide more lift to domestic demand. Given this backdrop, Emerging Asia's expected growth over the next five years will be weaker than the 2013-17 pace of 6.7%. Southeast Asia is estimated to grow by 4.9% during the period, down from the average rate of 5.0% in 2013-17. China's growth will taper further as structural reform continues. India is also anticipated to grow relatively more modestly in 2020-24 than in 2013-17 while the banking sector regains its footing.

Table 1.1. Real GDP growth in ASEAN, China and India, 2018-24

Annual percentage change	2018	2019	2020	Changes from previous forecast (July 2019)		2020-24	2013-17
ASEAN-5 countries				2019	2020		
Indonesia	5.2	5.0	5.0	↓	↓	5.1	5.1
Malaysia	4.7	4.4	4.4	–	↓	4.4	5.2
Philippines	6.2	5.6	6.0	↓	↓	6.2	6.6
Thailand	4.1	2.7	3.0	↓	↓	3.2	2.8
Viet Nam	7.1	6.8	6.6	↑	–	6.5	6.2
Brunei Darussalam and Singapore							
Brunei Darussalam	0.1	2.0	1.7	↑	↓	1.9	-1.2
Singapore	3.1	0.6	1.2	↓	↓	2.3	3.7
CLM countries							
Cambodia	7.5	7.0	6.8	–	–	6.7	7.1
Lao PDR	6.3	6.5	6.6	↓	↓	6.8	7.4
Myanmar	6.5	6.6	6.7	↓	↓	6.9	7.2
China and India							
China	6.6	6.2	5.7	–	↓	5.6	7.1
India	6.8	5.8	6.2	↓	↓	6.6	7.4
Average of ASEAN-10	5.2	4.6	4.7	↓	↓	4.9	5.0
Average of Emerging Asia	6.4	5.8	5.6	↓	↓	5.7	6.7

Note: Data are as of 21 November 2019. Data for India and Myanmar relate to fiscal years. The projections for China, India and Indonesia for 2019 and 2020 are based on the OECD Economic Outlook 106 (database).

Source: OECD Development Centre, Medium-term Projection Framework (MPF-2020).

ASEAN-5

- Indonesia's GDP growth in the medium term is forecast to reach 5.1%, in line with the 2013-17 average. A steady decline in unemployment rate is fuelling consumption prospects, while the expansion of special economic zones bodes well for investment. Improving efficiency in tax administration and infrastructure spending are among the key challenges.
- Medium-term economic growth in Malaysia is estimated to settle at 4.4%, slightly lower than the 2013-17 average of 5.2%. Labour market stability should continue to fuel private consumption, although real-wage growth is slowing. The country's push to improve the digital infrastructure and broaden the economy's technology base are positive, although further policy actions are needed to improve the ease of starting a business and strengthen tax mobilisation.

- GDP growth in the Philippines is projected to come in at 6.2% in 2020-24, below the 2013-17 average of 6.6%. Labour market conditions are working in favour of consumption, but a thorough examination of the declining labour-force participation rate is needed to deepen the market. Infrastructure implementation delays remain a challenge. Improving disaster resilience is also vital.
- In Thailand, medium-term economic growth is estimated to be 3.2%, higher than the average growth rate 2.8% in 2013-17. An improvement in the country's business climate metrics is encouraging for capital formation, labour market prospects and private consumption. Facilitating an enabling environment for the growing fintech services field is a key challenge in the coming years.
- Viet Nam's economy is forecast to grow by about 6.5% in the medium term, surpassing the average rate of expansion of 6.2% in 2013-17. The vibrant investment climate bodes well for the country's privatisation and foreign investment strategies. Recently signed free trade agreements should buttress the export sector amid external headwinds. Keeping rural areas in step with developments in urban centres is a key challenge.

Brunei Darussalam and Singapore

- At 1.9%, Brunei Darussalam's medium-term growth is forecast to be stronger than the 2013-17 average of -1.2%. A steady improvement in business-climate metrics should buttress efforts to increase private-sector activity and bolster the labour market, while the country's big-ticket projects should help to improve economic efficiency. Strengthening the central bank's capacity to administer monetary policy is a crucial challenge as the country deepens its capital markets.
- Singapore's economy is forecast to grow by 2.3% in 2020-24, lower than the 2013-17 average of 3.7%. Trade will likely dominate the growth story in the next few years. The start-up ecosystem is showing considerable promise, though it requires targeted support. Addressing participation barriers in lifelong learning programmes is another challenge.

Cambodia, Lao PDR and Myanmar

- Cambodia's average GDP growth in 2020-24 is estimated to come in at 6.7%, slower than the 2013-17 rate of 7.1%. Fixed investment will remain a key growth anchor as infrastructure development continues. Corporate bond issuances in local currency are helpful for capital market development and facilitate the use of the riel, which is essential for monetary policy efficacy. Continued progress in addressing deficiencies in capital flow regulations is vital.
- The economy of Lao PDR is projected to grow by 6.8% on average in 2020-24, a milder expansion than the 7.4% seen in 2013-17. Infrastructure projects and energy exports are expected to provide much of the growth steam. However, limited improvement in the ease of doing business could hold back the development of other sectors. Coming up with a sound framework to deal with environmental hazards is another challenge for broadening the sources of economic growth.
- Myanmar's GDP is forecast to grow by 6.9% in the medium term, slightly softer than the 2013-17 average of 7.2%. Fixed investment backed by foreign direct investment (FDI) is set to propel economic activity. Exports should gain from a planned expansion of special economic zone (SEZ) operations. Nonetheless, the business climate could be improved. Stability and sufficiency of power supply is one issue. As for education, including digital literacy, access and quality – though improving – remain a challenge.

China and India

- China's GDP growth will continue to slow at 5.6% in the medium term from its 2013-17 average of 7.1%. Growth started to slow a few years ago as the economy is rebalancing from investment-led to consumption-led growth. Investment slows on the back of excess capacity in some manufacturing industries, while consumption is not picking up in a lack of structural reforms to reduce precautionary savings. Nevertheless, consumption remains robust against the backdrop of steadily rising incomes. Ageing pressures are increasing, even though the population is still growing, but the working age population has been falling for several years already. Productivity-boosting structural reforms, including dismantling administrative monopolies and further opening up the economy would lift the growth potential.
- GDP growth in India in 2020-24 is forecast to reach about 6.6%, slower than its 2013-17 average of 7.4%. While reliance on consumption will continue, the large informal labour share indicates that there is room to strengthen the consumption base. Sustaining efforts to prop up the health of the banking sector is a vital challenge, while bridging the disparity in urban and rural infrastructure is important for spreading investment and economic opportunities while addressing urbanisation.

Other key points of the economic outlook and assessment

- As exports cave in to trade tensions, real fixed investment growth is pulling back and cautiousness in business sentiment rises. Nonetheless, current account positions remain solid amid trade uncertainties. The region's lacklustre export earnings were offset by a pullback in import payments.
- Volatility in financial flows has been contained, as has the movement in exchange-rate and equity prices.
- Against a backdrop of benign inflationary pressures, monetary authorities are easing liquidity conditions to lift consumer and investment sentiment. Enhancing the effectiveness of monetary policy in a changing economic environment is a challenge in this context. The flattening of the Phillips curve, which indicates a weakening linkage between inflation and the labour market, ought to be considered. Overall, the fiscal stance of many Emerging Asian economies is favouring contained expansion in the near term.
- Strengthening local government participation and capacity in disaster resilience initiatives to address the current environmental and climate risks is another challenge facing the region.

Box 1.1. Key assumptions of the medium-term outlook to 2024

Projections over 2019-24 are produced using the OECD Development Centre's Medium-term Projection Framework (MPF), which includes the following assumptions:

- The output gap (the gap between actual and potential GDP) will converge to zero by 2024.
- Inflation-targeting countries will continue to pursue stability and to adjust monetary policies to support their targets.
- The national medium-term development plans of Emerging Asian countries will largely be implemented, subject to budgetary and other policy considerations.
- Regional economic integration initiatives and projects will advance at the same pace as before.
- Unanticipated economic events and other external factors will not significantly alter the situation beyond the cut-off date.
- The cut-off date of data for the projection is 21 November 2019. For more detailed information on MPF, please see www.oecd.org/dev/asia-pacific/mpf.htm.

Recent developments and near-term outlook¹

ASEAN-5

Indonesia's economy rose in Q2 2019 at almost the same rate as in the previous quarter (Table 1.2).² This marks the tenth straight quarter that Indonesia has grown by 5% or higher, though the recent trend is on a decline. The contribution of private consumption stayed solid in the first six months of 2019, as in previous years (Figure 1.2).³ Government spending also rose faster during the first half from the same period last year to increase its contribution to growth. On the other hand, fixed investment grew more slowly than in the first six months of 2018, in line with the softer trade prospects. Exports slipped for the second straight quarter as did imports, which contracted even more sharply. Agricultural production improved markedly on the supply side in Q2 2019 from Q1 2019, thanks to good weather, making up for weakness in manufacturing and mining. Growth in the services sector as a whole remained strong, largely supported by subsectors related to real estate, business services, transportation, education and health.

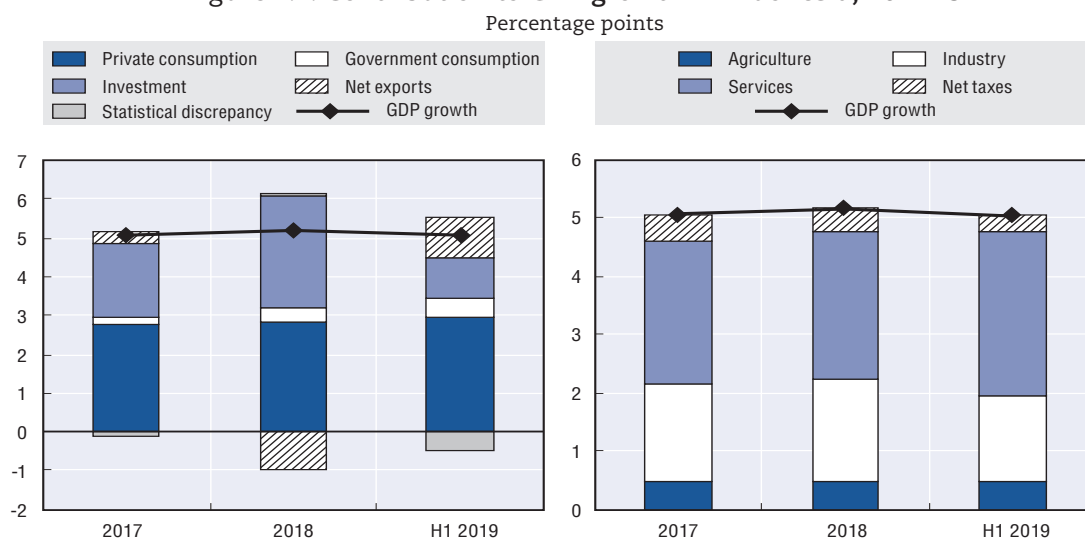
Table 1.2. Quarterly real GDP growth in ASEAN, China and India, 2018-19

	Year-on-year, percentage changes					
	2018 Q1	2018 Q2	2018 Q3	2018 Q4	2019 Q1	2019 Q2
ASEAN-5 countries						
Indonesia	5.1	5.3	5.2	5.2	5.1	5.0
Malaysia	5.3	4.5	4.4	4.7	4.5	4.9
Philippines	6.5	6.2	6.0	6.3	5.6	5.5
Thailand	5.0	4.7	3.2	3.6	2.8	2.3
Viet Nam	7.5	6.7	6.8	7.3	6.8	6.7
Brunei Darussalam and Singapore						
Brunei Darussalam	2.8	-2.6	-1.1	1.0	-0.5	6.7
Singapore	4.6	4.2	2.6	1.3	1.1	0.1
China and India						
China	6.8	6.7	6.5	6.4	6.4	6.2
India	8.0	7.0	6.6	5.8	5.0	—

Note: Data for India relate to fiscal years.

Source: OECD Development Centre based on data from CEIC and national sources.

Figure 1.2. Contribution to GDP growth in Indonesia, 2017-19



Source: OECD Development Centre based on data from CEIC and national sources.

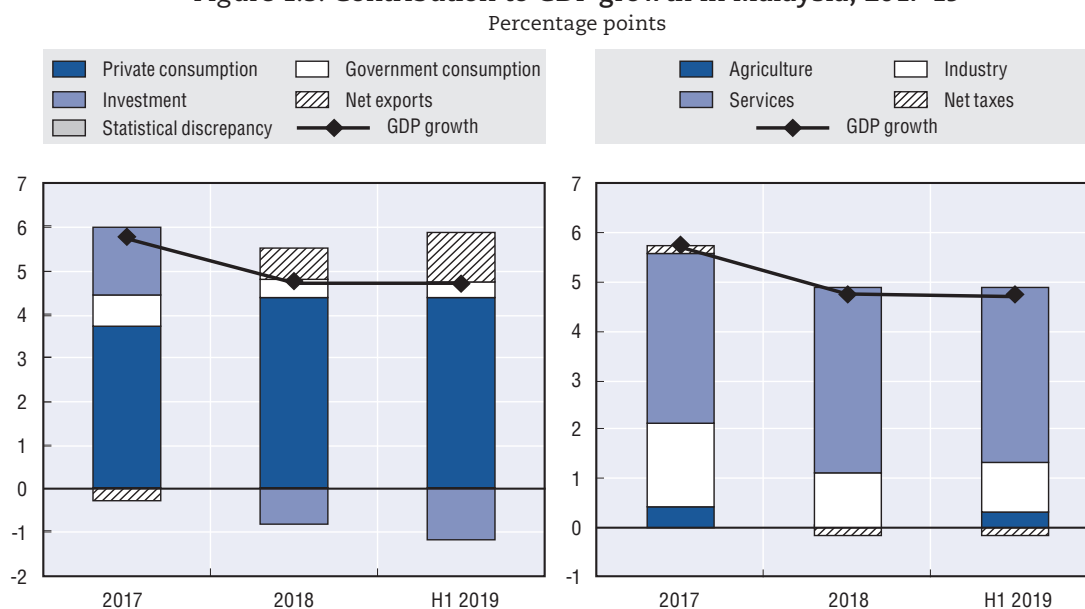
StatLink <https://doi.org/10.1787/888934063195>

Annual growth in Indonesia is expected to be lower in 2019 than in the previous year and will likely hold steady in 2020. Goods exports growth, in nominal value and volume, was still dampened in recent months, as was the growth in visitor arrivals and retail sales. On the upside, the consumer outlook remains optimistic, while demand for loans, mainly for investment and small consumer purchases (i.e. credit-card spending), is gaining traction. Budget spending in 2020 is programmed to expand conservatively, but the government is banking on the quality of outcomes to boost growth momentum.

GDP growth in the medium term is forecast to be in line with the 2013-17 average of 5.1%. Consumption prospects are buoyed by the steady decline in the unemployment rate. The expansion of SEZs bodes well for investment. Key challenges include efficiency in tax administration and infrastructure spending, as well as environmental resilience, highlighted in OECD (2019a). The move to transfer the capital city carries promise for narrowing development gaps among regions, as well as for decongesting Jakarta.

GDP growth in **Malaysia** rebounded in Q2 2019 from Q1 2019 on the strength of private consumption. Public spending hardly grew during the period, in line with fiscal consolidation. Exports were essentially flat as imports pulled back. Fixed investment in Q2 2019 likewise shrank, continuing the pattern of the previous quarter. Supply-side sectors depict broad-based stability (Figure 1.3). Mining posted its first gain in seven quarters, while agriculture, manufacturing and the large services subsectors registered healthy growth rates.

Figure 1.3. Contribution to GDP growth in Malaysia, 2017-19



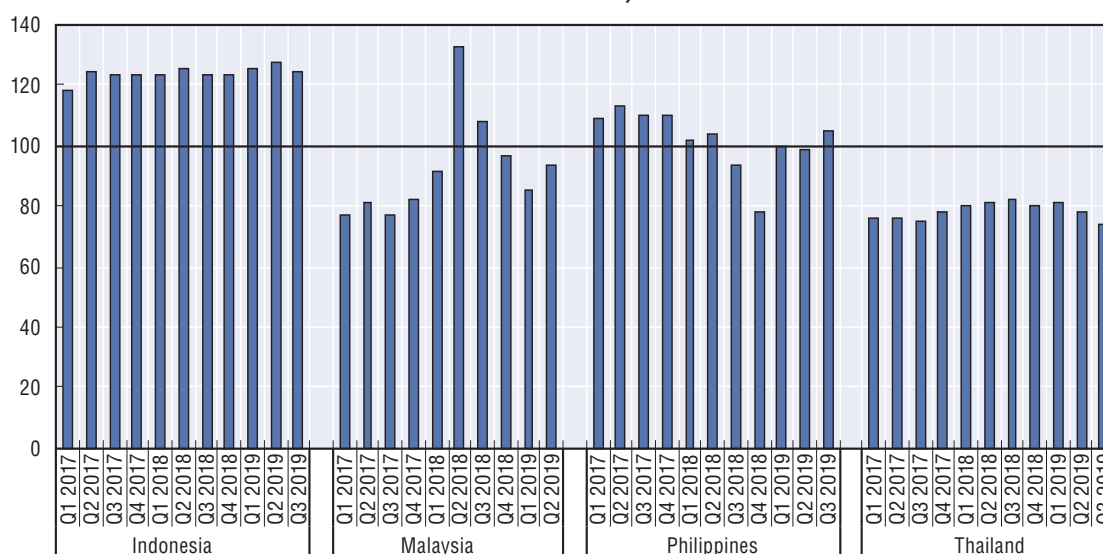
Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063214>

Growth forecast for 2019 is unchanged from July 2019 (OECD, 2019a) though the projected growth in 2020 is revised downwards. Headwinds are mainly coming from the external sector, as suggested by goods exports data. Yet, domestic demand indicators remain solid. The drop in consumer confidence is turning around (Figure 1.4). Growth in tourist arrivals rose, as did growth in non-industrial electricity consumption. A considerable jump in approved capital investment in manufacturing in the first half of 2019, and sustained growth in the industrial production index, further point to a recovery in capital formation.

Medium-term economic growth is estimated to settle at 4.4%, slightly lower than the 2013-17 average of 5.2%. Labour market stability should continue to fuel household consumption, although real wage growth is slowing.⁴ Malaysia's push to improve digital infrastructure and broaden the economy's technology base should benefit from the establishment of intellectual property courts.⁵ A digital free trade zone, akin to the multimedia super corridor, has been laid out to facilitate the economic transition. Sectors involved in aerospace technology and biotechnology are also getting considerable support. Despite improvements in the ease of starting a business and in enforcing compliance with tax obligations in the past 2-3 years, these policy areas could be pursued further.⁶

Figure 1.4. Consumer confidence indices in Indonesia, Malaysia, the Philippines and Thailand, 2017-19



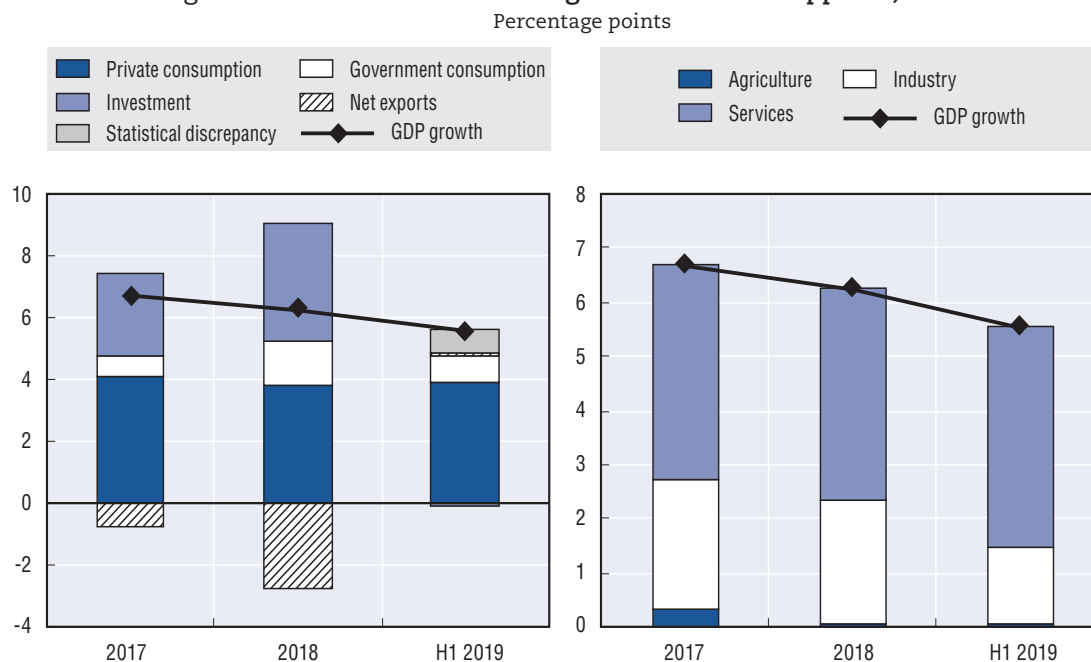
Note: All indices are adjusted to set 100 as the neutral confidence point. The latest data for Indonesia and Thailand are as of August 2019.

Source: OECD Development Centre based on data from CEIC and national sources.

StatLink  <https://doi.org/10.1787/888934063233>

Aggregate demand is losing steam in the **Philippines**, dragging economic growth in Q2 2019 down to its lowest point since Q1 2015. Fixed investment shrank for the first time since Q4 2011 on a reduction in durable equipment outlays and a slowdown in construction spending. Private consumption growth skidded from Q1 2019, though aggregate growth in the first half of the year was on par with the same period in 2018. Government consumption and exports recorded slower growth rates relative to Q1 2019, whereas imports flatlined. Production growth is mainly fuelled by the services cluster (Figure 1.5). A jump in mining output provided support. However, manufacturing growth has tapered and agricultural output remained subdued.

Figure 1.5. Contribution to GDP growth in the Philippines, 2017-19



Source: OECD Development Centre based on data from CEIC and national sources.

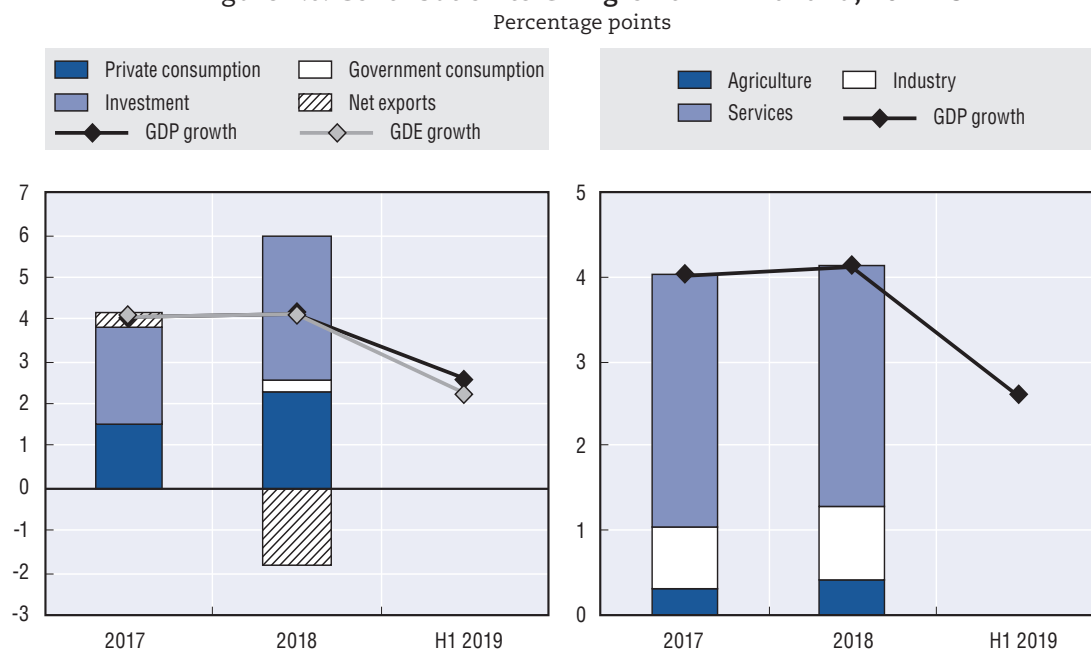
StatLink <https://doi.org/10.1787/888934063252>

Leading indicators point to slower growth in 2019 and 2020 than initially projected. Nominal growth in goods exports continued to ebb. This is mirrored by a slump in the industrial production index. Stronger tourist arrival momentum and improving consumer sentiment are positives for private spending and the recovery in overseas remittance growth provides additional support to the appetite for spending. Early passage of the 2020 budget could help avert the disbursement bottlenecks experienced in the first half of 2019.

Growth in the medium term is projected to come in at 6.2%, below the 6.6% average in 2013-17. Consumption is expected to hold up on the stability exhibited by the labour market. A thorough examination of the declining labour force participation rate is key to deepening the market appropriately and absorbing potential upward inflection. While infrastructure spending is expected to continue to provide growth support, implementation delays are a significant challenge. The push to create a Ministry for Disaster Resilience needs to be carefully studied, while ensuring that incentives are appropriate to attract and retain qualified personnel, in line with the experience of similar agencies, would be ideal.

Thailand's economic growth pulled back for the second straight quarter in Q2 2019 as domestic spending moderates further (Figure 1.6). Private consumption still does the heavy lifting, despite its weaker growth. Exports in Q2 2019 plunged by about the same rate as in Q1 2019, while the expansion of fixed investment was tempered, affected by a slower uptick in private-sector fixed capital placements. On the production side, the strong performance of the utilities and mining sectors were offset by a decrease in agricultural and manufacturing output. The main services subsectors (wholesale and retail trade, finance, real estate and accommodation), customarily the most prominent growth drivers, lost momentum as well.

Figure 1.6. Contribution to GDP growth in Thailand, 2017-19



Note: The calculations are based on chain linked volume measure series. The sum of contributions is not necessarily equal to GDP growth. GDE means gross domestic expenditure.

Source: OECD Development Centre based on data from CEIC and national sources.

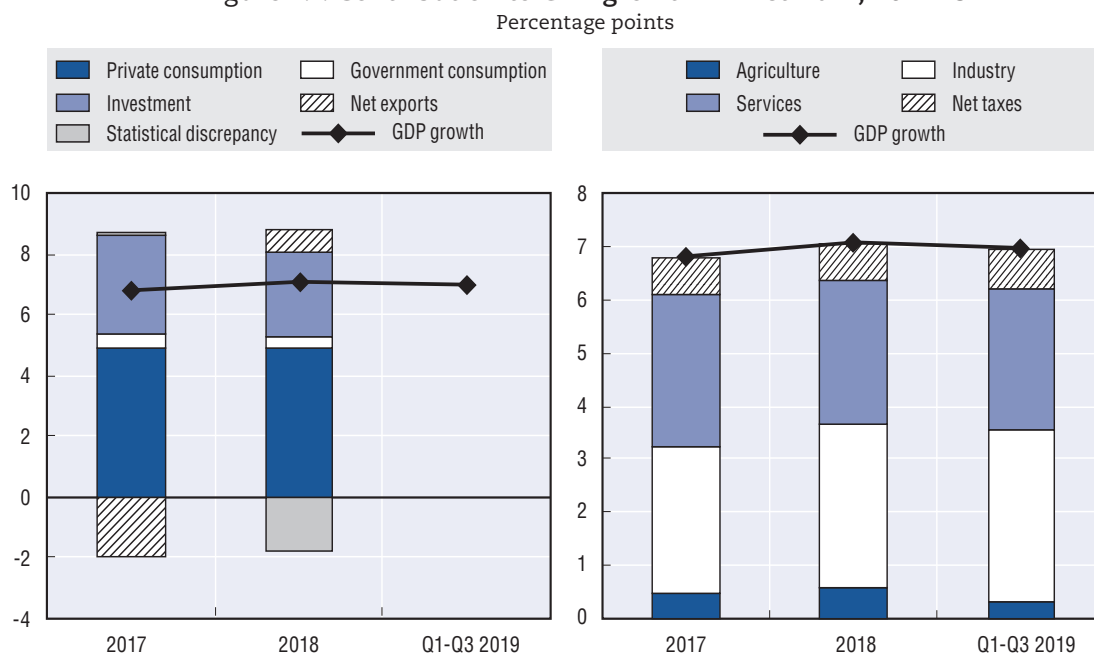
StatLink <https://doi.org/10.1787/888934063271>

GDP growth in 2019 and 2020 is forecast to fall below our initial estimates. The persistence of export weakness can be associated with a pullback in the industrial and agricultural production indices. While the private consumption index shows stable growth, consumers are becoming more pessimistic. It does not help that tourist arrivals grew at marginal rates in recent months. The mild stimulus programmed for fiscal year 2020 and a policy rate cut in August 2019 should partially arrest the slowdown in activity.

Growth over the medium term is estimated to reach 3.2%, higher than the average growth rate of 2.8% in 2013-17. Improvement in the country's business climate metrics – progress in the ease in starting a business, paying taxes and trading across borders (World Bank, 2019a) – is encouraging for capital formation, labour market prospects and private consumption. Facilitating an enabling environment for the growing fintech services sector is a key challenge in the coming years. Relevant measures enacted in 2019 include laws on cybersecurity, personal data and copyright.

Viet Nam's economy remains the most vibrant among the ASEAN-5. The resilience of exports relative to other countries in the region is a considerable factor, supported by buoyant consumer spending, as suggested by increasing growth in retail sales. Providing the growth ammunition on the supply side are the manufacturing and mining industries as well as the services subsectors of wholesale and retail trade, transportation and finance (Figure 1.7).

Figure 1.7. Contribution to GDP growth in Viet Nam, 2017-19



Source: OECD Development Centre based on data from CEIC and national sources.
 StatLink <https://doi.org/10.1787/888934063290>

The OECD Development Centre's July 2019 growth forecast is revised upwards for 2019 and maintained for 2020, with leading indicators suggesting sustained momentum. The industrial production index maintained strong growth through October 2019. Growth in retail sales and tourist arrivals remained sturdy. Registered FDI capitalisation and state investment have likewise picked up pace in recent months.

Over the medium term, Viet Nam's economy is forecast to grow by about 6.5%, surpassing the 6.2% average rate in 2013-17. The vibrant investment climate bodes well for the country's privatisation and foreign investment strategies. Improvements were noted in regulations pertaining to starting a business, paying taxes and enforcing contracts (World Bank, 2019a). Adjustments were made to cybersecurity, intellectual property and antitrust regulations, while a new FDI Attraction Strategy 2020-30, focusing on skills and investment quality, is being formulated. Keeping rural areas in step with the developments in urban centres, particularly in infrastructure, is a key challenge. Broadening the coverage of insurance against natural disasters to mitigate the impact of environmental risks is another (Box 1.2).

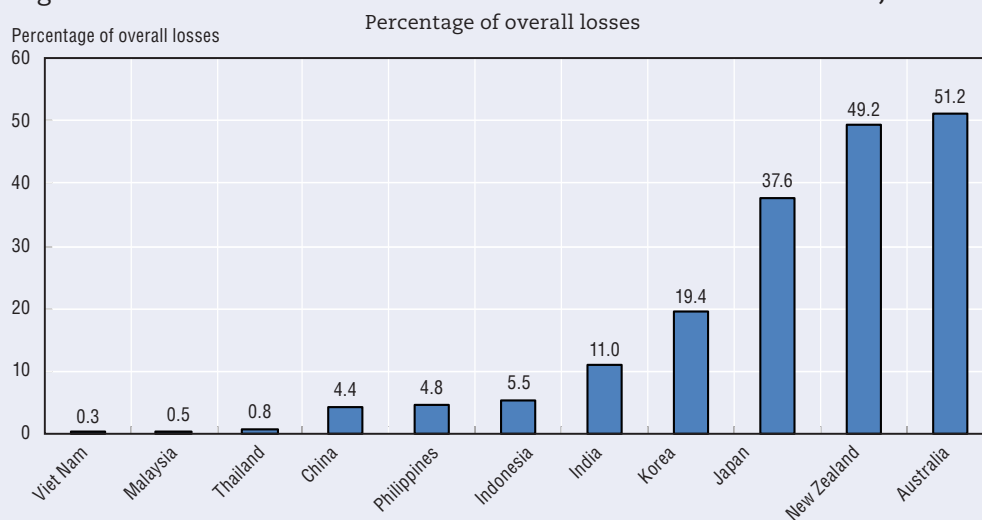
Box 1.2. Strengthening the disaster risk insurance market in ASEAN

The development of disaster risk insurance solutions has been relatively slow in Emerging Asia. According to insurance data collected by Munich Reinsurance Company, the amount of natural disaster losses covered by non-life insurance is relatively small for Emerging Asian countries in comparison to their more-developed neighbours (Figure 1.8). The country with highest insurance coverage of losses in the region between 2012 and 2018 was India where USD 5.4 billion (in constant 2017 US dollars) was insured out of USD 49 billion overall losses. For developing countries in Southeast Asia, the Philippines and Indonesia were relatively well insured while only tiny fractions of natural disaster

Box 1.2. Strengthening the disaster risk insurance market in ASEAN (cont.)

losses were insured in Malaysia, Thailand and Viet Nam. There are a variety of causes for the underdevelopment of private disaster risk insurance market in the region. They include a lack of attractive products, limited delivery channels and a lack of technical capacity on the supply side, poor insurance education and limited awareness on exposure to disaster risks on the demand side, as well as a lack of well-established insurance-related legal and regulatory systems at the national and sub-national levels (World Bank, 2012b).

Figure 1.8. Insured losses from natural disasters in Asian countries, 2012-18



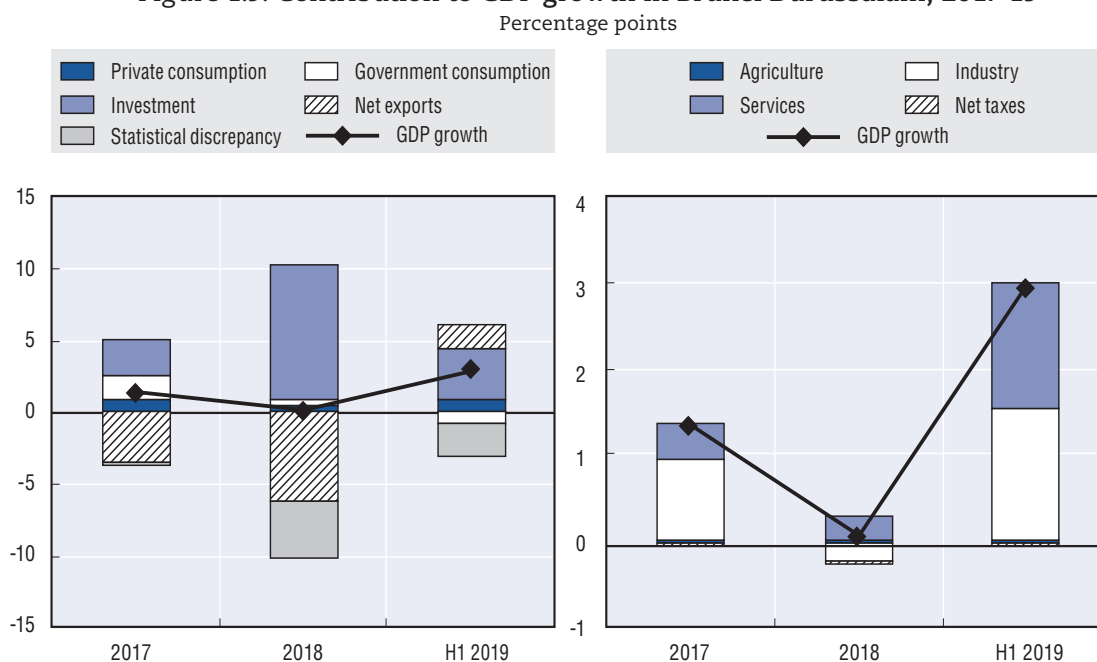
Source: OECD Development Centre calculations using Munich RE (2018), NatCatSERVICE (database), Munich RE Group, Munich, <https://natcatservice.munichre.com>.
 StatLink <https://doi.org/10.1787/888934063309>

Many countries in the region have taken initiatives to strengthen disaster risk insurance market. In Indonesia, the government is formulating a national strategy on Disaster Risk Financing and Insurance (DRFI) to enhance the existing sectoral regulations on disaster insurance such as law for agricultural insurance and insurance for those working in the fishing industry. In addition, Indonesia will implement the State Assets Insurance Pilot Project managed by the Ministry of Finance and providing DRFI education to key stakeholders. In Malaysia, a disaster insurance scheme is being developed through cooperation between the government and insurance companies which will initially allow 100 000 households in flood risk areas across the country to obtain insurance coverage at 1% of its actual cost with the government subsidizing the remaining amount. In the Philippines, the government, in collaboration with World Bank and the UK Department for International Development, launched a new catastrophe risk insurance program in 2017 to help the country respond better to losses from natural disaster events. This parametric insurance program offers USD 206 million in coverage against losses from major typhoons and earthquakes to national government assets and 25 participating provinces where insurance pay-outs will be made when pre-defined parametric triggers are met. In Viet Nam, the disaster risk insurance market is at its infancy and only 0.3% of natural disaster losses in the country have been insured. The government of Viet Nam is actively cooperating with international organisations to set up a catastrophe risk model to better assess the likelihood and intensity of natural disasters, increase disaster preparedness and enable faster response. The Ministry of Finance in Viet Nam will also integrate disaster insurance with other insurance programs by the government, and draft guidelines of operation for insurance companies in the country.

Brunei Darussalam and Singapore

With investment and exports recovering, the economy of Brunei Darussalam posted a strong growth in Q2 2019 after contracting in Q1 2019. The trade surplus jumped from the previous year even as import growth stayed brisk. Fixed investment rose sharply on the back of private sector outlays. Private consumption held up though government spending slipped. On the supply side, the oil and gas sector (about 57% of gross value added) also recovered, reversing a trend since Q2 2018. The large services subsectors provided additional lift.

Figure 1.9. Contribution to GDP growth in Brunei Darussalam, 2017-19



Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063328>

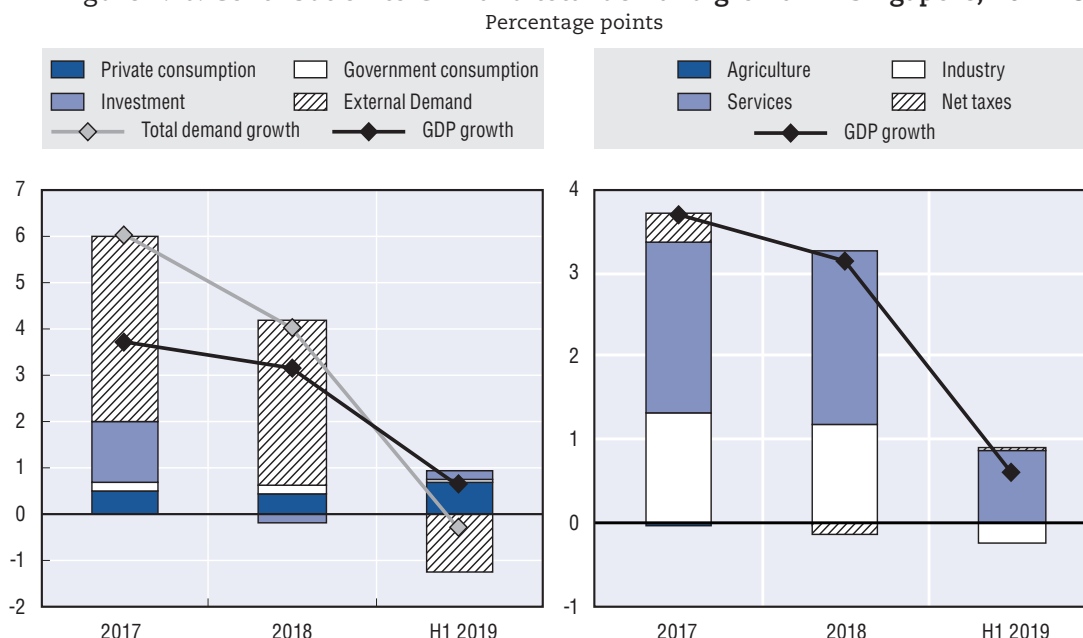
GDP growth in 2019 is expected to stay buoyant though the rate in 2020 will likely fall below the OECD Development Centre's July 2019 forecast. Growth in the nominal export value of crude oil and gas has slid. However, considering the steep drop in global oil and gas prices from the previous year, the volume of energy exports appears to be stern. Infrastructure projects are another prominent growth anchor albeit the large reduction in machinery and transport equipment imports in recent months signals moderation in fixed investment moving forward. Additionally, the low inflation environment and a recovery in household sector loans are encouraging for private spending though public spending will be somewhat constrained as export earnings weaken.

At 1.9%, the forecasted medium-term growth will be faster than the 2013-17 average of -1.2%. Steady progress in *Doing Business* indicators (World Bank, 2019a) bodes well for efforts to raise private-sector activity and to lower the unemployment rate (9.3% in 2017). Mobility and value-adding capacity should benefit from the completion of big ticket projects like the Muara Besar island complex and Temburong bridge. Continued development of the whole Pulau Muara Besar project and the country's telecom infrastructure modernisation plan are likewise good for investment prospects.

Singapore's GDP barely grew in Q2 2019, in line with a trend of decelerating growth in the last four quarters. The net export balance was in surplus, but it decreased

sharply in Q2 2019 from the previous year following a milder dip in the prior quarter (Figure 1.10). Fixed investment is in the red for the sixth straight quarter, although there was a notable increase in capital inventories. Public fixed investment rose markedly owing to construction works, whereas the much larger private investment component resumed its decline after a lacklustre Q1 2019. Private consumption growth in the first half fared slightly better than a year ago, although growth in Q2 2019 has moderated since Q1 2019. On the supply side, wholesale and retail trade and manufacturing value added deteriorated, while finance services grew faster relative to Q1 2019.

Figure 1.10. Contribution to GDP and total demand growth in Singapore, 2017-19



Note: The calculations are based on chain-linked series based on 2015 prices. Demand-side contribution to GDP growth data are not available. Supply and demand data for H1 2019 are the weighted average of the quarterly data. Services include ownership of dwellings.

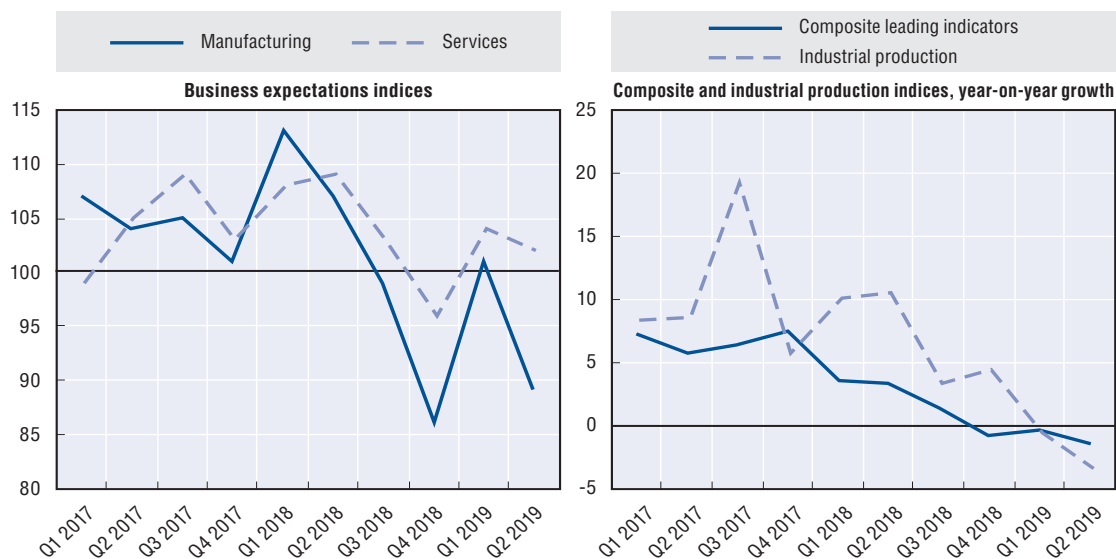
Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063347>

With protracted instability in global trade weighing heavily on domestic activity, Singapore's economy is expected to record weaker growth in 2019 and 2020 than initially forecast. Trends seen via composite leading indicators and the industrial production index, as well as business expectations in manufacturing and services, suggest cautiousness (Figure 1.11). Private demand is likewise feeling the pinch. Real growth in domestic retail sales continued to hover in the red. Residential property prices appear continue to rise moderately although the transaction value in 2019 is well below the previous year, stalling the decline in the vacancy rate. Materialisation of planned stimulus measures will be crucial in keeping the economy from contracting in the near term.

The economy is forecast to record growth of 2.3% in 2020-24, weaker than the 2013-17 average of 3.7%. With trade accounting for more than 320% of GDP, trade will likely dominate the growth story in the next few years. The start-up ecosystem is showing considerable promise, though it requires targeted support. Addressing participation barriers in lifelong learning programmes – some of which were documented by Zher, Sung and Ying (2019) – is also needed to generate productivity gains from ageing and marginalised segments of the population.

Figure 1.11. Business expectations and leading indicator indices in Singapore, 2017-19



Note: The neutral point for the expectations indices is 100.

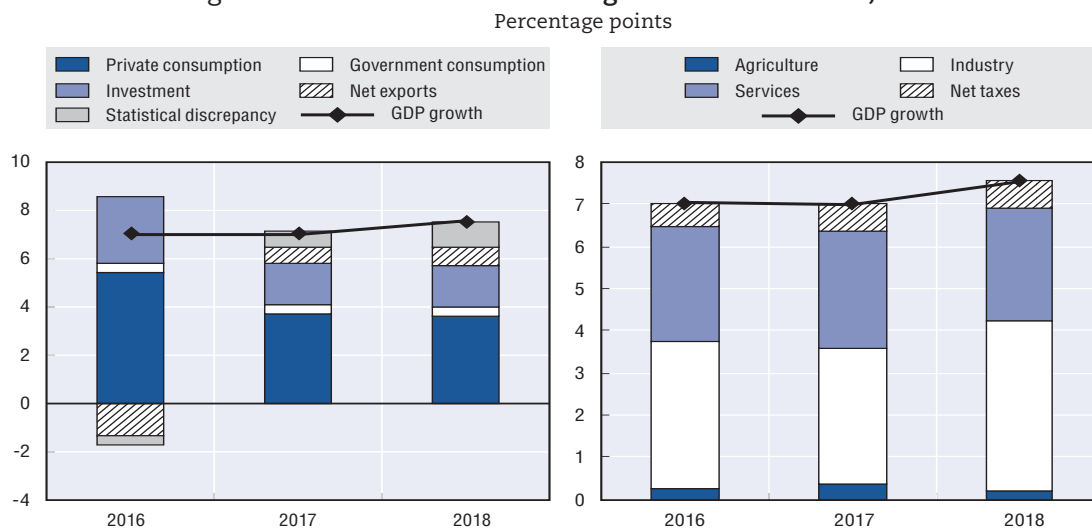
Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063366>

Cambodia, Lao PDR and Myanmar

Cambodia's economy is holding up despite some drags on growth. Approved fixed asset investment more than quadrupled in Q1 2019 from the same period a year earlier. Nominal goods exports rebounded strongly in March and April 2019, although there is a need to sort out the overhanging risk of losing trade privileges in key markets. A substantial increase in outstanding private-sector bank claims as of May 2019, and double-digit growth in tourism in the first six months of 2019, demonstrate upbeat private-sector spending, and this has been a reliable growth anchor in the past (Figure 1.12). Against this backdrop, the July 2019 growth projections for 2019 and 2020 are maintained.

Figure 1.12. Contribution to GDP growth in Cambodia, 2016-18



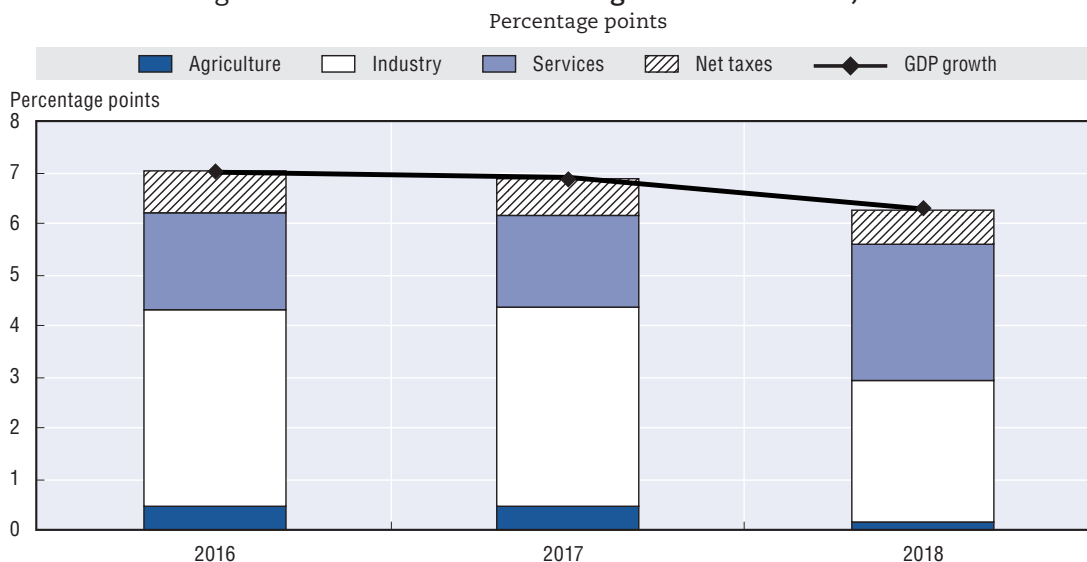
Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063385>

In the medium term, GDP growth of 6.7% will be weaker than the 2013-17 average of 7.1%. Fixed investment, which grew 11.3% on average between 2002 and 2017, will remain a key anchor of growth in the next few years. With funding mainly coming from China, infrastructure projects continue to take flight, including new SEZs, residential and commercial complexes, transportation and power. Key guiding frameworks in this respect are the *Industrial Development Policy 2015–25*, the *Logistics Master Plan* and the *Standard Operating Procedures for Externally Financed Projects in Cambodia*. In addition to export gains through SEZs, the job windfall from these projects is a boon for labour-market stability, considering the country's young population and, ultimately, private consumption. Corporate bond issuances in local currency are a positive for deepening the capital market and for facilitating the use of the riel, which is essential for monetary policy efficacy.

Strains on Lao PDR's economy appear to have broadened in the last few months. Nominal export earnings, including from offshore electricity sales, rose relatively modestly in Q1 2019. Domestic demand is likewise hobbled by a sharp year-on-year decline in FDI in Q1 and Q2 2019, weaker outstanding bank lending growth as of June 2019 and food inflation induced by environmental calamities. With the government's commitment to fiscal consolidation, public pump priming is unlikely to be extensive. On the supply side, a severe drought in the first half of 2019, along with serious floods in mid-2018 and in September 2019, made this an immensely difficult year for the agriculture sector. The services sector should partially absorb the slack, with various infrastructure and real estate projects springing up in key areas, as in the previous year (Figure 1.13). In view of these developments, growth in 2019 and 2020 is forecast to be lower than predicted in the July 2019 assessment.

Figure 1.13. Contribution to GDP growth in Lao PDR, 2016-18



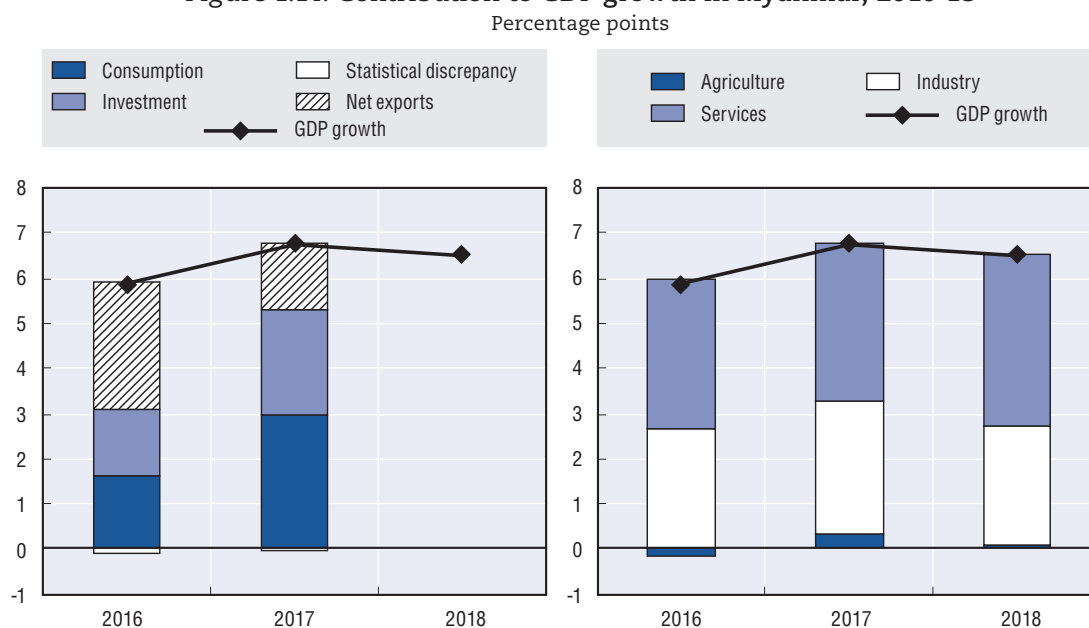
Source: OECD Development Centre based on data from CEIC and national sources
 StatLink <https://doi.org/10.1787/888934063404>

The economy is projected to rise by 6.8% on average in 2020-24, a milder expansion than the 7.4% seen in 2013-17. Infrastructure projects and energy exports are expected to provide much of the growth steam. The country is well placed to gain from the Belt and Road initiative. Projects are also lined up in the Initial Rolling Priority Pipeline of Potential ASEAN Infrastructure Projects, as guided by the Master Plan on ASEAN Connectivity 2025. Separately, energy sector prospects are reinforced by the expansion of the ASEAN grid connectivity project with Malaysia and Thailand, as well as by deals with other countries,

like the potential inclusion of some ASEAN countries including Lao PDR in the planned global electricity grid. However, progress in promoting the ease of doing business is too limited relative to other countries (World Bank, 2019a). This has led to a steady downtrend of Lao PDR's rank from 2016 to 2018 that is not in line with private-sector development. In particular, the digital industry is lagging (World Bank, 2018). Private sector involvement is vital in this area given the limited public fiscal space. Dealing with environmental hazards such as flood and drought is another crucial challenge for broadening the sources of economic growth.

Myanmar's economic performance in the fiscal year ending September 2019 was affected by weaker offshore sales, as in other Emerging Asian economies. Export growth from October 2018 to April 2019 slowed from the previous year, while a steep rise in inflation since January 2019 and a moderating growth in banks' outstanding claims on the private sector also suggest increased private spending friction. The strong rebound in tourist arrivals in the first seven months of the fiscal year and the faster growth in foreign investment of permitted enterprises should compensate for the drag. On the supply side, manufacturing was buoyed by robust growth in manufactured exports despite moderation in aggregate external sales. Agriculture was likewise having a favourable year (FAO, 2019). However, the momentum of services, traditionally the main value-adding sector (Figure 1.14), is expected to ease based on domestic demand indicators. Against this backdrop, the economic expansion forecast for fiscal years 2019 and 2020 is revised downwards from July 2019.

Figure 1.14. Contribution to GDP growth in Myanmar, 2016-18



Note: 2018 data relate to the interim period from April to September. 2016 and 2017 data relate to the fiscal year ending March the following year.

Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063423>

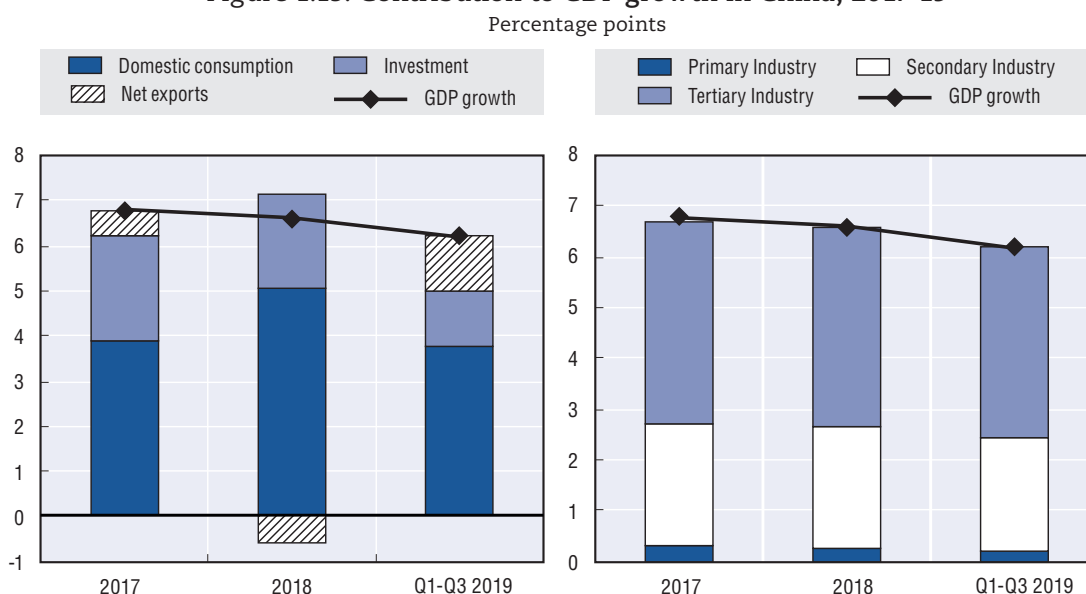
Myanmar's GDP is forecast to expand by 6.9% in the medium term, a slightly softer rate than the 2013-17 average of 7.2%. Fixed investment is set to propel economic activity on the back of FDI-funded projects. The FDI channel is also being utilised to develop retail and wholesale trade and the insurance sector.⁷ Exports, which have been a growing engine of domestic activity since the economy opened up less than a decade ago, should

gain from the planned expansion of SEZ operations. Nonetheless, the business climate can still be enhanced. In 2018, the country was ranked in the bottom 10% globally in terms of the ease of doing business (World Bank, 2019a). Another issue is the stability and sufficiency of power supply. As for education, including digital literacy, access and quality – though improving – remain a challenge that requires a focused approach and the involvement of subnational governments.

China and India

As expected, **China's** growth moderated in Q3 2019, its slowest pace since the quarterly series was first published in 1992. Contribution to growth of domestic consumption slid marginally despite the fiscal and monetary cushion rolled out by the government (Figure 1.15). Investment's GDP growth contribution year-to-date rose from the previous quarter, although the rate was substantially lower than in the previous year. Weak private investment weighs on overall investment growth. Access to financing has been increasingly difficult for private and small firms, in particular since the reining in of the shadow banking sector, the major supplier of credit for such firms (Box 1.3). The trade balance improved, yet balance of payments data show that both exports and imports registered weaker readings. Industrial activities like manufacturing and construction felt much of the slowdown in demand. Services growth held steady, while agricultural output grew faster than in the previous quarter despite the swine flu outbreak.

Figure 1.15. Contribution to GDP growth in China, 2017-19



Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063442>

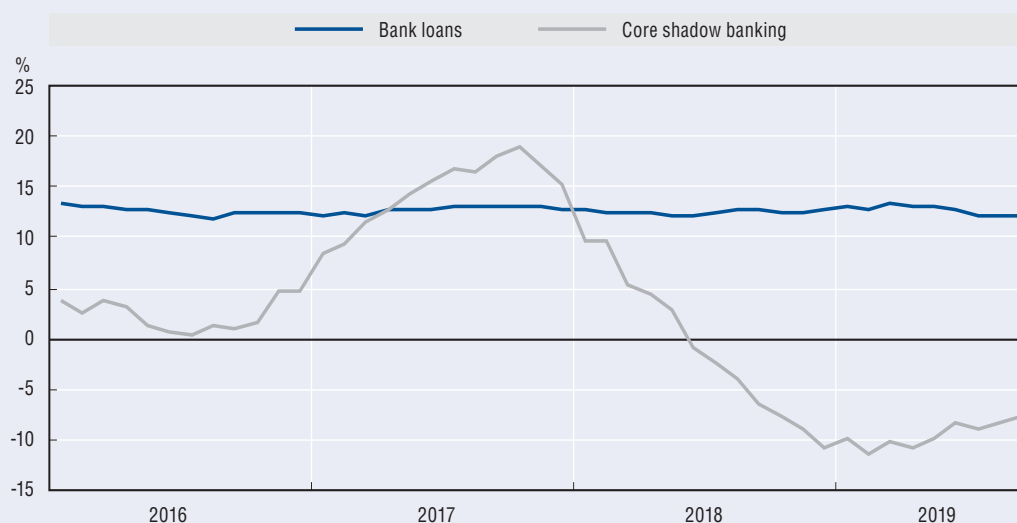
Box 1.3. Shadow banking in China

Shadow banking in China is being reined in (Figure 1.16), with slowing and then shrinking lending in the past couple of years as stability has become the major focus of financial policy OECD (2019b). Shadow banking was brought into life by unmet demands for loans by riskier borrowers and unmet supply of investment products with high returns. Risk aversion and regulations held back the banking sector from lending to riskier borrowers. At the same time, households had few alternatives to bank deposits, whose returns did not

Box 1.3. Shadow banking in China (cont.)

increase much after liberalisation of deposit rates. The larger banks, which boast the largest deposit bases, found myriad ways to channel the funds through intermediaries to riskier borrowers. Inter-company lending arranged by banks, the so-called entrusted lending, implied profits without risk for banks. Wealth management schemes offering higher returns than deposits to return-hungry investors by banks started to proliferate. As such schemes are off balance sheet, they were outside of regulatory oversight and as they avoid capital provisioning, their surge implied heightening financial risks. In addition, wealth management products carried perceived implicit guarantees, with some carrying explicit guarantees on the principal, and involved maturity mismatch. Financial institutions (particularly the smaller ones that had a small deposit base) raised funds through the inter-bank market by issuing certificates of deposit that were considered bonds, and sold wealth management products to each other, thereby enhancing systemic risk.

Figure 1.16. China's shadow banking continues to shrink
Seasonally adjusted, 3-month moving average annualised growth rate, percentage



Note: Core shadow banking includes trust loans, entrusted loans and bankers' acceptances. Growth rates are in year-on-year terms.

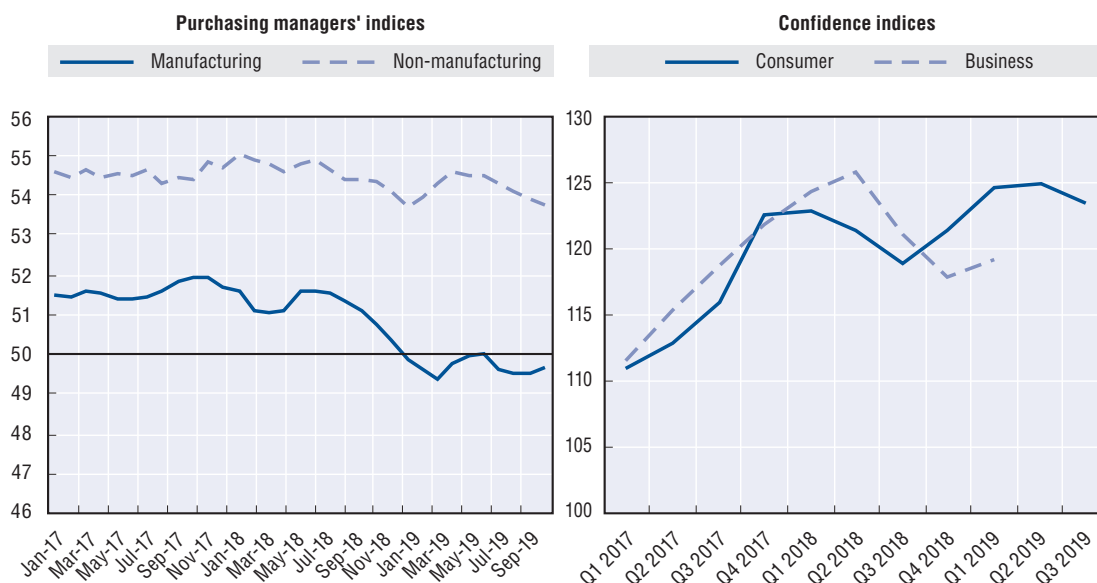
Source: OECD Development Centre calculations, based on CEIC.

StatLink <https://doi.org/10.1787/888934063461>

Amid heightening systemic risk, regulators brought assets behind wealth management products into macro-prudential assessment in 2017 and subjected certificates of deposits to the inter-bank liability ceiling of 33% from 2018. These measures have curbed the size of the shadow lending, which hit private and smaller firms the hardest, as such firms formed the largest part of shadow banking clientele.

Growth in 2020 is expected to come in slower than the rate projected in July 2019 while the initial forecast for 2019 is maintained. The decline in nominal exports growth is showing signs of mending. However, manufacturing and non-manufacturing purchasing managers' indices (PMI) have been losing momentum since March 2019 (Figure 1.17). Growth in utilised FDI and total fixed asset investment is similarly softening, as is private consumption, based on automobile, real estate and retail sales data.⁸ The optimism conveyed by consumers is indicative of the market's response to broad-based government support.

Figure 1.17. Purchasing managers' and confidence indices in China, 2017-19



Note: The PMI indices are presented in 3-month moving averages. The neutral point for confidence indices is 100. The latest consumer confidence data is as of August 2019.

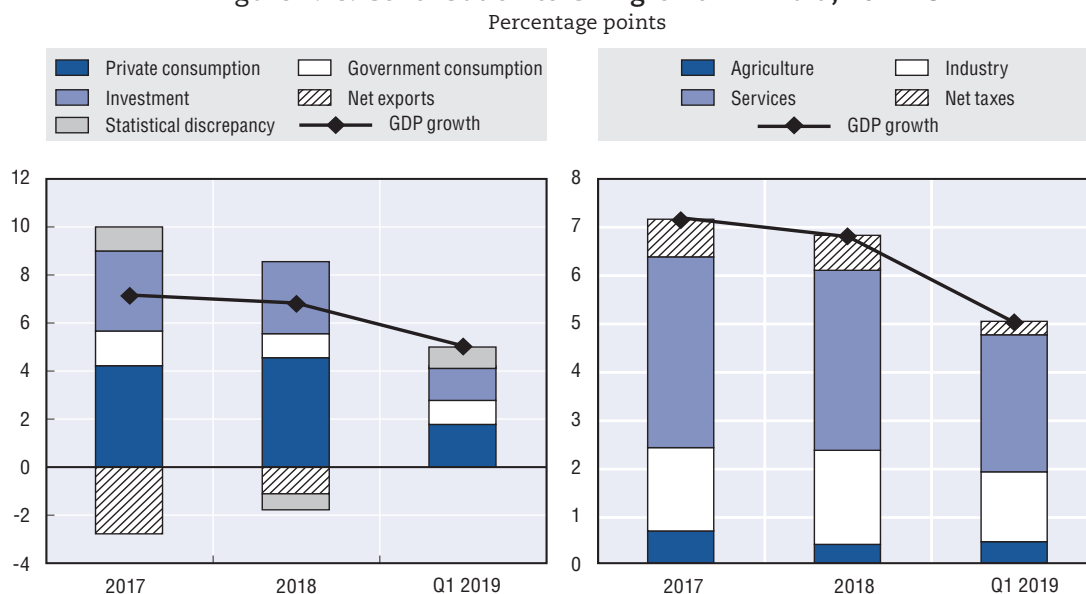
Source: OECD Development Centre based on data from CEIC and national sources.

StatLink  <https://doi.org/10.1787/888934063480>

In 2020-24, GDP growth will continue to slow in China. Growth started to slow a few years ago as the economy is rebalancing from investment-led to consumption-led growth. Investment slows on the back of excess capacity in some manufacturing industries, while consumption is not picking up in a lack of structural reforms to reduce precautionary savings. Nevertheless, consumption remains robust against the backdrop of steadily rising incomes. Ageing pressures are increasing, even though the population is still growing, but the working age population has been falling for several years already. Productivity-boosting structural reforms, including dismantling administrative monopolies and further opening up the economy would lift the growth potential.

In India, buoyant government spending could not prevent growth from slowing sharply in Q1 2019 of fiscal year 2019-20 (ending March 2020). Private consumption growth has softened markedly, taking away substantial economic growth fuel in the process (Figure 1.18). The same can be said of exports, although the trade deficit narrowed from the previous year, with import growth scaling back at a sharper rate. Fixed investment posted a marginal increase in growth from the previous quarter, but far below the double-digit rates registered last year. Supply-side data show that growth in agriculture, utilities industry, and wholesale and retail trade gained pace from the previous quarter. However, expansion in the manufacturing and construction industries, as well as finance, real estate and professional services, was more reserved than in the previous four quarters.

Figure 1.18. Contribution to GDP growth in India, 2017-19



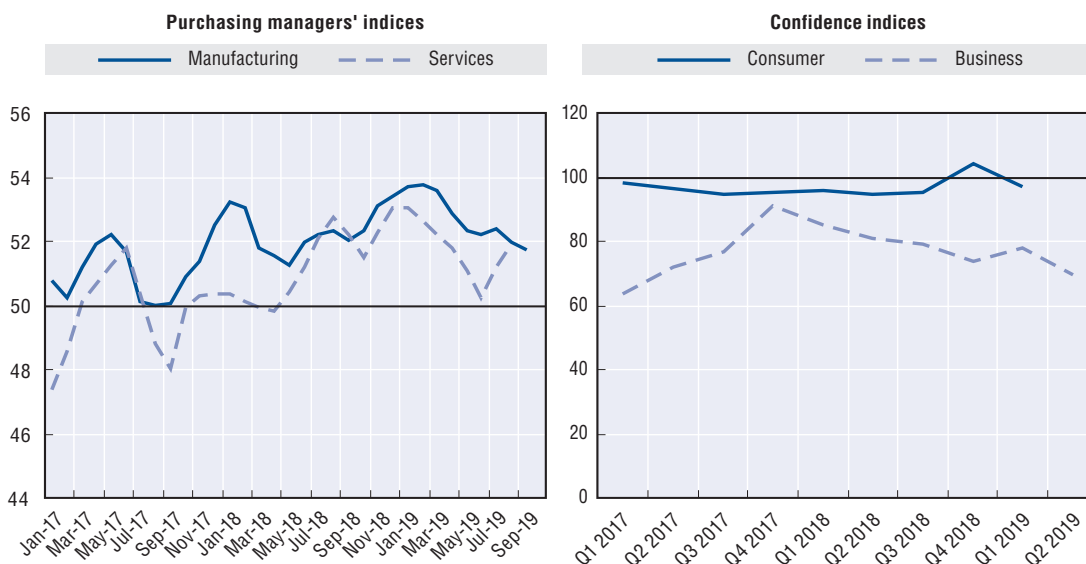
Note: Data relate to fiscal years.

Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063499>

In 2019 and 2020, GDP growth is forecast to settle below the rates recorded in July 2019. Business pessimism persists as exports skid (Figure 1.19). The manufacturing PMI is heading south, as is the infrastructure index. Private spending indicators as of August 2019 are not encouraging. The consumer outlook has dimmed, with passenger car sales heading deep into the red, and tourist arrivals have barely increased. One bright spot is a sharp increase in FDI in June 2019, and the services PMI is also looking up. A stimulus package is being worked out to provide an additional boost.

Figure 1.19. Purchasing managers' and confidence indices in India, 2017-19



Note: The PMI indices are 3-month moving averages. The neutral point for confidence indices is 100. Quarters relate to fiscal year.

Source: OECD Development Centre based on data from Nikkei Asian Review, CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063518>

Growth in 2020-24, forecast to be about 6.6%, will be slower than the 2013-17 average of 7.4%. Reliance on consumption (over 55% of GDP) will persist during the period. Yet the large, relatively young informal labour share indicates room to strengthen the consumption base.⁹ Timely and detailed data would be valuable for crafting responsive interventions. The investment climate seems to have responded positively to the recapitalisation of public banks.¹⁰ A new bankruptcy law and portfolio allocation regulations could solidify the foundations, though fully restoring the health of public banks requires more work and political capital.¹¹ Separately, bridging the disparity in urban and rural infrastructure is important for spreading investment and economic opportunities while addressing urbanisation.

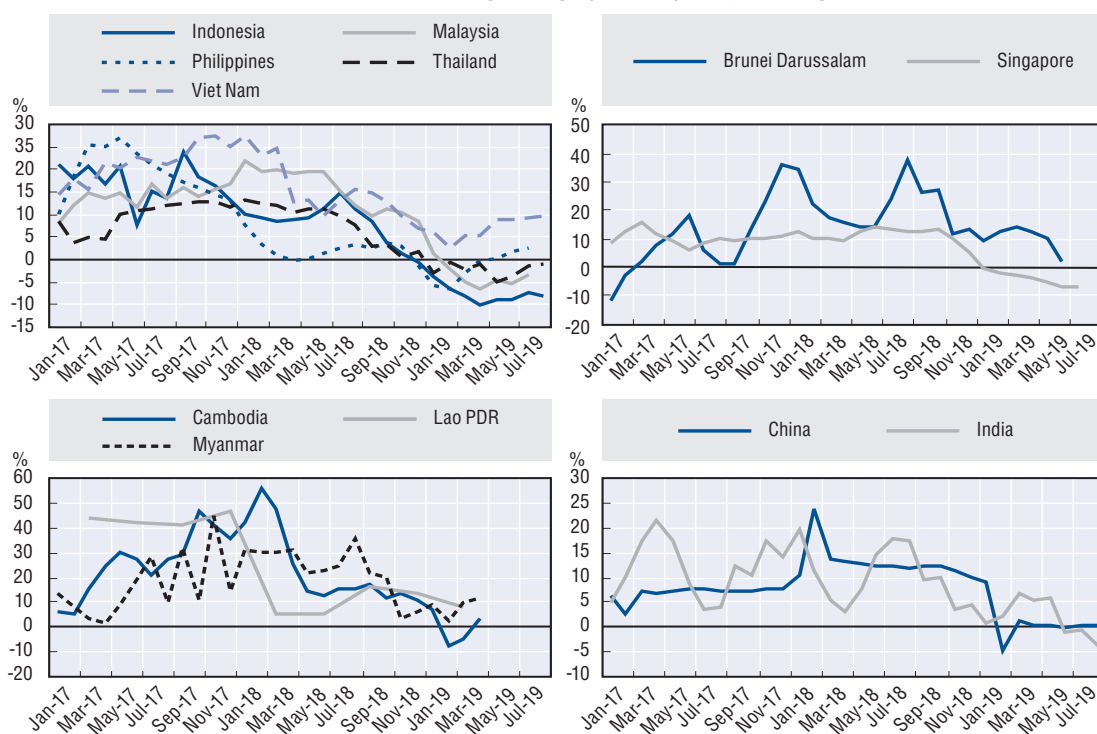
Risks persist for Emerging Asia's exports amid global trade instability

Trade tensions between the United States and China are continuing, and the broadening economic weakness in advanced economies, compounded by the Brexit process, adds substantial uncertainty to export prospects. There are indications that some countries in the region may benefit from trade diversion and deflection as a result of the US-China trade tensions, but this appears to be outweighed by the global dampening pressures felt across Emerging Asian economies (Figure 1.20). As the trade dispute has unfurled, the US market has proven to be more stable for ASEAN and India than the China market. This could be due to trade redirection, as observed by the OECD (2019).

Policy signals are still quite mixed and risks remain high, even for countries where export growth is stabilising. The announcement in October that the United States and China were finalising a Phase 1 deal was seen as encouraging (Box 1.4). Nevertheless, it is worth noting that the timeline of the trade tensions has seen a succession of new tariff measures and reprieves (Table 1.3).

Figure 1.20. Growth in goods exports of Emerging Asia, 2017-19

3-month moving average, year-on-year, percentage



Note: The frequency of Lao PDR's data is quarterly. Growth rates are based on levels in US dollar.

Source: OECD Development Centre calculations based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063537>

Box 1.4. Recent developments in the US-China trade tensions

In mid-October, China and the United States concluded their 13th round of trade talks on an encouraging note when the United States declared that Phase 1 of a trade deal was being finalised (The White House, 2019). Under the supposed deal, the United States will increase agricultural exports to China and, in exchange, will refrain from implementing a scheduled 5% increase in tariffs on certain imports from China (on List 4 under Section 301 of the US trade law). Should this arrangement go through smoothly, it will calm tensions that have been rising despite previous tariff reprieves (e.g. before the G20 summit in Osaka in June 2019, and during the G20 summit in Buenos Aires in December 2018).

Table 1.3 presents a chronology of measures taken since the US-China trade tensions began in 2018. As the table shows, tariff hikes have been followed by gestures of accommodation on both sides, such as tariff exclusions at certain points in the timeline. Nonetheless, global trade uncertainties have broadened under a cloud of mixed signals as the two sides engaged in a persistent back-and-forth of tariff measures and brought competing complaints before the World Trade Organization (WTO).¹² Indeed, the US trade policy uncertainty index has been on an uptrend since the cycle started (Baker, Bloom and Davis, 2019). Moreover, the trade tensions are spilling over to investment, both directly, for example through the use of the entity list and investment licenses, and indirectly as a consequence of increasing risk on capital placement.¹³ As such, the importance of a breakthrough deal cannot be overstated.

Meanwhile, import sourcing has shifted on both sides over the course of the dispute. China shifted its soybean imports, though there are indications of a reversal in recent months (Gale, Valdes and Ash 2019). US imports from India and ASEAN of certain goods under Section 301 lists have risen, while imports of the same goods from China have declined (OECD, 2019a). However, the extent to which these shifts can be associated with trade diversion, trade deflection (re-routing), or both, and how long these patterns will prevail, remain unclear. To compensate for the rising cost of its trade with the United States, China has also lowered tariffs on imports from other countries (Bown, Jung and Zhang, 2019).

Table 1.3. Tariff measures and reprieves, United States and China, 2018-19

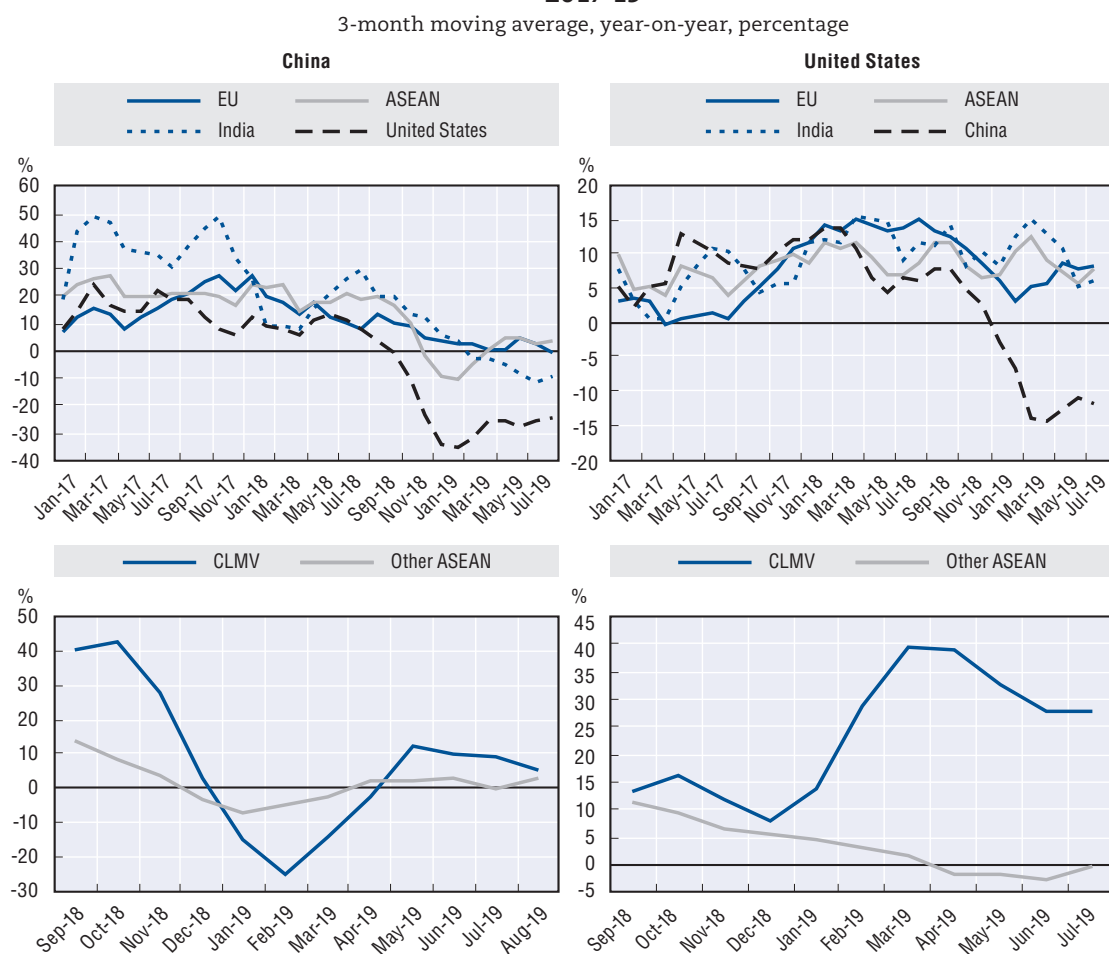
Date	Tariff measures	Date	Reprieves
Feb-18	Washers (USD 1.9 billion), 20%-50%; solar products (USD 5.2 billion), 30%	Oct-18	China raises US soybean orders after a substantial cutback months earlier
Mar-18	Aluminium products (USD 16.6 billion), 10%; steel (USD 23.4 billion), 25%	Dec-18	US postpones tariff hike under List 3; China suspends additional automobile and auto parts tariff
Jul-18	List 1 (USD 34 billion), 25% ↔ China, full retaliation	Mar-19	US again postpones List 3 tariff hike; China resuspends additional automobile and auto parts tariff
Aug-18	List 2 (USD 16 billion), 25% ↔ China, full retaliation	May-19	China sets a trial to exclude imports from tariffs under Lists 1 and 2
Sep-18; Jun-19	List 3 (USD 200 billion), 10%-25% ↔ China (USD 60 billion), 5%-25%	Jun-19	US postpones tariff hike under List 3 for another 15 days
Sep-19; Dec-19	List 4 (USD 300 billion), additional 5%-10% ↔ China (USD 75 billion), 5%-25%; China re-imposes additional tariff on imports of automobile and auto parts	Sep-19	Selected US goods on Lists 1 and 2 are excluded from tariffs; selected US agricultural products are excluded from additional tariffs
		Oct-19	US announces Phase 1 deal with China and delays tariff hike scheduled for October
		Cont. process	US grants hundreds of exclusion requests pertaining to Lists 1, 2 and 3; exclusion from China's new tariffs is possible for goods on Lists 1, 2 and 3, subject to approval

Note: This table does not claim to show a complete list of measures and related developments. The dates of tariff measures are the effectivity dates. The percentage rates are the tariffs; the dollar values are the estimated amount of imports affected by the measures. Lists 1-4 are under Section 301 of the US trade act. The table's first two entries are under Sections 201 and 232, respectively. For List 3, the tariff was set 10% in September 2018, then hiked to 25% (initially set to be effective in January 2019, but postponed to March 2019 and then to June 2019). As a counter-measure to List 3, China set a tariff of 5-10% in September 2018, then hiked it to 10-25% in June 2019. Information is as of 14 October 2019.

Source: OECD Development Centre based on national sources.


China's prominent role in the global and regional value chain makes its export performance a crucial barometer of how the exports of other Emerging Asian countries perform. As things now stand, the contraction in China's exports may have eased but there are no indications of a strong rebound. China's offshore sales are drawing strength from demand in Africa and ASEAN, particularly the CMLV economies (Cambodia, Lao PDR, Myanmar and Viet Nam), as shipments ease to other partners, such as the European Union, Latin America, the United States and even Japan and Korea. The robustness of export growth to CMLV and Africa could be partially driven by China's FDI-financed corporate representations, which have broadened over the years, although data for performing a thorough validation are limited. This growth could also be an indication of trade rerouting. Incidentally, US imports from the CMLV economies have been quite robust in 2019, outpacing imports from the other ASEAN economies (Figure 1.21).

Figure 1.21. Growth in goods imports of China and the United States by partner, 2017-19



Note: EU grouping is based on the definitions of the national source and may not necessarily be the same in China and the United States. The CMLV countries are Cambodia, Lao PDR, Myanmar and Viet Nam.

Source: OECD Development Centre calculations based on data from CEIC and national sources.

StatLink  <https://doi.org/10.1787/888934063556>

As the data show, the United States remains a viable market for ASEAN. However, fractures have been appearing in the regional value chain. The softening of China's demand for imports, due to the combined effects of the trade war and structural transformation, has hobbled trading activity in the region overall. Intra-ASEAN goods

trade has weakened markedly in 2019, and data through April 2019 indicate that this trend is worsening. Orders from other key markets are losing traction as well. Demand for ASEAN's goods has softened in other major East Asian economies, namely Hong Kong, China; Japan and Korea, as well as in the European Union.

Notable variations emerge within ASEAN. The decline in exports appears to be mending in CLMV economies, which are navigating the rough environment comparatively better at this juncture. As mentioned above, the United States has been a buoyant market for the CLMV economies. China, despite the overall weakness in import demand, has also been relatively supportive, as shown in the chart above. Furthermore, advance import data from Indonesia and Thailand indicate that orders are increasing from Cambodia and Myanmar, while Japan's imports from Myanmar and Viet Nam have also been growing at a sturdy pace. Exports from the Philippines are likewise showing signs of revival. Growth in sales to Korea has been a key anchor in recent months.

Although India is less integrated in the global value chain than ASEAN (World Bank et al., 2017), it is also feeling the pinch of the global trade pressures. India's exports have lost steam, including to the United States and China. Imports of Indian goods have also moderated in ASEAN and large East Asian economies like Japan and Korea, as well as in the European Union and United Arab Emirates, India's other two major export partners. India, which was affected by a series of US trade policies over the past two years, including a tariff on steel and aluminium in 2018, followed through on its threat to raise tariffs on certain US goods in June 2019 (Bown, 2019).

Export weakness is accompanied by falling investment as manufacturing struggles

As exports cave in to trade tensions, real growth in fixed investment is pulling back in a number of Emerging Asian economies, leaving private consumption to do the heavy lifting to support economic activity (Figure 1.22). With the exception of Indonesia, there appears to be a growing reluctance to expand investment in equipment and machinery in the current climate. In Malaysia, outlay on machinery and equipment continued to decline in Q2 2019 for the third quarter running. Capital spent on these production inputs also decreased in Singapore, which at the same time saw a steady pullback in residential building investment. Likewise in Thailand, machinery and equipment spending growth has softened in step with a contraction in private dwelling investment. Durable equipment investment also posted a steep drop in the Philippines in Q2 2019 following several quarters of sustained growth.

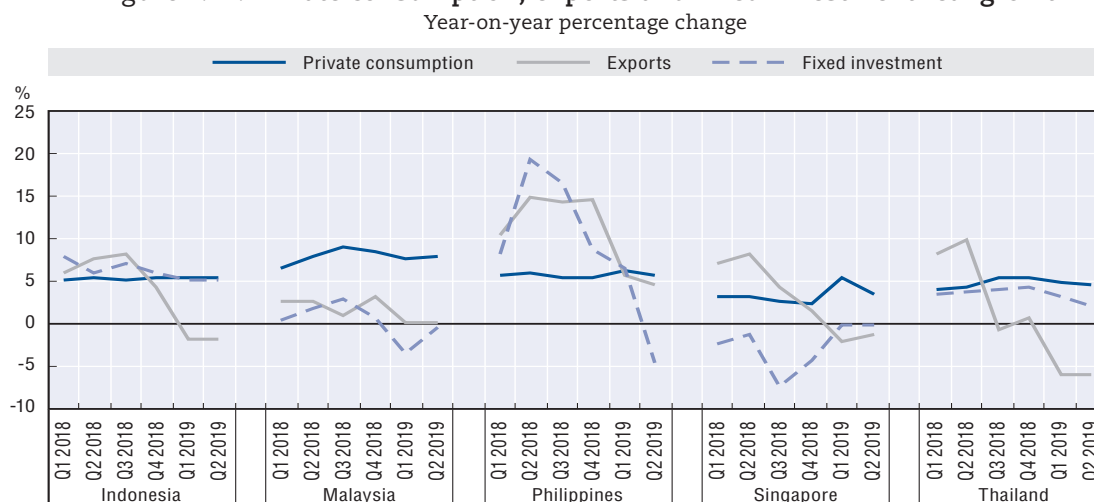
Business confidence is thus gradually weakening in some countries, and it is particularly weak in Malaysia and Thailand. In Indonesia, the business tendency index recovered marginally in Q2 2019 amid cautious optimism. In contrast, business confidence remains robust in the Philippines, although it ebbed slightly as the outlook for mining and manufacturing firms dimmed in Q3 2019 from the previous quarter.

Production data show that offshore market-dependent manufacturing sectors are feeling external pressures quite strongly (Figure 1.23). Weakening growth is observable across the large ASEAN economies, especially in Thailand and Singapore. The Purchasing Managers' Index (PMI) in manufacturing has likewise been largely downbeat in these economies. As of September 2019, readings point to a sustained contractionary cycle in Indonesia, Malaysia and Singapore, at least in the last three months. In the Philippines, the index suggests expansion, though it is moderating. Thailand's index is hinting signs of gradual recovery following inflection in September 2019 after five successive months of easing.

In contrast, services sectors, which tend to have a bigger domestic driver component, are projecting a relatively insulated growth path. Nonetheless, the insulation is somewhat diminished in Singapore and Thailand, where key services segments have broader ties with businesses involved in trade. In Indonesia, Malaysia and the Philippines, subsectoral support remains broad based, including the large wholesale and retail trade segment

as well as transportation and finance. In Singapore, the moderation in services growth is underpinned by wholesale and retail trade and business services. In Thailand, in comparison, the slowdown in growth of value added in transport and storage as well as financial services is weighing on the sector's output.

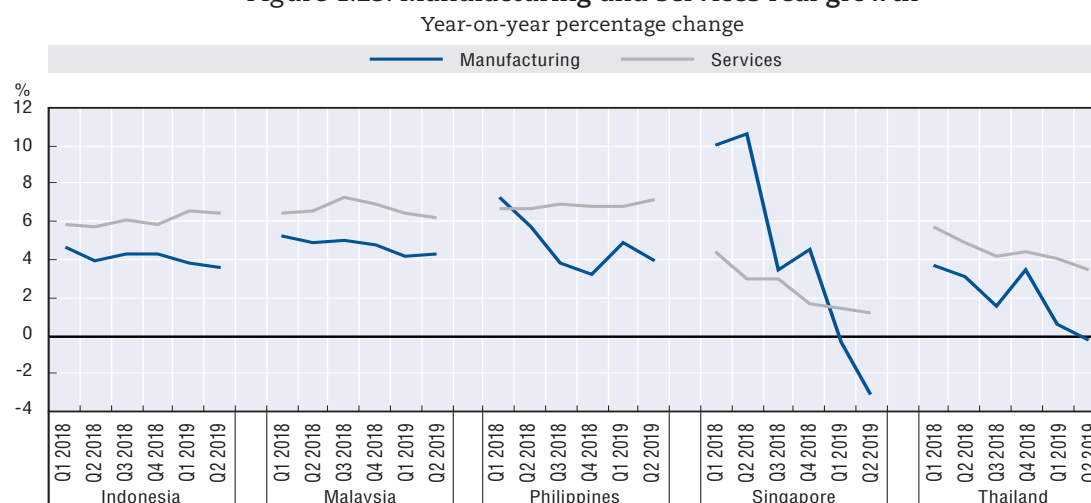
Figure 1.22. Private consumption, exports and fixed investment real growth



Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063575>

Figure 1.23. Manufacturing and services real growth



Note: For Singapore, services include ownership of dwellings.

Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063594>

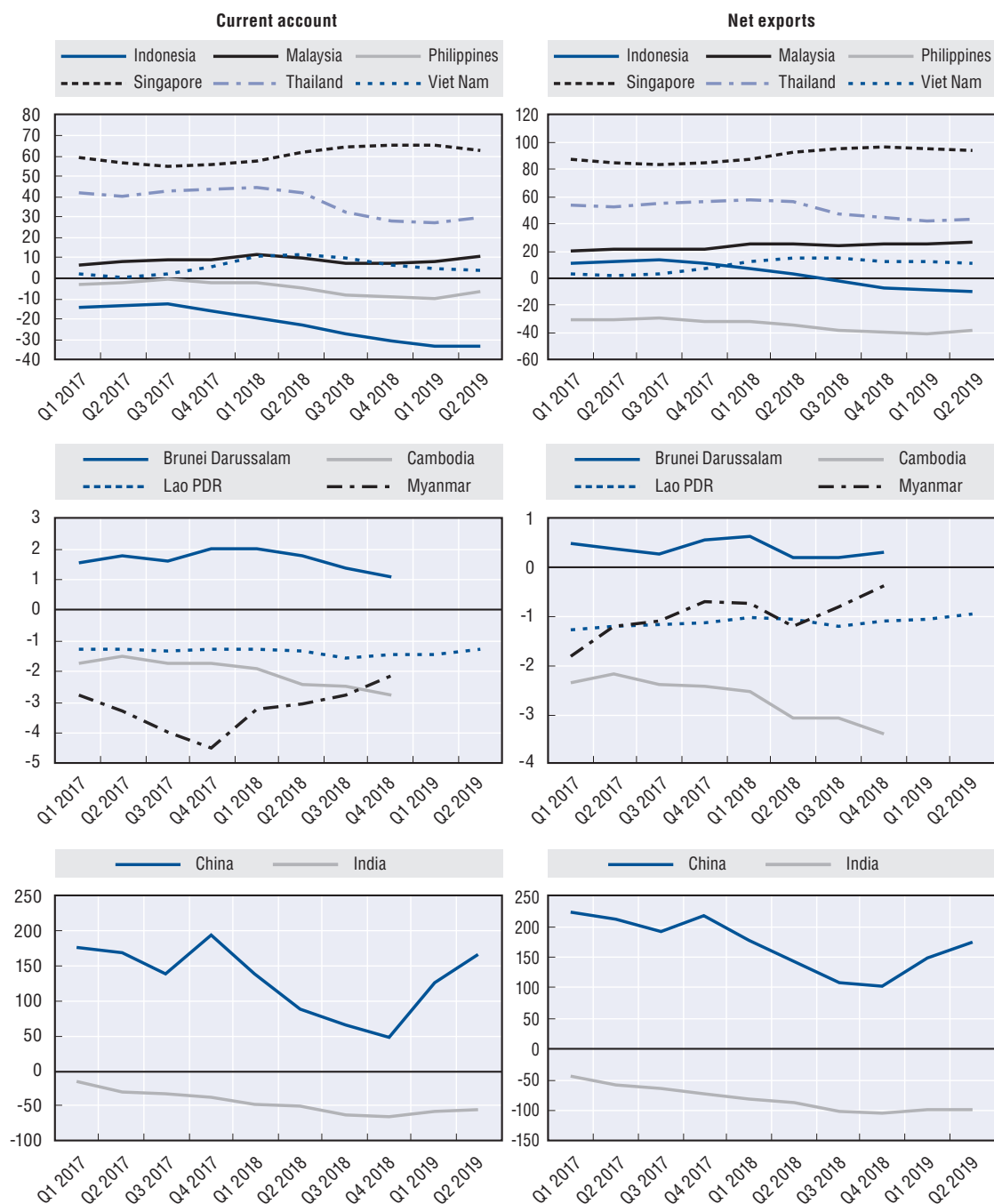
Current account balances are under stress but remain largely stable

The net trade balances of Emerging Asian economies have been fairly stable, with tariff-induced stresses affecting both exports and imports (Figure 1.24). Interestingly, despite being at the centre of the trade tensions, China saw its trade balance swing upwards, with imports weakening more than exports, as mentioned previously. In contrast, India, Indonesia and Thailand saw their exports pull back slightly more than imports in 2019. Given the way the trade dynamics are playing out, the current-account balances of Emerging Asian economies have generally been steady. Minimal deviations from current trends are expected in 2020, as well as in the medium term (Figure 1.25).

Foreign direct investment inflows in the region have also generally remained resilient (Figure 1.26). Despite the external pressures, foreign net placements in Cambodia, India, Indonesia, Malaysia, Singapore and Viet Nam have even improved in 2019 from 2018 on an annualised basis.

Figure 1.24. Current account balance and net exports of Emerging Asia, 2017-19

USD billion, annualised

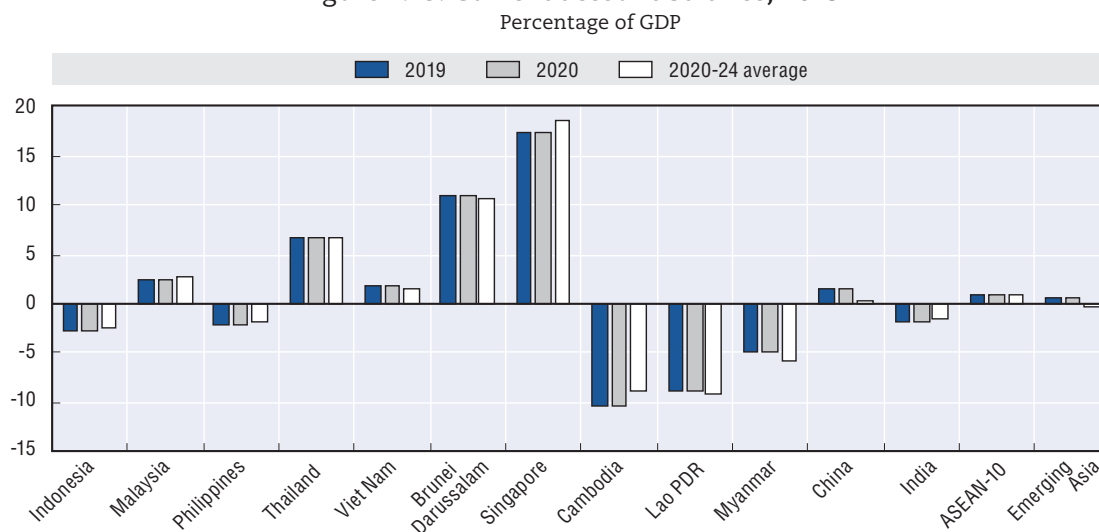


Note: Annualised data refer to the 4-quarter moving sum. Data are based on balance of payments. Dates are all in calendar years.

Source: OECD Development Centre calculations based on data from CEIC and national sources.

StatLink  <https://doi.org/10.1787/888934063613>

Figure 1.25. Current account balance, 2019-24

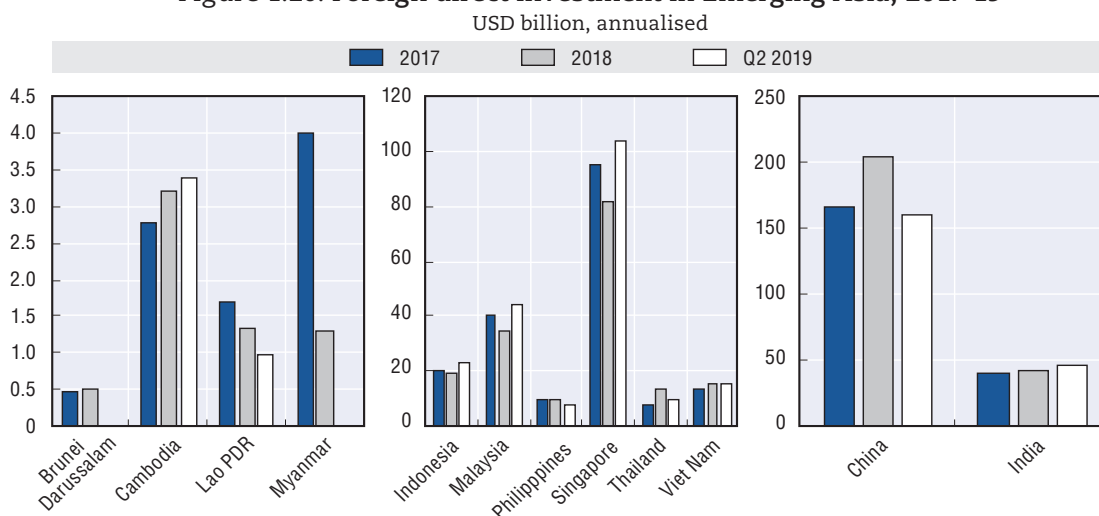


Note: Data are as of 21 November 2019. Data for India and Myanmar relate to fiscal years. The projections for China, India and Indonesia for 2019 and 2020 are based on the OECD Economic Outlook 106 (database).

Source: OECD Development Centre, Medium-term Projection Framework (MPF-2020).

StatLink <https://doi.org/10.1787/888934063632>

Figure 1.26. Foreign direct investment in Emerging Asia, 2017-19



Note: All data are in calendar years. Quarterly data are annualised (i.e. 4-quarter sum as of the period indicated). The latest data for Brunei Darussalam and Myanmar are as of Q4 2018. FDI inflows data refer to foreign investment minus foreign withdrawals (Balance of Payments, liability side).

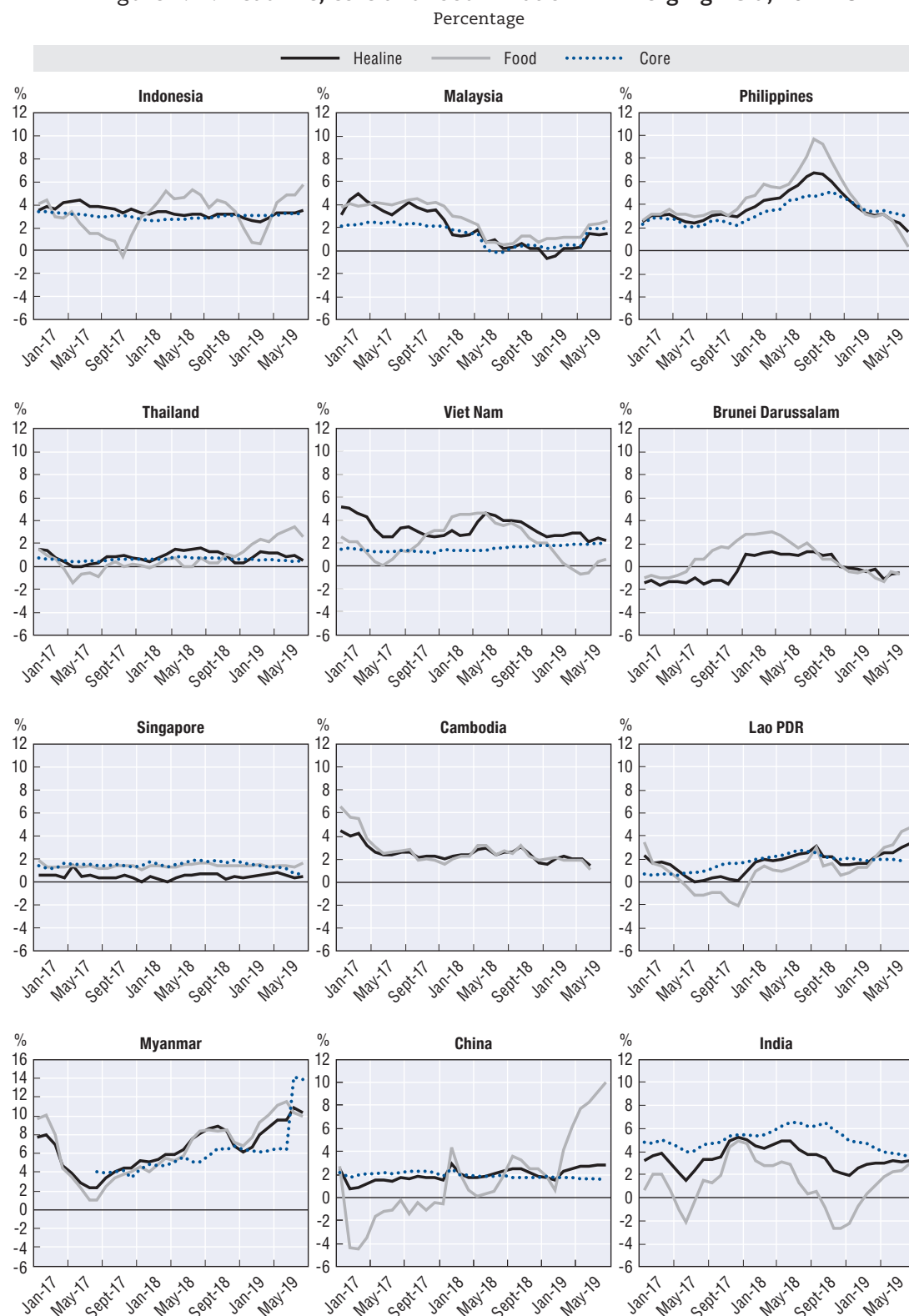
Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063651>


Headline inflation remains subdued but food prices are rising in some countries

The retreat in global oil prices, along with subsidy measures and stability in agricultural production, have kept headline inflation at bay in most Emerging Asian economies (Figure 1.27). Benign core inflation anchors this trend and suggests a limited demand-side price push as thus far in. Food prices, which carry a large weight in CPI (Box 1.5), are an exception in some countries. Although generally subdued, food inflation has been on a sharp climb in China and Myanmar and is rising gradually in India, Indonesia, Lao PDR and Thailand.

Figure 1.27. Headline, core and food inflation in Emerging Asia, 2017-19



Source: OECD Development Centre based on data from CEIC and national sources.

StatLink  <https://doi.org/10.1787/888934063670>

In China, soaring prices of pork and some fresh produce drove food inflation to about 10% in August 2019 from less than 1% in February 2019. Pressures could persist in coming months as the government contains the swine flu epidemic. Higher import tariffs could also result in price spillovers to other food items. On the upside, the price growth of other commodity baskets is holding steady or subsiding to depress consumer price index (CPI) inflation. In Myanmar, the price of rice is climbing fast despite a pick-up in the harvest, stabilisation of the exchange rate in recent months and a fall in global quotations.¹⁴ This suggests an uptick in processing and distribution cost. A spike in the price of non-alcoholic beverages also steepened through June 2019 before retreating marginally in July 2019; whereas housing, water and energy cost jumped in the same month. Other drivers of headline inflation include health services and household-related items.

Rice prices also surged in Lao PDR due to a drought this year following severe flooding in late 2018, bolstering food inflation, while weaker currency has fuelled a hike in the prices of other non-food and beverage items. Food inflation is gradually rising in Indonesia and Thailand, though the rates are still far from concerning. Notably, while the trend in Thailand is underpinned by structural factors, the trend in Indonesia appears to be influenced more by cyclical factors. The same can be discerned in India, where food prices have risen subtly between March and August 2019, after successive declines in the previous months. Growth in the price indices of other key CPI components has largely slowed.

Elsewhere in the region, inflation is largely muted. In Brunei Darussalam, headline inflation has been negative in recent months. The price indices of major CPI components other than restaurant and hotel services have remained stable or have fallen. In Cambodia, a reduction in transportation and communication costs is depressing the CPI, though this is counterbalanced by a spike in alcoholic beverages and tobacco prices. In Malaysia, the headline rate inched upwards in June-August 2019, mainly because a goods and service tax was scrapped around that time last year before a replacement sales and service tax was imposed in September 2018. In the Philippines, headline inflation is treading down owing to the resolution of shortage in key staples and as base effects of tax measures last year dissipate. In Singapore, a continued decline in the cost of housing, communication and basic consumer goods has pinned headline CPI growth to about 0.5% in August 2019. Downward headline inflation trend is also observable in Viet Nam as food inflation stays soft. A spurt in education cost (partly owing to gradual privatisation) is also seemingly wearing off albeit health care inflation, which was following a similar path in the first half of 2019, has rebounded markedly in recent months.

Box 1.5. Consumer price index composition in Emerging Asia

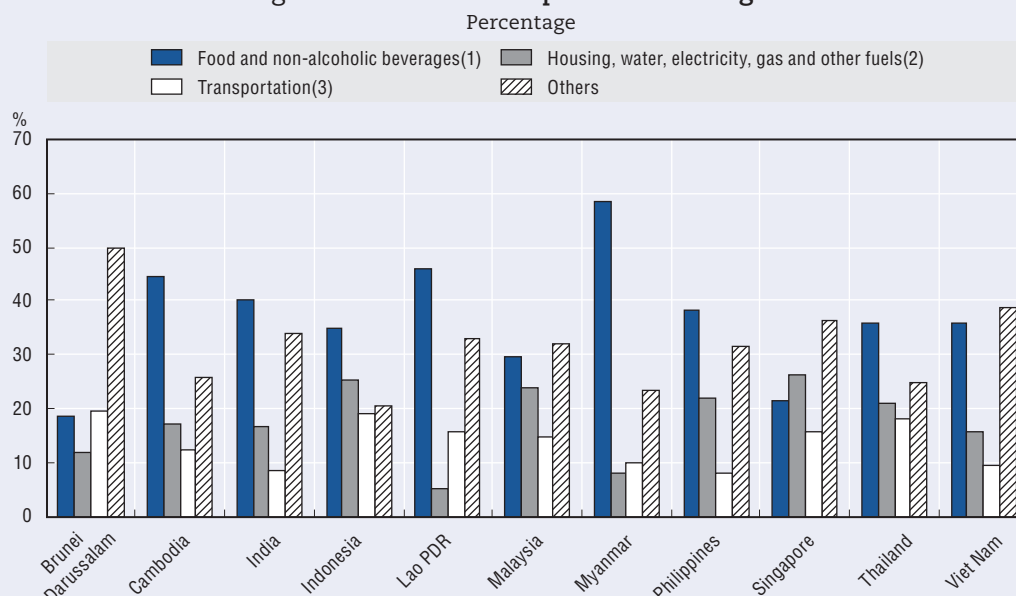
The inflation environment in Emerging Asia, has generally been muted in the last few months, with a few exceptions. The composition of the consumer price index (CPI) is important for understanding how macroeconomic factors influence headline inflation. Food currently carries most weight in the CPIs of India and most ASEAN economies, particularly Cambodia, Lao PDR and Myanmar. An exception is Singapore, where housing and utilities outweigh food in the CPI basket, reflecting differences of economic development and structure. Another exception is Brunei Darussalam, where transportation slightly outweighs food (Figure 1.28).

Stable food and fuel prices in many countries have helped limit headline inflation. But in countries where food inflation is surging, for instance Myanmar and Lao PDR this year and the Philippines last year, headline inflation is also increasing in an almost co-ordinated fashion. As food comprises the largest component of the consumption bundle in typical

Box 1.5. Consumer price index composition in Emerging Asia (cont.)

households, trends in food prices tend to influence inflation expectations. This is also true of fuel prices, although fuel is influenced by global markets and gives rise to second-round effects as it feeds into various baskets of CPI.

Figure 1.28. Consumer price index weights



Note: Definitions of the components and the level of breakdown published, may not be necessarily the same across countries. China does not publish the weights of the CPI. (1) For Indonesia, data includes food, processed food, beverages and tobacco. For Viet Nam, data refer to foods and foodstuffs. (2) For Thailand, data refer to shelter and utilities. For Viet Nam, data refer to housing and construction materials. (3) For India and Lao PDR, data include communication. For Indonesia, data include communication and finance. For Thailand, data refer to public transportation, vehicles and vehicle operation.

Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063689>

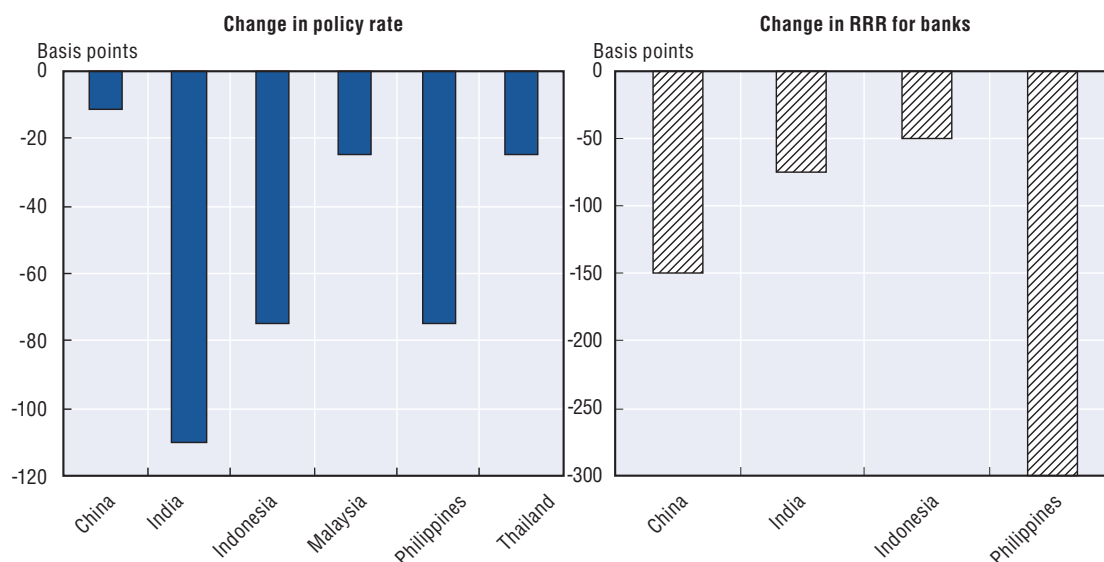
CPI composition aside, it is worth noting that a number of Emerging Asian economies have implemented price management mechanisms, although the extent differs across countries and over time. These mechanisms, or changes to them, can sway the movement of headline inflation. For instance, fuel subsidies are in place in countries like Brunei Darussalam, China, India, Indonesia and Malaysia, as in many other countries globally (IMF, 2019). In other countries, for example Indonesia, Philippines, Thailand and Viet Nam, price supports benefit the farm sector. Similarly, Singapore's social housing programme, which ultimately focuses on ownership, can be seen as a mechanism for mitigating sharp changes in housing costs. Electricity and mass transport cost controls are utilised as well. In the Philippines, for instance, tariffs on electricity are partly regulated but not subsidised, while in Indonesia it is both regulated and subsidised. Meanwhile, public transport fares are partially regulated in countries including the Philippines, Singapore and Thailand.

In summary, the ability of the consumer price index to capture ground-level inflation pressures generally depends both on the weight distribution of CPI across commodity baskets and on price distortions. In countries where foreign currency is used in domestic transactions, such as Cambodia, Lao PDR and Myanmar, exchange rate movement becomes a potent driver of CPI as well.

Central banks take strong steps to prop up growth and investment sentiment

Slowing economic growth coupled by easing inflation has provided impetus for loose monetary policy in Emerging Asia. Recent measures have included sizeable cuts in policy rates and in banks' reserve requirement ratios (RRR) (Figure 1.29). In China, efforts to align tools with market dynamics led to a shift in the benchmark interest rate. The likelihood that monetary authorities will ease liquidity conditions further in the coming quarters cannot be discounted. For instance, the Philippines plans to lower the RRR to a single-digit level in the coming years, entailing an additional reduction of over 500 basis points from the current level.

Figure 1.29. Monetary policy actions in selected Emerging Asian economies in 2019



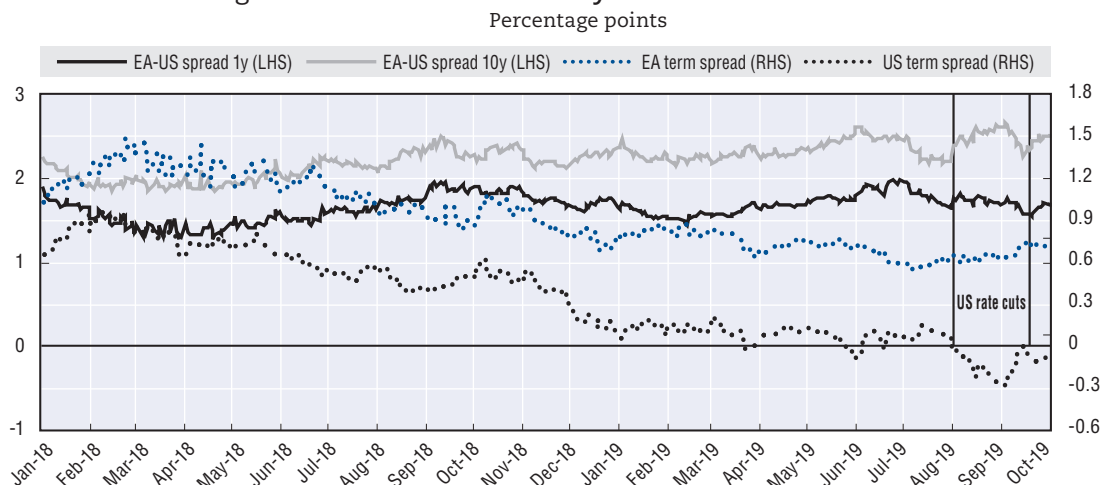
Note: China set the 1-year and 5-year loan prime rate (LPR) as new benchmarks for pricing new loans, in lieu of the 1-year benchmark lending rate, and linked them to the movement of the medium-term lending facility. Data for India relate to the average change in bank rate, repo and reverse repo rate and marginal standing facility rate. The RRR variables used are: RRR for large depository institutions (China), statutory liquidity ratio (India), RRR for banks' local currency deposits (Indonesia) and RRR for commercial banks' local currency deposits (Philippines).

Source: OECD Development Centre based on data from national sources.

StatLink <https://doi.org/10.1787/888934063708>

Correspondingly, bond yields in the region have fallen on both the short and long ends. Yet despite the decline in domestic debt yields, yield differentials against US bonds are moving upwards somewhat (Figure 1.30). The same trend can be observed against the yields of European benchmark bonds. In the United States, yields on government debt remain positive despite a drop in recent months. Interestingly, however, the yield curve has inverted, signalling a build-up in real sector distress even as inflation stays muted. In Europe, a number of sovereign bond yields are treading deeper into the negative zone as major economies look for complementary mechanisms to boost activity. This scenario could signal sustained margin-seeking foreign capital inflow into the region in the near term, although the flows have not been disruptive thus far. "Hot money" net liability inflows (i.e. portfolio and other investment) are showing no signs of sharp disruptive changes in either direction as yet, even in countries with data until Q2 2019 (Figure 1.31). This provides some elbow room for monetary authorities to tweak their monetary tools. Cross-country trends are fairly stable. Indonesia and, to a certain extent, Lao PDR are seeing a steady uptick in inflows, though the increases are arguably mild.

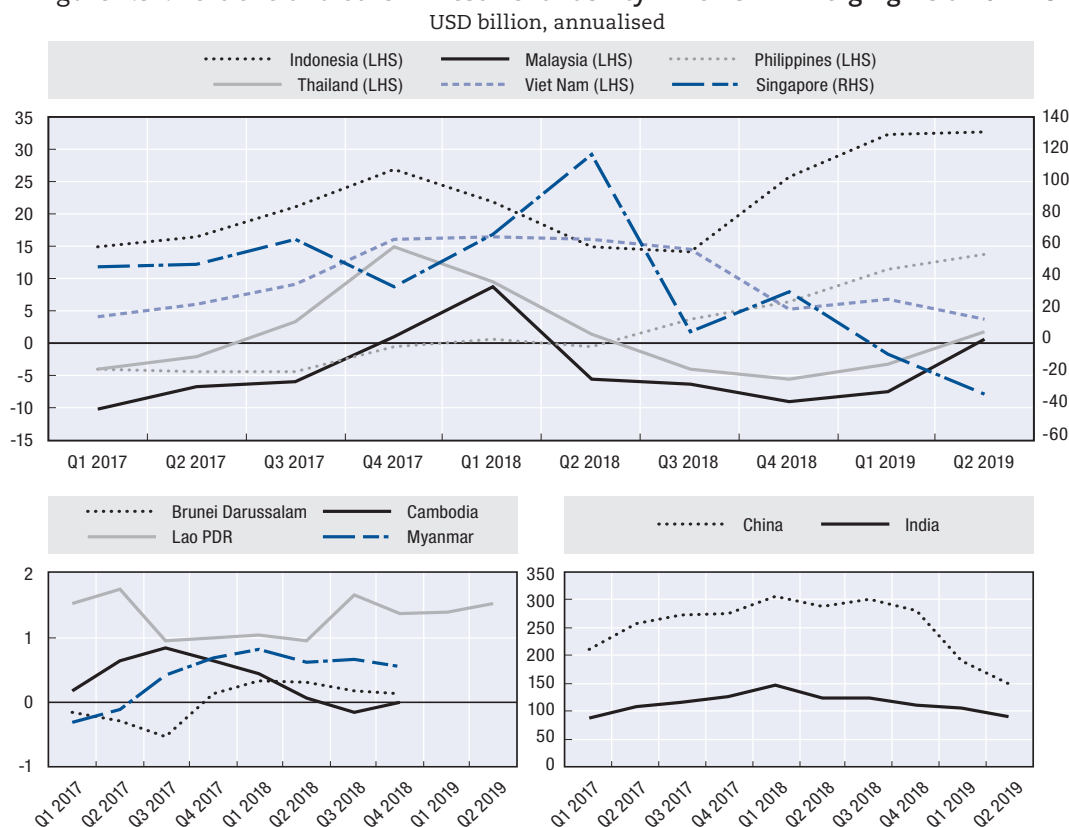
Figure 1.30. Benchmark bond yield and term differentials



Note: EA means Emerging Asia. Emerging Asia is the simple average of government bond yields of China, India, Indonesia, Philippines, Singapore, Thailand and Viet Nam. Term spread equals 10-year yield minus 1-year yield. LHS means left hand scale. RHS means right hand scale.

Source: OECD Development Centre calculations based on data from Fusion Media Ltd (2019), www.investing.com.
StatLink <https://doi.org/10.1787/888934063727>

Figure 1.31. Portfolio and other investment liability inflows in Emerging Asia 2017-19



Note: Data are annualised (i.e. 4-quarter sum ending the indicated quarter). Malaysia's data only cover portfolio investment since the BOP report does not publish the breakdown of other investments between assets and liabilities.

Source: OECD Development Centre based on data from CEIC and national sources.

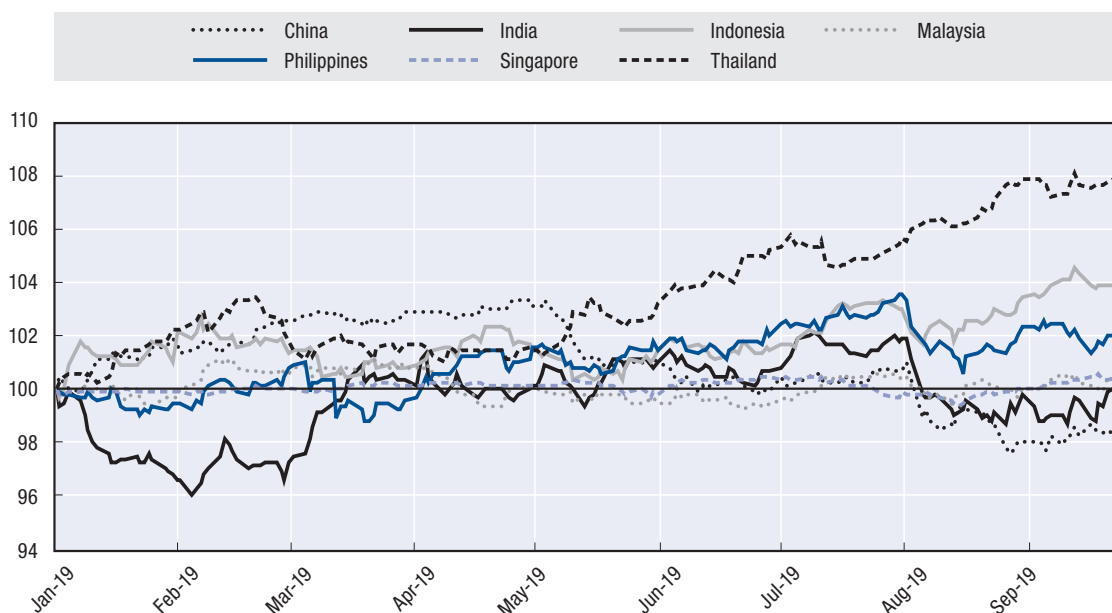
StatLink <https://doi.org/10.1787/888934063746>

Exchange rate movement in 2019 has similarly been less volatile than in the previous year. The nominal effective exchange rate (NEER) of the Thai baht continued to appreciate through August 2019 on the strength of FDI inflows and Thailand's current account position (Figure 1.32). The strength of the baht is notable, particularly against the backdrop of the resurgence of the US dollar against its major trading partners, though it is seen as a drag on exports and tourism. In contrast, the upward trend of the Chinese yuan renminbi, Indian rupee, Indonesian rupiah and Philippine peso has reversed in recent months as trade uncertainty rises. Meanwhile, the Malaysian ringgit and the Singaporean dollar have remained relatively stable.

Bilateral exchange rates against the US dollar largely mirror the NEER for the aforementioned countries. Additionally, the Myanmar kyat, which has seemingly recovered from a rough 2018, has been on an uptrend against the US dollar since mid-May, while the Vietnamese dong has largely moved sideways following a steep drop in June 2018. In contrast, the Brunei dollar and Cambodian riel have been subtly treading downwards in the last few months, while the Laotian kip has been on a sustained but gradual depreciation since May 2018.

Figure 1.32. Nominal effective exchange rate in selected Emerging Asian economies, 2019

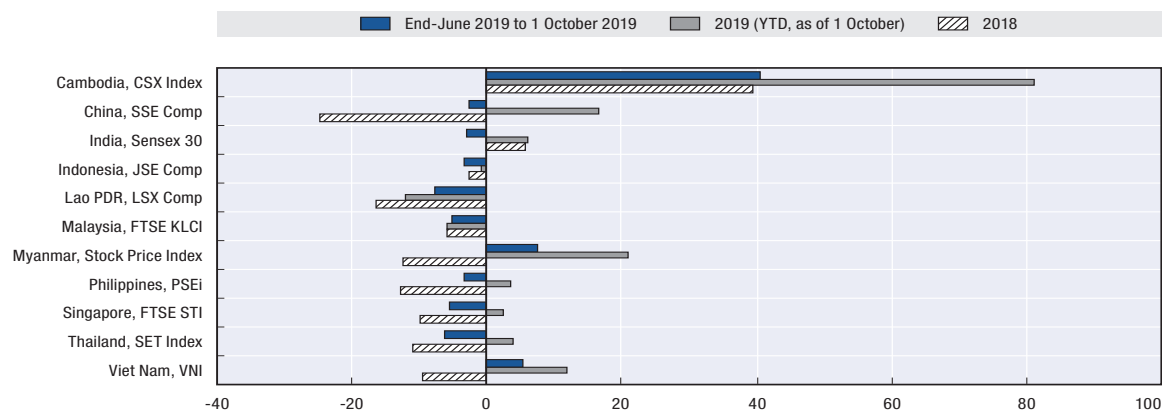
1 January 2019 = 100



Source: OECD Development Centre based on data from BIS (2019), BIS effective exchange rate indices (database).
 StatLink <https://doi.org/10.1787/888934063765>

Equity prices have felt rising pressure on corporate earnings recently. The bellwether indices have pulled back marginally since end-June 2019 in all markets except Cambodia, Myanmar and Viet Nam (Figure 1.33). Nevertheless, the ratio of prevailing prices to the net income of companies has generally risen since the start of 2019. Of note is the price-to-earnings (P/E) ratio of India's equity markets, particularly in the automotive, consumer goods, banking and realty subsectors on the Bombay Stock Exchange. As of July 2019, India was estimated to have the most expensive major market globally for equity investors based on P/E ratio (Keimling, 2019).

Figure 1.33. Returns on benchmark equity indices in Emerging Asia, 2018-19



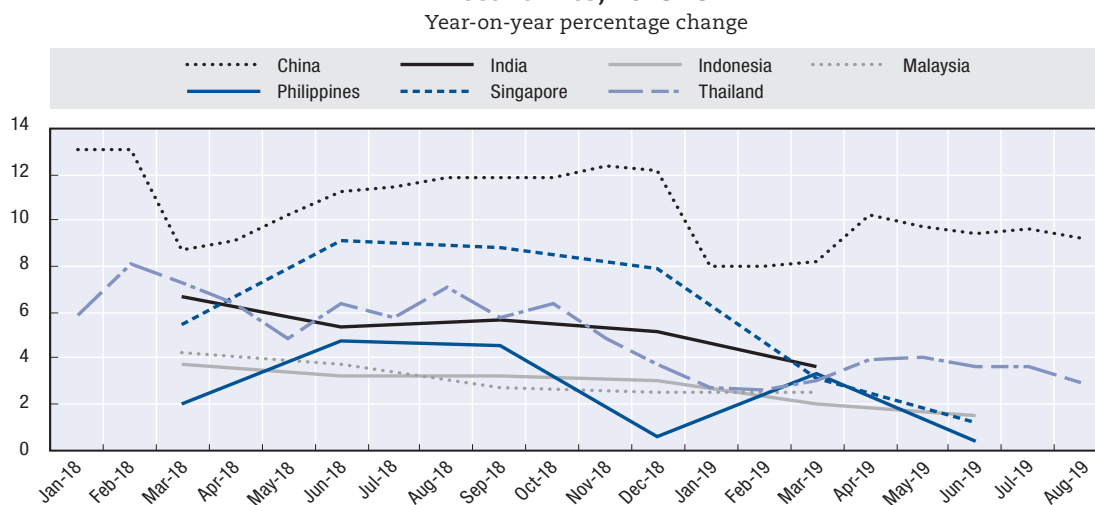
Note: YTD means year-to-date.

Source: OECD Development Centre calculations based on data from Fusion Media Ltd (2019), www.investing.com, and national sources.

StatLink <https://doi.org/10.1787/888934063784>

Housing markets in India, Indonesia, Malaysia, Singapore and Thailand are losing steam (Figure 1.34). Domestic dynamics differ across countries, based on available data. In China, the growth in sales of units (commercialised residential buildings) is on a decline. It is a trend that can be traced back to early 2016. It also closely tracks the dip in unit completion rates, which is reflective of the effort to curb the available stock. Since mid-2018, however, growth in units under construction has risen anew, decoupling from sales growth somewhat, in a trend presumably instigated by stimulus measures. In Singapore, a reversion in the price growth trend is in line with weakening economic prospects. The vacancy rate as of June 2019 had remained unchanged since 2018, though it was lower than in 2016 and 2017, and no notable change in supply was expected. In Thailand, weak price growth coupled by a drop in completion rates in Bangkok and surrounding areas (prior to the trend reversion in June 2019) similarly indicates that ample available units can be drawn down, which puts a lid on prices.

Figure 1.34. Growth in house price indices of selected Emerging Asian economies, 2018-19



Note: The base indices are not necessarily comparable across countries. Data frequency for China and Thailand is monthly, while it is quarterly for the other countries.

Source: OECD Development Centre based on data from CEIC and national sources.

StatLink <https://doi.org/10.1787/888934063803>

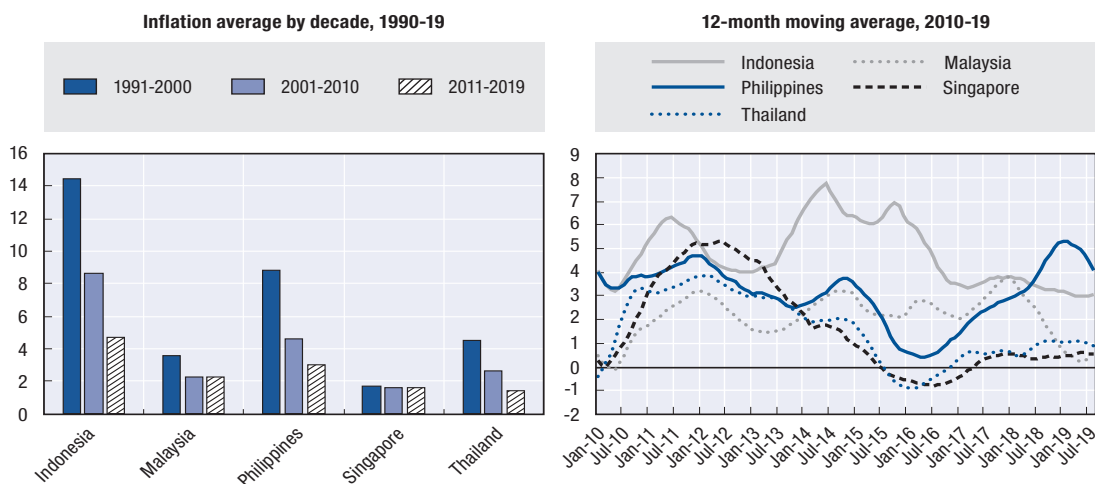
Enhancing the effectiveness of monetary policy in Emerging Asia

Monetary easing has become the trend in OECD economies, in particular in the euro area and the United States. Emerging Asian economies have followed suit to boost growth in their own economies. However, a key challenge is to make monetary policy effective amid changing economic conditions. One of the changes is the weakening of the relationship between inflation and the output gap or unemployment. In this context, the Phillips curve – the inverse relationship between unemployment and inflation – is attracting increasing attention. The idea of the Phillips curve is that when unused labour market capacity, or labour market slack, is reduced, prices are expected to rise through wage adjustments and consumer demand. Indeed, the shape of the curve in advanced economies has posed policy questions, as inflation has generally stayed weak despite the recovery of the labour market, supported by monetary interventions. Recently the Phillips curve has been flattening in advanced economies such as the euro area and the United States, as well as in Emerging Asia, though the extent differs. Possible explanations for the flattening of Phillips curves include domestic wage rigidities, structural changes, technological shifts, global competitive pressures and changing expectations of inflationary pressures (Ciccarelli and Osbat, 2017; Moretti, Onorante and Zakipour-Saber, 2019).

The flattening of the Phillips curve in Southeast Asia


In Southeast Asia, inflation has declined in general from previous decades, in line with the global picture (Figure 1.35). Similar to advanced economies, the gradual flattening of the Phillips curve in ASEAN-5 countries like Thailand and Singapore can also be observed (Box 1.6).¹⁵ Nonetheless, the economic environment in these two countries is different. For instance, Thailand follows an inflation targeting framework while Singapore targets the nominal effective exchange rate, though it takes headline and core inflation into account in policy making (Meng, 2016). The consumer price indices are also nuanced, with Singapore putting more weight on housing and utilities while Thailand puts a greater premium on food. Finally, labour market characteristics differ, with Thailand having a larger informal sector.

Figure 1.35. Headline inflation in Indonesia, Malaysia, Philippines, Singapore and Thailand
Percentage



Note: The averages by decade are based on monthly data. Latest data are as of August 2019.

Source: OECD Development Centre based on data from CEIC and national sources.

StatLink  <https://doi.org/10.1787/888934063822>

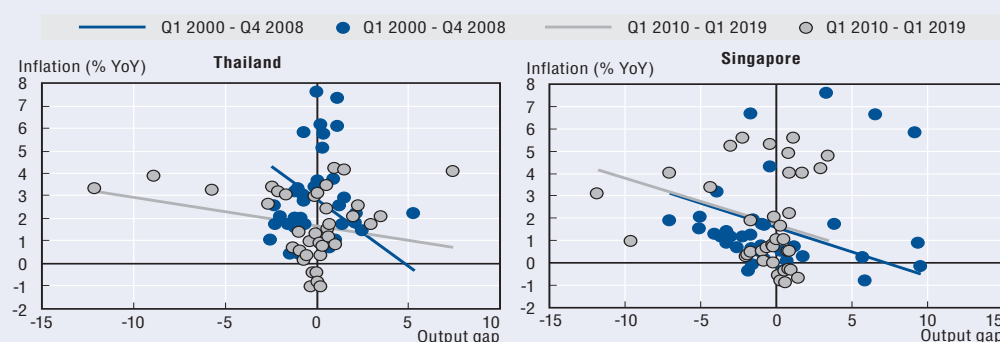
Box 1.6. The Phillips curve: Thailand and Singapore

First described by A.W. Phillips in 1958, the inverse relationship between unemployment and inflation, also known as the Phillips curve, has since been studied in detail. The reasoning is that when unemployment is low, with many unfilled jobs and few workers to fill them, employers will raise wages to fill positions, and vice versa when unemployment is high. This relationship is highly important since it reflects the trade-off between economic activity and price stability, two important objectives of monetary policy in many central banks. The Phillips curve has evolved since 1958 and is now based on the output gap (i.e. the difference between actual GDP growth and potential growth) and takes into account other factors such as inflation expectations and imported inflation.

In recent years, however, the Phillips curve appears to have flattened, meaning that the relationship between inflation and the unemployment gap seems to have weakened. Among the reasons cited for this trend is globalisation: since large companies in dominant positions can draw from labour forces across the world, employers might respond to tight labour markets by outsourcing production abroad rather than raising wages (Ng, Wessel and Sheiner, 2018). Another possibility is a decrease in the bargaining power of trade unions, or of workers in general, leading to low wage growth irrespective of the state of the economy (Ng, Wessel and Sheiner, 2018). Finally, it could be that inflation expectations are so well anchored that it has become hard to make actual inflation move from the central bank's target (Yellen, 2017).

Figure 1.36. The Phillips curve for Thailand and Singapore

$$\pi_t^{cpi} = c + \beta_1 \pi_t^m + \beta_2 \pi_{t-1}^{mean} + \beta_3 OG_t^c + e_t \quad (1)$$



Note: The relative price of imports is measured as the import price deflator divided by the GDP deflator. In equation (1) π_t^{cpi} stands for the CPI inflation rate; π_t^m stands for the inflation of the relative price of imports; π_{t-1}^{mean} stands for the average inflation rate of the 4 previous quarters at t-1; and OG_t^c stands for the output gap. The output gap is measured as the difference between the real GDP growth rate and its trend component. The sample was split in two, from Q1 2000 to Q4 2008, and from Q1 2010 to Q1 2019; the estimation thus does not include the global financial crisis (GFC).

Source: OECD Development Centre based on data from CEIC and national sources.


StatLink  <https://doi.org/10.1787/888934063841>

Figure 1.36 displays the Phillips curve for Thailand and Singapore under its augmented form, including the output gap, the relative price of imports and past inflation. In Thailand, the Phillips curve relationship appears to exist over both periods, but the curve appears to have flattened after the GFC. Indeed, over the initial period, inflation increased on average by 60 basis points (bps), while the output gap narrowed by 100 bps. In the following period, from 2010 to 2019, there was on average an increase of only 12 bps in inflation for a 100 bps decrease in the output gap. In Singapore, the Phillips curve has flattened earlier than in Thailand. The slope of the curve still decreased in the last 2 decades although the change has been marginal. Between 2000 and 2008, the rate of inflation in Singapore was found to increase on average by 22 bps when there is a 100 bps decrease in the output gap. This number is roughly similar for

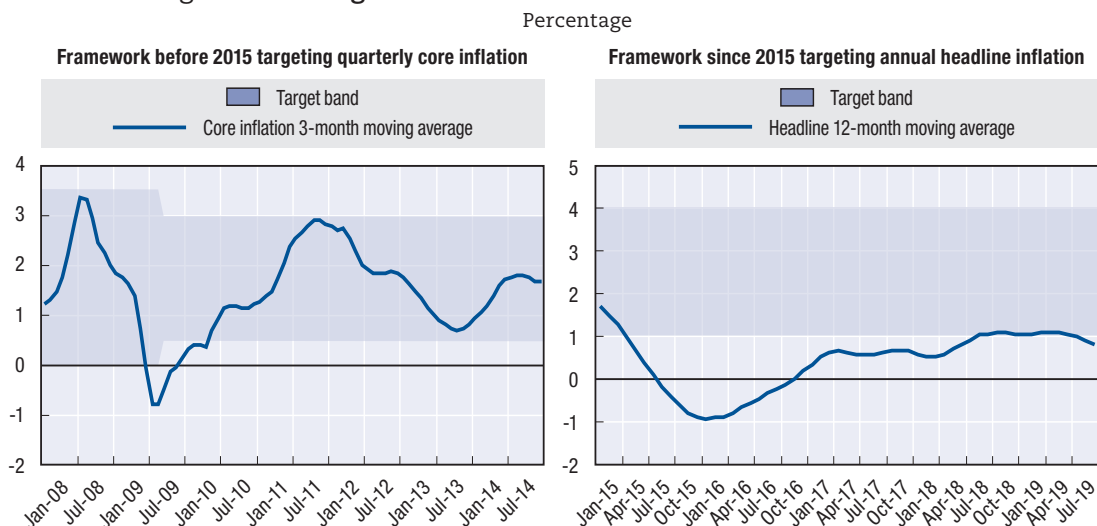
Box 1.6. The Phillips curve: Thailand and Singapore (cont.)

the post-crisis period, where the effect is estimated to be a 21 bps increase. The effect of change in the unemployment gap on inflation has thus remained stable in Singapore, even after controlling for external factors.

The coefficients associated with imported inflation – the inflation of the relative price of imports – were also significant for the period in both Thailand and Singapore. For Thailand, in line with the results of Manopimoke (2018), the effect of global factors on inflation has risen over time, and this will be reflected by this result as well. For Singapore, this will be partly due to monetary policy framework based on managing the exchange rate to control inflation.

Economists argue that the flattening of the Phillips curve in Southeast Asia is associated more with the increasing role of global factors (Dany-Knedlik and Garcia, 2018), including the “global output gap” (Manopimoke, 2015), than with the domestic factors seen in the euro area and the United States. The importance of inflation expectations is also increasing in determining price trends. Inflation expectations, even over the short term, are argued to be well anchored in Singapore and have become a strong predictor of near-term outcomes (Meng, 2016). In Thailand, the anchoring of inflation expectations is robust over the longer period, while expected and actual inflation in the short term tend to be affected by factors outside the purview of monetary policy (Direkudomsak, 2016). Interestingly, inflation in Thailand has treaded below the target band for most of the last five years under the framework instituted in 2015; this calls for closer inspection of the target-setting mechanism (Figure 1.37). Compared to the previous framework, which targeted core inflation, the change in the central bank’s ability to adhere to its band is quite stark. The same can be said if recent performance is pitted against the targeting exercise in Indonesia and the Philippines (Figure 1.38). This may indicate a weakening of forward-looking dynamics in Thailand (Dany-Knedlik and Garcia, 2018), which could potentially lead to a de-anchoring of expectations.

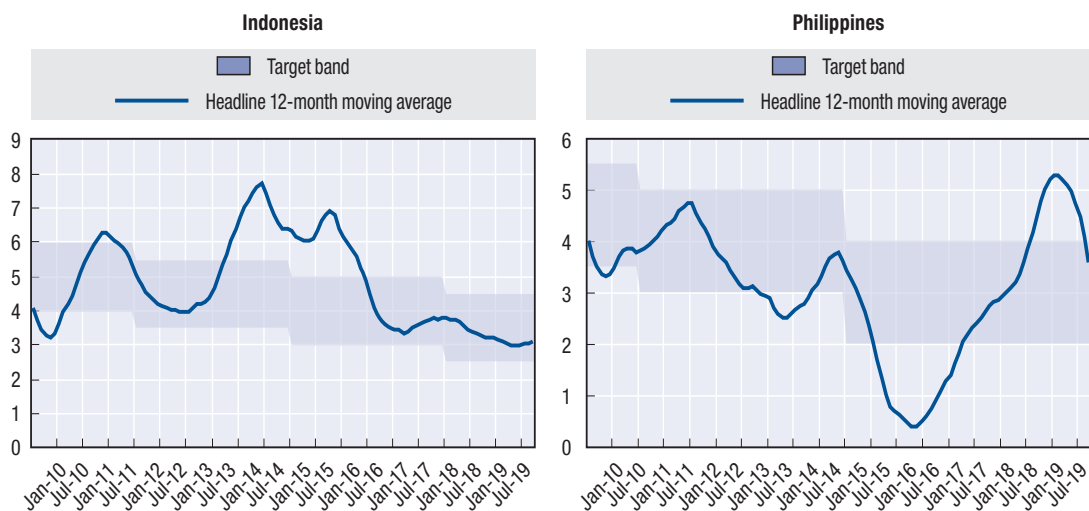
Figure 1.37. Target inflation band and actual inflation in Thailand



Source: OECD Development Centre based on data from CEIC and national sources.


StatLink <https://doi.org/10.1787/888934063860>

Figure 1.38. Target inflation band and actual inflation in Indonesia and the Philippines
Percentage



Note: Indonesia and the Philippines target annual headline inflation rate.

Source: OECD Development Centre based on data from CEIC and national sources.

StatLink  <https://doi.org/10.1787/888934063879>

Governments favour gradual and contained fiscal expansion

As trade tensions deepen, the fiscal stance of many Emerging Asian economies is favouring contained expansion in the near-term overall. The potential impact of the trade tensions on public revenue in the near term is hard to pin down given the lack of clear direction in the ongoing negotiations.

Among Emerging Asian economies, Myanmar and Singapore look to boost spending in the near-term. The other countries in the region, though not committing to widen their budgetary gaps relative to output, move to improve their infrastructure stock as a way to grease their economies. Timely execution of spending plans remains a challenge in most cases in this respect, as does the ability of the authorities to ensure the quality of spending.

Indonesia's state budget deficit is on track to settle below 2% of GDP in 2019 for the second year running, though the level could be a bit higher than the initial target of about 1.8%, based on data as of June 2019.¹⁶ The increase in revenue intake is more subdued than in the same period in 2018 on deteriorating trade activity, while government expenditures are rising faster. In 2020, the deficit-to-GDP ratio is programmed to narrow further, but the government is looking to improve the quality of spending to push economic growth to 5.3%.

In Malaysia, stronger revenue performance and a moderate increase in spending saw the country's annualised deficit ratio move onto a downward trajectory. Data through June 2019 indicate that the shortfall by the end of the year will likely fall below the target of 3.4% of GDP. However, with trade tensions putting pressure on revenues from external and domestic activities alike, the likelihood of meeting the 3% threshold in 2020 is decreasing.

The annualised deficit ratio is similarly receding in the Philippines, standing well below the 3.2% benchmark at the close of the first half. Expenditure has declined minimally year-to-date as of July 2019 owing to a delay in passage of the budget. This is matched by a modest increase in revenues despite the high base the previous year when

the initial package of the tax reform law took effect. The target deficit ratio in 2020 is also set at 3.2%, with infrastructure getting the biggest boost.

Thailand's annualised budget deficit ratio is following the same trend. Both revenue and expenditure have risen at a tempered pace as of July 2019. In fiscal year 2020 (ending September 2020), the programmed nominal budget gap is marginally larger than in fiscal year 2019 on the back of higher income-generating investment allocation, although the deficit ratio will likely remain unchanged.

Similarly, government efforts to rein in spending in Viet Nam, coupled with robust growth in revenues, drove down the annualised overall budget deficit ratio between 2018 and June 2019 by about one percentage point. Fiscal consolidation is set to continue, while the planned privatisation of public enterprises stands to provide a one-off boost on revenues should it gain traction.

In fiscal year 2018 (ending March 2019), Brunei Darussalam's deficit ratio fell to a single-digit level for the first time in four years on more disciplined spending. Nonetheless, the downward reversion in oil prices midway through 2019, the flare-up of trade tensions and the weakening global economy do not augur well for its revenue prospects moving forward.

Singapore has room to accommodate trade-induced friction in revenues, as well as a modest increase in spending in the coming months, and still meet its deficit ratio target of 0.7%. Data as of the first quarter of fiscal year 2019 (ending March 2020) show that it recorded a small increase in operating revenues, while both operating and development expenditures declined.

Cambodia is heading for another year of budgetary surplus, contrary to our prior expectations. Spending in the first seven months of 2019 hardly increased, while the collection of tax and non-tax revenues rose briskly. The anticipation of slower growth in 2020, however, could reinvigorate public disbursements.

Fiscal consolidation is expected reduce Lao PDR's fiscal deficit ratio further in 2019 following a drop of roughly one percentage point in 2018 (World Bank, 2019b; IMF 2019). Moreover, to reduce its reliance on offshore debt markets, the government is considering issuing local-currency bonds to finance its deficits in the coming years.

Myanmar's budget deficit ratio is expected to come in under 5% in fiscal year 2019 (ending September 2019). Expenditure was treading below target in the first half of the fiscal year (World Bank, 2019c). Nonetheless, it could rise markedly next year. The government has programmed a deficit ratio of about 5.9% in fiscal year 2019-20.

China's budgetary deficit ratio, which has trekked upwards this year, is expected to widen further in 2020. Growth in expenditures has outpaced the growth in revenues, based on data as of June 2019. Tax collection has been meek following the tax cuts implemented this year. In line with its "proactive" fiscal policy, the government has pledged further decreases in business taxes, value-added tax and employers' social security contributions, among other measures.

India's final budget for fiscal year 2019-20 (ending March 2020) underlines the government's commitment to fiscal consolidation following the general elections. Fiscal data in the first quarter (ending June 2019) are in line with this objective, with spending increasing less than the same pace as revenues. The medium-term programme also supports moderation in the deficit ratio in the next fiscal year. Nonetheless, policy

sentiment could change in the coming months given the sharpness of the decline in economic growth in Q1 2019.

Overall, this backdrop suggests that the general government fiscal balances of Emerging Asian economies will remain in good stead (Table A.3 in the Statistical Annex).

Challenges to the Outlook

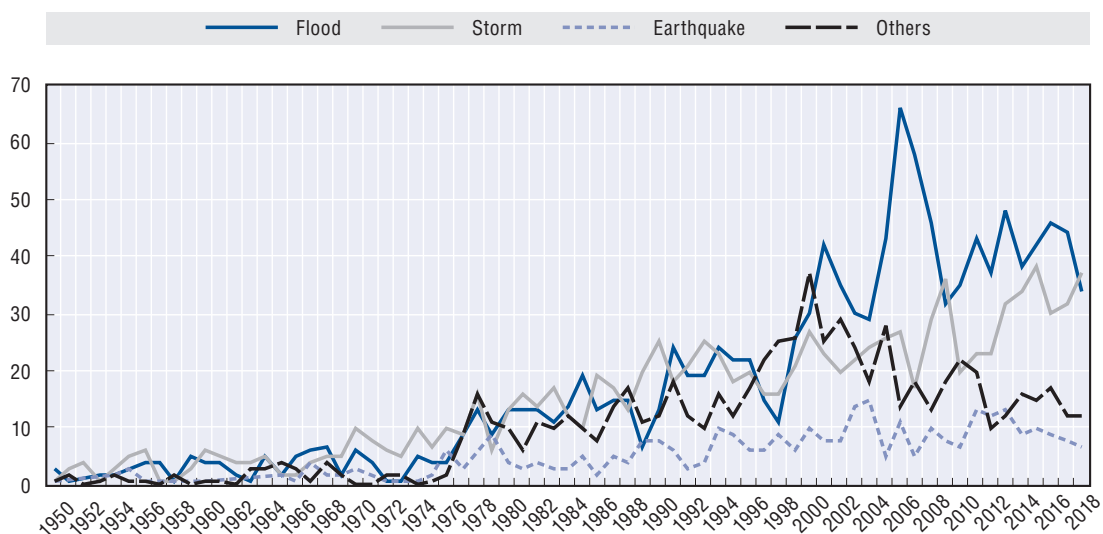
Growth momentum in Emerging Asia is expected to slow slightly, though the overall growth will still be robust in the medium term. Countries in the region need to pay careful attention to several challenges. Coping with the ongoing trade tensions coupled by the weakening of the real sectors in advanced economies mentioned previously is one important challenge. Enhancing the effect of monetary policy on economic activity is another. The uncertainties surrounding Brexit and its aftermath as well as the volatile geopolitical situation in the oil producing countries, influencing oil prices are also a cause of concern. For this edition, the focus will be on the challenge of reinforcing the countries' disaster risk management at the local level, considering the susceptibility of the region to natural calamities and the rising socio-economic impact.

Managing natural disaster risks: the importance of local initiatives

Natural disasters can lead to heavy loss of life and community displacement. They slow economic growth and development by destroying infrastructure and other forms of physical capital, and by interrupting normal economic activity. Natural disasters, which disproportionately affect lower-income citizens, also threaten to reverse progress in poverty reduction. This section will consider the challenges facing Emerging Asia at a time when natural disasters are increasing in force and frequency due to climate change. It will look in particular at the importance of disaster risk management at the local level.

Emerging Asia is relatively exposed to the risk of natural disasters. The region experienced 25.9% of global disaster events between 2010 and 2017 and suffered 10.6% of the deaths and 22.7% of the damage they caused (CRED, 2019). Floods, storms and earthquakes are particularly serious threats in the region. Since 1950, it has experienced more than a thousand floods, nearly as many storms, more than 300 earthquakes and more than 700 other deadly disasters. And the pace is increasing: around 64% of these floods struck between 2000 and 2018, as did 51% of the storms, 54% of the quakes and 50% of the other disasters (Figure 1.39). The fact that the region sits on several tectonic plates contributes to the occurrence of earthquakes, volcanic eruptions and tsunamis. In addition, cyclonic storms, or typhoons, have increased in frequency and intensity due to climate change.

Figure 1.39. Recorded occurrences of natural disasters in Emerging Asia, 1950-2018



Note: Other disasters include drought, epidemics, volcanic activity, landslides, extreme temperatures, insect infestation, and wildfire. Events are categorised as disasters if they meet at least one of four criteria: 10 or more persons killed; 100 or more persons affected, injured or left homeless; an appeal for international assistance; or an official declaration of a state of emergency.

Source: CRED (2019), *Emergency Events Database* (database), Centre for Research on the Epidemiology of Disasters, Brussels.

StatLink  <https://doi.org/10.1787/888934063898>

The scope of the problem can be appreciated by considering the many natural disasters that struck the region's countries during the summer of 2019. Cambodia, India, Lao PDR, Malaysia, Myanmar and Viet Nam experienced deadly floods; typhoons pounded China and Viet Nam; earthquakes struck Indonesia and the Philippines; and Thailand suffered a severe drought. Collectively, these disasters killed hundreds of people, displaced hundreds of thousands of families, destroyed homes and buildings, wiped out crops, damaged roads and forced schools to close, at a huge cost to the local economies. With the rate of natural disasters increasing in Emerging Asia, local initiatives are needed to help mitigate risks. Such initiatives could be in the form of flood risk-integrated water resources management, construction of disaster resilient multipurpose evacuation and community centres, mangrove afforestation to protect shorelines from storms and floods, and hydroponics projects that could generate incomes during normal times and maintain food security when disaster occurs.

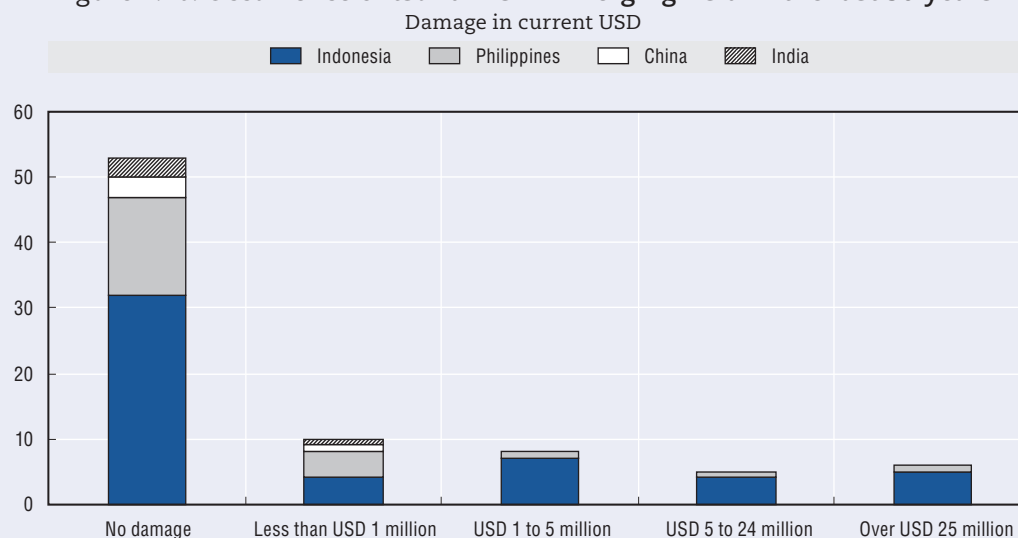
Tsunamis are of particular concern in the region and could become more damaging in the future due to increased urbanisation along coastlines. Tsunami early warning systems are therefore of increasing importance in at-risk areas, although their deployment and maintenance are costly (Box 1.7). Protecting coral reefs is another way for local authorities to take action to reduce natural disaster risks. Coral reefs are present along the shores of several Emerging Asia countries, notably Indonesia, Malaysia and the Philippines (Box 1.8). Local indigenous knowledge could also play significant role in disaster risk management (DRM). Recent experience after major earthquakes and tropical cyclones in Asia demonstrates the role of local communities and indigenous groups as custodians of local knowledge and experience relevant to effective disaster risk management (ADB, 2019). Indeed, due to their long history in their home location, indigenous groups possess better information about severe yet low frequency events and catastrophes that are invisible to modern modelling techniques and short-time periods observations.

Example of this local knowledge-based DRM is the traditional building techniques, such as the disaster resilient vernacular housing in Nepal. This housing technology, which incorporates local materials, labour and knowledge is a result of continuous trial and error and experiences of past disaster events. For instance, houses are constructed with raised platforms for flood resilience, or are constructed with earthquake resilient features such as symmetrical construction, high ductility and proper binding of housing units (Gautam et al, 2016).

Box 1.7. The case for installing tsunami detection buoys

Tsunamis have struck in Emerging Asia with an average frequency of 1.64 per year over the last 50 years. They have mostly occurred in Indonesia and the Philippines, but their effects can spread over several countries. Of the tsunamis recorded in Southeast Asia over the last 50 years, 65% caused no economic damage, while 7.3% caused damage in excess of USD 25 million (Figure 1.40). The most damaging, such as the 2004 tsunami resulting from the Sumatra-Andaman earthquake, caused 227 899 fatalities and approximately USD 10 billion in damage.

Figure 1.40. Occurrence of tsunamis in Emerging Asia in the last 50 years



Source: National Oceanic and Atmospheric Administration (NOAA).

StatLink <https://doi.org/10.1787/888934063917>

A tsunami early warning system is composed of a network of seismographic centres, tide gauges, tsunami detection buoys, modelling capacity and a warning centre. The yearly cost of a comprehensive early warning system with five detection buoys is estimated at USD 795 million per year for a designed life of 15 years, including 20 tide gauges and communication links (Jin and Lin, 2011). Calculations show that the benefits of such systems greatly exceed the costs in terms of avoidable losses.

Currently, 11 detection buoys are operating in Southeast and South Asia, of which 6 belong to India, 2 to Thailand, 2 to Australia and 1 to the United States. Indonesia formerly had a network of 22 buoys, but due to vandalism and a lack of subsequent maintenance, none of them is currently functional (Lassa, 2018). Vandalism of buoys is usually associated with fishing activities, as moored devices attract fishing stock around them. Usual causes for damage are ship impacts, fishing nets entangling with mooring lines, ships using the buoys as anchors or theft of the electronics payload (WMO and IOC, 2011).

Box 1.7. The case for installing tsunami detection buoys (cont.)

These events have a substantial impact on the cost of early warning systems for tsunamis. It is estimated that the cost of vandalism to the Indian Ocean Tsunami Warnings System between 2006 and 2010 exceeded USD 3.4 million (WMO and IOC, 2011). Nevertheless, investing in capacity and sustaining adequate funding is essential to provide economically viable, life-saving early warnings.

Box 1.8. The economic benefits of coral reefs in reducing natural disaster risks

Coral reefs can be used to provide early warnings. This is relevant for countries with low-lying tropical coasts fronted by coral reefs, which are widespread in Southeast Asia. Such countries are threatened by rising sea levels and wave-induced flooding. For instance, Indonesia's capital city, Jakarta, faces grave flood risks in the coming years since 40% of its surface area lies below sea level, with the city sinking further every year.

It is hard to predict flooding due to highly heterogeneous conditions along these coasts. However, new tools using reef data as well as water level and wave data have recently allowed experts to create early warning systems for floods and to map out locations vulnerable to rising sea levels (Pearson et al., 2017). A system called BEWARE estimates how different wave, water level and reef combinations can lead to flooding. The system can be used to make short- and long-term predictions of flooding, allowing for contingency planning by the authorities. At the same time, coral reefs can provide significant coastal protection to people and property. The reefs tend to act as natural, low-crested, submerged breakwaters, as they reduce the energy and size of waves. Economic analysis indicates that Southeast Asian countries reap significant benefits from having coral reefs on their shorelines.

Currently, the countries that benefit most from reef protection are Indonesia, the Philippines and Malaysia, while other Southeast Asian countries also benefit from the coral reefs along their shores (Table 1.4). Economic benefits for top-ranking countries exceed USD 500 million per year. Furthermore, if these reefs were to disappear, it is estimated that annual expected damages from flooding would double and that costs from frequent storms would triple (Beck et al., 2018).

Table 1.4. Economic benefits of coral reefs

Global rank	Country	Annual averted damage in USD millions
1	Indonesia	639
2	Philippines	590
3	Malaysia	452
11	Viet Nam	42
12	Myanmar	33
13	Thailand	32

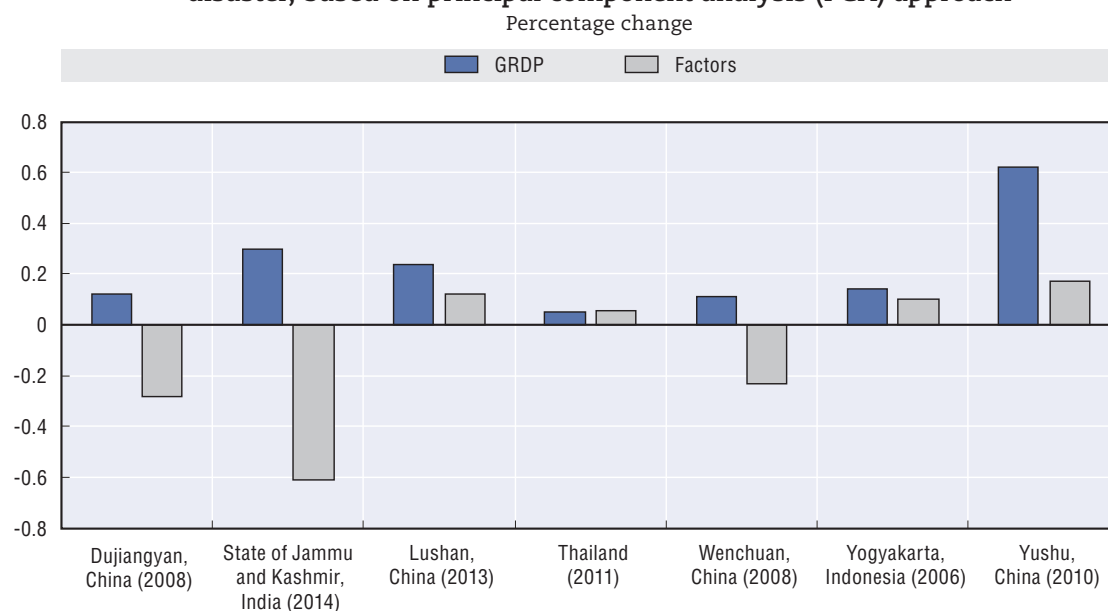
Source: Beck et al. (2018).

These protective features of coral reefs, and the benefits they create for tourism and fishing, make it essential for authorities to take them into account when formulating coastal development plans. Policies that promote sustainable coastal development also seem to be economically viable in the long run, although the benefits of coral reefs are hard to quantify.

Assessing the economic impact of natural disasters: Local data change the picture

The magnitude of the economic shock and recovery associated with natural disasters depends on a wide range of factors. This heterogeneity in outcomes makes it hard to obtain a “one-size-fits-all” theory (Brata, de Groot and Zant, 2018). Existing literature tends to focus on local GDP growth to measure the impact of a natural disaster, and results indicate that economies recover quickly (Chhibber and Laajaj, 2008; Klomp and Valckx, 2014). However, gross regional domestic product (GRDP) measures might not necessarily reflect the real damages of natural disasters. Figure 1.41 is based on a principal component analysis approach, which captures movements in economic data related to natural-disaster damage, for instance, energy consumption, healthcare provision, extended credit and agricultural output, factors that are not well reflected by GRDP. Indeed, GRDP data do not reflect the impact of natural disasters over time. The average growth rate after the disaster is higher than the average growth rate of these factors over the three years following the impact. For instance in the cases of the disasters of Dujiangyan, Lushan and Wenchuan in China and that of the state of Jammu and Kashmir in India, GRDP rose in the three years following the disaster, but the data of various other areas of the economy were still displaying negative growth on average.

Figure 1.41. Three-year average growth rates of selected variables after a natural disaster, based on principal component analysis (PCA) approach



Note: Factors were obtained by extracting the first two principal components from regional time series data and averaging their growth. Between 14 and 38 variables were used per case and the data cover many areas of the economy, including public finance, labour and demographics, agriculture, manufacturing/industry, utilities, construction, logistics and communication, tourism, financial services, public services, consumer goods, entrepreneurship, trade.

Source: OECD Development Centre's calculation based on CEIC.

StatLink <https://doi.org/10.1787/888934063936>

New approaches to disaster risk management are needed, including at the local level

A more comprehensive approach to disaster management, where principles of disaster risk reduction (DRR) and climate change adaptation (CCA) are integrated with overall development, is recognised in major international agreements, such as the Sustainable

Development Goals (SDGs), the Sendai Framework on Disaster Risk Reduction, the Paris Agreement on Climate Change and the New Urban Agenda.

Where cities are concerned, the broad concept of urban resiliency is advocated. This calls for a proactive and long-term stance on addressing disasters before they occur. Resiliency is underpinned by a scientific, systems-based perspective on urban development. The city is recognised as a dynamic, complex system with interdependent subsystems comprising legal, policy, institutional, economic, socio-cultural, environmental and physical infrastructures. Fundamental to achieving resiliency is understanding the interdependencies, risks and implications of long-term trends such as demographics and climate change.

Institutional reforms can improve disaster risk management, both nationally and locally

Current disaster prevention and management systems are similar in many Emerging Asian countries, although changes in legal frameworks, organisation and planning are ongoing (Box 1.9). Typically, interministerial co-ordination mechanisms are created in the office of the president or prime minister. These bodies formulate disaster management policies and guiding operations, although the basic responsibilities remain with line ministries, departments or government agencies. In China, for example, the National Committee for Disaster Reduction is headed by a vice-premier of the State Council. The body is composed of 33 ministries and departments, including relevant military agencies and social groups, and operates as an interagency co-ordination body for disaster reduction.

At the regional level, ASEAN plays a key role. Its members adopted the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), a binding agreement that provides a regional framework for co-operation, co-ordination, technical assistance and resource mobilisation. All ASEAN member states have designated national focal points linked to AADMER and to the ASEAN Coordinating Centre for Humanitarian Assistance on Disaster (AHA Centre). Its focus is to send assistance as part of emergency response.

Box 1.9. Recent reforms to disaster risk management frameworks at the national level

The countries of Emerging Asia have been reforming their natural disaster risk management plans and initiatives, often after catastrophic national disasters. Regional and global frameworks have steered many countries to upgrade their disaster management frameworks to prioritise disaster prevention, risk reduction, cross-sectoral approaches and improving preparedness and response through international co-operation. In line with the convergence of DRR, CCA and urban resiliency, efforts continue to harmonise Nationally Appropriate Plans of Adaptation with natural disaster management strategic plans. The first are usually part of environment and climate change-related ministries, while the second are usually handled by defence and interior or local government ministries.

Indonesia, for example, is seeking to strengthen its decade-old national Disaster Management Law 2007/24 to address gaps in key issues around definitions, status and level of disasters, increased budgets and community participation. Its goal is to shift from a narrow focus on disaster response to comprehensive disaster risk reduction and linkages with climate change adaptation.

The Great Thailand Flood in 2011 was the impetus for the Thai government to adopt a more comprehensive national flood prevention and mitigation strategy and to enact improved budgetary measures to deal with future floods, including both structural and non-

Box 1.9. Recent reforms to disaster risk management frameworks at the national level (cont.)

structural measures. Thailand's National Disaster Prevention and Mitigation Committee adopted the National Disaster Risk Management Plan (2015) to consolidate lessons learned from past disasters and to address gaps in the previous national strategy, the National Disaster Prevention and Mitigation Plan (2010-14). The goal was to promote more effective co-ordination and a shared vision among the more than 40 entities involved in disaster management. Together they would set concrete targets; improve harmonisation of data-sharing mechanisms, particularly for risk assessment; ensure greater clarity and consistency on roles, responsibilities and operational protocols; and raise public awareness and participation. The Ministry of Interior was chosen as a lead agency for this strategy. The idea was to increase the accountability and responsibility of subnational entities (provincial, municipal and district) in establishing institutions, plans and budgets for disaster management at the local level (Ministry of Interior, Thailand, 2011).

In the Philippines, the National Disaster Risk Reduction and Management (DRRM) Act of 2010 is undergoing a scheduled review that began in 2015. The act establishes a relatively advanced and multilevel disaster risk management system. A notable feature is its specific mandates on local-level disaster budgeting. A total of 30% of the National DRRM is allocated to a Quick Response Fund for stand-by relief and recovery funding; the remaining 70% is reserved for broader pre- and post-disaster measures such as risk reduction, preparedness and recovery activities. Additionally, the DRRM Act mandates local governments to establish Local DRRM Funds by setting aside at least 5% of their estimated revenue from regular sources (with allocations echoing the National DRRM of 30% for emergency response and 70% for pre-disaster activities). The Local DRRM Fund can also be used for the payment of premiums on disaster insurance.

Singapore's comprehensive approach to disaster risk reduction and long-term resiliency is contained in its Climate Action Plan. The Centre for Climate Research Singapore was established in 2015 to conduct cutting-edge research on future risks related to climate change in Singapore and Southeast Asia. Singapore adopted a whole-systems perspective on adapting to the changing climate. Its planned measures blend soft and hard interventions covering coastal protection; water resources and drainage; biodiversity and greenery; public health and food resilience; and buildings, networks and infrastructure.

Cambodia introduced a major shift in its national waste management institutional framework by adopting the Disaster Management Law (2015), which requires subsidiary legislation for the subnational committees it mandates. Such committees were provided for under previous regulations, but were only partially operational. The new law formally established the National Committee for Disaster Management as the lead national entity for disaster management. The framework is similar to Thailand's: it mandates the creation of subnational disaster management institutional arrangements and the continuing devolution of responsibilities from the national to the provincial to the district and village levels.

China has introduced a nationwide "sponge city" initiative to promote a new strategy for urban flood management. This initiative was inspired by developments in the United States, the United Kingdom, Australia and Singapore. It counters conventional flood management philosophy, which focuses on built infrastructure and engineering solutions. The initiative aims to transform China's urban infrastructure to incorporate natural processes as a key component of urban run-off control strategy. The initiative will promote significant investments so that cities will be constructed as "sponges" to soak up 70% of rainwater. Permeable materials and green spaces that absorb and filter rainfall will replace concrete surfaces, while drainage systems will separate waste water from rain water, which will then be stored and reused for street cleaning, plant watering and even firefighting (Yu and Jia, 2015).

The integration of disaster risk reduction and climate change adaptation with urban development ultimately needs to be driven at subnational levels. But Emerging Asian cities are in the very early stages of integrating resiliency, DRR and CCA concepts into urban planning, with the support of national agencies as well as international organisations such as the Asian Development Bank, the World Bank and the Rockefeller Foundation through its 100 Resilient Cities initiative. While national policy frameworks acknowledge the need for risk reduction strategies and the importance of CCA, overlapping mandates from line ministries may continue to frustrate local governments, while a lack of details on subsidiary policy, funding and legal instruments is a significant barrier to implementation by actors on the ground in cities.

New approaches to disaster risk management can be adopted at the local level, however. For example, the Thai city of Nonthaburi mapped and identified at-risk areas along the Chao Phraya River and recognised the implications and elevated risks brought about by climate change. Although the city formulated long-term, engineering-based flood prevention plans (e.g. constructed riverside embankments, improved pumping systems and expanded drainage), implementation costs were prohibitive, and smaller upgrades to road and drainage infrastructure were made instead. During flooding in 2011, the city's high vigilance in monitoring rainfall and other hydrological information enabled the local government to predict the peak water level and its effects. As a result, Nonthaburi had ample time to prepare. It took action involving the establishment of a command centre for co-ordinating the flood response, the reassignment of local government officials to tasks related to the emergency, the recruitment and training of 1 000 to 2 500 volunteers to build sandbag walls around critical facilities and the accessing of reserve funds. As a result, the effects of the flooding in the municipality were minimised.

A similar example of resiliency-focused disaster risk management at the local level was the establishment in the Philippines in 1995 of the Albay Public Safety and Emergency Management Office (APSEMO), the country's first permanent disaster management office. Its goal was to integrate disaster risk reduction into the local government's development plans and programmes. The stability of dedicated staff and funding in a permanent office resulted in greater cost-effectiveness and has allowed for sustained engagement with and co-ordination among diverse stakeholders. This has enabled the local government units in Albay province to develop hazard maps, area- and hazard-specific plans, community-based early warning systems and well-tested rescue and evacuation protocols (UNISDR, 2010). APSEMO demonstrated that a permanent and institutionalised disaster management office at the local or provincial level can reduce the challenges posed by political pressures and short election cycles. Albay province's advanced practices in mainstreaming DRR and CCA into long-term development have won national and global recognition. Under the Philippines' two national laws on DRR and CCA, the mandate to institutionalise a Disaster Risk Management Office at the subnational level was based on the "Albay Model".

Limited institutional capacities can impose constraints on the disaster risk management strategies of local governments. Cities often lack personnel and a well-resourced department or division dedicated to disaster management. The tendency of governments to transfer personnel is another factor. Since disasters may occur years or decades apart, the valuable know-how and experience of city personnel who responded to past disasters is seldom properly documented and transmitted to their successors. Electoral cycles reinforce a budgeting bias, not only towards more pressing priorities, such as basic infrastructure and interventions during and after disasters, but also away from pre-disaster measures, such as forecasting, risk assessment and mitigation (Hapeman, 2012). Local governments must be able to quickly access and spend emergency funds on rescue and relief operations, but many cities are severely incapacitated at this stage. Community involvement in all stages of disaster planning can help overcome some of these challenges (Box 1.10).

Box 1.10. Community involvement in disaster risk management

Civil society and community-based groups can make important contributions to disaster risk management strategies. These groups should be involved in preparing for disasters, for example contributing to and verifying data on local conditions, assets and challenges. The effectiveness of flood warnings can be complemented and even improved by involving local communities in activities such as the creation of flood hazard maps, scientific monitoring and contingency planning. These activities help to increase understanding of the impacts of natural hazards. Public consultation also bolsters the credibility of risk assessment, builds trust, raises public awareness and helps to identify partners and volunteers for implementing plans.

By making use of local knowledge, community-led co-ordinating mechanisms are often cost-effective as well. During and after a disaster, national and international stakeholders often rush in to the affected areas without sufficient co-ordination and understanding of local needs and circumstances. The channelling of assistance by external actors also tends to be uneven due to the influence of organisational biases and geopolitical interests. Community-led co-ordinators can bridge the gaps among external stakeholders and may help to ensure a more equitable distribution of resources. Some critics of community engagement worry about the risk of deferring responsibilities from within the government to external stakeholders. Participatory activities for disaster management must therefore be undertaken to ensure that roles and responsibilities are clearly and fairly balanced among all parties, and that sufficient attention is given to the communities at highest risk.

Local-level natural disaster risk management is particularly critical in cities. With their concentration of people, wealth and construction, urban areas face unique challenges in managing disaster risks. This calls for appropriate policy responses. New approaches to institutional arrangements, financing and the collection and use of data are priorities in this regard. Policy makers should also consider how cities are indirectly affected when natural disasters in rural areas contribute to rural-urban migration (Box 1.11). Natural disasters also result in displacement of people in the affected areas during pre-emptive clearing operations and post disaster relocations. It is estimated that around 13 million people have been displaced by environmental calamities in 2018 alone, of which China and the Philippines accounted for 7.6 million (IDMC and NRC, 2019). Such magnitude of movement of people, which could ultimately lead to forced migration, thus, necessitates strategic planning. In doing so, UNHCR (2018), which mapped the current international mechanisms to address displacement owing to climate change, highlighted the importance of constant needs assessment and engagements with affected communities to make the existing guidelines more responsive to the ground-level conditions.

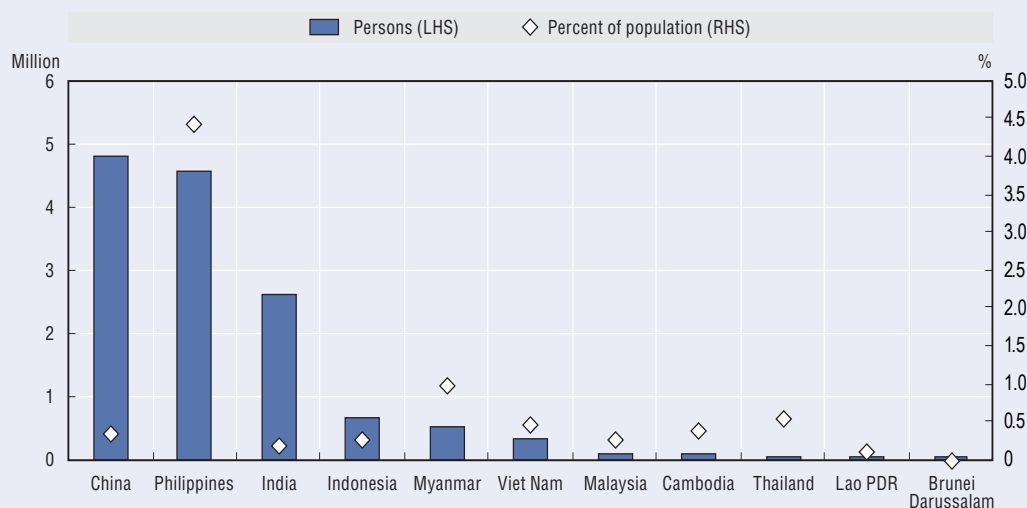
Box 1.11. The effect of natural disasters on internal migration

Migrants often move voluntarily to cities in search of better job opportunities, but a significant fraction of rural-urban migrants are forced out of rural areas due to disasters that damage livelihoods and impose high recovery costs. Millions of people are internally displaced in Emerging Asia each year as a result of natural disasters (Figure 1.42). From 2013-18 in China, an average of 4.8 million people per year were displaced due to disasters. In the Philippines, the figure was lower, at 4.5 million, but this represented the region's highest share of displaced population,

Box 1.11. The effect of natural disasters on internal migration (cont.)

at 4.5%. Internal displacement due to disasters was highest in the Philippines in 2013, when the country was hit by Typhoon Haiyan and 7 million people left home. Internal displacement due to natural disasters in East Asia and Pacific is relatively high compared with other parts of the world (IDMC, 2018).

Figure 1.42. Annual new internal displacement associated with disasters, 2013-18 average



Source: World Bank (2019d), World Development Indicators (database).

StatLink <https://doi.org/10.1787/888934063955>

Working-age members of families affected by disasters face pressure to look for jobs in nearby cities and megacities. In Viet Nam, for example, around 17 000 people, or one in 100 residents, left Kiên Giang province during and after the drought of 2016. Rural to urban displacement carries its own risks, however, and migrants may face unequal access to social services, utilities, land and housing. These impede poor families' access to benefits such as free health care and primary education. Unregistered and temporary migrants may be unable to access any services at all. Large-scale government initiatives may be needed to reduce the vulnerability of people living in areas with high exposure to hazards. At the same time, local governments of big cities may have to do more to strengthen social protections and support for unregistered migrants and to reform administrative systems to close the gap between registered citizens and unregistered migrants.

Smart approaches to early warning systems strengthen disaster risk management

Technology is central to the innovative approaches to disaster risk management that are needed in the region to monitor, assess and respond to threats. Smart disaster management allows the use of real-time data handling through the extensive deployment of devices such as remote meteorological sensors and cameras to monitor environmental parameters. As costs fall, the use of these tools spreads. However, analytical capabilities are also needed (Graham, 2017). Smart approaches allow governments, businesses and citizens to collect, store, share, combine and analyse vast amounts of disaster-related data more cheaply and easily, and thus to better understand the risks and characteristics of hazards (Table 1.5).

Table 1.5. Conventional vs. smart approaches to disaster risk management

Aspect	Conventional approaches	Smart approaches
Data availability and use	Manual formats Data usefulness is limited by timeliness and accuracy constraints	Digital formats Live or nearly live and widely shared data Effective and targeted early warning
Infrastructure	Employed as a substitute for ecological and social systems Defensive and not reflecting projected threats due to climate change Single-use design	Employed as a complement to ecological and social systems Adaptive, taking into consideration the effects of climate change Multi-purpose design
Institutions	Silos prevent data sharing Policies and actions are fragmented across sectors and organisations	Data is developed and used collaboratively Integrated and co-ordinated policies across sectors and organisations
Incentives	Short-term orientation	Long-term orientation

Source: OECD Development Centre.

Early warning systems in particular will benefit from the application of smart approaches. A disaster early warning system is an integrated system of hazard monitoring, forecasting and prediction; disaster risk assessment; communication; and systems and processes for preparedness activities. These enable individuals, communities, governments, businesses and others to take timely action to reduce disaster risks before hazardous events occur. An effective early warning system should include four interrelated key elements: disaster risk knowledge based on the systematic collection of data and disaster risk assessments; detection, monitoring, analysis and forecasting of hazards and possible consequences; dissemination and communication of authoritative, timely, accurate and actionable warnings of the likelihood and impact of disasters by an official source; and preparedness at all levels to respond to the warnings (UNISDR, 2017).

Early warning systems are widely recognised as a major component of disaster risk reduction and have been highlighted in two major international initiatives for disaster risk management: the Hyogo Framework for Action 2005-15 and the Sendai Framework for Disaster Risk Reduction 2015-30 (Box 1.12). Hallegatte (2012) estimated that, on an annual basis in Europe, hydro-meteorological information and early warning systems helped save hundreds of lives, avoided asset losses of up to EUR 2.7 billion and produced up to EUR 34 billion of additional benefits through the optimisation of economic production in weather-sensitive sectors such as agriculture and energy.

Box 1.12. Early warning steps in the Hyogo Framework for Action 2005-15

The “Hyogo Framework for Action 2005-15: Building the Resilience of Nations and Communities to Disasters” was the first attempt to explain and describe the work required from different sectors and actors to reduce disaster losses. It was adopted in January 2005 with a goal of substantially reducing disaster losses by 2015, and was signed by 168 governments at the World Conference on Disaster Reduction held in Kobe, Hyogo, Japan. The Hyogo Framework for Action proposes five key activities related to early warning systems:

- Develop early warning systems that are people centred, in particular systems with warnings that are timely and understandable to those at risk, and that take into account the demographic, gender, cultural and livelihood characteristics of the target populations, including guidance on how to act on warnings. These systems should support effective operations by disaster managers and other decision makers.

Box 1.12. Early warning steps in the Hyogo Framework for Action 2005-15 (cont.)

- Establish, periodically review and maintain information systems as part of early warning systems to ensure that rapid and co-ordinated action is taken in cases of alert or emergency.
- Establish institutional capacities to ensure that early warning systems are well integrated into governmental policy and decision making, as well as emergency management systems at the national and local levels, and that they are subject to regular testing and performance assessments.
- Implement the outcome of the Second International Conference on Early Warning held in Bonn, Germany, in 2003. This includes strengthening co-ordination and co-operation among all relevant sectors and actors in the early warning chain to achieve fully effective early warning systems.
- Implement the outcome of the Mauritius Strategy for the further implementation of the Barbados Programme of Action for the sustainable development of small island developing states. The key is establishing and strengthening effective early warning systems as well as other mitigation and response measures.

Source: UNISDR (2007), *Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters*, <https://www.unisdr.org/we/inform/publications/1037>.

The quality, timeliness and lead times of disaster early warnings have improved in recent decades thanks to scientific and technological advances, and especially to the rapid development of information and communication technology. However, there is still a large technological gap between early warning systems used by developing countries and those in developed countries. Upgrading the early warning systems of all developing countries to match developed country standards could generate USD 300 million to USD 2.0 billion through disaster loss reduction. It could also save tens of thousands of lives globally every year (Hallegatte, 2012).

Mobile phones are helping governments alert people to disaster risks

Mobile phones have been gaining importance in disaster risk mitigation. For an early warning to be effective, it needs to be communicated quickly, and mobile phones enable instant large-scale warnings. In the Philippines, for instance, the Free Mobile Disaster Alert Act of 2014 mandated all telecom operators to send free mobile alerts from authorised government agencies in times of disaster. The mobile alert includes information on how to prepare for a hazard event and on evacuation centres, relief sites and pick-up points. It also provides the contact information of relevant authorities and sends updates from the state weather bureau. The system was used in 2016 when Typhoon Nina made landfall, with the phone operator Globe sending out 11 different text messages warning its customers of potential dangers (Globe, 2016).

Another example is Indonesia's AtmaGo, an app that provides early warnings and allows sharing of real-time information on disaster risk reduction. A recent study estimated that this app could reduce property damage in Jakarta by USD 106 million per year, on the assumption that effective action can reduce damage by 50% and that 10% of the population uses the app (CIPG, 2018). This result, which is also based on survey results showing that 30% of the app users react to warnings (CIPG, 2018), supports the view that the usage of mobile phones has improved disaster risk mitigation. Toya and Skidmore (2018) found that a one-standard-deviation increase in cell phone usage reduced fatalities

relative to the number of people affected by 47% on average. This number rises to 69% for geologic events such as earthquakes and tsunamis, for which in the past there was usually no early warning.

Mobile phones have been found to be most effective in mitigating natural disaster risk in developed countries, where infrastructure and emergency assistance to allow for a response are more readily available.

The role of schools in education for disaster preparedness

The success of early warnings in preventing fatalities and damage from natural disasters depends on the ability of people to react appropriately. It is therefore essential that people be provided with training on how to react in the event of an emergency. Disaster education is also needed (Box 1.13). Incorporating disaster risk reduction strategies into school curricula is the strongest method for passing on natural disaster-related reflexes to the largest share of the population (OECD, 2011). This is because what is learned during childhood becomes incorporated into collective knowledge and is carried into future decision making. The inclusion of DRR in formal school curricula is a key element of the Hyogo Framework for Action, where it stands as a core indicator of successful implementation. Furthermore, natural disaster awareness education can build public support for risk reduction through complementary strategies such as land use planning, construction standards, catastrophe insurance and institutional emergency response (OECD, 2011). In Emerging Asia, most countries have incorporated disaster risk reduction into school programmes at all levels, although progress can still be made on the practicality of the knowledge provided.

Disaster preparedness can be included in curricula via existing courses at all grade levels or through stand-alone courses. In Cambodia, for instance, disaster preparedness is included in the subject geography and earth studies, where pupils learn about the different types of natural hazards and how to mitigate them (UNESCO and UNICEF, 2012). The teaching about disaster risks also includes informal approaches such as special assemblies, drills, projects, competitions, festivals and exhibitions (OECD, 2011). Since teachers tend to be overburdened, programmes that are successful include support materials for both curricula and teachers, and formally incorporate these materials into national curricular guidelines (OECD, 2011). At a national level, streamlined material with standardised language, including advice on readiness and risk reduction strategies, helps to disseminate a clear and coherent message. In India, under the National School Safety Project, teachers are provided with a standardised training module for the distribution of disaster preparedness kits, an effective strategy for creating a culture of safety (NDMA, 2019).

Box 1.13. Education to prepare for natural disasters

Upgrading early warning technology to improve accuracy and assessment speed is not enough. Governments must also provide training and education so that people can understand warnings when disasters hit and take appropriate action to reduce the risk of personal injury and loss of life. This would also minimise damage to assets and property. While technology to detect natural disaster risks has improved in Emerging Asia, the main bottlenecks in disaster reduction are often linked to a lack of rapid and reliable dissemination of warnings to all people at risk and to gaps in building the capacity of communities to act appropriately (UNESCAP, 2015).

Japan's experience in disaster education can offer developing countries in the region valuable lessons. Situated in a seismically active area prone to natural disasters such as earthquakes, tsunamis and typhoons, Japan has a long history of disaster education. Such

Box 1.13. Education to prepare for natural disasters (cont.)

education takes two forms: publicly funded and voluntarily organised (Kitagawa, 2016). Public disaster education is carried out by the Japanese government and its agencies at the national, prefecture and municipal levels, as well as by 24 government organisations and 56 public corporations. The framework is the Basic Disaster Management Plan. It offers detailed guidance at different government levels so that region-specific disaster risks and local needs can be taken into consideration. Disaster education is also incorporated into school curricula under the School Health and Safety Act. All school staff must receive relevant training. Local neighbourhoods have traditionally called on volunteers to organise disaster education. Most of the wards in cities and towns have a volunteer disaster prevention organisation called Jishu-bosai-soshiki led by retired firefighters and community leaders. These volunteer organisations collaborate with municipal governments to arrange awareness-raising events as well as disaster drills for their communities.

Notes

1. The data cut-off date is 1 October 2019 unless stated otherwise.
2. Growth rates are on a year-on-year basis unless stated otherwise.
3. Private consumption includes non-profit institution consumption and is used interchangeably with the term “household consumption” in certain cases.
4. The data on wage per worker only cover the manufacturing sector.
5. It is estimated that the value added of Malaysia’s digital economy grew 9% annually from 2010 to 2016, which is faster than the overall economic growth during the period (Lim, 2019).
6. The reference data are based on World Bank (2019a).
7. In April 2019, five international insurance firms were given licences to offer a wholly foreign-owned life insurance option (U Thaung Tun, 2019).
8. Notwithstanding the aggregate trend, sectoral data show that investment in mining has surged while investment in services has been increasing robustly.
9. According to ILO (2018), “more than 51% of the total employed in India, as per 2011–12 data, were self-employed, and 62% of wage earners are employed as casual workers”. WEF (2019) puts the share of informal employment at 80%. The median age of the population in India is less than 28 years in 2016.
10. Public banks hold more than two-thirds of the deposits of the system.
11. The central bank mandates banks with more than 20 branches to allocate 40% of their credit to priority sectors. These include agriculture; micro, small and medium enterprises; export; credit; education; housing; social infrastructure; renewable energy; and others, as defined in the Master Direction (Reserve Bank of India, 2016 and 2018).
12. Between April 2018 and September 2019, China lodged at least four dispute consultations at the WTO against the new US tariffs. In July 2018, the United States lodged a dispute consultation at the WTO against China on additional duties (WTO, 2019).
13. In December 2018, the United States published proposed controls on exports of emerging technologies to China. In May 2019, Huawei was placed on the entity list. In June 2019, the United States added five organisations from China to the entity list. In August 2019, the United States extended the temporary general licence of Huawei and its affiliates by 90 days, deferring the ban in the process, though it added a number of these affiliates to the entities list. And in October 2019, the United States added 28 organisations from China to the entity list.
14. Production data is sourced from FAO (2019).
15. Monetary Authority of Singapore (2018), Direkudomsak (2016) and Dany-Knedlik and Garcia (2018) have similar findings from different approaches.
16. In this section, ratios are with respect to GDP unless otherwise stated. Budget balances include spending on interest payments. Annualised ratio refers to the ratio of the 4-quarter moving sum of the numerator and the denominator.

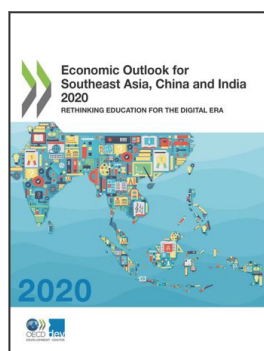
References

- ADB (2019), *Asian Development Outlook 2019: Strengthening Disaster Resilience*, Asian Development Bank, Manila, <http://dx.doi.org/10.22617/FLS190070-3>.
- Baker, S.R., N. Bloom and S.J. Davis (2019), “Measuring Economic Policy Uncertainty”, *Trade Policy Uncertainty Data*, Economic Policy Uncertainty, www.policyuncertainty.com.
- Beck, M.W., I.J. Losada, P. Menéndez, B.G. Reguero, P. Díaz-Simal and F. Fernández (2018), “The global flood protection savings provided by coral reefs”, *Nature Communications*, Vol. 9/1, p. 2186, <https://www.nature.com/articles/s41467-018-04568-z>.
- BIS (2019), *Effective exchange rate indices* (database), Basel, <https://www.bis.org/statistics/eer.htm>.
- Bown, C. (2019), “Trump’s Mini-Trade War with India”, *PIIE Trade and Investment Policy Watch*, Peterson Institute for International Economics, Washington, DC, <https://www.piie.com/blogs/trade-and-investment-policy-watch/trumps-mini-trade-war-india>.
- Bown, C., E. Jung and E. Zhang (2019), “Trump Has Gotten China to Lower Its Tariffs. Just Toward Everyone Else”, *PIIE Trade and Investment Watch*, Peterson Institute for International Economics, Washington, DC, <https://www.piie.com/blogs/trade-and-investment-policy-watch/trump-has-gotten-china-lower-its-tariffs-just-toward>.
- Brata, A.G., H.L. de Groot and W. Zant (2018), “The Impact of the 2006 Yogyakarta Earthquake on Local Economic Growth”, *Economics of Disasters and Climate Change*, Vol. 2/2, pp. 203-224, <https://doi.org/10.1007/s41885-018-0026-5>.
- Chhibber, A. and R. Laajaj (2008), “Disasters, climate change and economic development in sub-Saharan Africa: Lessons and directions”, *Journal of African Economies*, Vol. 17, pp. 7-49, <https://doi.org/10.1093/jae/ejn020>.
- Ciccarelli, M. and C. Osbat (eds.) (2017), “Low inflation in the euro area: Causes and consequences”, *Occasional Paper Series*, No. 181, European Central Bank, Frankfurt, <https://www.ecb.europa.eu/pub/pdf/scpwps/ecbop181.en.pdf>.
- CIPG (2018), *Can Mobile Phones Improve Disaster Preparedness? A Survey-Based Analysis on the Impact of AtmaGo*, Centre for Innovation Policy and Governance, Jakarta, https://www.academia.edu/37730929/Can_Mobile_Phones_Improve_Disaster_Preparedness_A_Survey-Based_Analysis_on_the_Impact_of_AtmaGo.
- CRED (2019), *Emergency Events Database* (database), Centre for Research on the Epidemiology of Disasters, Brussels, <https://www.emdat.be/>.
- Dany-Knedlik, G. and J.A. Garcia (2018), “Monetary policy and inflation dynamics in ASEAN economies”, *IMF Working Paper*, WP/18/147, International Monetary Fund, Washington, DC, <https://www.imf.org/-/media/Files/Publications/WP/2018/wp18147.ashx>.
- Direkudomsak, W. (2016), “Inflation dynamics and inflation expectations in Thailand”, *BIS Working Paper*, No. 89y, Bank for International Settlements, Basel, <https://www.bis.org/publ/bppdf/bispap89y.pdf>.
- FAO (2019), “GIEWS country brief Myanmar”, *Global Information and Early Warning System on Food and Agriculture*, Food and Agriculture Organization of the United Nations, Rome, https://reliefweb.int/sites/reliefweb.int/files/resources/MMR_12.pdf.
- Fusion Media Ltd (2019), *Government Bond Yields and Stock Market Indices* (database), accessed 1 October 2019, www.investing.com.
- Gale, F., C. Valdes and M. Ash (2019), “Interdependence of China, United States, and Brazil in Soybean Trade”, *A Report from the Economic Research Service*, United States Department of Agriculture, <https://www.ers.usda.gov/webdocs/publications/93390/ocs-19f-01.pdf?v=3881>.
- Gautam, D., J. Prajapati, K. Valencia Paterno, K. Kumar Bhetwal and P. Neupane (2016), “Disaster resilient vernacular housing technology in Nepal”, *Geoenvironmental Disasters*, Vol. 3, Article no. 1, SpringerOpen, <https://doi.org/10.1186/s40677-016-0036-y>.
- Globe (2016), “11 SMS alerts sent out to customers prior to Typhoon Nina’s landfall”, *Globe Telecom*, Taguig, Philippines, <https://www.globe.com.ph/about-us/newsroom/corporate/globe-11-sms-alerts-sent.html> (accessed 30 January 2019).
- Graham, K. (2017), “Using IoT in flood management can save lives”, *Digital Journal*, Toronto, <http://www.digitaljournal.com/tech-and-science/technology/using-the-iot-in-flood-management-can-save-lives/article/503139>.
- Hallegatte, S. (2012), “A cost effective solution to reduce disaster losses in developing countries: hydro-meteorological services, early warning, and evacuation”, *Policy Research working paper*, World Bank, Washington, DC, <https://openknowledge.worldbank.org/bitstream/handle/10986/9359/WPS6058.pdf?sequence=1&isAllowed=y>.

- Hapeman, K. (2012), “The effects of politics on disasters: Lessons learned from Bangladesh”, case-specific briefing paper, University of Denver, https://www.du.edu/korbel/crric/media/documents/katie_hapeman1.pdf.
- IDMC (2018), *Global Report on Internal Displacement (GRID) 2018*, Internal Displacement Monitoring Centre, Norwegian Refugee Council, Geneva, <http://www.internal-displacement.org/global-report/grid2018/downloads/2018-GRID.pdf>.
- IDMC and NRC (2019), “More than 13 million people internally displaced across Asia in 2018”, Internal Displacement Monitoring Centre and Norwegian Refugee Council, Geneva, <https://reliefweb.int/sites/reliefweb.int/files/resources/2019-grid-pressrelease-asia-en.pdf>.
- ILO (2018), “ILO: Strong wage policies are key to promote inclusive growth in India”, *India Wage Report*, International Labour Organization, Geneva, https://www.ilo.org/newdelhi/info/public/pr/WCMS_638937/lang-en/index.htm.
- IMF (2019), “Lao People’s Democratic Republic: 2019 Article IV Consultation”, IMF Country Report No. 19/267, International Monetary Fund, Washington, DC, <https://www.imf.org/~media/Files/Publications/CR/2019/1LAOEA2019002.ashx>.
- Jin D. and L. Lin (2011), “Managing tsunamis through early warning systems: A multidisciplinary approach”, *Ocean & Coastal Management*, Vol. 54, pp. 189-199, Elsevier, Amsterdam, <https://doi.org/10.1016/j.ocecoaman.2010.10.025>.
- Keimling, N. (2019), *Stock Market Valuation*, July 2019, StarCapital, Oberursel, Germany.
- Kitagawa, K. (2016), “Preparing for the worst: Disaster education in Japan,” East Asia Forum, <http://www.eastasiaforum.org/2016/07/01/preparing-for-the-worst-disaster-education-in-japan/>.
- Klomp, J. and K. Valckx (2014), “Natural disasters and economic growth: A meta-analysis”, *Global Environmental Change*, Vol. 26, pp. 183-195, Elsevier, Amsterdam, <https://doi.org/10.1016/j.gloenvcha.2014.02.006>.
- Lassa, J.A. (2018), “Reviewing Indonesia’s tsunami early warning strategy: Reflections from Sulawesi island,” *The Conversation*, <https://theconversation.com/reviewing-indonesias-tsunami-early-warning-strategy-reflections-from-sulawesi-island-104257> (accessed 30 January 2019).
- Lim, G.E. (2019), “Unlocking the potential of digital economy”, *Keynote Address*, World Bank, Washington, DC, <https://www.treasury.gov.my/index.php/en/gallery-activities/speech/item/5105-speech-unlocking-the-potential-of-the-digital-economy.html>.
- Manopimoke, P. (2018), “Thai inflation dynamics in a globalized economy”, *Journal of the Asia Pacific Economy*, Vol. 23/3, pp. 465-495, <https://doi.org/10.1080/13547860.2018.1446673>.
- Manopimoke, P. (2015), “Globalization and International Inflation Dynamics: The Role of the Global Output Gap”, *PIER Discussion Paper No. 8*, Puey Ungphakorn Institute for Economic Research, Bangkok, https://www.pier.or.th/wp-content/uploads/2015/11/pier_dp_008.pdf.
- Meng, C.K. (2016), “The inflation process and expectations in Singapore”, *Inflation Mechanisms, Expectations and Monetary Policy*, Vol. 89, pp. 335-343, Bank for International Settlements, Basel, <https://www.bis.org/publ/bppdf/bispap89w.pdf>.
- Ministry of Interior, Thailand (2011), “Thailand national progress report on the implementation of the Hyogo Framework for Action (2009-2011)”.
- Monetary Authority of Singapore (2018), “Monetary policy & the economy”, *Economics Explorer Series*, No. 3, Singapore, <https://www.mas.gov.sg/-/media/MAS/Monetary-Policy-and-Economics/Education-and-Research/Education/Explorer/Economics-Explorer-3--Monetary-Policy-and-the-Economy.pdf>.
- Moretti, L., L. Onorante and S. Zakipour-Saber (2019), “Phillips curves in the euro area”, *Research Technical Papers*, Vol. 2019/8, Central Bank of Ireland, Dublin, [https://centralbank.ie/docs/default-source/publications/research-technical-papers/08rt19-phillips-curve-in-the-euro-area-\(moretti-onorante-and-zakipour-saber\).pdf?sfvrsn=4](https://centralbank.ie/docs/default-source/publications/research-technical-papers/08rt19-phillips-curve-in-the-euro-area-(moretti-onorante-and-zakipour-saber).pdf?sfvrsn=4).
- NDMA (2019), *School Safety Project*, National Disaster Management Authority, Government of India, <https://ndma.gov.in/en/ongoing-programmes/school-safety-project.html> (accessed 30 January 2019).
- Ng, M., D. Wessel and L. Sheiner (2018), “The Hutchins Center explains: The Phillips curve”, *Brookings Institution*, Washington, DC, <https://www.brookings.edu/blog/up-front/2018/08/21/the-hutchins-center-explains-the-phillips-curve/>.
- OECD (2019a), *Economic Outlook for Southeast Asia, China and India 2019 – Update: Responding to Environmental Hazards in Cities*, OECD Publishing, Paris, <https://doi.org/10.1787/859159ab-en>.
- OECD (2019b), *OECD Economic Surveys: China 2019*, OECD Publishing, Paris, https://doi.org/10.1787/eco_surveys-chn-2019-en.
- OECD (2011), *Fostering Innovation for Green Growth*, OECD Green Growth Studies, OECD Publishing, Paris, <http://dx.doi.org/10.1787/22229523>.

- Pearson, S.G., C.D. Storlazzi, A.R. van Dongeren, M.F.S. Tissier and A.J.H.M. Reniers. (2017), “A Bayesian-based system to assess wave-driven flooding hazards on coral reef-lined coasts”, *Journal of Geophysical Research: Oceans*, Vol. 122/12, pp. 10099-10117, <https://doi.org/10.1002/2017JC013204>.
- Reserve Bank of India (2018), “Priority sector lending: Targets and classification, Frequently Asked Questions, Mumbai, <https://m.rbi.org.in/Scripts/FAQView.aspx?Id=87>.”
- Reserve Bank of India (2016), “Master direction – Priority sector lending: Targets and classification” (updated as of 4 December 2018), Mumbai, <https://rbidocs.rbi.org.in/rdocs/notification/PDFs/33MD08B3FOCC0F8C4CE6B844B87F7F990FB6.PDF>.
- The White House (2019), “Remarks by President Trump and Vice Premier Liu He of the People's Republic of China in a Meeting”, Transcript, Washington DC, <https://www.whitehouse.gov/briefings-statements/remarks-president-trump-vice-premier-liu-peoples-republic-china-meeting/>.
- Toya, H. and M. Skidmore (2018), “Cellular telephones and natural disaster vulnerability”, *Sustainability*, Vol. 10/9, p. 2970, <https://doi.org/10.3390/su10092970>.
- U Thaung Tun (2019), “Investment opportunities in Myanmar for Thai investors”, keynote speech, Myanmar Insight Seminar in Bangkok, Ministry of Investment and Foreign Economic Relations, Nay Pyi Taw, Myanmar, <https://mifer.gov.mm/keynote-speech-delivered-by-h-e-u-thaung-tun-minister-of-investment-and-foreign-economic-relations-government-of-the-republic-of-the-union-of-myanmar-on-the-occasion-of-the-myanmar-insight/>.
- UNESCAP (2015), “Strengthening regional multi-hazard early warning systems: Note by the secretariat”, Committee on Disaster Risk Reduction, United Nations Economic and Social Commission for Asia and the Pacific, Bangkok, https://www.unescap.org/sites/default/files/pre-ods/E_CDR4_2.pdf.
- UNESCO and UNICEF (2012), *Disaster Risk Reduction in School Curricula: Case Studies from Thirty Countries*, United Nations Children's Fund, Geneva, and United Nations Educational, Scientific and Cultural Organization, Paris, <https://unesdoc.unesco.org/ark:/48223/pf0000217036>.
- UNHCR (2018), “Mapping of existing international and regional guidance and tools on averting, minimizing, addressing and facilitating durable solutions to displacement related to the adverse impacts of climate change”, WIM Task Force on Displacement, Activity II.4, Geneva, <https://unfccc.int/sites/default/files/resource/WIM%20TFD%20II.4%20Output.pdf>.
- UNISDR (2017), “Terminology: Early warning system”, United Nations International Strategy for Disaster Reduction, Geneva, <https://www.unisdr.org/we/inform/terminology>.
- UNISDR (2010), “Early warning practices can save many lives: Good practices and lessons learned”, United Nations International Strategy for Disaster Reduction, Geneva, https://www.unisdr.org/files/15254_EWSBLLfinalweb.pdf.
- UNISDR (2007), “Hyogo Framework for Action 2005-2015: Building the Resilience of Nations and Communities to Disasters”, United Nations Secretariat of the International Strategy for Disaster Reduction, Geneva, <https://www.unisdr.org/we/inform/publications/1037>.
- WEF (2019), “The three biggest challenges for India's future”, *World Economic Forum Annual Meeting*, World Economic Forum, Geneva, <https://www.weforum.org/agenda/2019/01/India-biggest-future-three-challenges-consumption/>.
- WMO and IOC (2011), *Ocean Data Buoy Vandalism: Incidence, Impact and Responses*, DBCP Technical Document, No. 41, World Meteorological Organization, International Oceanographic Commission http://library.wmo.int/pmb_ged/dbcp-td_41.pdf.
- World Bank (2019a), *Doing Business 2019: Training for Reform*, World Bank, Washington, DC, https://www.worldbank.org/content/dam/doingBusiness/media/Annual-Reports/English/DB2019-report_web-version.pdf.
- World Bank (2019b), “Maintaining economic stability”, *Lao PDR Economic Monitor*, World Bank Group, Washington, DC, <http://documents.worldbank.org/curated/en/604471565799670466/pdf/Lao-PDR-Economic-Monitor-Maintaining-Economic-Stability.pdf>.
- World Bank (2019c), “Building Reform Momentum”, *Myanmar Economic Monitor*, World Bank Group, Washington, DC, <http://documents.worldbank.org/curated/en/326771560523871008/pdf/Building-Reform-Momentum.pdf>.
- World Bank (2019d), *World Development Indicators* (database).
- World Bank (2018), *Digital Connectivity in Lao PDR: Lagging Behind Peers – A Short Assessment with Policy Recommendations to Catch Up*, World Bank, Washington, DC, <http://documents.worldbank.org/curated/en/336311549033138864/Digital-Connectivity-in-Lao-PDR-Lagging-Behind-Peers-A-Short-Assessment-with-Policy-Recommendations-to-Catch-Up>.

- World Bank, IDE-JETRO, OECD, UIBE and WTO (2017), *Global Value Chain Development Report 2017 : Measuring and Analyzing the Impact of GVCs on Economic Development*, Washington, DC, <https://openknowledge.worldbank.org/handle/10986/29593>.
- WTO (2019), “Disputes by member”, World Trade Organization, Geneva, https://www.wto.org/english/tratop_e/dispu_e/dispu_by_country_e.htm.
- Yellen, J. (2017), “Inflation, uncertainty and monetary policy”, speech at the “Prospects for Growth: Reassessing the Fundamentals” 59th Annual Meeting of the National Association for Business Economics, Cleveland, Ohio, <https://www.federalreserve.gov/newsevents/speech/yellen20170926a.htm>.
- Yu, S.L. and H. Jia (2015), “China’s ambitious sponge city Initiative: A monumental effort for green/gray infrastructure integration”, *EWRI Currents*, https://issuu.com/asce-ewri/docs/currents_fall_2015_final.
- Zher, S.Y., J. Sung and C. Ying (2019), “Lifelong learning and ageing: Evidence from Singapore”, Civil Service College, Singapore, <https://www.csc.gov.sg/articles/lifelong-learning-and-ageing-evidence-from-singapore>.



From:

Economic Outlook for Southeast Asia, China and India 2020

Rethinking Education for the Digital Era

Access the complete publication at:

<https://doi.org/10.1787/1ba6cde0-en>

Please cite this chapter as:

OECD (2019), "Macroeconomic assessment and economic outlook", in *Economic Outlook for Southeast Asia, China and India 2020: Rethinking Education for the Digital Era*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/ba6997da-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document, as well as any data and map included herein, are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area. Extracts from publications may be subject to additional disclaimers, which are set out in the complete version of the publication, available at the link provided.

The use of this work, whether digital or print, is governed by the Terms and Conditions to be found at <http://www.oecd.org/termsandconditions>.