1 The International Economy

- The global recovery suffered a setback in Q2 and Q3 2021, weighed down by fresh waves of COVID-19 infections. The slowdown was more pronounced in Asia ex-Japan, where vaccination rates were generally lower and public health measures have been more stringent. Growth was firmer in the major advanced economies, as vaccinations have weakened the linkage between infections and economic activity.

- The turnaround in global aggregate demand, alongside the pandemic-related shift in consumption from services to goods, has interacted with various frictions affecting supply chains to drive a sharp rise in the prices of several important primary and intermediate inputs, including oil, metals, and semiconductors. The pass-through to consumer price inflation has in general been stronger in those economies where the demand recovery has been more rapid and complete.

- Global growth is projected to slow to 4.8% in 2022 from 5.6% in 2021 as the recovery in the major advanced economies matures and policy support is gradually withdrawn. Activity in the ASEAN economies is expected to pick up from Q4 as the region recovers from the more severe economic impact of the pandemic experienced this year.

- In the baseline, the current global price impulse should subside as disruptions affecting supply are progressively addressed. There is a risk that supply problems could prove more intractable, resulting in stronger and more persistent inflationary pressures than expected even as growth slows. However, residual labour market slack and well-anchored inflation expectations decrease the likelihood of price rises becoming entrenched.

1.1 Global Economy

Fresh virus outbreaks have weighed on economic activity, particularly in Asia ex-Japan

Global growth stalled in Q2 2021 after reaching 1.2% q-o-q SA in Q1[1]. The slowdown was driven by a resurgence in COVID-19 infections, although there were important differences across economies. Reported infections per capita were much higher in the G3 than in Asia ex-Japan[2] **(Chart 1.1)**. However, economic activity was more severely affected in the latter; the region's output contracted by 0.8% q-o-q SA in the quarter, compared with a strong, above-

[1] Global and regional GDP growth aggregates are weighted by economies' shares in Singapore's NODX, unless noted otherwise.

[2] The G3 grouping refers to the Eurozone, Japan and the US, while Asia ex-Japan refers to China, Hong Kong SAR, India, Indonesia, Malaysia, the Philippines, South Korea, Taiwan, Thailand and Vietnam.

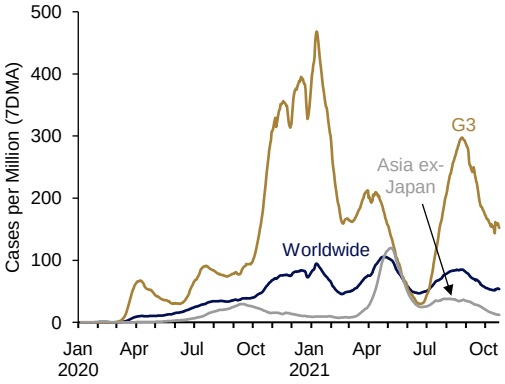
trend 1.6% expansion in the G3. The tighter relationship between infections and economic activity in Asia partly reflected generally lower vaccination rates in the region **(Chart 1.2)**. Public health measures were also more stringent in Asia ex-Japan **(Chart 1.3)**, resulting in a heavier drag on population mobility.

The number of new COVID-19 cases ebbed towards the end of Q2, but picked up again in Q3, particularly in the G3 economies. Differences in the impact of the pandemic on economic activity in the major advanced economies versus Asia ex-Japan persisted into Q3 2021. The G3 manufacturing PMI retreated from the most recent peak but continued to signal robust expansion **(Chart 1.4)**. In Asia ex-Japan, however, the gauge fell below the 50-point threshold in June, signalling contraction, and barely regained the 50 level in September.

The effects of the latest virus surge on services activity were more pronounced compared to manufacturing and broadly inversely correlated with economies' vaccination rates. In the US and Eurozone, services held up relatively well, with PMIs remaining above the 50-threshold in recent months. In Japan, where the pace of vaccination had until recently lagged other advanced countries, the services flash PMI came in at 50.7 in October, after recording readings below 50 from February 2020 to September 2021.

Chart 1.1 COVID-19 infections surged in Q2 2021, driven by the Delta variant

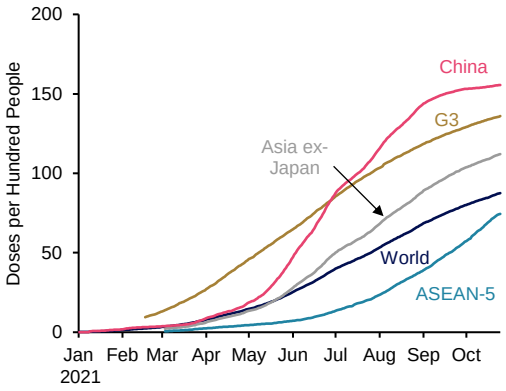
New COVID-19 infections



Source: WHO and EPG, MAS estimates

Chart 1.2 Vaccination rates in most of Asia ex-Japan have generally lagged the G3 and China

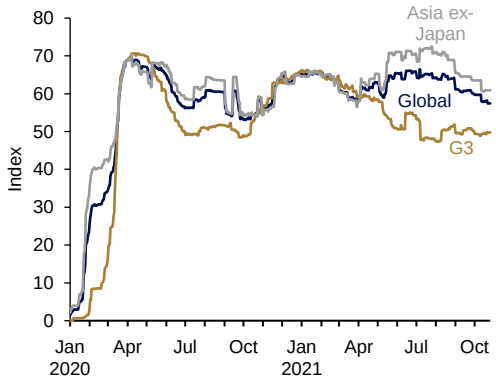
Total vaccine doses administered



Source: Haver Analytics and EPG, MAS estimates

Chart 1.3 Virus containment measures have been more stringent in Asia ex-Japan

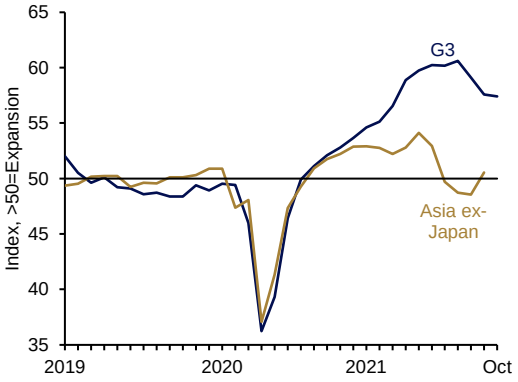
NODX-weighted indices of virus containment stringency[3]



Source: Oxford Blavatnik School of Government and EPG, MAS estimates

Chart 1.4 Manufacturing PMIs have weakened more in Asia ex-Japan than in the G3

NODX-weighted manufacturing PMIs



Source: IHS Markit and EPG, MAS estimates

Differences in the degree of policy support have also contributed to observed divergences in economic performance. In advanced economies, sizeable fiscal stimulus supported households and businesses through the downturn and facilitated the subsequent rebound. According to estimates computed using IMF data[4], the total fiscal impulse over 2020 and 2021 in the G3 amounted to 4.3% of potential GDP, compared to 1.3% in Asia ex-Japan.

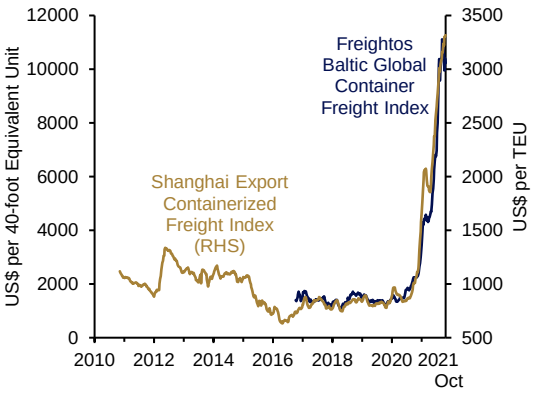
A build-up of disruptions affecting production and logistics in recent months has also hampered global economic activity. The greater stringency of public health measures in Asian economies has affected factory operations and transportation, disrupting global supply chains. In particular, an acute global shortage of semiconductors has impaired the supply of a wide range of consumer electronics and durable goods, including automobiles. Port closures, container shortages, reduced air cargo capacity due to fewer international passenger flights, and several extreme weather events have also resulted in transportation bottlenecks. Consequently, logistics costs have risen significantly in recent months **(Chart 1.5)**, manufacturing input prices have picked up, and supplier delivery times have lengthened **(Chart 1.6)**.

[3] The stringency index is derived by weighting each economy's overall measure of outbreak containment stringency by its weight in Singapore's NODX. Economies included in the indices are Australia, China, Eurozone, Hong Kong SAR, India, Indonesia, Japan, Malaysia, the Philippines, South Korea, Taiwan, Thailand, US and Vietnam.

[4] Data from the IMF October 2021 Fiscal Monitor. Aggregates are computed by weighting the annual change in the general government cyclically-adjusted primary balance (CAPB) (as % of potential GDP) by countries' nominal GDP.

Chart 1.5 Logistics costs have increased …

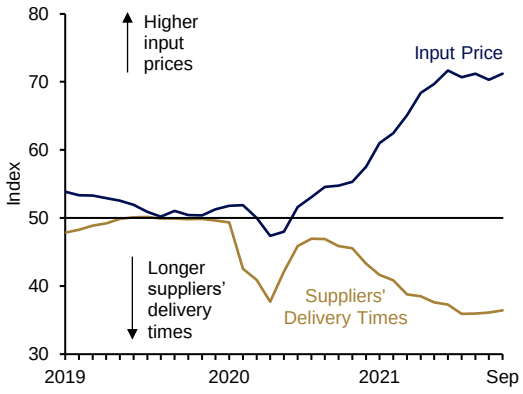
Container freight cost indices



Source: Bloomberg

Chart 1.6 … while manufacturing input prices and suppliers' delivery times have also risen

NODX-weighted global manufacturing PMI sub-indices for input price and suppliers' delivery times



Source: IHS Markit and EPG, MAS estimates

Inflation has risen considerably, mainly reflecting temporary supply-demand mismatches

Global economic output regained its pre-pandemic level in Q1 2021. Notwithstanding the setback in Q2 and Q3, the overall strengthening in aggregate global demand since the trough last year has interacted with recent supply chain bottlenecks to exert upward pressure on a range of prices, including commodities **(Chart 1.7)**. This has led to a sharp increase in y-o-y inflation rates in recent months. Global headline CPI rose by 2.8% y-o-y in September, after increasing by 2.6% in August, compared with a 2015–19 average of 1.7%.[5] The rise in prices has been most pronounced in the advanced economies, with G3 headline inflation reaching 4.4% in September **(Chart 1.8)**. In the US, headline inflation came in at 5.4%. Headline CPI inflation in Asia ex-Japan peaked at 2.9% in May and moderated to 1.7% in September.

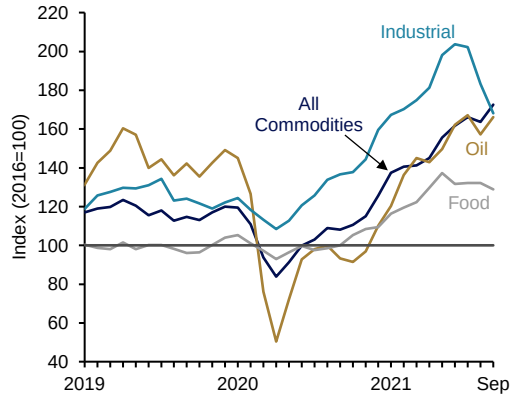
Base effects from the sharp drop in price levels during the acute phase of the COVID-19 crisis in 2020 have contributed to recent increases in headline y-o-y inflation, although this factor is now fading. Temporary supply-demand mismatches have also played an important role. In the US, for instance, the supply of goods and services has not caught up to the rapid recovery in demand, leading to cost and price pressures. In contrast, the slower demand recovery in many Asian economies has weakened the pass-through from the rise in upstream costs to consumer prices.

The rise in core inflation has been more moderate. G3 core inflation reached 3.1% y-o-y in September, compared to the H1 2021 average of 1.9%, while the Asia ex-Japan reading stood at 0.9% in September, reflecting the restraining effect of weaker demand on core inflation in many regional economies.

[5] Global and regional inflation aggregates are weighted by economies' shares in Singapore's direct imports.

Chart 1.7 Commodity prices have risen amid robust demand

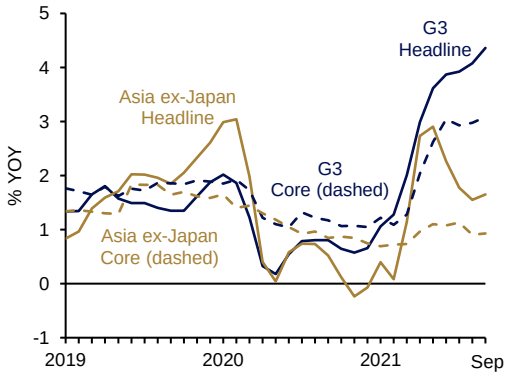
IMF commodity price indices



Source: Haver Analytics

Chart 1.8 Inflation in the G3 has accelerated by more than in Asia ex-Japan

Headline and core inflation



Source: Haver Analytics and EPG, MAS estimates

Note: Regional aggregates weighted by countries' shares in Singapore's direct imports.

Global growth is expected to remain above trend in 2022

Declining infections and easing movement restrictions across Asia ex-Japan are estimated to have boosted activity in Q3, although higher-frequency data suggests the region's underperformance relative to the G3 has likely persisted **(Chart 1.4 above)**. Growth is projected to rise in both the G3 and Asia ex-Japan in Q4, as ebbing infection waves and rising vaccination rates allow economies to reopen, buttressed by recent progress in the liberalisation of international travel.

The growth divergences observed across regions in Q2 and Q3 2021 should reverse in 2022. The recovery in the G3 is now maturing, and the impetus from policy support is expected to fade as the group's aggregate fiscal impulse turns negative. Conversely, Asia ex-Japan has further gains to realise from normalising economic activity, following more extensive vaccine deployment.

All in, the global economy is forecast to expand by 1.8% q-o-q SA in Q4 2021, after growing by 1.1% in Q3. Global GDP growth is projected to come in at 5.6% in 2021, and 4.8% in 2022 **(Table 1.1)**.

While the baseline forecast is for strong, above-trend growth in 2021 and 2022, the level of global real GDP is expected to still be 1.7% lower by the end of 2022 compared to projections made before the onset of the pandemic. The shortfall is concentrated in the Asia ex-Japan economies, where real GDP is forecast to be 2.8% lower by end-2022. By contrast, the G3 economies' GDP is expected to be about 0.6% higher by end-2022 compared to pre-pandemic forecasts, mainly due to the boost from substantial policy support.

Global inflation is projected at 2.6% in 2021, the strongest rate since 2011. Inflation is expected to remain elevated at 2.4% in 2022, reflecting a narrowing global output gap, even as supply problems are progressively resolved.

Table 1.1 Global GDP growth, NODX-weighted

	QOQ SA (%)			Annual (%)		
	2021 Q2	2021 Q3*	2021 Q4*	2020	2021*	2022*
G3	1.6	1.5	1.8	−5.0	4.9	4.1
Asia ex-Japan	−0.8	1.0	1.8	−2.2	5.9	5.1
ASEAN-5	−0.6	−0.2	2.4	−4.4	3.5	6.1
Global	**−0.1**	**1.1**	**1.8**	**−3.0**	**5.6**	**4.8**

Source: Haver Analytics and EPG, MAS estimates

* EPG, MAS forecasts

The pandemic, and associated supply disruptions, pose risks to the outlook for growth and inflation

The pandemic remains a source of considerable uncertainty. Higher vaccination coverage is gradually weakening the transmission from infections to mobility and economic activity. However, the possible emergence of more lethal and/or vaccine-resistant viral strains remains a material downside risk.

Pandemic-related supply constraints have also emerged as an important factor in the outlook for both growth and inflation. Supply bottlenecks are expected to fade in the early part of 2022 as a decline in new COVID-19 cases and rising vaccination rates permit a fuller relaxation of mobility restrictions. Nonetheless, there is a risk that supply problems could become entrenched. The decline in labour force participation rates observed since the outbreak of the pandemic in many economies may not reverse as completely or rapidly as anticipated, leading to more persistent upward pressure on wages that could eventually feed through to consumer prices.

The longer-term structural impact of the pandemic remains unclear. Changes in the sectoral composition of demand away from consumer-facing services towards goods, observed since the onset of widespread mobility restrictions, may prove enduring to some degree even after restrictions are lifted. This would in turn require more extensive adjustment of supply capacity and re-skilling of workers, contributing to more persistent supply constraints and complicating the estimation of output gaps during the period of transition.

As the economic recovery matures in the advanced economies, the impending withdrawal of monetary accommodation by the major central banks may lead to some tightening in global financial conditions, which could in turn impose strains on more vulnerable parts of the global financial system. It could also reduce policy space in some economies with higher external or fiscal funding needs, diminishing flexibility to respond to any further downside shocks.

1.2 The G3 Economies

Output growth in the G3 is expected to ease as recoveries mature over the course of 2022

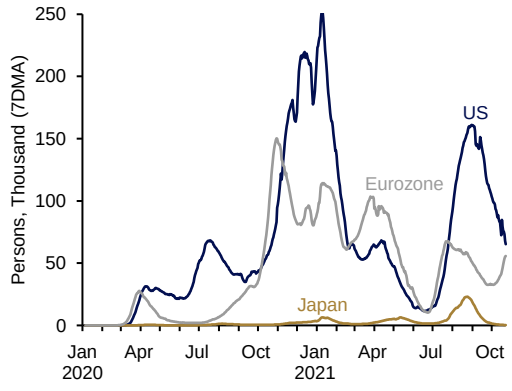
The G3 economies expanded by 1.6% q-o-q SA in Q2 2021, after growing by just 0.2% in Q1. The pickup in the Eurozone and Japanese economies was supported by loosened movement restrictions amid rising vaccination rates and declining new infections. Output growth in the US continued at a strong above-trend pace of 1.6% q-o-q SA in Q2, following the 1.5% recorded in Q1. The US recovery is far ahead of that in the other two G3 economies: as at Q2 2021, US GDP had risen to 0.9% above pre-pandemic levels, whereas output in the Eurozone and Japan was still 2.7% and 1.4% lower, respectively.

A renewed pickup in COVID-19 infections from July weighed on activity in Q3 2021 **(Chart 1.9).** The G3 composite flash PMI stood at 54.5 in October, compared to the recent peak of 58.9 in May. Services lost more momentum than manufacturing. The G3 services flash PMI in October was 3.0 points below the May reading, while the manufacturing reading had fallen by 2.8 points since May **(Chart 1.10)**.

The softening in the manufacturing production is partly driven by supply-side constraints. Significant shortages in important industrial inputs, including semiconductors, have weighed on the manufacturing sector. For example, industrial production in Germany and Japan was still 6.9% and 3.4% respectively below the pre-pandemic level in August. Private consumption and consumer confidence have also moderated in the G3 **(Chart 1.11)**.

Chart 1.9 The number of new virus cases has ebbed compared to the most recent peak

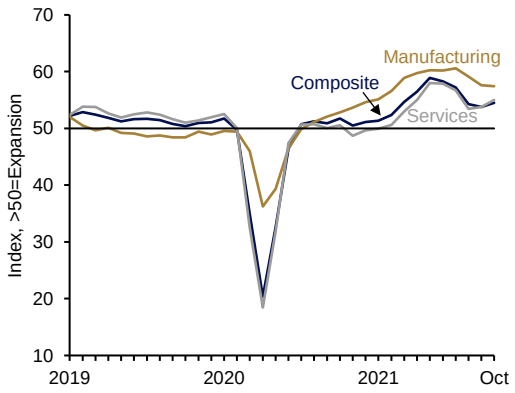
Number of new COVID-19 infections in the G3



Source: WHO and EPG, MAS estimates

Chart 1.10 Momentum in the services sector has eased more than manufacturing

NODX-weighted G3 PMI indices

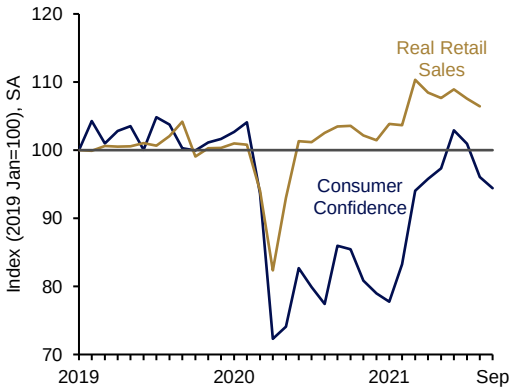


Source: IHS Markit and EPG, MAS estimates

G3 GDP growth is projected to come in at 1.5% q-o-q SA in Q3, before picking up to 1.8% in Q4 as new infections decline and economic reopening is further expanded. For the whole of 2021, growth is forecast to come in at 4.9%.

Chart 1.11 Consumer confidence and real retail sales fell in Q3, amid a pickup in infections

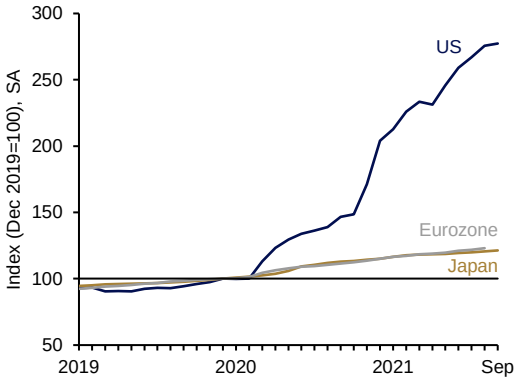
NODX-weighted indices of G3 consumer confidence and real retail sales



Source: Haver Analytics and EPG, MAS estimates

Chart 1.12 Demand deposits have increased significantly, especially in the US

Stock of demand deposits in the G3



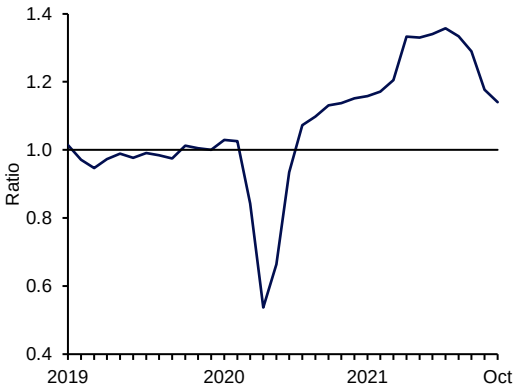
Source: Haver Analytics and EPG, MAS estimates

GDP growth in the G3 is expected to ease, but to remain above trend in 2022. In the base case, economic activity is expected to become less sensitive to the vagaries of the pandemic, as a sufficiently large majority of the population becomes fully vaccinated and countries shift to a public health strategy predicated on adapting to the endemic status of COVID-19. The attendant reopening and removal of restrictions is also anticipated to contribute to the easing of supply bottlenecks, including an increase in labour force participation.

The outlook for private demand is strong. Rising employment and wages are expected to support household incomes (see below). Moreover, households have accumulated significant savings during the pandemic, especially in the US, and this should continue to boost prospects for private consumption expenditure **(Chart 1.12)**. Business stocks were depleted during the period of supply disruptions, implying more rapid restocking as supply chain constraints ease **(Chart 1.13)**. In the medium term, rising manufacturing capacity utilisation should encourage firms to expand capital expenditure to meet their still-robust expectations for future final demand **(Chart 1.14)**.

Chart 1.13 A stock-building cycle is expected to support output in the short term

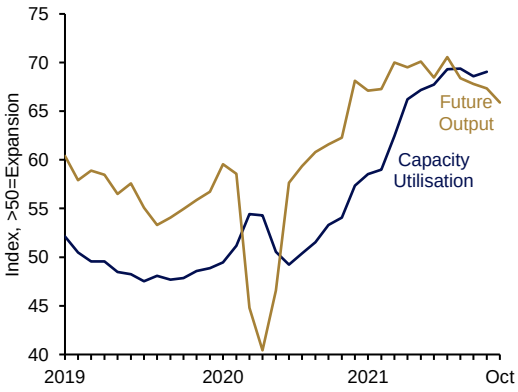
NODX-weighted G3 PMI new orders to stocks of finished goods ratio



Source: IHS Markit and EPG, MAS estimates

Chart 1.14 Manufacturing capacity is tightening, while businesses anticipate higher future output

NODX-weighted G3 PMI indices of future output and capacity utilisation



Source: IHS Markit and EPG, MAS estimates

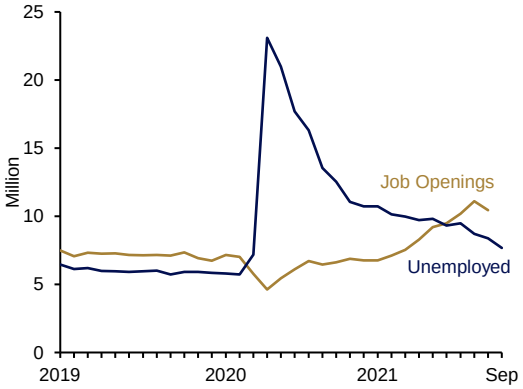
The anticipated strengthening in private demand is expected to permit some withdrawal of policy accommodation. Some major central banks have begun to signal their intent to wind down asset purchase programmes in the coming months. Fiscal policy will also tighten further next year. The G3 fiscal impulse is expected to be −1.6% of potential GDP in 2022, compared to −0.5% in 2021 and +4.8% in 2020[6]. Taken together, G3 GDP growth is projected to moderate to 4.1% in 2022.

Labour supply conditions have tightened in the US and increasingly in the Eurozone. These reflect an increase in job mismatches (i.e. jobseekers lacking the skills to fill vacancies), as well as an exit of some workers from the labour force. In the US, the number of job vacancies has been increasing while the number of unemployed has been declining **(Chart 1.15)**; however, the labour force participation rate of 61.6% is still 1.7% points below the pre-pandemic level. In the Eurozone, more businesses are indicating that labour shortages are limiting output **(Chart 1.16)**. Consequently, some upward pressure on wages has emerged. The average hourly wage in the US rose by 1.3% q-o-q in Q3, compared to an average rate of 0.7% per quarter from 2017–19. The compensation per employee in the Eurozone has also increased by 0.9% q-o-q in Q2, above the quarterly average of 0.5% from 2017–19.

[6] Data from the IMF October 2021 Fiscal Monitor. Aggregates are computed by weighting the annual change in the general government CAPB (as % of potential GDP) by countries' nominal GDP.

Chart 1.15 In the US, the number of job vacancies exceeds the number of jobseekers

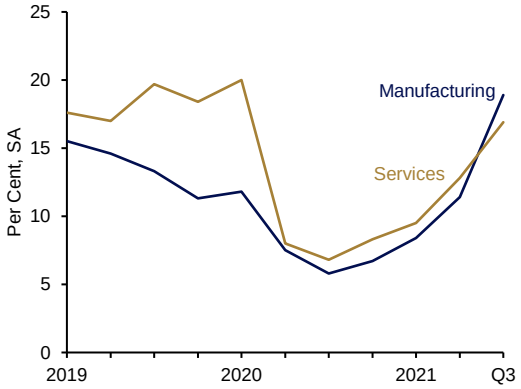
Number of job vacancies and number of unemployed in the US



Source: Haver Analytics and EPG, MAS estimates

Chart 1.16 Labour shortages are increasingly a limiting factor for businesses in the Eurozone

European Commission survey, % of businesses indicating that labour shortages are limiting output

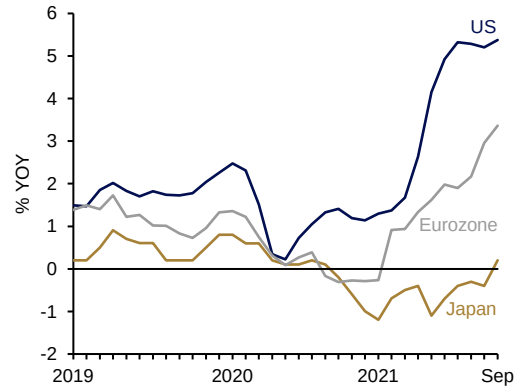


Source: Haver Analytics and EPG, MAS estimates

Consumer price inflation has accelerated in the G3, reaching 4.4% y-o-y in September. The increase has been faster in economies where the demand recovery has been more complete. The US headline CPI rose further to 5.4% in September, while inflation in the Eurozone stood at 3.4%, and 0.2% in Japan **(Chart 1.17)**. Inflationary pressures induced by supply-side shortfalls are expected to be largely temporary. Market-derived measures suggest that long-term inflation expectations have picked up in the G3 but remain well-anchored overall **(Chart 1.18).** Headline G3 inflation is projected at 3.3% in 2021 and 2.5% in 2022.

Chart 1.17 Inflation has risen sharply in the US and Eurozone

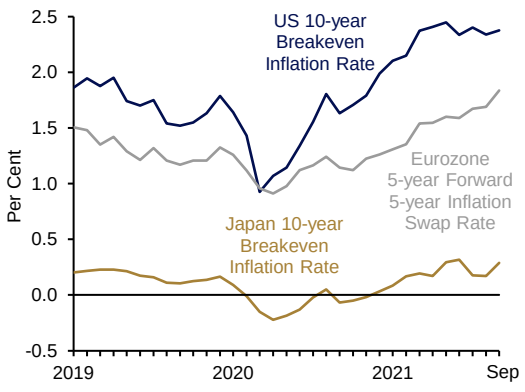
Headline inflation in the G3



Source: Haver Analytics and EPG, MAS estimates

Chart 1.18 Inflation expectations have remained within or are below central banks' targets

Breakeven inflation rates and forward swap rates in the G3



Source: Bloomberg

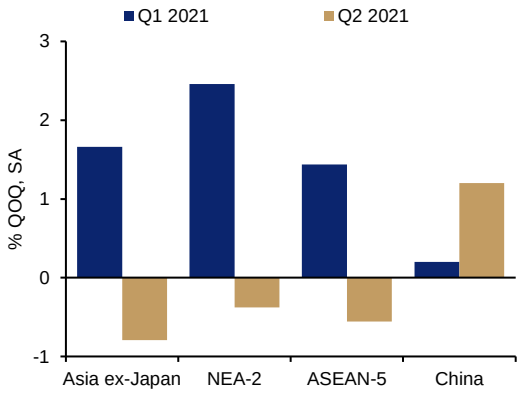
1.3 Asia ex-Japan

Resurgent infections set back the regional economic recovery in Q2

Output in Asia ex-Japan contracted by 0.8% q-o-q SA in Q2 amid a resurgence in infections, although the incidence of new COVID-19 cases and economic impact varied significantly across countries **(Charts 1.19 and 1.20)**. China was an outlier as its growth accelerated in Q2, reflecting a pickup in private consumption amid easing movement restrictions, a strengthening labour market, and rising disposable incomes.

Chart 1.19 The recovery has been set back …

GDP growth

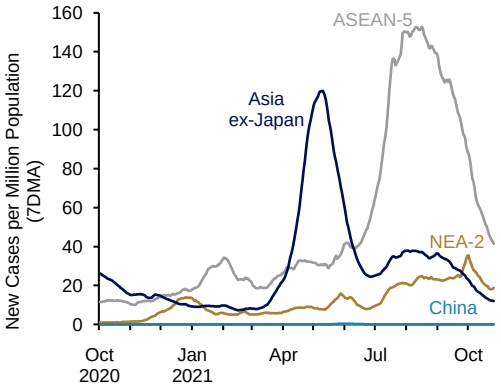


Source: Haver Analytics and EPG, MAS estimates

Note: The NEA-2 comprises South Korea and Taiwan.

Chart 1.20 … due to renewed virus outbreaks

Number of new COVID-19 infections in Asia ex-Japan



Source: CEIC, WHO and EPG, MAS estimates

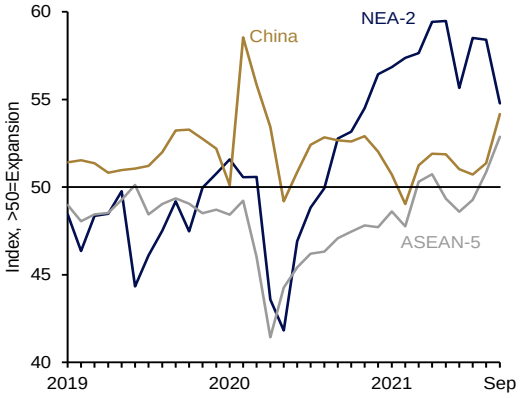
In Q3 2021, higher-frequency data suggest aggregate activity in Asia ex-Japan is likely to have strengthened sequentially, but with variation in performance across economies. Countries that had experienced deeper contractions in Q2, or those in which COVID-19 outbreaks subsided earlier, are likely to have recorded stronger recoveries. However, in some ASEAN countries, public health measures persisted into Q3 amid renewed virus outbreaks, dampening demand as well as periodically disrupting factory operations. The temporary closures and migrant labour shortages led to a surge in backlogs of work **(Chart 1.21)**, and longer suppliers' delivery times.

Mobility restrictions have also affected the recovery of regional consumption in Q3. Retail sales volumes recently rose in several economies, including Hong Kong and Malaysia, but fell in others **(Chart 1.22)**. Stringent public health measures have weakened demand for contact-dependent services, while factory closures and weak employment have affected household incomes and consumer sentiment, thereby dampening the demand for goods.

In China, intensified industry-specific regulation, particularly in the energy and real estate sectors, likely affected growth towards the end of Q3 2021. Tighter regulation aimed at curbing the rise in leverage in the real estate sector has contributed to a slowdown in property transactions, with spillovers to associated demand (e.g., retail sales of home appliances). In the energy sector, electricity rationing imposed by local governments to meet energy consumption targets has constrained industrial activity.

Chart 1.21 Backlogs continued to rise amid disruptions to factory operations

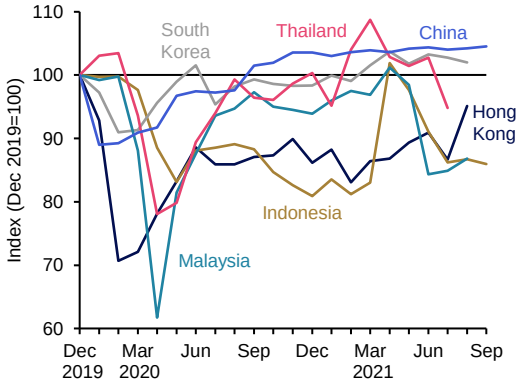
NODX-weighted backlogs sub-indices of manufacturing PMIs



Source: IHS Markit and EPG, MAS estimates

Chart 1.22 The recovery in retail sales has been hindered by the spread of the Delta variant

Retail sales volume



Source: Haver Analytics and EPG, MAS estimates

Note: The index for China was computed by deflating nominal retail sales by the retail price index.

Broadly, across the region, lower-income economies have been more exposed to the recent rise in global commodity prices. Global food prices increased by 29.3% y-o-y on average from January to September 2021. Given the substantial share of food in consumption baskets, CPI inflation has risen considerably in some countries, including the Philippines **(Chart 1.23)**. Food expenditures make up an average of 32.6% of ASEAN-4 CPI baskets, much higher than the 20.7% share in the G3.

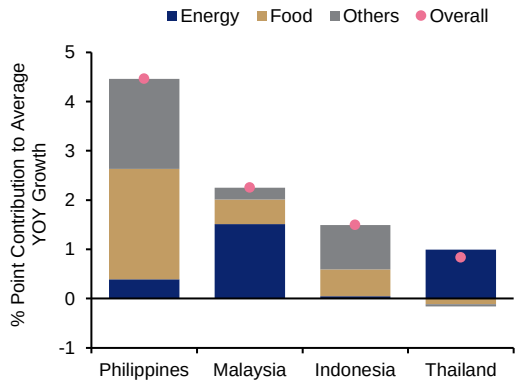
The increase in global energy prices has been particularly marked. Brent crude oil prices rose by an average of 64.3% y-o-y from January to September, to reach US$83 per barrel in October 2021. The transmission of higher energy prices to economic conditions varies depending on countries' patterns of usage, size of energy subsidies, and trade balance. Fuel accounts for an average of 11.6% of CPI baskets in ASEAN-4, compared to 8.0% in the G3. The pass-through of energy prices to CPI inflation differs across the region, ranging from 0 to 1.5% points of headline inflation in Jan–Sep 2021 compared to the same period in 2020 **(Chart 1.23)**. In Indonesia, where the CPI passthrough has been negligible, energy subsidy spending has risen 37% y-o-y from Jan–Aug. The Philippines has provided subsidies for fuel and other operational expenses to drivers of public utility vehicles such as buses and jeepneys. In Thailand, where pass-through has been stronger, the government announced a cap on retail diesel prices in early October.

Indonesia and Malaysia are net fuel exporters, while the other three ASEAN-5 economies are substantial net importers. Accordingly, the impact on terms of trade and external accounts will differ **(Chart 1.24)**. Significant energy producers will also see a fiscal offset on the revenue side. The IMF estimates that oil and gas revenues will contribute 0.6% of GDP in 2021 in Indonesia, the same amount as the government's estimated energy subsidy expenditure for the year. In Malaysia, fiscal oil and gas revenues account for 2.4% of GDP, while the government has indicated it will spend 0.5% of GDP on subsidies for fuels and cooking oil this year.

From a general equilibrium perspective, subsidies impose a wedge to the economy's adjustment following a sustained increase in energy prices. CPI data suggest Indonesian and Philippine consumers have been most shielded from the impact of higher fuel costs so far, implying that the adjustment of consumption patterns in those economies may be more muted. However, as Indonesia is a net fuel exporter and Philippines is a relatively modest net importer, the overall impact on the external finances will be contained.

Chart 1.23 Higher energy prices have added to inflationary pressures

Percentage point contribution to average y-o-y CPI inflation, Jan–Sep 2021

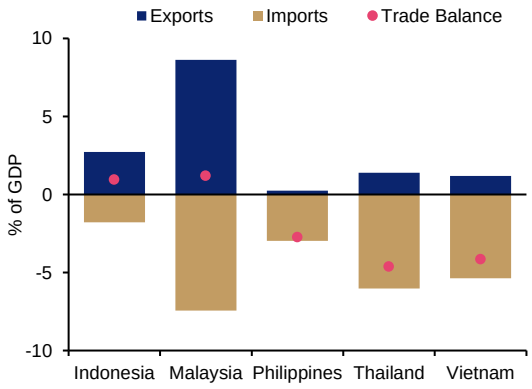


Source: Haver Analytics, and EPG, MAS estimates

Note: Vietnam does not have sufficiently detailed CPI weights to compute the breakdown.

Chart 1.24 The impact on net trade will vary

Trade in mineral fuels, lubricants and related materials, 2019–20 average



Source: UN Comtrade, Haver Analytics, and EPG, MAS estimates

The recovery in Asia ex-Japan is expected to gain momentum from Q4, but the pandemic poses continued uncertainties

Growth in Asia ex-Japan is expected to pick up in the remainder of 2021 and into early 2022, as rising vaccination rates and declining infections permit a relaxation of public health measures, both of which would bolster demand and ease production and logistics constraints. Exports should receive support from firm demand in the G3. As the pandemic wanes, the demand for electronics products is likely to normalise to some extent, although the ongoing adoption of 5G is expected to provide structural support. This should benefit regional economies that are closely integrated in electronics production networks.

There is some evidence that supply bottlenecks affecting the electronics sector partly reflect past underinvestment in manufacturing capacity, albeit intensified by strong demand for electronics and pandemic-related production disruptions. There has been a marked drop in the semiconductor inventory-to-shipment ratio in South Korea since early 2019, pre-dating the pandemic **(Chart 1.25)**. Semiconductor supply is expected to improve gradually in the medium term as producers expand and upgrade manufacturing capacity.

Services exports will be bolstered by the gradual resumption of cross-border leisure travel, as vaccination rates rise and more economies transition to an endemic COVID-19 state. The International Air Transport Association expects total passenger numbers to grow

from 2.3 billion in 2021 to 3.4 billion in 2022, about three-quarters of the level in 2019.[7] This will provide further support to regional economies that are more reliant on tourism. Overall, GDP in Asia ex-Japan is expected to grow by 5.9% in 2021, moderating to 5.1% in 2022.

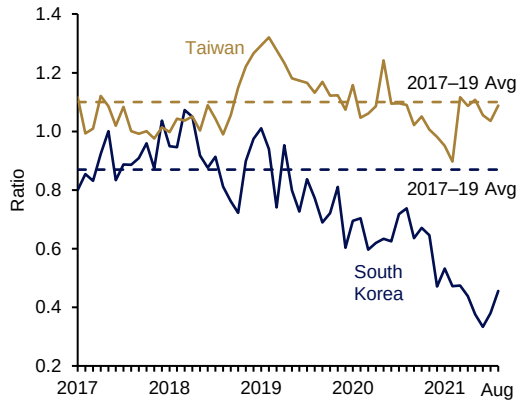
Headline inflation in Asia ex-Japan rose sharply in Q2, in part driven by rising fuel and food prices, but has eased somewhat in Q3. Price pressures are expected to be contained, as substantial economic slack remains in many countries. Headline Asia ex-Japan inflation is projected at 2.2% in 2021 and 2.4% in 2022.

The economic outlook for Asia ex-Japan is subject to considerable uncertainty. First, the pandemic continues to pose a significant downside risk to demand, particularly for regional economies where vaccination deployment is taking longer. Second, partly as another facet of pandemic-related risk, disruptions affecting production may persist for longer than anticipated in the baseline, holding back output and exports. Third, a more pronounced-than-expected slowdown in China would have negative spillovers to Asian economies that have significant trade interlinkages **(Chart 1.26)**.

Fourth, some regional economies remain vulnerable to tighter global financial conditions and volatility in capital flows. Net portfolio capital flows into EMs have already slowed thus far in 2021 **(Chart 1.27)**. Reduced access to external financing could limit the policy space available to some governments and inhibit their response to further negative shocks. For those countries where the recovery from the pandemic remains incomplete, higher global interest rates may worsen the terms of their trade-off between external and domestic stability objectives.

Chart 1.25 Growth in semiconductor exports will be hindered by supply constraints

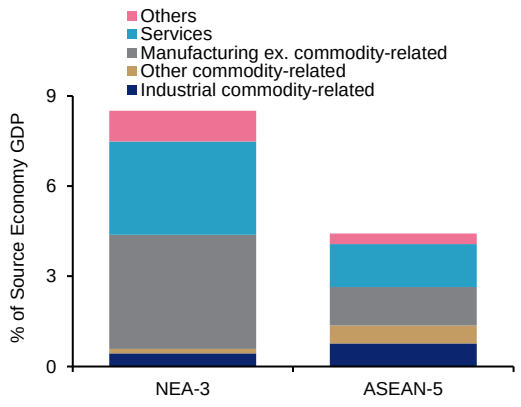
Semiconductor inventory to shipment ratio



Source: Haver Analytics, and EPG, MAS estimates

Chart 1.26 A deeper downturn in China is a downside risk to the outlook for Asia ex-Japan

VA in China's final demand



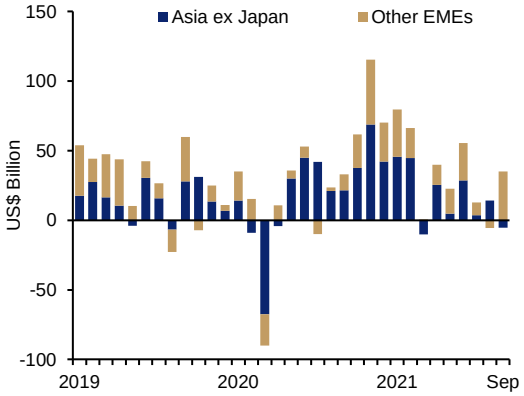
Source: OECD TiVA, and EPG, MAS estimates

Note: Weighted by economies' nominal GDP. Data for 2015. The NEA-3 comprises Hong Kong, South Korea and Taiwan.

[7] IATA, "Losses reduce but challenges continue — cumulative $201 bn losses for 2020–2022" Press Release No. 64, 4 Oct 2021.

Chart 1.27 EM net portfolio inflows have moderated

Net portfolio flows into emerging markets



Source: Institute of International Finance and EPG, MAS estimates