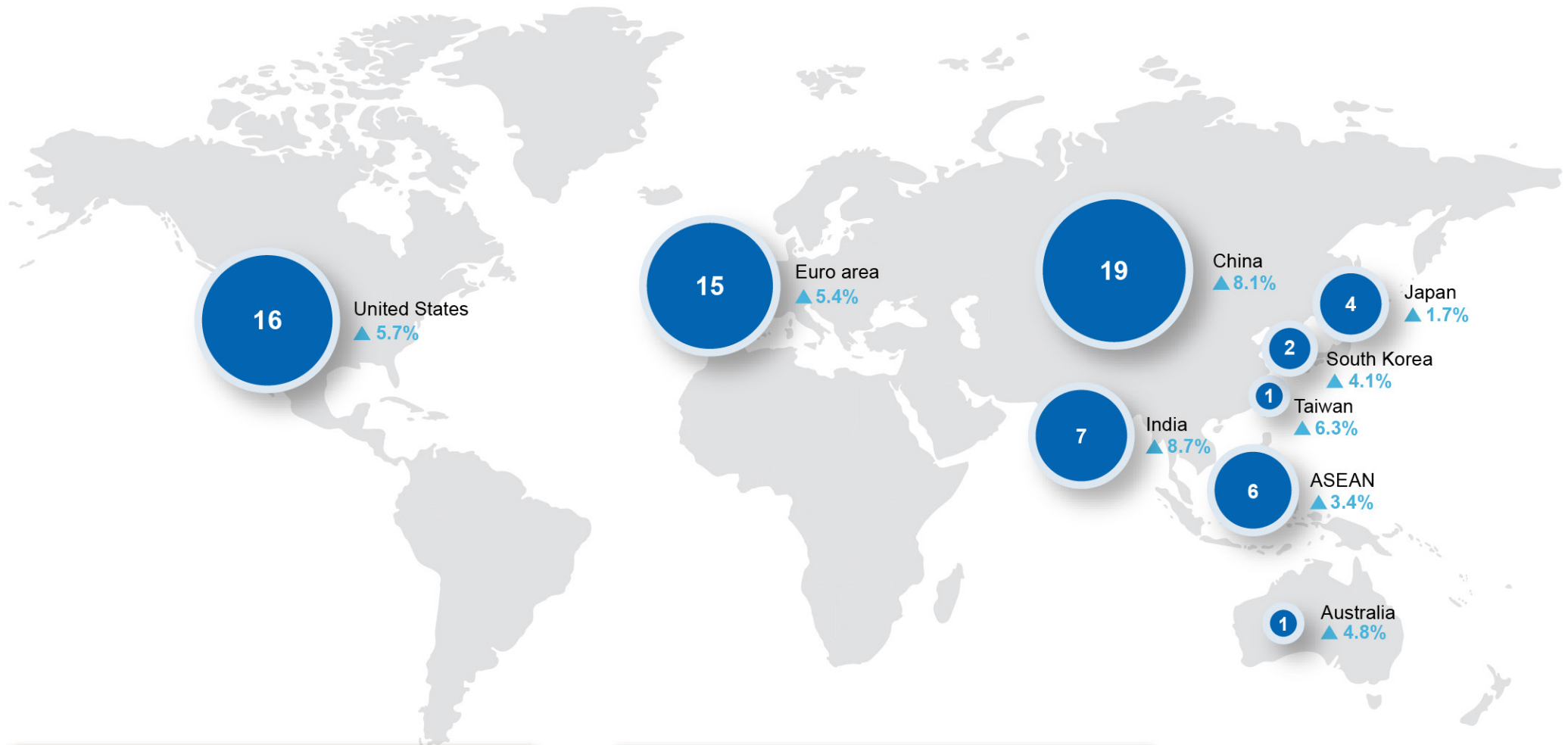







Macroeconomic Outlook



 In 2021, global economic activity increased by 5.8%. Growth is expected to slow to 3.2% in 2022. Spiralling energy costs and problems with COVID-19 outbreaks (particularly in China) are weighing heavily on global growth.

 Risks include flow-on impacts of Russian invasion of Ukraine on energy prices and growth, the potential for new variants of the pandemic, as well as the persistence of supply chain disruptions. Tighter financial conditions in many countries, triggered by elevated inflation, also weighing heavily on markets.

-  = Per cent share of global GDP
-  = Economic growth in 2021
-  = Economic contraction in 2021

2.1 Summary

- The global macroeconomic environment continues to weaken. Spiralling energy costs and problems with COVID-19 outbreaks (particularly in China) are weighing heavily on global growth.
- Tighter financial conditions in most major economies — triggered by elevated inflation — are heightening concerns about the global outlook.
- In July, the IMF forecast the world economy to grow by 3.2% in 2022 and 2.9% in 2023, around half the rate achieved in 2021 and a downward revision of 0.4 and 0.7 percentage points, respectively, since the previous forecast in April 2022.

2.2 World economic outlook

Global growth stalls in the June quarter as the outlook darkens

The International Monetary Fund (IMF) projects the world economy to grow by 3.2% in real terms in 2022 and 2.9% in 2023 (Figure 2.1). This is around half the rate of growth achieved last year and represents a downward revision of 0.4 percentage points in 2022 and 0.7 percentage points for 2023 from the April 2022 World Economic Outlook.

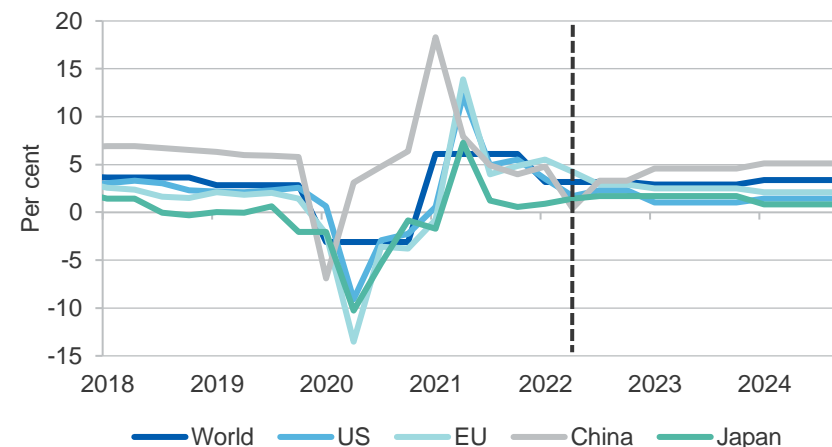
Global output stalled in the second quarter of this year, with GDP falling quarter-on-quarter (q/q) in China, the US and the UK, while Germany had zero growth. Downward revisions to forecast growth occurred across most economies, including substantially lower IMF growth forecasts for the US, China, the Euro Area, Japan and India (discussed below). The RBA expects growth in Australia's major trading partners to be well below its pre-pandemic average in the next two years.¹

Policymakers in most economies currently face major challenges: they are having to manage high levels of inflation in an environment of sharply slowing (and even negative) growth. Inflation has surged, as supply problems add to a surge in energy prices due the fallout from the Russian invasion of Ukraine. The supply problems are both a remnant of the

¹ RBA Statement on Monetary Policy – August 2022.

COVID-19 pandemic and a result of severe drought in Western Europe, southern China and the US.

Figure 2.1: GDP growth forecasts



Source: IMF (2022)

Downside risks are substantial. These include: Russia cutting off gas exports to Europe; inflation proving harder to reduce than expected; tighter global financial conditions inducing debt distress in emerging market and developing economies; renewed COVID-19 outbreaks and lingering problems in the Chinese property sector.

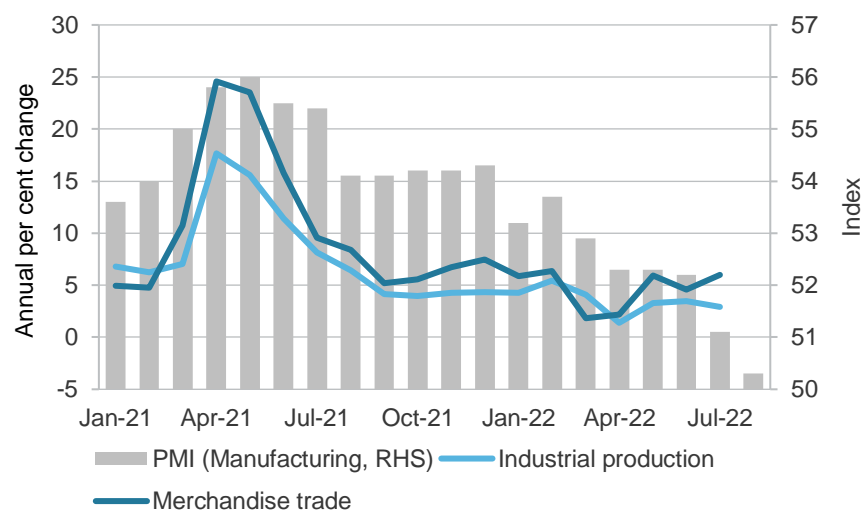
Whether the global economy experiences a hard or soft landing remains in the balance. Labour markets are extremely tight in some advanced economies, especially the US and the UK, raising nominal wage growth. But real wages have mostly fallen, eroding household purchasing power and consumer sentiment. Households in advanced economies are servicing historically high debt levels, in part by drawing down savings built up during the pandemic. How labour markets perform will be critical as business investment and household spending respond to tighter financial conditions over the coming quarters.

The IMF believes a worse scenario is plausible. In this scenario, inflation rises further, and global growth declines to about 2.6 percent and 2.0 percent in 2022 and 2023, respectively, putting growth in the bottom 10 percent of outcomes since 1970.²

Global industrial production and orders continue to fall

Global industrial production and trade recovered in recent months following sharp falls in March and April. Global industrial output grew by 2.9% year-on-year in July (Figure 2.2), up from 1.4% in April 2022.

Figure 2.2: World industrial production, trade and PMI



Notes: PMI data is to August 2022; IP and trade data only available to July 2022.

Source: IHS Markit (2022); CPB Netherlands Bureau for Economic Policy Analysis (2022)

Global merchandise trade recovered to be up 6.0% year on year in July, up from 2.2% in April, and is forecast to grow by around 4.0% in 2022. However, the immediate trade outlook for Australia’s major trading

² IMF WEO Update – July 2022.

³ RBA Statement on Monetary Policy – August 2022.

partners has weakened, with GDP growth over the 12 months to December 2022 forecast by the RBA to reach 3.3%, down from its forecast of 4.0% in May.³

Manufacturing orders continue to weaken. The Global Manufacturing Purchasing Managers Index (PMI) has been declining steadily since the start of the year, driven by falls in the US, Eurozone and China. The Global PMI fell from 51.1 in July 2022 to 50.3 in August 2022, the weakest since June 2020. Results for individual countries are discussed below.

Supply chain pressures ease as global demand softens

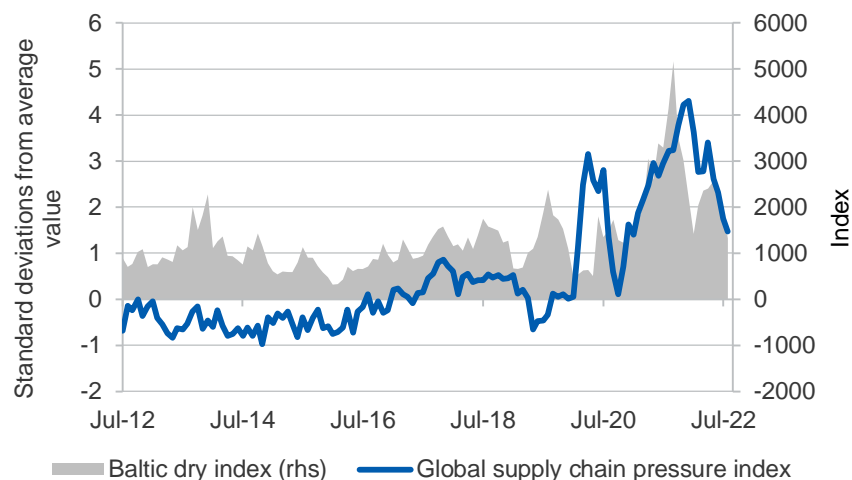
Global supply chain pressures have eased substantially over 2022. After reaching its highest levels on record in December 2021, the Global Supply Chain Pressure Index — a composite measure of cross-border transportation costs, delivery times, and order backlogs — has fallen sharply to be down over 60% in August from its end 2021 peak (Figure 2.3). The fall reflects declines in most subcomponents of the index, including reduced transit times and port delays as well as falling costs.

Easing supply chain pressures are reflected across a range of indicators. The Baltic Dry Index — a measure of the average prices paid for transporting dry bulk materials — has reached its lowest level since January 2021. US port congestion has also eased in recent months. For example, counts of vessels queuing outside the port of Los Angeles have fallen by around 75% since the start of the year, despite a pickup of traffic in recent months. However, with the commencement of peak shipping season in August, any new disruptions to key global ports, particularly in China (for example, in response to new COVID-19 outbreaks), would see a reversal of the recent improvement in delay times.

Falls in global freight rates have gathered momentum in recent months, with the average price for a 40-foot shipping container (Drewry’s composite World Container Index) falling to around US\$4,500 in

September, down more than 50% from a peak of around US\$10,400 in late 2021. However, container rates remain well above historical averages, with these higher costs continuing to support elevated global goods prices.

Figure 2.3: Global supply chain pressures



Source: Bloomberg (2022); New York Federal Reserve (2022)

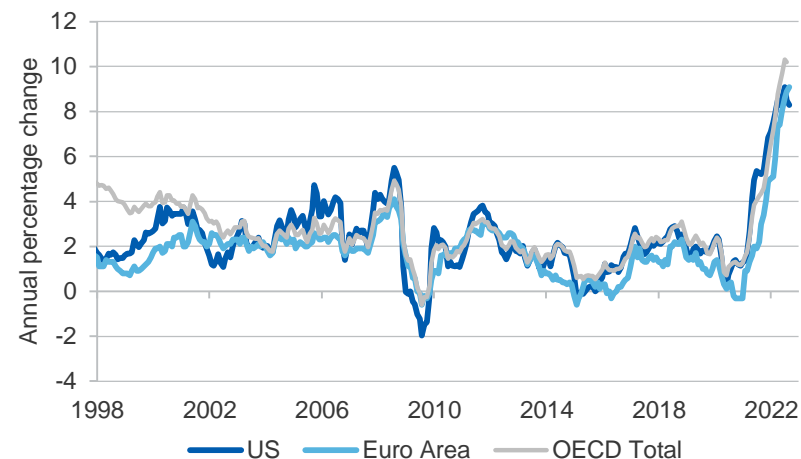
Inflation persists at multi-decade highs in many economies

Elevated inflation rates remain the central concern for policy makers across most major economies. While goods inflation has begun to moderate in some economies, price growth remains high. In August, the US CPI was 8.3%, down slightly from 8.5% in July. US core inflation — which excludes food and energy — increased to 6.3%, which was above market expectations. In August, Euro area inflation reached 9.1% — the highest since the commencement of the monetary union — and the UK reached 9.9%. For the OECD as a whole, inflation was 10.2% in July (Figure 2.4).

These increases have been larger and more broadly based than expected, and have been underpinned by rising food and energy prices as well as lingering supply-demand imbalances. The IMF has revised its forecast of global inflation for 2022 to 6.6% in advanced economies and 9.5% in

emerging market and developing economies — upward revisions of 0.9 and 0.8 of a percentage point, respectively.

Figure 2.4: Consumer Price Indices — US, Europe and OECD



Source: Bloomberg (2022); Board of Governors of the Federal Reserve System (2022); U.S. Bureau of Economic Analysis (2022); OECD (2022)

Producer Price Indices (PPIs) — which measure changes in prices received by producers — have eased in recent months, but remain at historically high levels. Driven by spiralling energy prices, Eurozone industrial producer prices increased by a record 37.9% year-on-year in July 2022, up from 36% in June. US manufacturing producer prices declined from a peak of 20.4% growth in the year to June 2022, to 14.2% in August. Chinese manufacturing producer price growth — which has been well above CPI growth over the past year — has continued its steady decline to record an 18-month low of 2.3% in the year to August, a fall of over 11 percentage points from the peak of 13.5% in October last year.

In contrast to easing goods inflation, services inflation (particularly recreational services and rents) has increased in most economies, driven

by a recovery in demand for services, faster wages growth and high costs for key inputs (food and fuel).⁴

In response, central banks in most economies have lifted policy rates and begun to reduce holdings of assets purchased under quantitative easing programs. Global financial conditions have generally tightened — due to expectations of further tightening of monetary policy — and, along with the Russia/Ukraine conflict and related sanctions, lowered investors' appetite for risk. The US Fed lifted rates at its September meeting, the fifth time this year, for a cumulative increase in its benchmark overnight interest rate of 300 points. The European Central Bank raised its deposit facility rate by 75 basis points in September following a 50 basis points increase in July, the first increase in over a decade. Most central banks have signalled further increases in policy rates, and market expectations are that rates will peak around mid-2023.

2.3 Major trading partners' economic outlook

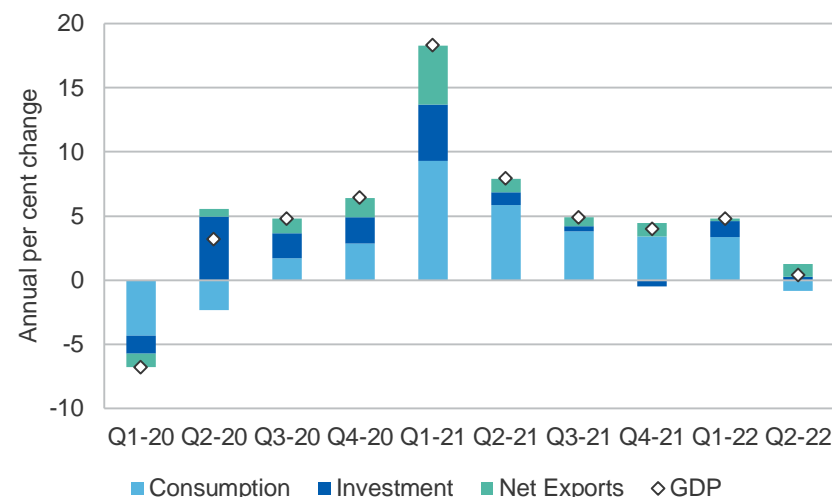
Chinese growth falters amid COVID-19 outbreaks and property sector weakness

China's economy grew by 0.4% year-on-year in the June quarter 2022 (Figure 2.5). The weak result was driven by a fall in domestic consumption, its first negative contribution since the June quarter 2020. Investment was down sharply from its healthy contribution to growth in the March quarter. A positive contribution from net exports, driven by strong export growth, ensured year-on-year growth remained in positive territory.

The June quarter weakness was expected, due to the impact of COVID-19 suppression measures on manufacturing production and exports, as well as consumption. Economic activity in regions that were locked down or faced significant restrictions — including Jilin, Shanghai and Beijing — contracted in the June quarter. However, the easing of severe restrictions imposed in April and May has not seen the anticipated rebound in activity. Early indicators for the September quarter have been below market expectations, with retail sales increasing by only 2.7% in July year-on-

year, down from 3.1% in June — around half market expectations. The extended drought and heatwaves in China's south-west regions will likely have an adverse impact on September quarter growth. The extreme conditions have led to restrictions on power usage, which has reduced industrial production in some industries.

Figure 2.5: China contributions to quarterly real GDP



Notes: Consumption is made up of both household and government sectors.
Source: Bloomberg (2022); National Bureau of Statistics of China (2022)

China's property sector woes continue to drag on growth, driving weak consumption and investment in real estate. Sentiment among households and business remains subdued, and demand for property remains weak amid concerns pre-sold apartments may not be completed, leading to mortgage boycotts. This is further straining debt-laden developers by weighing on their ability to raise funds by pre-selling yet-to-be-built apartments. Anaemic demand for credit saw new bank loans fall 37% year-on-year in July, while new household and corporate lending were down 70% and 34%, respectively. As a result, property investment was

⁴ RBA *Statement on Monetary Policy August 2022*.

down 6.4% in July, following a 5.4% fall in June. In the year to July, the value of property sales was down 29%, with the new house prices falling for the 11th consecutive month in July. In volume terms (measured in square metres of floor space) newly-started residential property was down 38% in the year to August, and residential building sales were down 27%.

In August the People's Bank of China (PBoC) cut the Medium-Term Lending Facility, a key policy rate. In response, the 1-year and 5-year Loan Prime Rates fell. The 5-year Loan Prime Rate, which fell the most, is the benchmark lending rate for most mortgages. It remains to be seen how effective the strategy of increased liquidity will prove to be in spurring consumption and investment in light of the underlying structural problems faced by China's property sector. Rebuilding household and business confidence will be critical. The Chinese Government announced in August that it will also offer special loans to ensure property projects facing difficulties are delivered to buyers.

Following the lockdown-induced plunge in China's PMI in May, and subsequent recovery in June, the index again turned negative, dropping from 50.4 in July to 49.5 in August. China's industrial output increased by 3.8% year-on-year in July, below market consensus, following growth of 3.9% in June. Manufacturer survey responses suggest the slowdown was linked to muted customer demand, lingering COVID-19 impacts and power supply disruption at some firms.

However, passenger vehicle production and sales recovered strongly from the lockdowns, averaging over 2 million sales a month in June, July and August compared with fewer than a million vehicles produced (and sold) in April —at the height of the lockdowns. This pick up in vehicle production and sales is being supported by policy measures, including subsidies for the purchase of conventional and electric vehicles.

Following the stimulus measures announced in late May to support growth and put downward pressure on unemployment (discussed in the June 2022 edition of the *Resources and Energy Quarterly*), in August China's state media flagged additional fiscal stimulus. The China Securities Journal reported that local governments could utilise some of the US\$229

billion of unused bond quota from previous years, to fund infrastructure investment.

China's weakening economic outlook has seen downward revisions to forecast growth, with most economists now expecting growth in 2022 well below the Government's 5.5% growth target (Bloomberg 2022). In August, the RBA Board stated it expected China's growth to be around 3.25% for 2022. In July, the IMF forecast Chinese growth of 3.3% in 2022, a hefty 1.1 percentage point downgrade — the lowest growth in more than four decades, excluding the COVID-19 crisis. As disruptions ease, the IMF forecasts China's growth will rise to 4.6% in 2023.

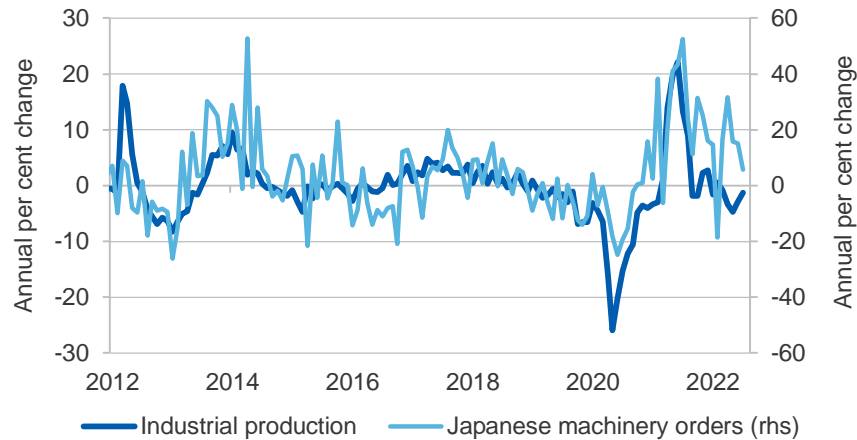
Japan's GDP back to pre-pandemic levels

Japan's slow recovery from the pandemic has continued: GDP growth was 1.6% year-on-year in the June quarter 2022, driven by private consumption — up 3.0% year-on-year. This growth, as well as a positive revision to the March quarter (from a fall to an increase in GDP), lifted the level of Japan's GDP to above its pre-pandemic level (in late 2019).

Despite these positive results, downside risks for the Japanese economy remain, due to slowing growth in Japan's major trading partners and surging numbers of COVID-19 cases in August. Japan's core inflation was 2.8% in August 2022, exceeding the inflation target of the Bank of Japan (BoJ) of 2.0% for the fifth month in a row. Ongoing inflationary pressures are being driven by higher raw material costs, particularly for imported materials in the context of a weak Yen. The Yen has lost approximately one fifth of its value over the last year, driven by the growing interest rate differential between Japan and its trading partners.

Japan's industrial output fell by 1.2% year-on-year in July 2022, continuing the pattern of weak industrial growth over the past 12 months. Machinery orders have also weakened, with orders up 5.8% year-on-year in July 2022, down from 32% growth in April (Figure 2.6). The Jibun Bank Japanese Manufacturing PMI fell from 52.1 in July 2022 to 51.5 in August 2022. While this represented the 19th consecutive month of positive (above 50) readings, new orders fell at the sharpest rate in nearly two years, contributing to the fall in industrial output.

Figure 2.6: Japan industrial production and machinery orders



Notes: IP and machinery orders data are to July 2022.

Source: Bloomberg (2022)

In contrast to the Fed and other central banks (which are withdrawing stimulus), relatively muted inflation has allowed the BoJ to maintain its accommodative monetary policy — and the BoJ is now the only major central bank adding to its bond holdings.

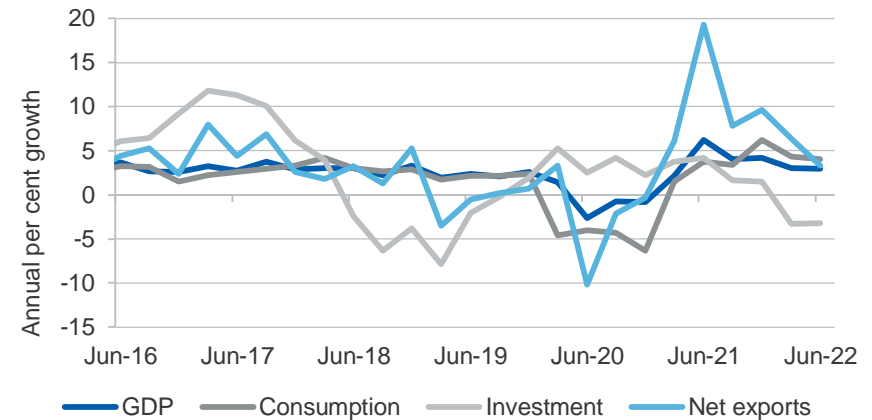
Looking ahead, the IMF July forecasts were for Japanese economic growth of 1.7% in 2022 and 2023, a downward revision of 0.7 and 0.6 percentage points, respectively, since April.

South Korea's economy steady in June quarter

South Korea's economic growth of 2.9% year-on-year in the June quarter was slightly slower than the 3% increase in the March quarter. Over this period, private and government spending contributed to growth, while private investment continued to drag on economic growth (Figure 2.7).

South Korea's industrial production slowed sharply in June, to 1.4% year-on-year down from 7.4% in May.

Figure 2.7: South Korea contributions to quarterly real GDP



Source: Bloomberg (2022)

South Korea's manufacturing PMI shifted into negative territory in July — the first negative result since September 2020 — with a reading of 49.8, down from 51.3 in June. The index fell further in August, down to 47.6 driven by sharp falls in both output and new orders. Price and supply pressures eased in August due to the weaker demand conditions.

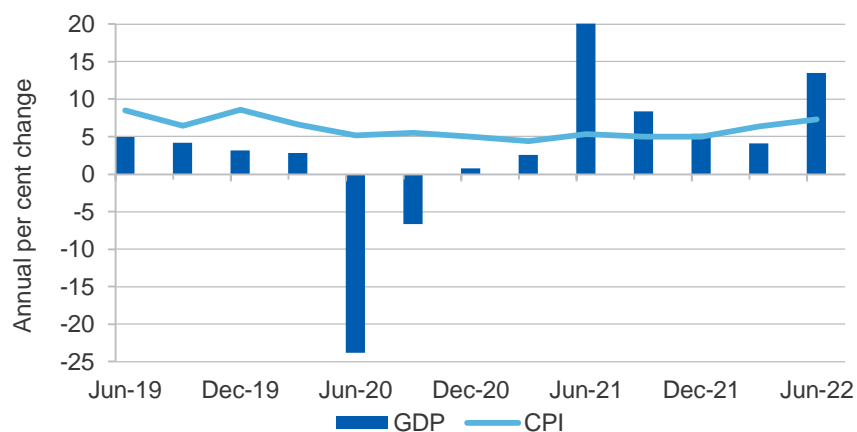
Led by a surge in energy prices, South Korean inflation increased to 6.3% year-on-year in July 2022, accelerating from a 6.0% increase in June and the highest level in over two decades. Rising inflation prompted the Bank of Korea to raise its benchmark interest rate by 25 basis points in August to 2.5% an increase of two percentage points since August 2021. Given current debt levels, managing tighter monetary conditions while keeping robust economic growth presents a key challenge to South Korea over the outlook period.

In July 2022, the IMF lowered South Korea's forecast economic growth to 2.3% in 2022 and 2.1% in 2023, downward revisions of 0.2 and 0.8 percentage points respectively.

India's GDP surges in June quarter driven by private consumption

India's GDP growth increased to 13.5% year-on-year in the June quarter 2022, up from 4.1% in the March quarter. The strong result was due in part to lingering base effects as well as pent-up demand following reopening after the Omicron wave which slowed growth in the March quarter (Figure 2.8). Output growth was recorded in all key sectors, but was strongest in services industries, with trade, hotels and transport up 26% and construction output up 17%. Steady output growth was also recorded in the goods sector, with manufacturing up 4.8%, agriculture up 4.5% and mining up 6.5%.

Figure 2.8: India quarterly GDP and CPI



Source: Bloomberg (2022)

India's manufacturing PMI eased slightly in August, down to 56.2, from 56.4 in July, the second strongest result since November 2021. The strong result was underpinned by expansions in output and new orders, in particular new export orders. Accompanying this positive result was a marked softening in price pressures. After rising rapidly in June, input costs and output charge inflation — the prices manufacturers receive for their outputs — softened to a 12-month low in August.

The IMF forecasts India's economic growth to slow to 7.4% in 2022 and 6.1% in 2023, down from 8.7% in 2021 and a downward revision of 0.8 percentage points in each year from the April estimate. The downward revisions largely reflect less favourable external conditions and more rapid policy tightening to address inflationary pressures.

US economy shrinks in the first half of 2022

In year-on-year terms, the US economy grew by 1.7% in the June quarter 2022 (Figure 2.9). However, the US economy fell by 0.1% quarter-on-quarter (q/q) in the June quarter, following a 0.4% q/q fall in the March quarter. While the fall in the March quarter was driven primarily by a fall in net exports, it also reflected a sharp fall in business investment.

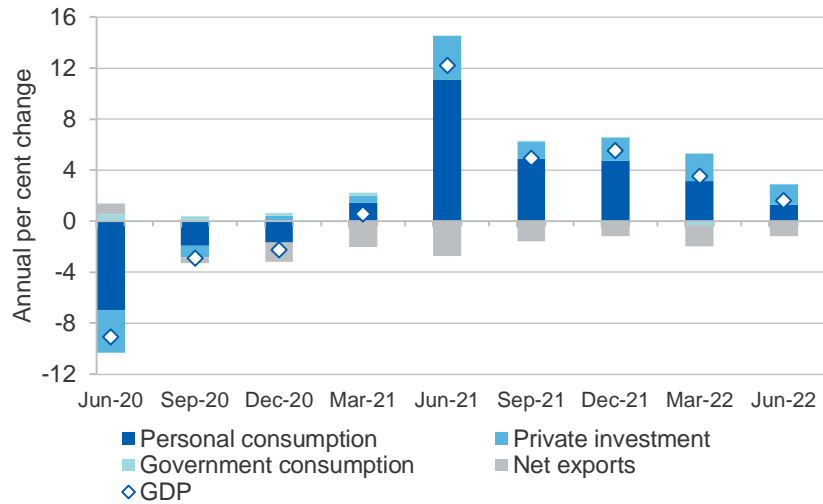
Despite the weak GDP results, the US economy continues to show resilience. The labour market remains tight, with nonfarm payroll employment rising by 315,000 in August following an increase of more than half a million in July. While rising workforce participation saw unemployment increase to 3.7% in August, up from 3.5% in July, it remains at close to 50-year lows. Corporate profits are also at record highs, with after-tax profits as a share of gross value added for non-financial corporations reaching the highest level in over 70 years in the June quarter.

Growth in personal consumption spending, which has driven GDP growth over the past year, also slowed to 1.8% year-on-year in the June quarter, down from 4.5% in the March quarter, and well below the high growth rates achieved in 2021. The slowdown in personal consumption spending was evident across both goods and services. However, the slowing in goods purchases has been the most marked, down to 6.3% year-on-year in the June quarter, from 11% in the March quarter 2022 and 16% in the December quarter 2021 (Figure 2.10). Housing demand has also weakened, with home sales around 20–30 per cent lower than at the start of the year.

The US net private saving rate continued to fall from the record rates achieved during the pandemic, dropping below US\$1 trillion per year in the June quarter for the first time since 2016 (Figure 2.10). However, while the

saving rate has fallen, the stock of accumulated excess savings remains substantial. Even accounting for drawdowns in recent months the stock of savings built up since the onset of the pandemic is estimated to be in excess of US\$2 trillion as at June 2022.⁵ For those households with accumulated savings, this should continue to provide some buffer to US consumption as interest rates and payments continue to rise.

Figure 2.9: US contributions to quarterly real GDP



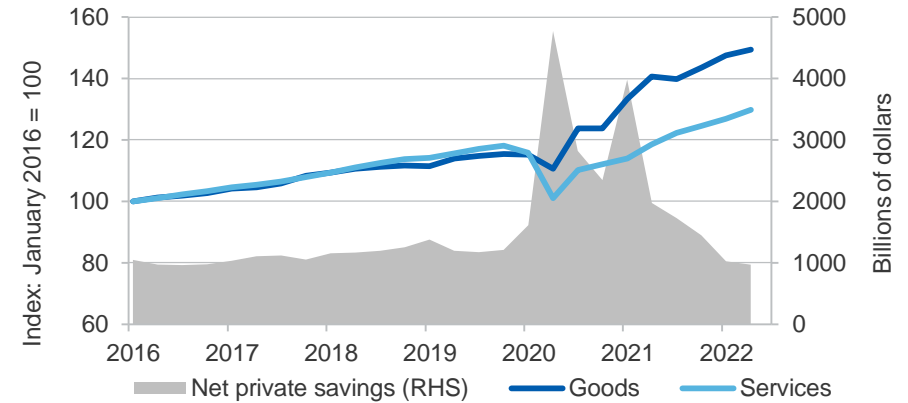
Source: Bloomberg (2022)

US industrial production grew by 3.3% in August year-on-year, up from 2.9% in July. The US Manufacturing PMI index remained weakly positive in August (51.5), but was well down from the levels achieved earlier in 2022 and is at its lowest level in 2 years. Manufacturing output fell for the second consecutive month, contributing to the subdued conditions, which reflected weaker demand, as new orders fell for the third month in a row. The rising cost of living was the most commonly cited cause of lower sales, as well as the worsening economic outlook. The survey found prices

⁵ CaixaBank Research 2022: US: how can the accumulated savings support the economy?

paid by manufacturers remained elevated in August due to higher transportation, fuel and raw material prices.

Figure 2.10: US personal consumption and net private savings



Notes: Personal Consumption Expenditures; seasonally adjusted data; January 2016 =100; Net Private Savings: seasonally adjusted annual rate (quarterly data).

Source: FRED Economic Data (2022)

The US Fed lifted rates in its September meeting, the fifth time this year, taking the cumulative rise in its benchmark overnight interest rate to 300 basis points. With US inflation still near 40-year highs, curbing price pressures remains a critical priority for the Federal Reserve, with Fed members' expectations pointing to further rate hikes this year. In August, the US Government also passed the *Inflation Reduction Act*, which includes a range of measures designed to provide relief to households from rising prices and promote energy transition (Box 2.1 next page).

In July, the IMF downgraded its forecast for US economic growth substantially, by 1.4 and 1.3 percentage points for 2022 and 2023 respectively. This reflects the negative March and June quarter GDP results, and the weakening momentum in private consumption, as household purchasing power is eroded and monetary tightening continues.

Box 2.1: US Inflation Reduction Act 2022

The US *Inflation Reduction Act* (the Act) was signed into law in August 2022. The 750-plus page legislation covers a wide range of issues, including provisions designed to relieve US households from rising prices and promote the transition to low emission technologies.

Key provisions of the Act include changes to: corporate taxes; prescription drug prices; IRS tax enforcement; and health care subsidies. The Act also earmarks over \$350 billion for **clean energy** and climate change mitigation initiatives, including tax credits for households to offset energy costs, investments in clean energy, and tax credits aimed at reducing emissions.

The Act makes a number of significant investments to boost **electric vehicle** production. It provides US\$10 billion to extend the Advanced Energy Project Credit, which includes 'clean' vehicle manufacturing projects, and US\$3 billion for Advanced Technology Vehicles Manufacturing.

Under the Act, a new EV will only be eligible for tax credits when at least 40% of the battery's **critical minerals** are extracted or processed from the US or a free trade agreement partner (such as **Australia**), or from recycling in North America.

This content requirement applies only to the minerals in the batteries, rather than the entire EV, and includes minerals such as lithium, nickel, cobalt and graphite. The minimum share will rise to 80% by 2027.

As a major producer of critical minerals, Australia is well placed to supply US EV producers with key inputs. Australian lithium and nickel producers have existing links with US automakers including Tesla, General Motors and Ford. Australia produces almost half of the world's lithium, and is fast developing major downstream processing capacity.

Over the next 5 years Australia is forecast to produce around one-fifth of the world's battery grade lithium hydroxide (see **Lithium chapter**). Australia is also a major producer of nickel (used heavily in batteries), with more than a fifth of the world's nickel resources and producing around 200,000 tonnes a year (see **Nickel chapter**). Australia is the third largest producer of raw cobalt (second largest in global reserves) and the eighth largest graphite reserves holder. Cobalt and graphite are used heavily in many types of batteries.

The *Inflation Reduction Act* extends eligibility for **carbon capture** tax credits to apply to a broad array of carbon capture, direct air capture, and carbon utilisation projects.

The Act also provides a **clean hydrogen** production tax credit of up to US\$3 a kilogram or a 30% investment tax credit, based on the life cycle greenhouse gas emissions rate of carbon dioxide for the first 10 years of operation. The Act also offers grant and funding opportunities for advanced manufacturing and deployment of hydrogen and fuel cell technologies.

Other clean energy initiatives included in the Act include:

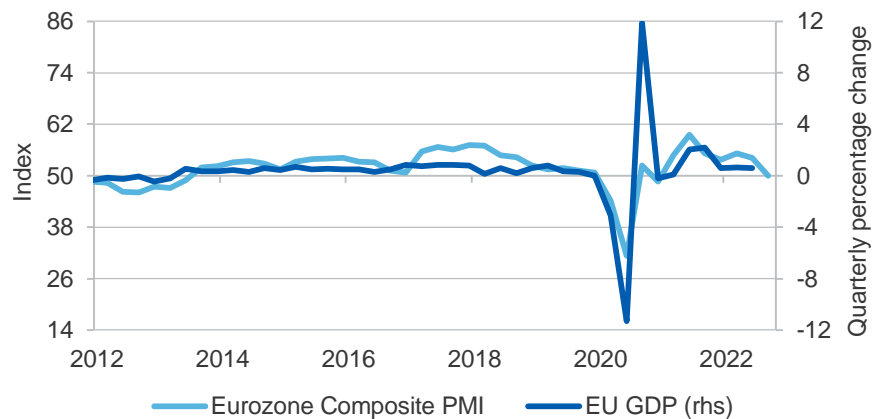
- Extending the production tax credit for electricity from renewable resources to include solar and geothermal production.
- Extending the energy investment tax credit to include energy storage, qualified biogas, microgrid controllers and linear generators.
- Extending tax credits for individuals investing in residential clean energy (including solar, wind and battery storage).
- Establishing a new tax credit for existing **nuclear** power owner/operators.
- Extending advanced energy project credits, with at least US\$4 billion earmarked for projects where **coal** mines and coal power plants have closed.

Source: *Inflation Reduction Act of 2022* (US Congress 2022).

Europe growing, but war, soaring energy costs and drought are weighing

Despite the many headwinds it faces, the Eurozone economy continues to grow, with GDP in June quarter 2022 up 0.7% from the March quarter 2022, and by 3.9% from the June quarter 2021. While annual growth was down from the 5.4% growth in the March quarter 2022, it was still reasonably strong (Figure 2.11). Growth in the quarter was supported by France, Italy and Spain — all significant tourist destinations benefiting from the gradual recovery in the sector following the easing of pandemic restrictions.

Figure 2.11: Eurozone GDP and Composite PMI (quarterly)



Notes: September quarter 2022 Eurozone Composite PMI is an estimate based on July and August 2022 results.

Source: Bloomberg (2022)

However, German GDP was flat in June, and up only 1.5% year-on-year, as manufacturers struggled with soaring energy prices. Record energy prices have resulted in industrial closures in Germany, prompting the Economy Minister to warn that German manufacturing faces a 'structural rupture' due to the loss in competitiveness. These fears have been compounded by transport and power disruptions stemming from record low water levels in the Rhine (due to drought).

In the June quarter, industrial production in the Eurozone increased by 2.4% year-on-year, following 1.6% growth in March. This was three times higher than expected and was due largely to strong growth in the output of capital goods which rose 2.6% month-on-month and 7.6% year-on-year.

Leading indicators point to a weaker H2 2022. The Eurozone Composite Output Index saw its second monthly fall in August, to 49.2 down from 49.9 in July, following a 16-month period of above 50 readings (growth). The drop in output was driven by the manufacturing sector, where production fell appreciably. The Eurozone manufacturing PMI has fallen each month since the Russian invasion of Ukraine, moving into negative territory in July and edging down further in August. Manufacturing output has fallen sharply in recent months, with large drops in the basic materials/metals and automotive sectors. The service sector registered only weak growth in activity during August, with the rate of expansion slowing to the softest since the sector returned to growth in April 2021.

As noted earlier, headline inflation in the Eurozone reached 9.1% (year-on-year) in August 2022 — up from 8.9% in July and the highest on record. Since July the European Central Bank has raised its deposit facility rate by 125 basis points, the first increases in over a decade, and ended net asset purchases.

Flow-on impacts from the Russian invasion of Ukraine present the largest risk to Europe's outlook over the rest of 2022. Higher energy prices, weaker consumer confidence and slower momentum in manufacturing — due to persistent supply chain disruptions and rising input costs — continue to drag on Europe's growth.

In July, the IMF downgraded its forecast for European growth, reflecting spill overs from the Russian invasion of Ukraine and the assumption of tighter financial conditions (due to monetary tightening). Growth in the Euro area was revised down by 0.2 percentage points in 2022 and by 1.1 percentage points in 2023. A key contributor to the downgrade was Germany, with the IMF projecting it would have the lowest growth of G7 nations in 2022, due to its reliance on Russian gas (see chapter 7.3).

Table 2.1: Key IMF GDP assumptions

	2021	2022 ^a	2023 ^a
Economic growth^b			
Advanced economies	5.2	2.5	1.4
Australia	4.8	3.8	2.2
Euro Area	5.4	2.6	1.2
France	6.8	2.3	1.0
Germany	2.9	1.2	0.8
Japan	1.7	1.7	1.7
New Zealand	5.6	2.7	2.6
South Korea	4.1	2.3	2.1
United Kingdom	7.4	3.2	0.5
United States	5.7	2.3	1.0
Emerging economies	6.8	3.6	3.9
ASEAN-5 ^d	3.4	5.3	5.1
China ^e	8.1	3.3	4.6
India	8.7	7.4	6.1
Latin America	6.9	3.0	2.0
Middle East	5.8	4.8	3.5
World^c	6.1	3.2	2.9

Notes: a Assumption. b Year-on-year change. India projections are based on fiscal years, starting in April; c Calculated by the IMF using purchasing power parity (PPP) weights for nominal country gross domestic product. d Indonesia, Malaysia, Philippines, Thailand and Vietnam. e Excludes Hong Kong.

Sources: IMF (2022) World Economic Outlook; Bloomberg (2022).

Table 2.2: Exchange rate and inflation assumptions

	2021	2022 ^a	2023 ^a
AUD/USD exchange rate	0.75	0.70	0.72
Inflation rate ^b			
United States	4.7	7.7	2.9
	2020–21	2021–22 ^a	2022–23 ^a
Australia	1.6	4.3	4.7

Notes: a Assumption; b Average.

Sources: ABS (2022) Consumer Price Index, 6401.0; Bloomberg (2022); Department of Industry, Science and Resources; RBA (2022); IMF (2022).