1. The International Environment

Inflation has been at multi-decade highs in most economies over recent months, and is broadly based. High core inflation reflects strong demand coming up against the limits on supply of labour and goods; headline inflation is even higher due to commodity prices having increased over the past year. There is no sign as yet that core inflation is moderating. However, commodity prices have fallen in recent weeks and global supply constraints have started to ease. Both factors, if sustained, should reduce the pressure on inflation over the coming year.

Central banks have responded to high inflation by removing some of the substantial policy stimulus put in place during the COVID-19 pandemic. The increases in policy rates by central banks in advanced economies have been relatively quick compared with the past and are intended to reduce the risk that above-target inflation becomes embedded in inflation expectations. In regard to emerging markets, some central banks in Asia have begun to increase policy rates in recent months, while central banks in other regions have been doing so for some time. Largely reflecting the actual and expected reduction in the extent of policy stimulus, government bond yields have risen substantially in most economies since the start of 2022, equity prices have declined and credit spreads have widened. The US dollar has appreciated notably this year, while the currencies of many other advanced economies and emerging economies have depreciated.

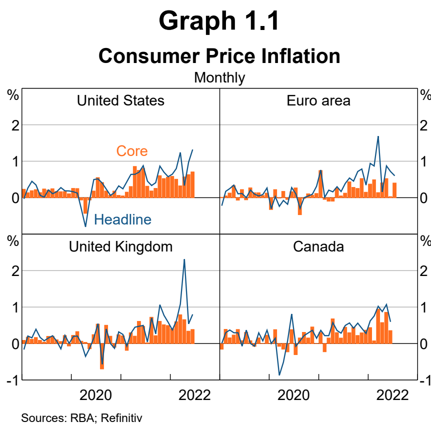
Global demand has so far remained resilient, but there are increased concerns about the outlook for the global economy. With inflation higher and monetary policy stimulus being removed more quickly than was anticipated by financial markets a few months ago, the outlook for global GDP growth is weaker. Revisions to forecasts have been largest for the United States, with many forecasters now predicting a mild recession there in 2023. The risks to European growth have also increased due to rising concerns about the supply of Russian energy. And economic activity in China is forecast to be well below earlier expectations because of the impact of ongoing COVID-19 containment measures there. Overall, growth in Australia's major trading partners is now expected to be notably below its pre-pandemic average in the next two years.

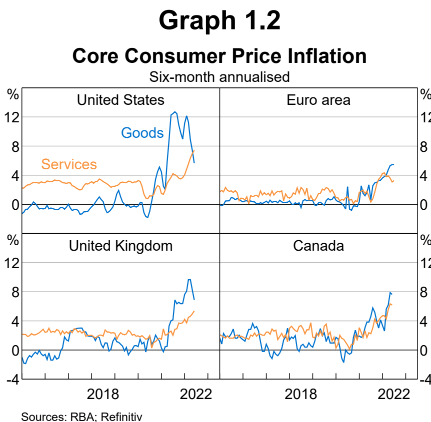
Inflation is broadly based, persistent and at multi-decade highs …

Consumer prices have risen sharply and by more than expected over the past year in most economies, underpinned by limited spare capacity, supply constraints in goods markets and higher commodity prices. Monthly headline inflation has been consistently higher than core inflation of late, as food and energy prices (which are excluded from core inflation measures) have risen substantially (Graph 1.1). Core inflation has been high and broadly stable in monthly terms in most economies, and is yet to show signs of easing.

The persistence of high core inflation reflects rising services inflation offsetting a gradual moderation in goods inflation in some economies (Graph 1.2). Services inflation has increased in most economies, underpinned by a

recovery in the demand for services, faster wages growth and increasing prices for commodities used as inputs (e.g. food and fuel). The increase in services inflation in advanced economies has been broadly based across categories, but has been particularly strong for recreational services and rents. By contrast, goods inflation has begun to moderate in the United States and the United Kingdom from its earlier rapid pace; this moderation is evident in a range of items, but especially for vehicles, which recorded very sharp price increases earlier in the pandemic. Goods inflation in the euro area is yet to show similar signs of moderation (perhaps partly because it didn't rise as high as in these other economies).

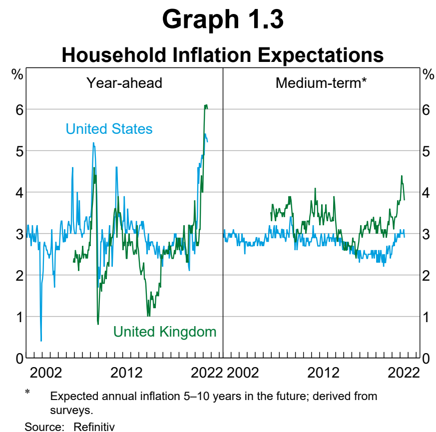




Inflation expectations for the year ahead have increased sharply in response to recent high inflation outcomes (Graph 1.3). Households' inflation expectations for the year ahead are now at their highest level since the early 1980s in many advanced economies. By contrast, households' expectations for inflation in the medium term have only increased to levels commonly recorded before 2012. Business survey and financial market measures also suggest that inflation is expected to moderate substantially in coming years, to ranges broadly consistent with central bank targets (discussed further below).

… prompting central banks to raise policy rates quickly

Central banks in most advanced and emerging economies have increased their policy rates in recent months to address high inflation and the risk of this becoming entrenched in longer term inflation expectations. The increases in policy rates have been relatively rapid compared with the past for many advanced economy central banks. Most of these central banks have continued to gradually reduce their holdings of assets purchased under quantitative easing programs. The European Central Bank (ECB) ended net purchases under its asset purchase program in July. The Bank of Japan (BoJ) is now



the only major central bank adding to its bond holdings.

Central banks in most advanced economies have signalled that further increases in policy rates are likely to be needed to return inflation to target levels. Some central banks have discussed the possibility that policy rates may need to rise to restrictive levels – that is, above estimates of the longer run neutral rate – within the next year or even sooner. Market pricing suggests that policy rates will peak in the first half of 2023 at levels considerably higher than at the onset of the pandemic (Graph 1.4). Movements and projections by central banks have included the following:

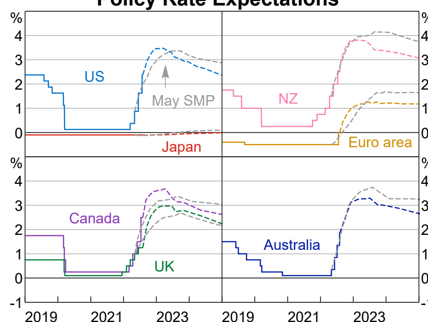
- At its meetings in June and July, the US Federal Reserve (Fed) increased the target range for its policy rate by a cumulative 150 basis points to 2.25 to 2.5 per cent. In June, median projections from Fed policy-makers indicated that the policy rate would reach around 3.8 per cent by the end of 2023. More recent commentary from individual policymakers has emphasised the need to move the policy rate to a restrictive setting quickly.
- In June and July, the Bank of Canada (BoC) increased its policy rate by a cumulative 150 basis points to 2.5 per cent. The BoC said that it was frontloading increases in its policy rate but still expected to raise it further, with decisions dependant on developments in economic data.
- At its June and July meetings, the Reserve Bank of New Zealand (RBNZ) increased its policy rate by a cumulative 100 basis points to 2.5 per cent. It projects that its policy rate will peak at close to 4 per cent in 2023.
- At its meeting in July, the ECB raised its key policy rates for the first time in 11 years, with its deposit facility rate rising by 50 basis points to 0 per cent. It indicated that further increases in its key policy rates will be appropriate at upcoming meetings. The ECB also announced the Transmission Protection Instrument, under which it can undertake targeted purchases of euro area government bonds to support the smooth transmission of monetary policy across all euro area economies.
- At its meetings in May and June, the Bank of England (BoE) increased its policy rate by a cumulative 50 basis points to 1.25 per cent. The BoE noted that it will be alert to indications of persistent inflationary pressures and will act forcefully if necessary.

Among other advanced economies, Sveriges Riksbank, Norges Bank and Swiss National Bank all raised their policy rates by 50 basis points in June (to 0.75, 1.25 and –0.25 per cent, respectively), while the Bank of Korea has raised its policy rate by a cumulative 75 basis points since May to 2.25 per cent. By contrast, the BoJ continues to signal that it will keep its accommodative policy settings in place until it sees evidence of inflation moving sustainably to its target level.

The central banks of most emerging market economies have also increased policy rates in response to persistent and higher-than-expected inflation (Graph 1.5). Inflation now exceeds central banks' targets in many Asian economies. Some central banks in Asia –

Graph 1.4

Policy Rate Expectations*



* Dashed lines show expectations implied by overnight indexed swap rates.

Sources: Bloomberg; RBA

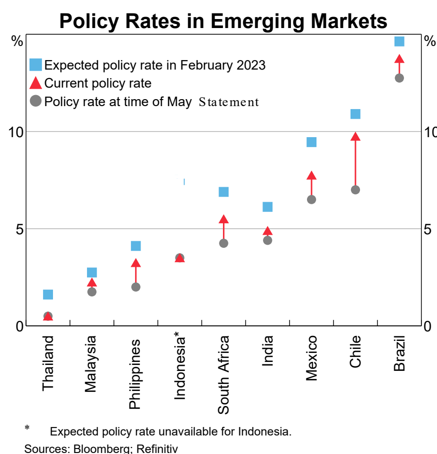
including the central banks of Malaysia, the Philippines and India – have tightened policy in recent months, while the Bank of Thailand and Bank Indonesia are expected to begin raising rates in the September quarter. In Latin America, where inflation has been high for some time, the central banks of Chile, Brazil and Mexico have all raised policy rates further, citing concerns around the potential for inflation expectations to increase. Central bank guidance and market implied rates suggest that monetary policy will be tightened further across emerging market economies throughout the remainder of 2022.

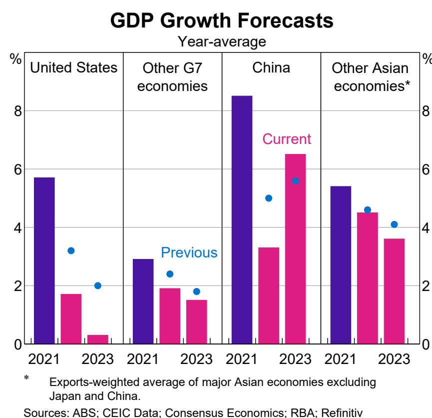
Global growth is forecast to slow significantly

Growth in Australia's major trading partners is expected to fall well below its pre-pandemic average this year, before picking up modestly in 2023. This follows very strong outcomes in 2021 as most economies bounced back from the initial economic effects of the pandemic. Since the May *Statement*, the forecast for year-average GDP growth in 2022 has been revised lower by around ¾ of a percentage point, to 3 per cent. The forecast for year-average GDP growth in 2023 remains unchanged at 3¾ per cent. The risks to these forecasts are skewed to the downside.

Expectations for substantially higher policy rates and the drag from high inflation on real household incomes are weighing on forecasts for growth in advanced economies. This is particularly the case for the United States, where the policy rate is expected to increase by more than in many other economies over the tightening cycle; US GDP growth forecasts for both 2022 and 2023 have been downgraded by 1½ percentage points since May. Many forecasters expect US GDP to contract in 2023, but not by much; forecasts for the unemployment rate are only modestly higher than the current very low level. Forecasts for growth in most other G7 economies have also been revised down a little further in recent months; expectations for growth in Europe are now well below those anticipated at the start of the year.

Forecasts for growth in China have also been revised markedly lower for 2022, because of the impact of measures to contain the spread of COVID-19 on growth in the June quarter. Fiscal support is expected to see infrastructure investment increase substantially over the remainder of the year, and monetary policy remains accommodative. Nonetheless, it is unlikely that the scale of stimulus will be sufficient to meet the Chinese Government's full-year growth target.





The outlook for global growth is subject to a considerable degree of uncertainty, with the balance of risks skewed to the downside. The key uncertainties are:

- *High inflation could prove to be even more persistent than expected, requiring a larger monetary policy tightening.* Inflation could persist if supply remains more constrained than currently envisaged or if recent high inflation outcomes lead to changes in price- and wage-setting norms that are inconsistent with inflation targets, particularly in economies with limited spare capacity. In this context, the risks to the inflation outlook from any further adverse supply shocks could be amplified, requiring a larger monetary policy response than currently expected. On the other hand, inflationary pressures could ease more quickly than assumed if global supply rises or demand eases faster than projected.
- *It is unclear how household spending will respond to the decline in real disposable income from high inflation and tighter monetary policy.* It is possible that strong growth in employment will continue to support real household incomes and that households will be comfortable in further reducing their rate of saving from current income and/or run down some of the stock of savings accumulated during the pandemic. If so, household consumption could be stronger than otherwise. On the other hand, household indebtedness has increased over the past decade in a number of economies, which might cause higher interest rates to slow consumption more rapidly than in past policy tightening cycles. The simultaneous cessation of fiscal and monetary stimulus in many economies could also have a larger effect than envisaged. Declines in housing prices and building activity could also weigh more on spending than currently assumed. These factors complicate the challenge central banks face in calibrating the extent of tightening required.
- *Further adverse shocks to the supply of goods, including commodities, are possible.* One potential source of disruption is if the supply of energy or food commodities from Russia and Ukraine is further reduced, either because of escalating conflict or a deliberate decision by Russia to stop supplying Europe. The potential impact on prices could be sharp, given the limited alternative sources of supply in world commodity markets. Moreover, the likely impact on the European economy of a sharp reduction in Russian gas flows to Europe is sizeable. Another potential source of disruption is the prospect of further COVID-19-related lockdowns in China, which could limit the production and transport of Chinese manufactured goods and disrupt global supply chains. This risk has increased due to the high transmissibility of recent strains of COVID-19 and the Chinese authorities' ongoing commitment to suppressing the virus. Alternatively, the trigger for supply shortages to persist could be entirely unforeseen; the current tightness in global goods markets means even small disruptions could have sizeable effects.

Some indicators suggest global demand is beginning to ease …

Economic growth in advanced economies looks to have picked up in the June quarter, after a weak outcome in the March quarter (Graph 1.7). However, GDP in Australia's trading partners as a whole contracted in the quarter, given the COVID-19-induced decline in Chinese economic activity (discussed below).

In advanced economies, consumer spending has continued to drive demand, despite the pressures on households' real disposable incomes and sharp falls in consumer confidence (Graph 1.8). Retail sales volumes have dropped

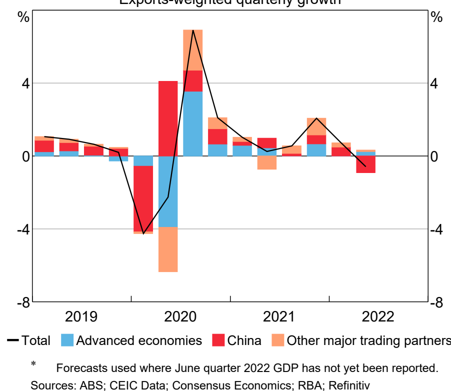
only slightly in recent months, and are still well above pre-pandemic levels. Indicators of spending on discretionary services – such as dining, travel and recreation – have continued to lift. These outcomes are being supported by a decline in saving rates from unusually high levels, along with support to incomes from strong employment growth and fiscal initiatives targeted at mitigating cost-of-living pressures.

Nonetheless, some timely indicators suggest that economic growth in advanced economies may have peaked (Graph 1.9). PMI survey measures of output and new orders fell significantly in June and moved into contractionary territory in July. Demand for housing in the United States has also weakened, with home sales around 20–30 per cent lower than at the start of the year. Demand for labour remains very strong, but there are also early signs that it may be starting to ease: vacancy-to-unemployment ratios are now decreasing slightly in some advanced economies, and US firms are reporting that it has become a little easier to fill vacancies (while workers are saying that it is slightly harder to find a job). Forward-looking indicators, such as investment intentions, are also softening.

Graph 1.7

Australia's Major Trading Partner GDP*

Exports-weighted quarterly growth



* Forecasts used where June quarter 2022 GDP has not yet been reported.

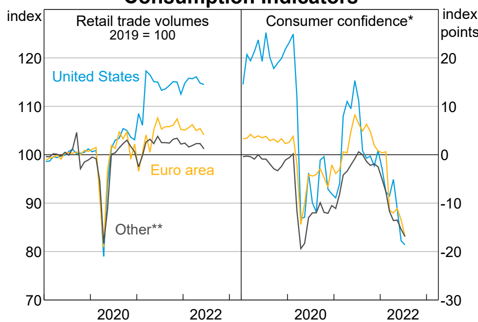
Sources: ABS; CEIC Data; Consensus Economics; RBA; Refinitiv

… while demand in China is recovering from recent lockdowns, supported by fiscal and monetary policy

The Chinese economy contracted by 2½ per cent in the June quarter. This was significantly weaker than expected and reflected containment measures to slow the spread of COVID-19 in Shanghai, Beijing and elsewhere. Recent lockdowns in China have generally been stricter than those seen in other countries. Nonetheless, the Chinese economy recovered quickly over the course of the quarter as new locally transmitted COVID-19 case numbers declined and activity restrictions were eased. Retail sales recouped most of their April decline

Graph 1.8

Consumption Indicators



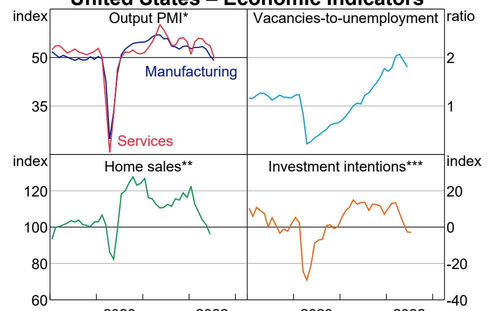
* Deviation from long-run average; United States is an average of Conference Board and University of Michigan.

** GDP-weighted average of Japan, United Kingdom, Canada, Denmark and Sweden; most recent observation is estimated based on available data.

Sources: RBA; Refinitiv

Graph 1.9

United States – Economic Indicators



* Purchasing Managers' Index.

** New and existing home sales; 2015–2019 = 100.

*** Average of regional Federal Reserve surveys of capital expenditure expectations; deviation from post-1990 average.

Sources: RBA; Refinitiv

over May and June (Graph 1.10). With population mobility holding firm in July, to be around prior levels across the country, it is likely that consumption will remain high in July.

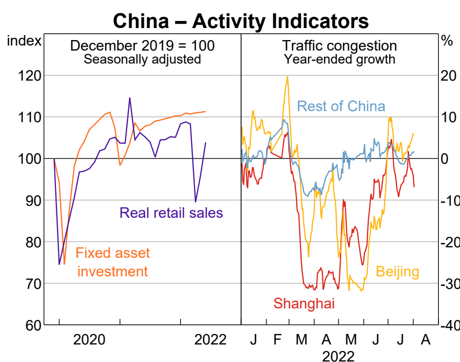
The real estate sector has been a significant drag on the Chinese economy over the past year (Graph 1.11). Activity has been constrained by restrictions on developer financing compounded by restrictions on movement to deal with outbreaks of COVID-19. Various policy measures have provided some support: mortgage rates and down-payment ratios on new property have been reduced, and government vouchers have been introduced for the purchase of new property in a number of cities. While this has supported a recovery in new home sales in the largest cities, national housing sales have been slow to pick up because demand is still very weak in other cities. Real estate investment has declined by about 15 per cent from its peak in late 2020 and is likely to fall further. Expectations of further weakness in construction contributed to recent falls in Chinese steel and iron ore prices.

Subdued property market activity has exacerbated financial pressure on property developers, particularly those that were already highly leveraged and experiencing significant stress. The deterioration in funding conditions has led some developers to suspend construction; in turn, some home buyers are withholding related mortgage payments, which has affected a number of residential projects across China. Authorities have reportedly approved a fund to support selected property developers to complete projects.

In response to the weakening economy, Chinese authorities have increased a wide range of fiscal support measures, while maintaining accommodative monetary policy (Graph 1.12). The government's consolidated fiscal deficit was around 4 per cent of GDP wider over the first half of this year than in 2021, and close to the forecast for the full year set in March. The wider deficit owed to increased tax rebates, other measures to support business cash flows and subsidise rent and utility costs, and consumption vouchers to support retail sales in some cities. Authorities have also accelerated public investment projects. Local governments issued their full annual quota of special bonds (which are typically tied to infrastructure projects) in the first half of the year. Infrastructure investment has risen sharply in response, contributing around 2½ percentage points to growth over the past year.

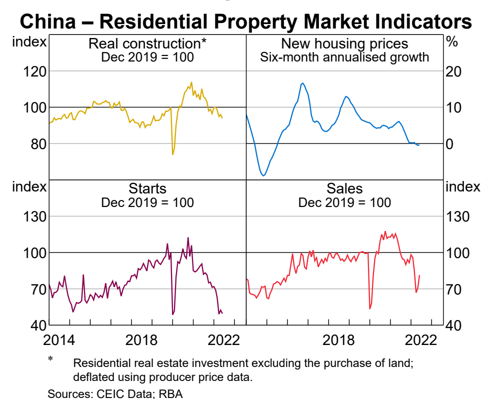
Authorities have also maintained the accommodative stance of monetary policy. The five-year loan prime rate – a key mortgage reference rate that is an average of lending rates

Graph 1.10



Sources: CEIC Data; RBA; WIND Information

Graph 1.11



* Residential real estate investment excluding the purchase of land; deflated using producer price data.

Sources: CEIC Data; RBA

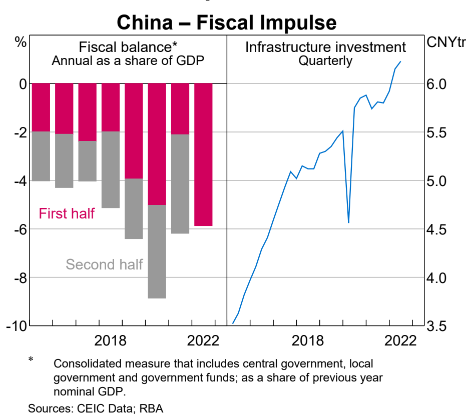
reported by banks – has declined by 15 basis points since the previous *Statement*. The People's Bank of China (PBC) lowered the floor on mortgage rates that banks can offer to first home buyers but have left other key lending rates unchanged. Money market rates have remained low, reflecting the PBC maintaining high levels of liquidity. Chinese Government bond yields have declined in line with money market rates, and equity prices rose over May and June alongside an easing in mobility restrictions. Relatively looser financial conditions in China contributed to a small depreciation in the renminbi against the US dollar since the previous *Statement* (Graph 1.13). Yields on Chinese Government bonds remain below US Government bond yields and foreign investors have continued to reduce their holdings of Chinese securities.

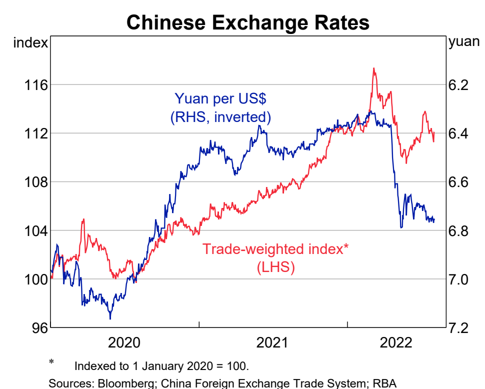
Total social financing (TSF) has increased a little over recent months, supported by accommodative fiscal and monetary policy conditions, but household demand for credit remains subdued.

Supply constraints in global goods markets are beginning to ease …

Supply constraints have shown signs of easing as the supply of goods from China and east Asia has recovered from earlier COVID-19 disruptions, strong investment has expanded east Asian production and global demand for goods has plateaued. Chinese export volumes have rebounded since April, to be well above levels at the start of 2022, as authorities resolved disruptions to the movement of goods between cities and relaxed restrictions on manufacturing activity (Graph 1.14). Chinese industrial production has also mostly retraced its earlier falls, led by a sharp recovery in the production of automobiles, machinery & equipment and computing. Likewise, production in east Asia has grown since late 2021, in response to capacity-enhancing investment since 2020. However, there are likely to be ongoing periodic restrictions on supply from China over coming months, as authorities continue to pursue a policy of suppressing the COVID-19 virus.

Measures of supply chain pressures have continued to ease over recent months, though they remain elevated (Graph 1.15). Supplier delivery times have declined to their lowest level since late 2020 and backlogs of work have eased, leading to a fall in survey measures of global input prices since their peak in June. Shipping contract rates have remained at high levels because of ongoing shortages in the supply of vessels available to charter as well as high oil prices. However, contract rates are no longer rising and container spot rates from China have fallen noticeably over recent months.





Improved supply has allowed a recovery in US retailers' inventory-to-sales ratios for goods other than vehicles. Semiconductor supply has also improved, but shortages continue to restrict production for some automobile producers.

… and some commodity prices are now falling

After rising strongly for many months, crude oil prices have fallen materially since mid-June as concerns increased around the outlook for global growth (Graph 1.16; Table 1). Prices of refined oil products in north Atlantic markets have been more volatile; a noticeable fall in July has partially retraced the sharp rise seen over prior months, when refinery margins had widened to historical highs. Oil prices have continued to be supported by sanctions on Russian oil, heightened uncertainty around future Russian supply, and limited spare extraction and refinery capacity. Prices of agricultural products and inputs have also fallen noticeably of late, to be back to their levels at the beginning of the year. Wheat prices have fallen, and are now around 35 per cent below their recent peak, as favourable weather conditions raised expectations for end-of-summer harvests in the northern hemisphere and in anticipation of the resumption of Ukrainian and Russian grain exports. The decline in both oil and food prices, if sustained, is likely to alleviate pressure on headline inflation over coming months.

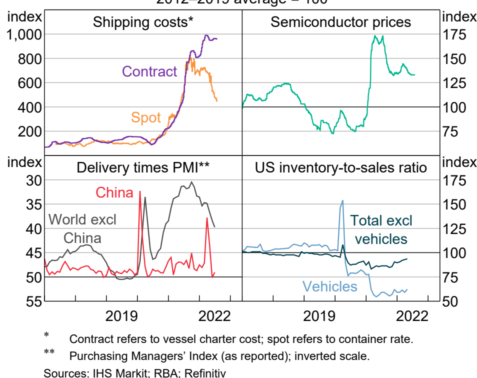
Base metal prices have similarly declined over recent months, in response to increased concerns about the outlook for industrial activity. Iron ore prices have also reversed their rise around the start of this year as concerns on the outlook for the Chinese property sector have increased, and as authorities reintroduced measures to limit steel production (Graph 1.17).

By contrast, prices for gas and thermal coal have increased sharply over recent months, adding to upward pressure on the cost of electricity and

Graph 1.14
Asian Exports and Production
2019 = 100

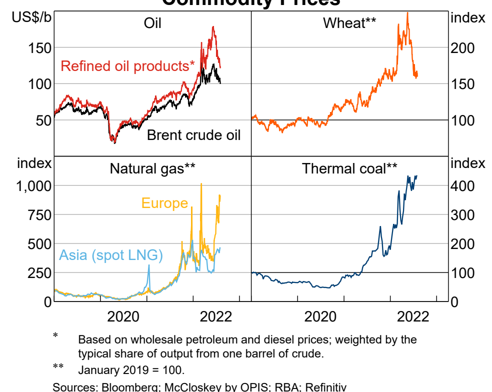
* Deflated using US price deflator by import origin.
** South Korea, Taiwan and Singapore.
Sources: CEIC Data; RBA; Refinitiv

Graph 1.15
Supply Indicators
2012–2019 average = 100



* Contract refers to vessel charter cost; spot refers to container rate.
** Purchasing Managers' Index (as reported); inverted scale.
Sources: IHS Markit; RBA; Refinitiv

Graph 1.16
Commodity Prices



* Based on wholesale petroleum and diesel prices; weighted by the typical share of output from one barrel of crude.
** January 2019 = 100.
Sources: Bloomberg; McCloskey by OPIS; RBA; Refinitiv

Table 1.1: Commodity Price Growth[(a)]

SDR terms; percentage change

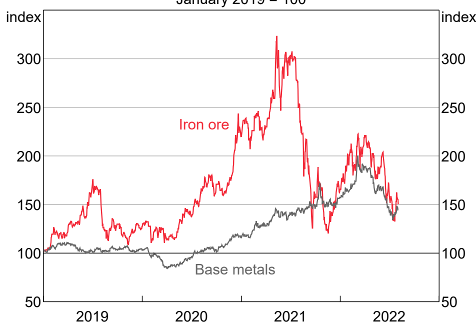
	Since previous *Statement*	Over the past year
Bulk commodities	–24	8
– Iron ore	–20	–36
– Coking coal	–62	–3
– Thermal coal	17	201
LNG – Asia spot price	81	194
Rural	–17	4
Base metals	–14	1
Gold	–5	5
Brent crude oil[(b)]	–13	42
RBA ICP	–12	22
– Using spot prices for bulk commodities	–17	13

(a) Prices from the RBA Index of Commodity Prices (ICP); bulk commodity prices are spot prices.

(b) In US dollars.

Sources: Bloomberg; McCloskey by Opis; RBA

heating. The trigger for this has been reduced Russian supply to Europe and concerns that this could escalate and/or prove persistent, along with disruptions to supply due to maintenance and problems at some LNG pipelines and terminals. While storage facilities in Europe are now around 70 per cent full, these outages have hampered efforts to reach the European Commission's target of 80 per cent by November. In response, authorities have agreed to a (voluntary) target to cut gas use by



15 per cent, and Germany and a number of other countries have announced plans to reopen idle coal-fired generators, which has driven thermal coal prices higher. Global prices of thermal coal have been supported more generally by high gas prices prompting gas-to-coal switching in Asia and by supply disruptions in Australia due to heavy rains.

The rise in LNG and thermal coal prices are expected to lift Australia's terms of trade to its highest level in many decades in the June quarter (Graph 1.18). Futures prices suggest that commodity prices will decline from there, reducing Australia's terms of trade (see chapter on 'Economic Outlook').

Labour markets remain very tight and wages growth has picked up

Strong economic growth has seen unemployment rates fall to around generational lows in most advanced economies (Graph 1.19). Low unemployment rates in the United States and the United Kingdom also partly reflect their continuing low participation rates – almost

3 million Americans are still not participating in the labour force due to COVID-19 concerns. However, labour supply in most other advanced economies has recovered to, or above, pre-pandemic levels. The tightness in labour markets has resulted in nominal wages growth picking up, in some cases quite sharply, although not by as much as inflation (Graph 1.20). Falling real wages and broad-based labour shortages are contributing to industrial action becoming more widespread and, in some countries, to growing calls for more wages to be indexed to inflation. In some European countries, indexation is already quite prevalent: in Belgium, virtually all wages are indexed to inflation; in Spain, the share of newly agreed collective bargaining agreements with indexation clauses has approximately doubled this year, to around 30 per cent.

Bond yields have increased substantially over this year

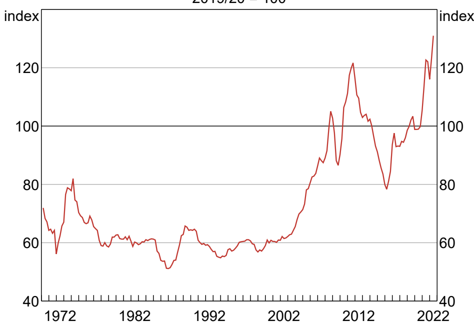
Government bond yields have risen substantially since the start of the year, reflecting persistently higher-than-expected inflation data and expectations that central banks will tighten policy faster and to a greater extent in response (Graph 1.21). In many advanced economies, the increase in bond yields has been larger for shorter term maturities. Consistent with expectations of tighter central bank monetary policy, real yields have increased significantly this year.

Since mid-June, however, bond yields have decreased following a weakening in the outlook for global growth. Both real yields and market-implied inflation expectations have eased. While market-implied expectations for inflation over the next year remain high, longer term expectations have declined to be in the 2–2½ per cent range in most advanced economies (Graph 1.22).

Graph 1.18

Terms of Trade*

2019/20 = 100



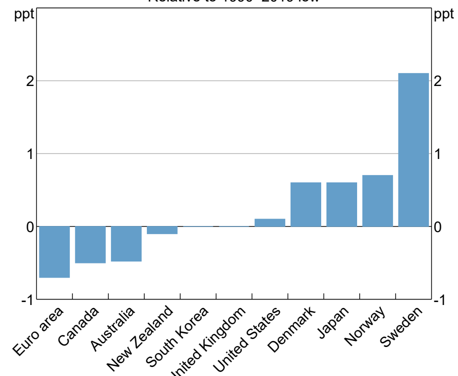
* Includes RBA forecast for the June quarter of 2022.

Sources: ABS; RBA

Graph 1.19

Unemployment Rates

Relative to 1990–2019 low

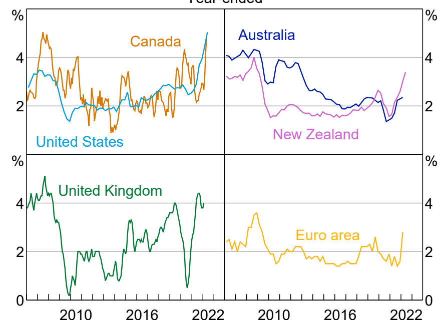


Sources: RBA; Refinitiv

Graph 1.20

Wages Growth*

Year-ended



* Labour cost indices used where available; compositionally controlled average earnings for Canada and the United Kingdom.

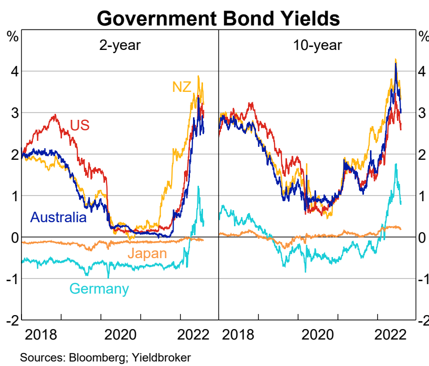
Sources: BoE; RBA; Refinitiv; Statistics Canada

Private sector financial conditions have tightened

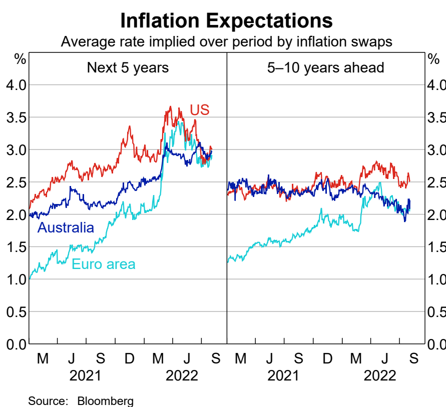
Conditions in corporate bond markets have tightened substantially from their unusually accommodative levels last year (Graph 1.23). Corporate bond yields have risen alongside an increase in government bond yields. In addition, credit spreads have widened, reflecting concerns about the economic implications of the withdrawal of accommodative monetary policy. Credit spreads are now significantly above the levels seen in the years immediately prior to the pandemic. As yields have increased in recent months, issuance of sub-investment grade bonds has declined, while issuance of investment grade bonds has continued at a moderate pace.

Equity prices in most major markets have declined in recent months and are around 15 per cent lower than at the start of the year in the United States and Europe (Graph 1.24). The fall in equity prices owes, in part, to higher interest rates, which lower the valuations of future company earnings after discounting. The decline in equity prices is also likely to reflect increasing concerns about the effect on profits from rising interest rates and the prospect of a slowdown in economic growth. Equity issuance has been subdued since the start of the year in both the United States and Europe.

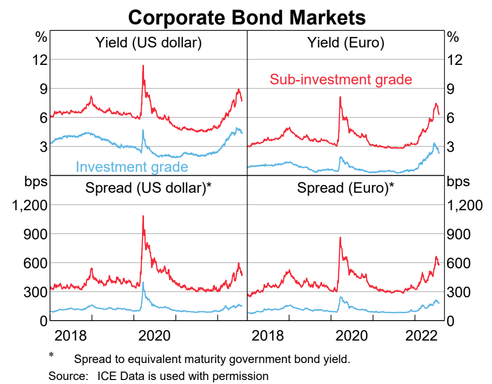
Graph 1.21



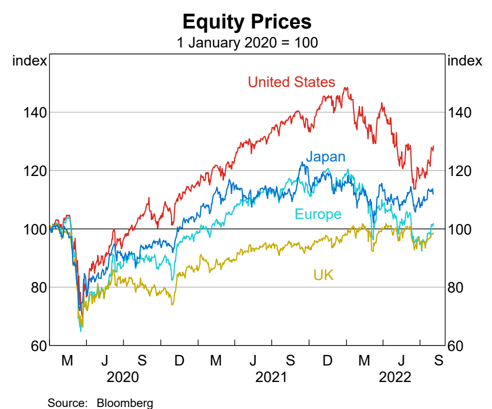
Graph 1.22



Graph 1.23



Graph 1.24



The US dollar has appreciated

The US dollar has appreciated further over recent months and is around 6 per cent higher on a trade-weighted basis since the beginning of the year (Graph 1.25). The appreciation over the year to date is consistent with an increase in US interest rates relative to those of many other advanced economies. The Japanese yen has reached new multi-year lows against the US dollar as the BoJ continues to maintain very accommodative monetary policy; this is in contrast with the Fed and other central banks, which are withdrawing stimulus. The euro has depreciated since Russia's invasion of Ukraine, largely reflecting increased concerns about the outlook for the euro area economy.

Spreads on emerging market debt have widened and capital outflows have picked up

Spreads between US-dollar-denominated emerging market government bonds and US Government bonds have widened (Graph 1.26). Net portfolio outflows from emerging markets have continued amid declining equity prices, heightened global growth concerns, tighter global financial conditions and – particularly for emerging Asian markets – a weaker outlook for China. The same factors have also contributed to the depreciation of currencies in Asia over recent months (Graph 1.27).