1. The International Environment

Global inflation has persisted around multi-decade highs. Core measures of inflation show little sign of moderating as yet, consistent with very low unemployment rates and rapid wages growth in advanced economies. However, headline inflation may have peaked in many economies as a result of recent falls in oil prices and an easing of supply constraints in goods and shipping markets. Recent decisions by European governments to subsidise the cost of energy consumption and ration its use have also reduced the risk of further large increases in European consumer energy prices.

Central banks have increased policy rates further in response to persistently high inflation. Globally, monetary policy has tightened rapidly across a wide range of central banks this year and market participants have revised up their expectations for further tightening over coming months. Government bond yields have risen significantly, credit spreads have widened and equity prices have declined. Volatility in global financial markets has also increased, particularly for bond markets. In late September and early October, bond market volatility in the United Kingdom was amplified by the selling of long-dated government bonds and other assets by pension liability-driven investment funds to cover margin calls. To restore market functioning and preserve financial stability, the Bank of England (BoE) undertook temporary bond purchases. Meanwhile, the US dollar has appreciated significantly against most currencies this year. Some central banks have intervened to slow the depreciation of their currencies.

Most economies are experiencing significant headwinds to growth. In advanced economies, tighter monetary policy has contributed to economic growth moderating. Demand for housing has slowed most noticeably, while the moderation in growth in consumer spending, business investment and hiring intentions has so far been modest. Tighter monetary policy is expected to contribute to very weak GDP growth in the United States over coming quarters. European economies are also grappling with substantial increases in energy prices and a need to ration energy demand; as a result, GDP is now forecast to contract in the next few quarters, despite the recent provision of significant fiscal support. While the Chinese economy has recovered from its April/May COVID-19-related lockdowns, growth is forecast to be relatively subdued in the year ahead, given significant headwinds from the authorities' efforts to suppress the virus as well as considerable stress in the property market.

Global inflation remains high

Inflation remains high and well above central banks' targets in most economies, underpinned by strong demand, insufficient supply and large increases in the prices of energy and food commodities over the past year (Graph 1.1). While headline inflation appears to have peaked in most advanced economies outside Europe, core inflation is yet to show any clear signs of easing (Graph 1.2).

Core consumer price inflation has been underpinned by a rise in services inflation (Graph 1.3). This, in turn, is being driven by strong demand and wages growth, along with increases in other input costs. The increase in services inflation has been broadly based across categories, but has been particularly strong in discretionary services like air travel and recreation. The increase in housing services inflation is notable because it has substantial weight in many countries' consumer price indices, particularly the United States, and because rental inflation tends to be more persistent than most other price pressures.

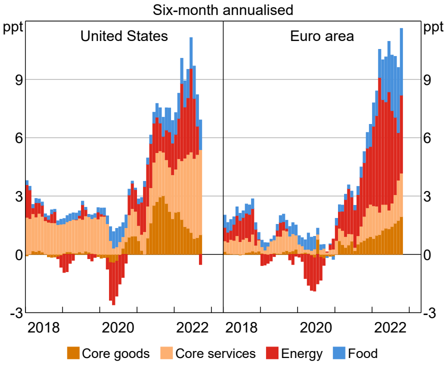
By contrast, goods inflation has moderated in a number of economies as supply-demand imbalances in goods markets unwind. Supplier delivery times have shortened, backlogs of work have declined and inventories have mostly recovered to more normal levels (Graph 1.4). Along with lower oil prices, this has contributed to a decline in shipping costs and a moderation in input costs more generally. Goods inflation in the euro area, however, is yet to show signs of moderation because of the sharp rise in energy costs as well as transport and supply bottlenecks that are in part associated with Russia's invasion of Ukraine.

Headline inflation looks to have peaked in many advanced and emerging economies outside Europe due to falling fuel prices (Graph 1.1). While food price inflation remains strong, a substantial decline in the prices of most agricultural commodities and transport costs over recent months should see it start to

Graph 1.1

Contributions to Headline Inflation

Six-month annualised

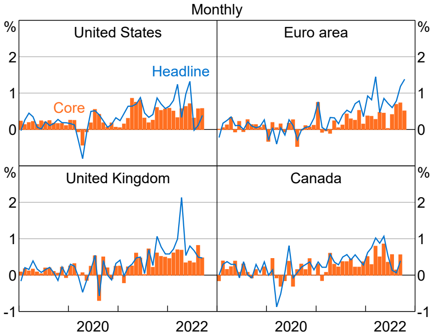


Sources: BLS; Eurostat; RBA; Refinitiv

Graph 1.2

Consumer Price Inflation

Monthly

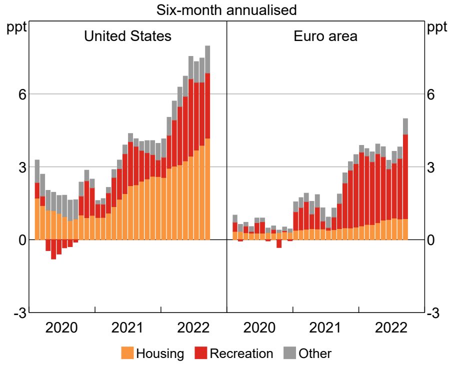


Sources: RBA; Refinitiv

Graph 1.3

Contributions to Core Services Inflation

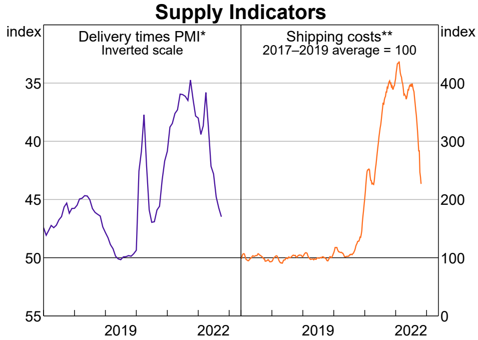
Six-month annualised



Sources: BLS; Eurostat; RBA; Refinitiv

Graph 1.4

Supply Indicators



* Purchasing Managers' Index.

** Index of spot and contract container rates by route from China.

Sources: IHS Markit; RBA; Refinitiv

moderate. Given these trends, professional forecasters are expecting inflation to decrease by 2–5 percentage points in 2023, but to still be above central bank targets in most advanced economies over this period. The moderation in inflation in European economies is expected to be more gradual than in other economies because of persistent pressure on electricity prices. However, European governments have recently announced several fiscal support packages, including price subsidies for consumers that will limit the contribution of rising gas prices to headline inflation compared with earlier expectations (see below).

Consumer inflation expectations for the year ahead remain high, though they have moderated a little as fuel prices have fallen and headline inflation has eased. Medium-term expectations are still broadly consistent with central banks achieving their targets. However, the dispersion of households' expectations – which has historically been an early indicator of future shifts in inflation expectations more generally – has increased.

Fiscal support in Europe has increased, mostly to alleviate the energy crisis

European gas prices reached record highs in August, peaking at over 10 times pre-pandemic levels (Graph 1.5). This occurred as it became clear that Russian gas supplies to Europe would be cut further, to just 20 per cent of 2021 levels, with little prospect of this reversing. In turn, higher gas prices pushed European electricity prices to extreme levels, while also supporting a substantial lift in thermal coal prices around the world. This has led some energy-intensive businesses in Europe to stop or decrease production, while raising the prospect that energy will need to be rationed over the winter.

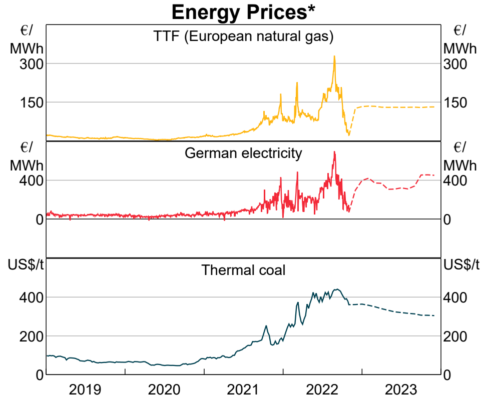
Governments in the European Union and the United Kingdom responded by announcing large fiscal support packages in September, of between 3½ and 4½ per cent of GDP. In the United Kingdom and Germany, this included caps on the electricity and gas prices paid by households and businesses, with any costs in excess of this borne by the government. EU governments have also announced targeted support for the incomes of vulnerable groups and have committed to devise schemes to reduce energy consumption by at least 10 per cent. EU governments will fund these measures primarily by imposing windfall taxes on the profits of non-gas electricity generators; however, large debt issuance will also be needed.

In addition, the UK Government recently announced permanent tax cuts worth ½ per cent of GDP, starting from April 2023. The current proposal is only one-third of the initial announcement, which was scaled back to alleviate significant concerns in financial markets about its impact on inflation and the cost of government borrowing.

Together, these policies mean the overall fiscal stance in Europe now seems to be neutral to stimulatory for the coming year (Graph 1.6). This is in contrast to trends in the United States and elsewhere – and to earlier expectations for Europe – where a fiscal consolidation is under way as the COVID-19-related expansion in public deficits reverses.

Graph 1.5

Energy Prices*



* Solid lines are historical spot prices; dashed lines are futures curves.
Sources: Bloomberg; CME Group; McCloskey by OPIS; RBA; Refinitiv

The agreement to implement measures to ration energy demand in Europe, combined with successful efforts to meet EU targets of increasing gas storage in Europe to at least 90 per cent of capacity, has reduced immediate demand for gas. This has alleviated pressures on spot prices in European (and, in turn, Asian) gas markets. However, prices are still two to four times higher than a few years ago and futures prices have fallen by much less than spot prices. Likewise, European thermal coal prices have declined by one-third since the beginning of September because the newly introduced tax on coal-fired generation would have made some producers unprofitable. These developments, and the way the cap on energy prices in the United Kingdom is being implemented, mean that consumer energy price inflation in Europe is likely to be significantly lower than otherwise in the near term. However, the additional fiscal stimulus, given current strong aggregate demand, could mean that core inflation is higher in the medium term.

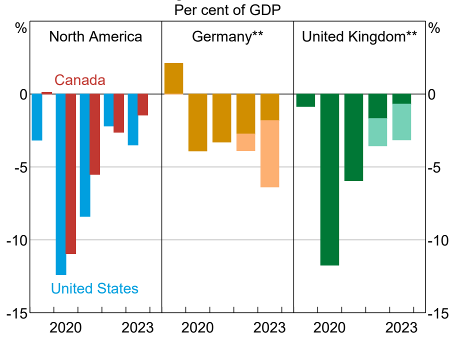
Central banks have continued to quickly raise policy rates

Central banks in most advanced economies have continued to increase their policy rates rapidly to address high inflation and mitigate the risk that it becomes embedded in wage- and price-setting behaviour (Graph 1.7). Several advanced economy central banks have signalled that it is likely their policy rates will need to be raised further to return inflation to target, with some noting the need for policy rates to reach restrictive levels and remain there for some time. Most central banks have continued to allow their holdings of assets purchased under quantitative easing programs to decline gradually through the process of bond maturities. The BoE, however, commenced the sales of bonds purchased under its earlier programs at the start of November, around a month later than initially planned in light of the dysfunction in government bond markets in the United Kingdom (see below). The Bank of Japan (BoJ) is now the only major central bank that is adding to its bond holdings.

Graph 1.6

Primary Fiscal Balance*

Per cent of GDP



* IMF Fiscal Monitor (October 2022) forecasts used for 2022 onwards.

** Lighter bars denote additional expenditure announced in recent months excluding the revenue generated from windfall profits taxes.

Sources: IMF; RBA

Market participants have markedly revised up their expectations for further increases in policy rates by most advanced economy central banks (Graph 1.8). These revisions were in response to evidence of persistently high inflation and tight labour markets in many economies. Market pricing is consistent with the expectation that policy rates will reach a peak in the first half of 2023 and then decline from the second half of the year onwards. Movements and projections by central banks have included the following:

- The US Federal Reserve (Fed) increased the target range for its policy rate by a cumulative 150 basis points to 3.75–4 per cent at its September and November meetings. Policymakers have emphasised that ongoing increases will be required to attain a stance of monetary policy that is sufficiently restrictive to return inflation to the Fed's target in a timely way. There is significant uncertainty around the level of interest rates that will be needed to achieve that.
- The European Central Bank (ECB) raised its key policy rates by a cumulative 150 basis

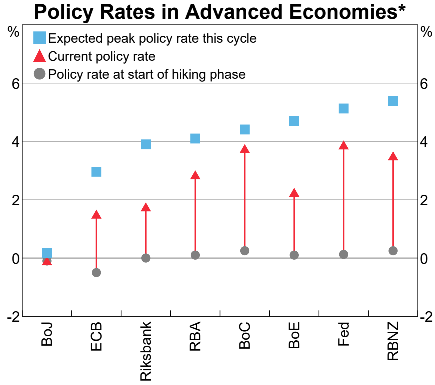
points at its meetings in September and October. The ECB expects to raise rates further, but with the future rate path dependent on the evolving outlook for inflation and the economy.

- The Bank of Canada (BoC) increased its policy rate by 75 basis points and 50 basis points to 3.75 per cent at its September and October meetings, respectively. The BoC has stated that it expects the policy rate will need to rise further, although the extent of future increases will depend on how inflation and demand respond to higher interest rates.
- The BoE increased its policy rate by a cumulative 100 basis points to 2.25 per cent at its August and September meetings. After the UK Government announced a new fiscal stimulus package in late September, the market-implied policy rate path increased significantly, primarily reflecting expectations that the BoE would need to tighten monetary policy even further to offset the inflationary impact of the stimulus. Policy rate expectations declined after the UK Government reversed most of the measures but remain higher than their level at the time of the August *Statement*.
- The Reserve Bank of New Zealand (RBNZ) increased its policy rate by a cumulative 100 basis points to 3.5 per cent at its August and October meetings. The RBNZ said that it remains appropriate to continue to tighten monetary policy rapidly until it is confident that inflation will return to its 1–3 per cent target. Market pricing implies a peak policy rate of over 5 per cent by mid-2023.
- Among other advanced economies, Sveriges Riksbank increased its policy rate by 100 basis points to 1.75 per cent since August, Norges Bank increased its policy rate by 100 basis points to 2.25 per cent, and the Swiss National Bank increased its policy rate by 75 basis points to 0.50 per cent. The Bank of Korea (BoK) raised its policy rate by a cumulative 75 basis points since August to 3.0 per cent. The BoK reverted back to a 50 basis point increase at its October meeting, following a 25 basis point rate increase at its previous meeting, in response to increased inflationary pressures.

Meanwhile, and in contrast to other advanced economy central banks, the BoJ continues to signal that it will keep its accommodative policy settings in place until it sees evidence that inflation remains sustainably at or above its target level.

Graph 1.7

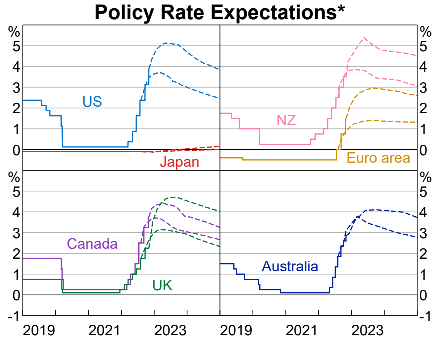
Policy Rates in Advanced Economies*



* Squares show expectations implied by overnight indexed swap rates.
Sources: Bloomberg; RBA

Graph 1.8

Policy Rate Expectations*



* Darker dashed lines show expectations implied by current overnight indexed swap rates; lighter dashed lines show the same expectations as at the August SMP.
Sources: Bloomberg; RBA

Central banks in most emerging market economies have also raised policy rates further since the August *Statement* to address high inflation; for some economies, currency depreciation against the US dollar has added to inflationary pressures. Most central banks in Asia are widely expected to continue to raise rates well into 2023, while central banks in Latin America – which started raising their policy rates around mid-2021 – are widely expected to reach their peak in the next few months if they have not already done so (Graph 1.9). In contrast to other emerging markets, the central bank of Turkey has lowered its policy rate by 350 basis points since the August *Statement*, citing a slowdown in growth from weak foreign demand even though inflation in Turkey reached 83 per cent in September.

Higher interest rates are showing signs of slowing the global economy …

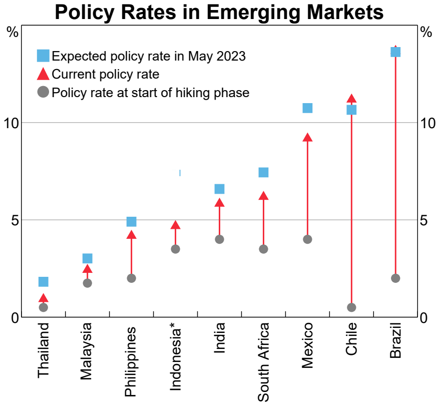
The pace of economic growth in advanced economies has moderated as rising interest rates and high energy prices dampen demand, and capacity constraints limit growth in real output. Growth in domestic demand was modest in the September quarter (Graph 1.10). The slowing in global demand growth, along with tepid demand from China, has seen growth in exports from east-Asian countries soften over recent months, particularly in the IT sector.

The clearest sign of slowing has been in the housing sector, which tends to be more interest-sensitive than other sectors. Residential investment contracted in some countries in the September quarter and home building approvals are significantly lower than their 2021 peaks in a number of advanced economies (Graph 1.11). Housing prices and housing turnover have also begun to fall in several economies and have plateaued in others. Energy-intensive industrial production has slowed more sharply than other sectors, given the extraordinary increase in such firms' energy costs.

Growth in other domestic expenditure has moderated but so far remains positive in the face of rising interest rates and falling real wages. Consumption growth, which has been supported by a continued recovery in services consumption from the COVID-19 lows, has more than offset a modest decline in goods consumption; high-frequency indicators for spending on hotels and flights suggest this recovery has continued in October. In the United States and Germany, this has involved household saving rates falling below their pre-pandemic norms.

Graph 1.9

Policy Rates in Emerging Markets



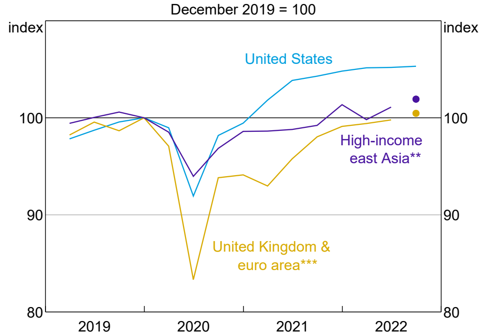
* Expected policy rate unavailable for Indonesia.

Sources: Bloomberg; Refinitiv

Graph 1.10

Domestic Final Demand*

December 2019 = 100



* Dots represent estimates derived from released national accounts data.

** PPP-weighted average of Japan, Taiwan, South Korea, Hong Kong and Singapore.

*** PPP-weighted average.

Sources: RBA; Refinitiv

Investment intentions have also moderated to around historical averages (Graph 1.12).

… and the tightness in labour markets has started to ease

The strong economic recovery from the pandemic has resulted in very tight labour markets, and unemployment rates remain around generational lows in many advanced economies (Graph 1.13). This is despite high rates of labour force participation; the United States and the United Kingdom are notable exceptions, however, as their participation rates are still below pre-pandemic levels.

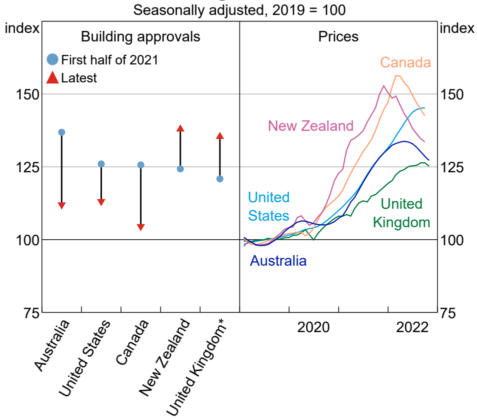
Employment growth, however, has moderated in almost all advanced economies, and employment is now declining in the euro area, Canada and Sweden. Vacancy rates and hiring intentions have also come off a little from their recent highs, but remain well above historical norms (Graph 1.14). Information from surveys and central banks' liaison indicates that it has become slightly easier to fill vacancies and that staff turnover has started to decrease.

Tight labour markets have contributed to nominal wages growth increasing to around its highest level in over a decade in most advanced economies (Graph 1.15). Broader measures of

Graph 1.11

Housing Indicators

Seasonally adjusted, 2019 = 100



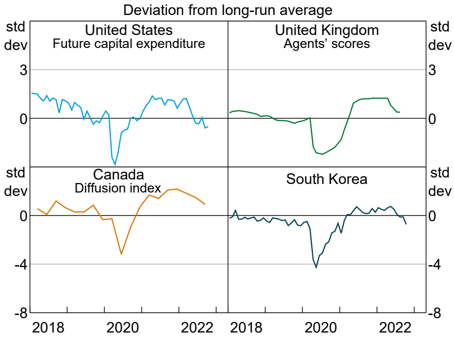
* Housing starts; quarterly.

Sources: ABS; national sources; RBA; Refinitiv

Graph 1.12

Investment Intentions

Deviation from long-run average

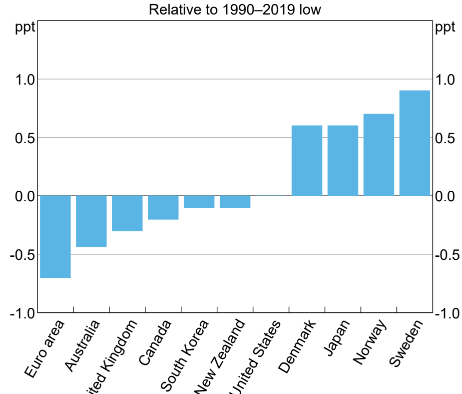


Sources: Bank of Canada; RBA; Refinitiv

Graph 1.13

Unemployment Rates

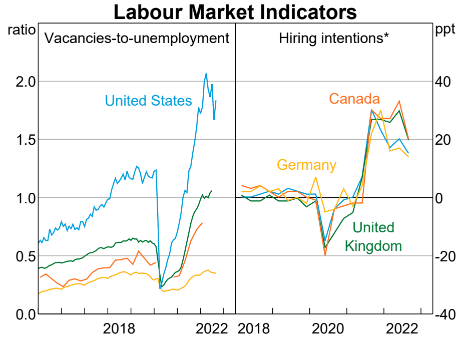
Relative to 1990–2019 low



Sources: RBA; Refinitiv

Graph 1.14

Labour Market Indicators



* Deviation from 2015–2019 average; net balance of responses for hiring in the next three months.

Sources: RBA; Refinitiv

wages growth that capture additional remuneration like bonuses, overtime and promotions have typically increased more strongly than other measures. There are, however, some signs from central banks' liaison and other wages data that wages growth may have peaked in a few countries.

The Chinese economy has recovered from earlier lockdowns but faces significant headwinds …

The Chinese economy grew by 4 per cent in the September quarter, reversing the 2¾ per cent contraction in the June quarter that resulted from strict measures to contain the spread of COVID-19. The improvement was led by a rebound in household consumption, particularly of non-essential services and discretionary goods. Industrial production retraced earlier falls, led by a sharp increase in automobile production (in part because of fiscal incentives for the purchase of new vehicles) (Graph 1.16). However, economic activity continues to be disrupted by the repeated imposition of mobility restrictions to contain COVID-19 cases in various parts of the country.

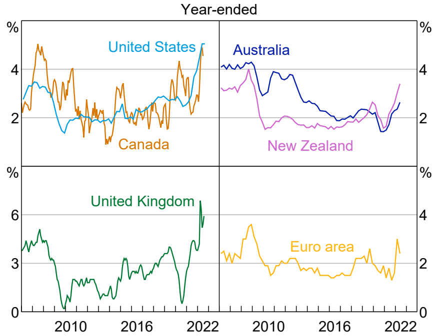
Chinese authorities have responded to the ongoing headwinds facing the economy by announcing a wide range of fiscal support measures. These include a variety of tax rebates or deferrals and consumption vouchers; together, these have resulted in the 2022 budget deficit significantly exceeding that in 2021, even with a further three months in the year still to go (Graph 1.17). In addition, government investment has increased strongly, most notably for infrastructure. Local governments had largely issued their full 2022 quota of CNY3.65 trillion in special bonds (which are typically used for infrastructure projects) by the end of June, and have subsequently issued most of the additional CNY500 billion made available in September. The central authorities have encouraged local governments to use these funds as quickly as possible.

Statements from the 20th National Congress of the Chinese Communist Party, held in mid-October, reinforced the trajectory of economic policymaking that has emerged in the past few years. As anticipated, Xi Jinping was returned as General Secretary to the Party, and his report reiterated existing commitments to develop the domestic economy, support innovation in science and technology, address demographic challenges and skills shortages, improve environmental outcomes, reduce inequality and improve access to social services. The report also highlighted a number of challenges facing China, including 'unbalanced and inadequate'

Graph 1.15

Wages Growth*

Year-ended



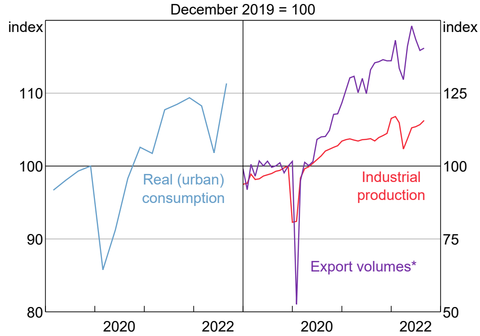
* Labour cost indices used where available; average earnings for Canada and the United Kingdom (compositionally controlled for the United Kingdom prior to April 2022 and for Canada throughout).

Sources: BoE; RBA; Refinitiv; Statistics Canada

Graph 1.16

China – Activity Indicators

December 2019 = 100



* Deflated using US price deflator for imports from China.

Sources: CEIC Data; RBA

domestic development and increased challenges abroad, and emphasised a desire to increase the resilience of China's economy.

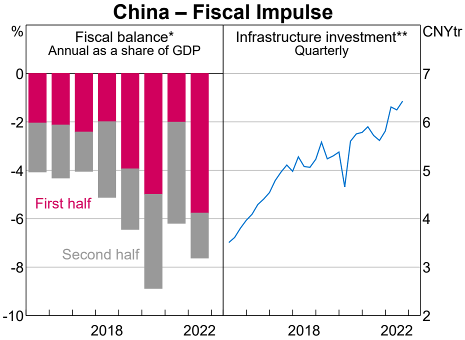
… and stress in the property sector remains a significant concern

Residential property sales are around their lowest level since 2015 (excluding the initial 2020 lockdown period), and have not yet recovered after a sharp fall during the April/May 2022 lockdowns (Graph 1.18). Liaison contacts attribute this weakness to several factors, including: ongoing concerns around the outlook for household incomes; adverse demographic factors; authorities' stated desire to discourage speculation; and households' concerns that developers may not complete construction. Authorities have sought to stimulate demand by reducing the cost of financing purchases in various ways, and relaxing restrictions on the ability of households to purchase properties; more recently, the authorities have also provided funding to a range of entities to support the completion of stalled projects and urged banks to increase lending to the property sector. Some stalled developments have since restarted and sales have increased modestly. However, sales remain at low levels and housing starts remained depressed in September, reaching the lowest levels in more than a decade. Weakness in the residential property sector will weigh on demand for steel, and so Australian iron ore; estimates suggest that this sector accounts for around one-fifth of Chinese steel demand.

Weakness in the property market has continued to add to financial pressures for property developers, including some more highly rated developers. Equity and bond market pricing suggest the scale of support measures announced by the authorities so far appears to have been insufficient to restore confidence in the health of the property sector. Indeed, equity and bond prices of many large developers, including some that are state-owned, continue to indicate severe financial distress (Graph 1.19).

Graph 1.17

China – Fiscal Impulse



* Consolidated measure that includes central government, local government and government funds; as a share of previous year nominal GDP.

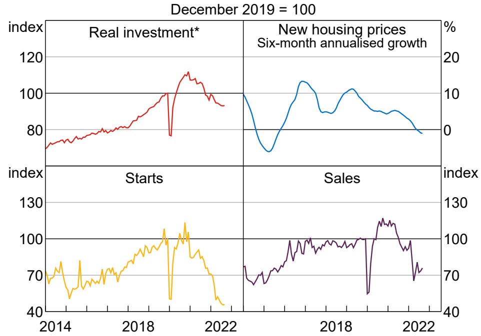
** Includes social infrastructure such as health, education, and cultural and sporting facilities.

Sources: CEIC Data; RBA

Graph 1.18

China – Residential Property Indicators

December 2019 = 100



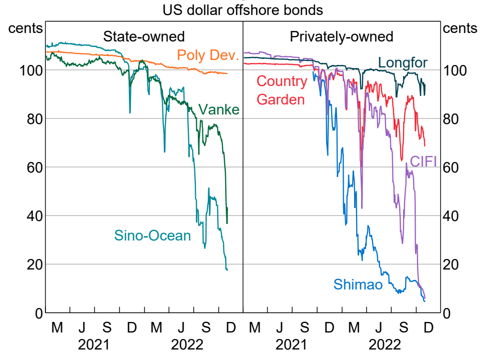
* Residential real estate investment excluding the purchase of land; deflated using weighted producer price data.

Sources: CEIC Data; RBA

Graph 1.19

Chinese Developer Bond Prices

US dollar offshore bonds



Source: Bloomberg

Chinese authorities have eased policy further

Broader financial conditions outside of the property sector remain accommodative, although volatility in financial markets has increased in recent weeks. The People's Bank of China (PBC) eased monetary policy further in August, lowering its key policy rates by 10 basis points. The five-year loan prime rate (LPR) – a key mortgage reference rate that is an average of lending rates reported by banks – declined by 15 basis points (Graph 1.20). The policy easing followed continued weakness in household credit growth, particularly in mortgage-related lending. Growth in lending to corporations has picked up a little as authorities have continued to encourage banks to lend to certain sectors, including property and manufacturing.

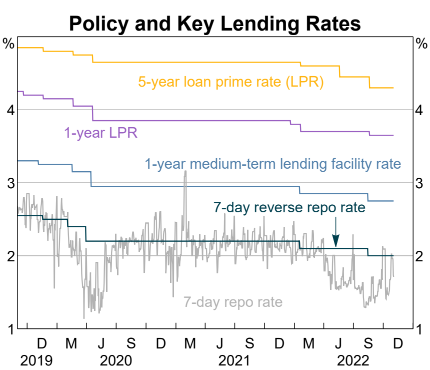
Equity prices in China have declined further amid a weaker economic outlook, while Chinese Government bond yields have been little changed since the previous *Statement* and remain slightly above their recent lows. Some Chinese banks have also lowered their deposit rates for the first time since 2015 following the cut to loan prime rates, which should support bank margins.

GDP is forecast to contract over coming quarters in some economies

Forecasts for GDP growth in advanced economies over the next couple of years have been lowered further because of stubbornly high inflation and resulting expectations that financial conditions will have to tighten by more than previously assumed (Graph 1.21).[1] GDP is expected to contract in the euro area (most notably in Germany) and the United Kingdom in coming quarters, and to be little changed in the United States over the next year. Large downward revisions to forecasts for the German and UK economies reflect their greater exposure to high gas prices and an expectation that recent fiscal announcements are unlikely to offset this fully.

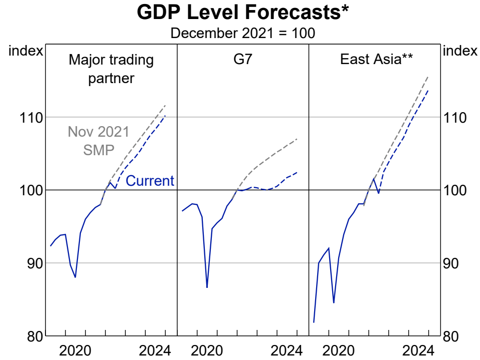
Forecasts for growth in China in 2023 have also been revised down over recent months, as sustained weakness in the property sector added to the headwinds from Chinese authorities' approach to managing COVID-19. While growth in 2023 is expected to be much stronger than in 2022 (conditional on there not being a repeat of lockdowns as disruptive as Shanghai's experience this year), Chinese GDP is still expected to remain well below its earlier trajectory. Forecasts for growth in other Asian economies have also been revised lower, in

Graph 1.20



Sources: CEIC; RBA

Graph 1.21



* Dashed lines represent forecasts.
** Major East Asian economies excluding Japan.
Sources: ABS; CEIC Data; Consensus Economics; RBA; Refinitiv

anticipation that weaker demand from China and advanced economies will weigh on manufacturing and that monetary tightening will constrain domestic demand.

Overall growth in Australia's trading partners is expected to be slightly below 3½ per cent in 2022 and 2023 – well below its pre-pandemic decade average of 4½ per cent. The forecast for 2023 is almost ½ percentage point lower than it was around the start of this year.

The uncertainties surrounding the global outlook continue to be large, and are skewed to the downside. The key uncertainties are:

- *Inflation could stay persistently high, even as growth slows, necessitating a larger monetary policy tightening than currently envisaged.* This could occur if recent high inflation outcomes cause price- and wage-setting behaviour to adjust in a way that is inconsistent with inflation returning to central banks' targets. Alternatively, inflation could be more persistent if supply capacity is more limited than currently assumed because of structural changes arising from the pandemic or ongoing weakness in productivity growth. On the other hand, it is also possible that an improving supply-demand balance leads to a faster-than-expected reduction in inflation, after having boosted inflation over the past year.
- *Global growth could be less resilient to various headwinds.* One factor that may cause growth to slow by more than expected is if households are more responsive to the sizeable and widespread global monetary tightening, given an environment of high household debt and a decline in housing prices from what had been very elevated levels. More broadly, a further escalation of Russia's war against Ukraine could cause growth to be materially weaker. On the other hand, growth could be stronger than expected if households are comfortable spending more of the excess savings accumulated during the pandemic.
- *The Chinese economy could grow more slowly than forecast given risks associated with the authorities' approach to controlling COVID-19 and stress in the property market.* Growth could be particularly weak if China's continued attempts to suppress the virus fail to contain outbreaks quickly, causing a repeat of the economic drag observed during the April/May outbreaks. China's efforts to suppress the virus could also have more pervasive or lingering effects than assumed. It is also possible that weakness in the property market will weigh more heavily on overall activity than currently envisaged. On the other hand, the variety of policy measures announced by authorities over recent months could prove to be more effective than currently assumed.

Many commodity prices have eased in response to the weaker global outlook

Concerns around the outlook for global growth and continued weakness in the Chinese property sector has seen many commodity prices ease over recent months (Graph 1.22; Table 1.1). Prices for a number of commodities have now retraced the sharp rise that occurred following Russia's invasion of Ukraine, and iron ore prices are back to their level just prior to the onset of the pandemic. However, wheat prices have increased significantly since early September, amid uncertainty about Russia's commitment to a deal that allows for Ukrainian seaborne exports, as well as deteriorating weather conditions in Argentina and the United States. The price of crude oil has also been supported over the past month by political decisions, including an announced reduction in supply by OPEC+ countries and expectations of a further tightening in supply when the EU's ban on Russian imports takes effect in early December.

Table 1.1: Commodity Price Growth[(a)]

SDR terms; percentage change

	Since previous *Statement*	Over the past year
Bulk commodities	3	23
– Iron ore	–23	–4
– Coking coal	66	–16
– Thermal coal	–1	163
LNG – Asia spot price	–24	10
Rural	5	3
Base metals	–2	–8
Gold	–5	0
Brent crude oil[(b)]	–1	16
RBA ICP	–3	17
– Using spot prices for bulk commodities	–2	14

(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; Refinitiv; RBA

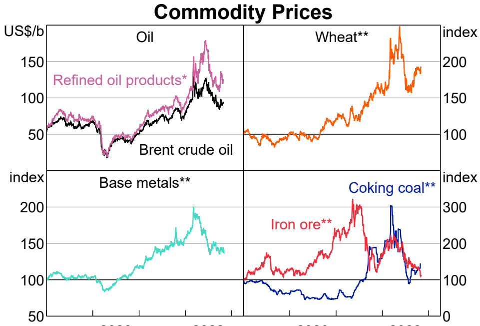
Government bond yields have risen and become increasingly volatile

Government bond yields have risen significantly in most advanced economies over recent months, reflecting expectations that central banks will raise policy rates faster and to a greater extent than earlier anticipated in response to persistently high inflation (Graph 1.23). Consistent with expectations of tighter central bank monetary policy, real yields have increased significantly in most advanced economies to be around their highest levels since the early-to-mid-2010s (Graph 1.24). However, the recent increase in real yields may in part reflect an increase in term and liquidity premia for inflation-linked bonds, which is likely to have risen alongside the increase in volatility in government bond markets, especially the United Kingdom (see below).

Volatility in government bond yields has increased notably and recently reached levels comparable to those in March 2020, which was

Graph 1.22

Commodity Prices



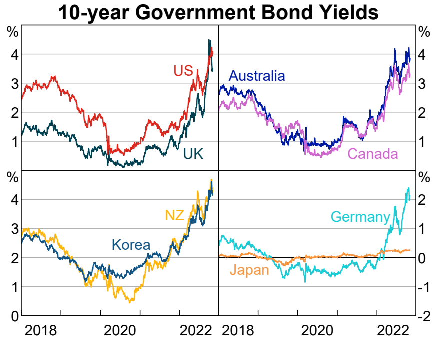
* Based on wholesale petroleum and diesel prices; weighted by the typical share of output from one barrel of crude.

** January 2019 = 100; indexed to US dollar prices.

Sources: Bloomberg; McCloskey by OPIS; RBA

Graph 1.23

10-year Government Bond Yields



Sources: Bloomberg; Yieldbroker

a period of severe dysfunction in government bond markets (Graph 1.25). Liquidity conditions have deteriorated noticeably in some markets, including the US Treasury market. Long-term government bond yields in the United Kingdom have been particularly volatile following the government's announcement of a debt-financed fiscal package in late September. The large increase in yields following the announcement resulted in a significant increase in margin calls associated with the interest rate hedging activity of pension funds, which increased the risk of asset 'fire sales' and further volatility. In response, the BoE announced a temporary program of up to £65 billion worth of government bond purchases to restore market functioning and address material risks to financial stability; it also purchased index-linked government bonds for the first time under the program. BoE purchases under this program totalled approximately £19 billion. South Korean authorities have also recently conducted government bond purchases in response to volatility in the domestic bond market.

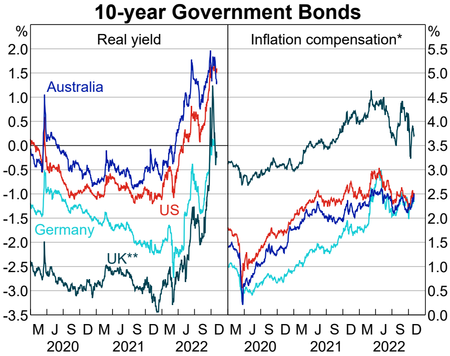
Emerging market government bond yields have risen and become more volatile in recent months, driven in part by expectations of higher domestic policy rates and higher yields in advanced economies. In August, Bank Indonesia announced an 'operation twist' program to sell short-term government bonds and buy longer term bonds. The program is aimed at raising short-term bond yields, thereby attracting capital inflows and supporting the rupiah, while preventing longer term yields from rising significantly.

Private sector financial conditions have tightened significantly this year

Conditions in corporate bond markets have tightened in recent months (Graph 1.26). Corporate bond yields have risen substantially and by more than government bond yields. The widening in credit spreads mainly reflect concerns about the impact of monetary policy tightening on the economy, especially for lower rated firms. Corporate bond issuance has declined since the start of the year in advanced economies, particularly for sub-investment grade bonds. This follows high levels of issuance in 2020 and 2021, during which time many firms extended the maturity of their outstanding debt to 2023 and beyond. In South Korea, yields in corporate bond and short-term money markets increased sharply following the default of a large property developer in late September. South Korean authorities have announced a package of measures to stabilise market conditions,

Graph 1.24

10-year Government Bonds



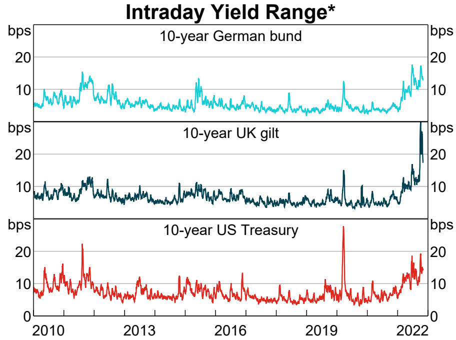
* Spread between yields on nominal and inflation-linked bonds.

** UK inflation-indexed bonds are linked to Retail Prices Index (RPI) inflation, which is currently 2.5 percentage points higher than CPI inflation. RPI inflation is typically higher than CPI inflation because of differences in their calculation method and the inclusion of owner-occupied housing costs in the RPI.

Sources: Bloomberg; RBA; Yieldbroker

Graph 1.25

Intraday Yield Range*



* Ten day moving average.

Source: Bloomberg

including purchases of corporate bonds and commercial paper.

Equity prices in most major markets have declined in recent months and are now around 20 per cent lower than at the start of the year in the United States and Europe (Graph 1.27). This mainly reflects higher interest rates, which lowers the present valuations of future company earnings; the communication services, consumer discretionary and technology sectors have seen the largest declines. The decline in equity prices also reflect concerns around the effect on profits from further expected monetary policy tightening and a weaker outlook for global growth. Equity issuance has remained subdued since early 2022 in both the United States and Europe.

The US dollar has appreciated significantly this year …

The US dollar has appreciated further against the currencies of most economies over recent months and measures of volatility in foreign exchange markets increased notably (Graph 1.28). The US dollar has appreciated around 11 per cent since the beginning of the year on a trade-weighted (TWI) basis, alongside an increase in short-term US government bond yields relative to those of other major economies and increased volatility in international financial markets over recent months.

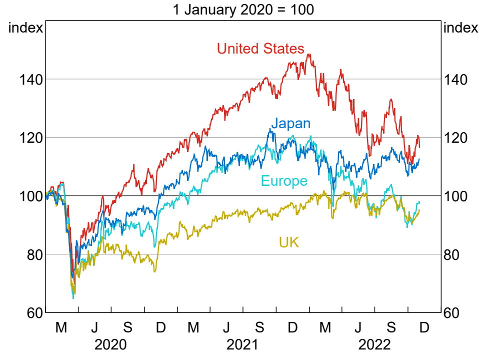
In September, there was a sharp depreciation in the British pound associated with the announcement of a new fiscal package in the mini budget. While this move has now been reversed, the pound remains around 6 per cent lower on a TWI basis over the year to date, having depreciated over a number of months amid concerns about the economic outlook in the United Kingdom.

The Japanese yen has depreciated significantly this year alongside a widening in yield differentials between Japanese Government bonds and those of other major advanced economies as the BoJ continues to maintain

Graph 1.27

Equity Prices

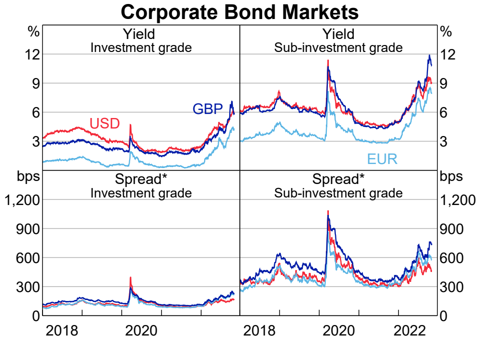
1 January 2020 = 100



Source: Bloomberg

Graph 1.26

Corporate Bond Markets



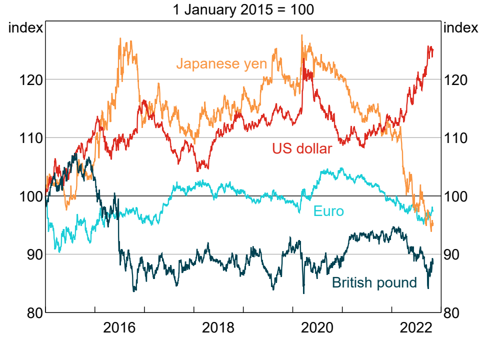
* Spread to equivalent maturity government bond yield.

Source: ICE Data is used with permission

Graph 1.28

Trade-weighted Exchange Rates

1 January 2015 = 100



Sources: Bloomberg; Board of Governors of the Federal Reserve System accommodative monetary policy. The currencies of commodity-exporting economies have also depreciated in recent months alongside declines in the prices of international risk assets and a range of commodity prices amid concerns about the global growth outlook.

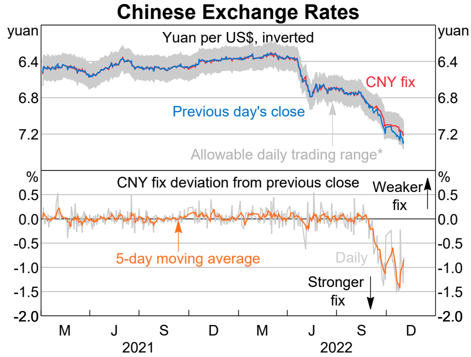
… and some central banks have taken measures to support their currency

Increased volatility in foreign exchange markets and sharp depreciations of some currencies has prompted foreign exchange intervention from some central banks. In September, the Japanese Ministry of Finance directed the BoJ to intervene in the foreign exchange market to support the yen for the first time since 1998, to address 'a rapid and one-sided' move in the foreign exchange market. Following a further depreciation of the yen through October, Japanese authorities confirmed that they had intervened again during the month. Central banks in several other economies have also intervened to support their currencies, including in South Korea, Chile, India, Indonesia, the Philippines and Thailand.

The Chinese renminbi has depreciated sharply against the US dollar since the previous *Statement* and is now around its lowest level since 2007. The PBC has implemented several measures to reduce the pace of renminbi depreciation. Since late August, the PBC has consistently set a stronger 'CNY fix' – the midpoint of the permitted daily trading range – for the renminbi than expected by surveyed market participants, and has reportedly asked state banks to sell US dollars into the market (Graph 1.29). The PBC also cut the reserve requirement ratio on foreign exchange deposits in September following an earlier cut in April, and reinstated a reserve requirement ratio of 20 per cent on banks' forward sales of foreign exchange. These measures are aimed at reducing depreciation pressure on the renminbi by increasing the amount of foreign currency available onshore and making it more expensive to short the renminbi.

Graph 1.29

Chinese Exchange Rates



* Since early 2014 the CNY has been allowed to trade in a daily range of +/- 2 per cent from the CNY fix.

Sources: Bloomberg; CEIC; RBA

Endnotes

[1] Forecasts for all countries other than China are based on those from Consensus Economics. Forecasts for Chinese economic growth are independently derived.