

Statement on Monetary Policy

AUGUST 2022



RESERVE BANK OF AUSTRALIA

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Overview

Inflation is high globally and has risen further in recent months. Strong demand, supported by monetary and fiscal stimulus, has come up against global supply capacity that continues to be impaired by the COVID-19 pandemic. In addition, some energy and food prices are higher as a result of Russia's invasion of Ukraine. Inflation has already reached 7–10 per cent in many economies and is expected to peak later and higher than previously thought. Unemployment rates remain around generational lows in most advanced economies.

The rapid increase in the cost of living is reducing real incomes. High inflation has also led central banks to increase interest rates quite quickly. Together, these developments are weighing on the outlook for global growth. The slowing in growth is expected to be driven by an easing in household consumption growth. Lower asset prices could also contribute to the downward pressure on consumption. Consumer confidence has fallen sharply in many countries and some timely indicators of growth in activity have begun to soften.

Inflation has been boosted by high energy prices, following Russia's invasion of Ukraine. Further shocks to energy prices are possible, given the tensions ensuing from the invasion; Europe is particularly exposed to the possibility that gas supplies will be further disrupted. As the global growth outlook has been revised lower, many non-energy commodity prices have reversed the increases that occurred in the wake of the invasion and are now back around their levels at the beginning of the year.

In Australia, inflation is now the highest it has been since the early 1990s and is expected to peak at a higher rate than earlier envisaged. Global factors have contributed significantly to this outcome, but domestic pressures are also playing a role. Headline inflation was 1.7 per cent (seasonally adjusted) in the June quarter and 6.1 per cent over the year. Higher prices for petrol again added to overall inflation, and the prices of fruit and vegetables rose because of flooding on the east coast. Inflation pressures are broadly based; trimmed mean inflation remained high in the quarter at 1.5 per cent, taking the year-ended rate to 4.9 per cent. Input cost pressures have lifted inflation for new dwelling construction, consumer durables, groceries and some services. A large share of the goods and services in the Consumer Price Index basket are seeing annualised inflation above 3 per cent at present.

Inflation in Australia is expected to increase further over the course of this year, reaching around 7¾ per cent in headline terms around the end of the year. Domestic retail gas and electricity prices are expected to increase by 10–15 per cent over the second half of 2022, given the high global price of energy and recent disruptions in the domestic electricity market. Trimmed mean inflation is also expected to peak around year-end, at about 6 per cent, as firms continue to pass transport and other non-labour cost pressures through to their own prices. As supply constraints continue to ease, inflation is expected to decline over coming years, to be back around the top of the 2 to 3 per cent target range by the end of 2024. One uncertainty

affecting the outlook for inflation is the possibility that inflation expectations and the general inflation psychology shift, and lead to the higher inflation being more persistent.

The domestic labour market is the tightest it has been in many years. Employment growth has been strong and the unemployment rate has declined faster than earlier expected, to be 3.5 per cent in June – its lowest level in almost 50 years. Underemployment has also declined and the employment-to-population ratio and participation rate are both at record highs. Leading indicators of demand for labour remain strong. Job vacancies and advertisements are at exceptionally high levels. Many employers have reported in liaison and business surveys that they plan to increase headcount further but are finding it harder to do so. The unemployment rate is expected to decline a little further still, to 3¼ per cent in late 2022, which is lower than was previously forecast. It is then expected to increase gradually as economic growth slows.

The tight labour market is expected to result in stronger wages growth over the period ahead, but growth in labour costs is expected to be below the rate of inflation for a time. An increasing share of firms in liaison and business surveys have reported that they are paying larger wage increases this year, including because of the recent decision by the Fair Work Commission on minimum and award rates of pay. Recent high inflation outcomes have also been a factor in some recent wage negotiations. Broader measures of labour income growth are expected to increase faster than the Wage Price Index over the forecast period, as workers switch jobs in pursuit of higher pay and employers use non-wage remuneration such as bonuses to attract and retain staff.

The Australian economy has been resilient to the disruptions caused by the Omicron outbreaks and floods on the east coast, and grew strongly over the first half of this year. GDP is forecast to grow by 3¼ per cent over 2022, supported by

consumption spending and a recovery in services exports. GDP growth is then expected to slow to 1¾ per cent in each of the following two years; these forecasts are lower than three months ago. A higher cost of living, rising interest rates and declining housing prices are expected to weigh on growth in spending, at the same time as growth in public demand slows. Reflecting still-high commodity prices, Australia's terms of trade are expected to remain on a higher trajectory than previously forecast, even as they decline from a likely historical high in the June quarter.

The competing forces of a tight labour market (and so strong labour incomes) and cost-of-living pressures on household incomes make the outlook for consumption unusually uncertain. Employment growth could be stronger than expected, and strong household balance sheet positions could support household consumption by more than anticipated. Alternatively, a decline in real incomes for the average household could weigh on spending more than expected, particularly if household wealth is also declining. Many households should be well placed to absorb higher prices and interest costs without significantly curtailing consumption. However, there are some households that will be more budget constrained in the period ahead, particularly those with low savings buffers and high debt.

The slowing housing market represents a headwind for household consumption. Established housing prices have been declining for some months in Sydney and Melbourne, and more recently in a wider range of cities and regions. The resulting wealth effects are expected to dampen growth in household consumption; however, it is noteworthy that these falls follow a substantial run-up in prices over the preceding 18 months. New lending for housing has also eased in recent months but remains at high levels. Dwelling investment is

likely to be supported for at least the next year by the large pipeline of detached house construction projects that are currently underway. Capacity constraints and weather-related disruptions have limited the pace at which this pipeline can be worked down, however. Further out, the outlook for dwelling investment is softer as a result of the combination of declining housing prices, higher interest rates and high construction costs.

The outlook for investment more broadly remains positive, although capacity constraints are evident in some areas. Survey measures of business conditions are strong and business credit is growing rapidly. The pipeline of non-residential construction projects has increased recently, and surveys and liaison information about non-mining firms' investment intentions imply that machinery and equipment investment will grow over the period ahead. Public investment is expected to increase over the forecast period, but as for private-sector construction activity, it is likely to face capacity constraints. Public consumption is likely to grow more slowly than the rest of the economy, as pandemic-related spending unwinds.

Financial conditions globally have tightened noticeably from their unusually accommodative levels at the start of the year. Many advanced economy central banks have increased policy interest rates by more than earlier anticipated. These moves have been motivated by the need to reduce the risk that high inflation becomes entrenched, which would require a larger and more costly tightening in policy later on. Emerging market central banks have also continued to tighten policy, with a number in Asia starting to raise rates over recent months. In line with the weaker outlook for global growth, equity prices have fallen over the course of this year and credit spreads have widened. Longer-term government bond yields have also reversed some of their earlier increases. Movements in Australian financial markets have

been broadly consistent with global developments. The Australian dollar has appreciated of late, largely reversing the depreciation over preceding months.

The risks to the global outlook are skewed to the downside. Inflation is high in many economies and increasingly driven by domestic demand pressures. The longer high inflation persists and the more expectations adjust, the more monetary policy might need to be tightened. In doing so, central banks are having to weigh up the need to rein in inflation and contain inflation expectations against the weakening outlook for growth. The synchronised nature of the tightening in monetary policy globally could prove quite contractionary, and is occurring at a time when fiscal policy is offering less support. As in Australia, it is also unclear how firms and households will respond to real incomes declining at the same time that labour markets in most advanced economies remain tight.

On the supply side, further shocks to global energy supply could adversely affect both global growth and inflation. In addition, restrictions to control the spread of COVID-19 in China led to an unexpectedly large contraction there in the June quarter; further outbreaks could both weigh on growth in China and disrupt global supply chains. The Chinese economy is also contending with weak property market conditions and increasing levels of distress among developers.

Over the course of this year, inflation in Australia has been higher than was previously expected and the labour market has tightened faster than was thought likely, with the unemployment rate now standing at 3½ per cent. In this environment, there is a risk that expectations of high inflation might be built into price- and wage-setting behaviour, making the higher inflation more persistent. At the same time, the outlook for both the global and the Australian economies has been downgraded, as central banks raise interest rates and household

budgets come under pressure because of higher inflation.

In light of these developments and risks, the Reserve Bank Board has continued the process begun in May of normalising monetary conditions in Australia. During the pandemic, the Board put in place very considerable monetary stimulus to help the Australian economy through a very difficult period and provide insurance against the worst outcomes. The strong recovery of the economy and the high inflation are requiring the withdrawal of monetary stimulus earlier, and faster, than previously expected. Accordingly, the Board followed up the initial increase in the cash rate target of 25 basis points in May with three increases each of 50 basis points in the following three months. These increases have taken the cash rate target to 1.85 per cent and the remuneration rate on Exchange Settlement

balances to 1.75 per cent. The increases have been required to create a more sustainable balance of demand and supply in the Australian economy.

The Board is committed to do what is necessary to ensure that inflation in Australia returns to the 2 to 3 per cent target range over time. It is seeking to do this in a way that keeps the economy on an even keel. The path to achieve this balance is a narrow one and subject to considerable uncertainty. The Board expects to take further steps in the process of normalising monetary conditions over the months ahead, but it is not on a pre-set path. The size and timing of future interest rate increases will be guided by the incoming data and the Board's assessment of the outlook for inflation and the labour market. ✎

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.

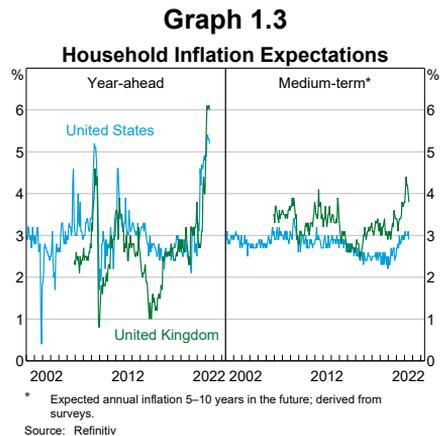
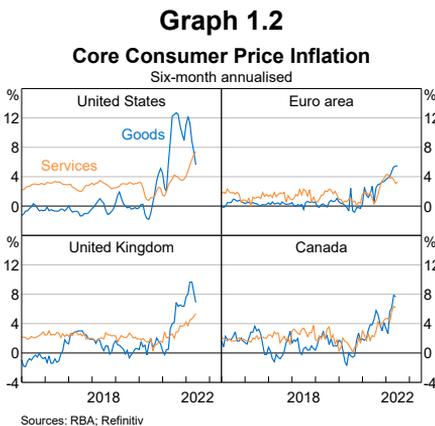
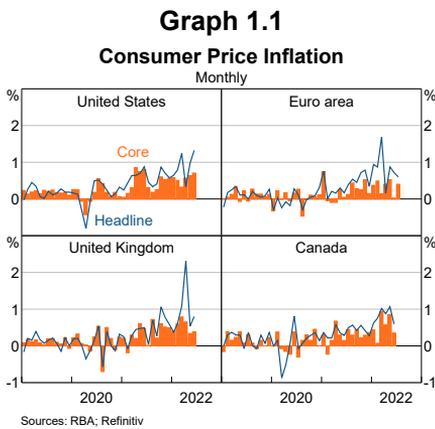
The persistence of high core inflation reflects rising services inflation offsetting a gradual moderation in goods inflation in some economies (Graph 1.2). Services inflation has increased in most economies, underpinned by a

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 policymakers 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.

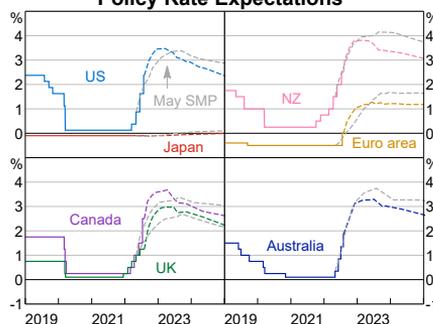
- At its meetings in May and June, the Bank of England (BoE) increased its policy rate by a cumulative 50 basis points to 1.25 per cent. The BoE noted that it will be alert to indications of persistent inflationary pressures and will act forcefully if necessary.

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.

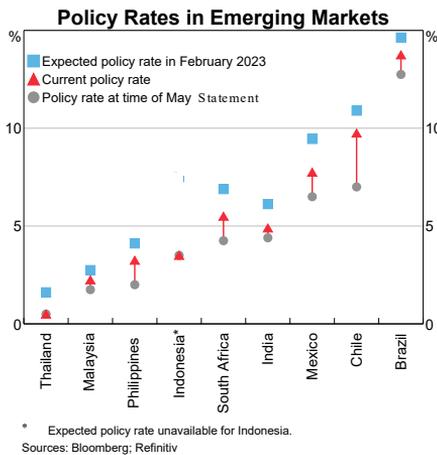
Global growth is forecast to slow significantly

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 $\frac{3}{4}$ of a percentage point, to 3 per cent. The forecast for year-average GDP growth in 2023 remains unchanged at $3\frac{3}{4}$ per cent. The risks to these forecasts are skewed to the downside.

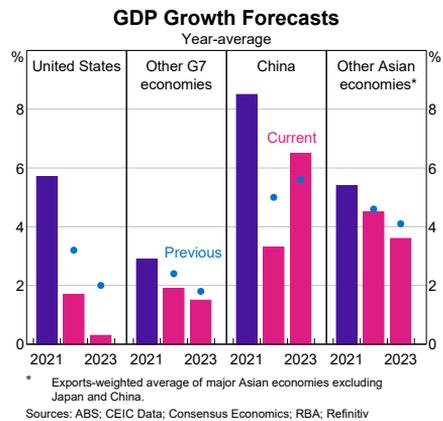
Expectations for substantially higher policy rates and the drag from high inflation on real household incomes are weighing on forecasts for growth in advanced economies. This is particularly the case for the United States, where the policy rate is expected to increase by more than in many other economies over the tightening cycle; US GDP growth forecasts for both 2022 and 2023 have been downgraded by $1\frac{1}{2}$ 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.

Graph 1.5



Graph 1.6



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

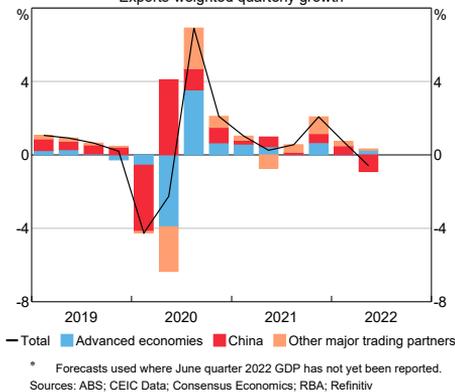
contractionary territory in July. Demand for housing in the United States has also weakened, with home sales around 20–30 per cent lower than at the start of the year. Demand for labour remains very strong, but there are also early signs that it may be starting to ease: vacancy-to-unemployment ratios 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.

... 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

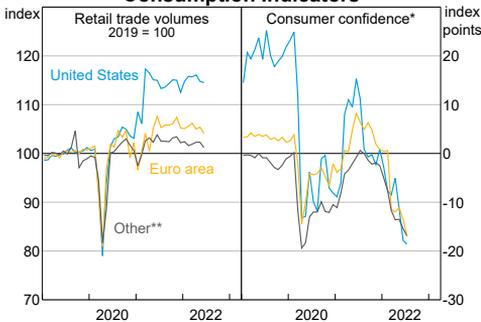
Graph 1.7

Australia's Major Trading Partner GDP*
Exports-weighted quarterly growth



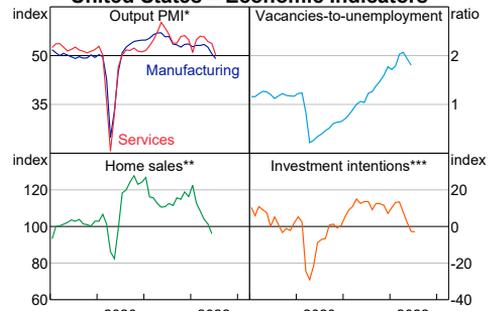
Graph 1.8

Consumption Indicators



Graph 1.9

United States – Economic Indicators



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



Graph 1.11



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.

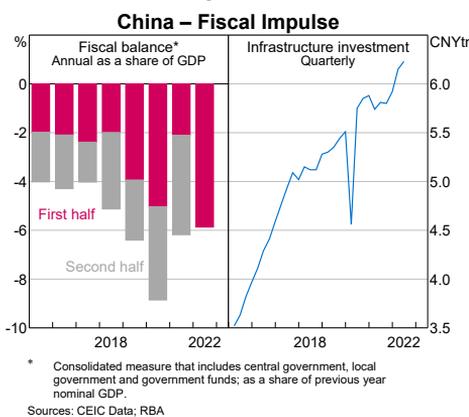
Supply constraints in global goods markets are beginning to ease ...

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

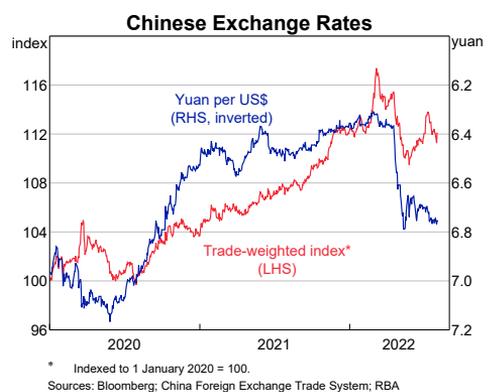
production and global demand for goods has plateaued. Chinese export volumes have rebounded since April, to be well above levels at the start of 2022, as authorities resolved disruptions to the movement of goods between cities and relaxed restrictions on manufacturing activity (Graph 1.14). Chinese industrial 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.

Graph 1.12



Graph 1.13



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.

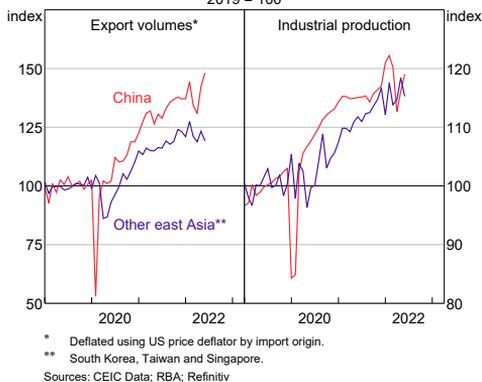
... and some commodity prices are now falling

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

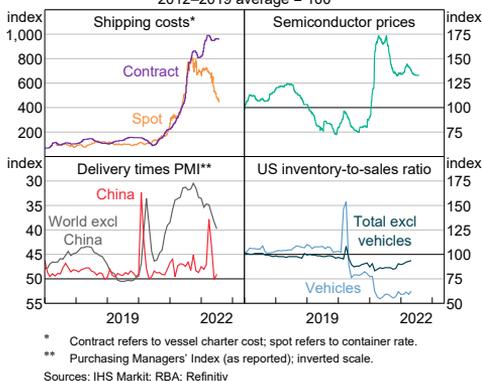
prior months, when refinery margins had widened to historical highs. Oil prices have continued to be supported by sanctions on Russian oil, heightened uncertainty around future Russian supply, and limited spare extraction and refinery capacity. Prices of agricultural products and inputs have also fallen 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



Graph 1.15
Supply Indicators
2012–2019 average = 100



Graph 1.16
Commodity Prices

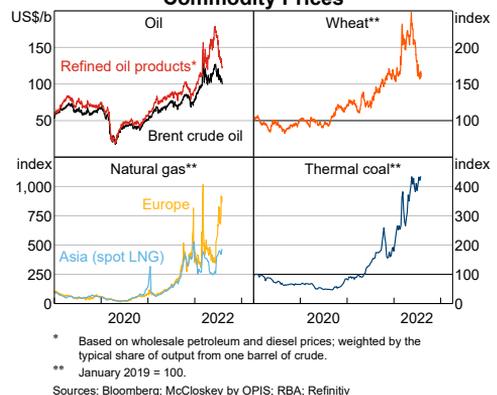


Table 1.1: Commodity Price Growth^(a)

SDR terms; percentage change

	Since previous <i>Statement</i>	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').

Graph 1.17**Metals Prices**

January 2019 = 100



Sources: Bloomberg; RBA

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

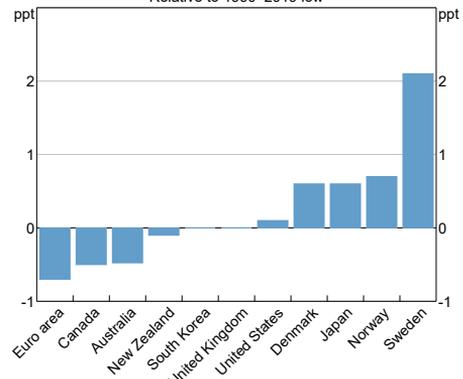
Government bond yields have risen substantially since the start of the year, reflecting persistently higher-than-expected inflation data and expectations that central banks will tighten policy faster and to a greater extent in response (Graph 1.21). In many advanced economies, the increase in bond yields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

tations 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 1.19

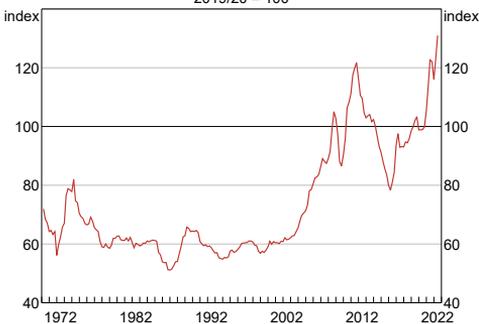
Unemployment Rates
Relative to 1990–2019 low



Sources: RBA; Refinitiv

Graph 1.18

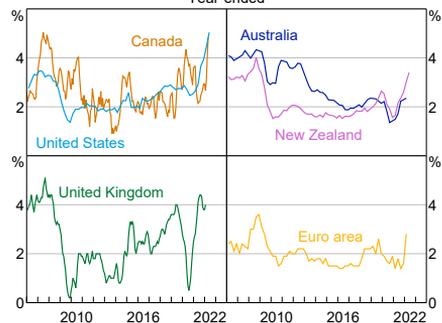
Terms of Trade*
2019/20 = 100



* Includes RBA forecast for the June quarter of 2022.
Sources: ABS; RBA

Graph 1.20

Wages Growth*
Year-ended



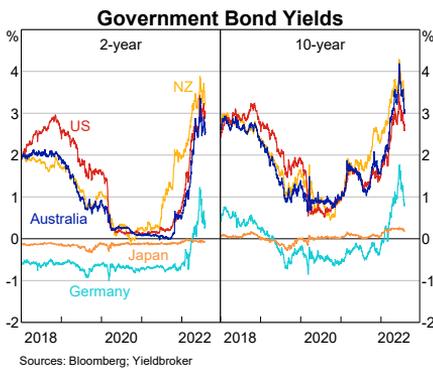
* Labour cost indices used where available; compositionally controlled average earnings for Canada and the United Kingdom.
Sources: BoE; RBA; Refinitiv; Statistics Canada

Private sector financial conditions have tightened

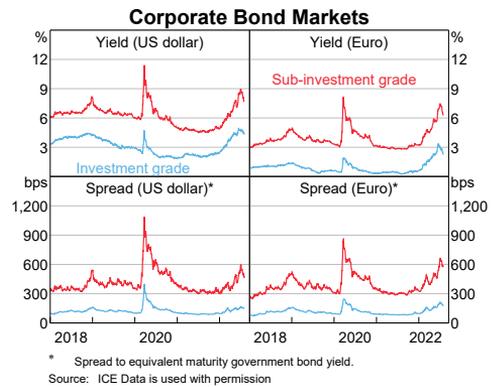
Conditions in corporate bond markets have tightened substantially from their unusually accommodative levels last year (Graph 1.23). Corporate bond yields have risen alongside an increase in government bond yields. In addition, credit spreads have widened, reflecting concerns about the economic implications 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.

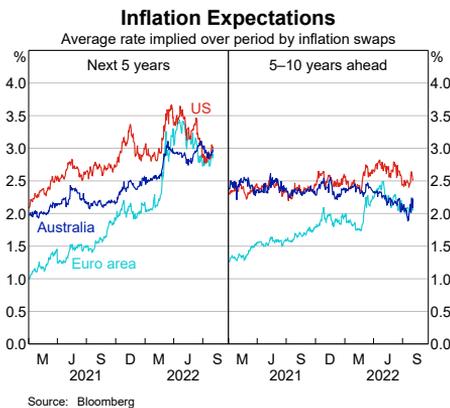
Graph 1.21



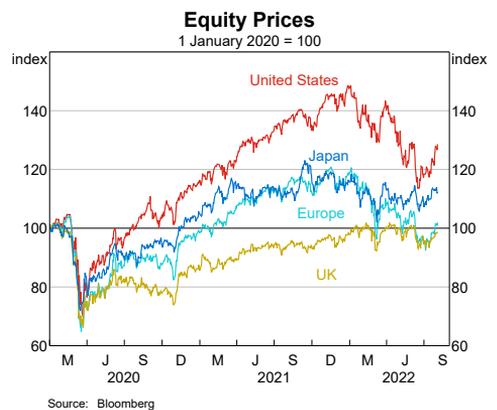
Graph 1.23



Graph 1.22



Graph 1.24



The US dollar has appreciated

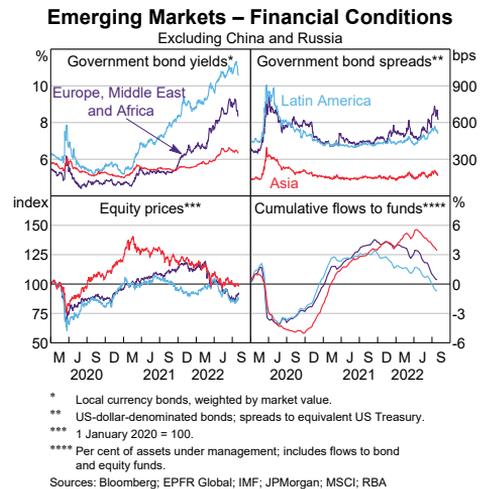
The US dollar has appreciated further over recent months and is around 6 per cent higher on a trade-weighted basis since the beginning of the year (Graph 1.25). The appreciation over the year to date is consistent with an increase in US interest rates relative to those of many other advanced economies. 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

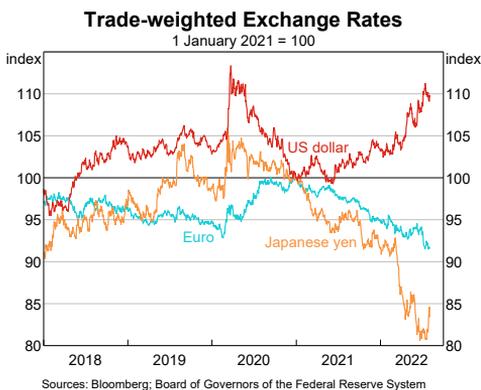
Spreads between US-dollar-denominated emerging market government bonds and US Government bonds have widened (Graph 1.26). Net portfolio outflows from emerging markets have continued amid declining equity prices,

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). 🌐

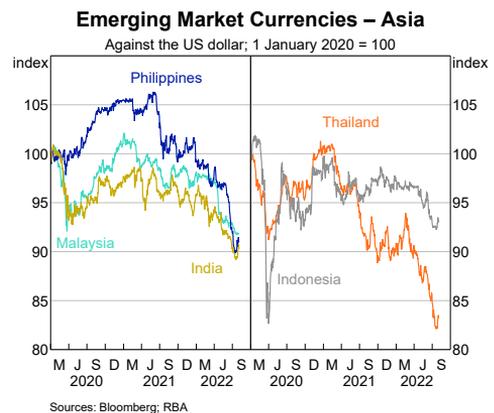
Graph 1.26



Graph 1.25



Graph 1.27



2. Domestic Economic Conditions

Australian economic activity was resilient to the disruptions caused by the Omicron outbreak of COVID-19 and the east coast floods in the first half of 2022. Growth in domestic demand was robust in the March quarter and timely indicators suggest momentum was sustained in the June quarter. The labour market is tight and full-time employment growth has been strong. Labour supply has been responsive to robust labour demand and the participation rate is at a record high. Measures of spare capacity in the labour market have declined to their lowest levels in decades and many firms are finding it challenging to hire workers. Strong labour demand is supporting household income. However, the headwinds to growth in activity are strengthening. Households' budgets have come under increasing pressure from rising prices, particularly for food and energy, and higher interest rates. Consumer sentiment has deteriorated sharply since the start of the year. Housing prices have begun to decline alongside weaker activity in the established housing market, rising interest rates and the expectation of further increases in the cash rate. Shortages of materials and labour are an ongoing challenge for some residential and infrastructure investment projects.

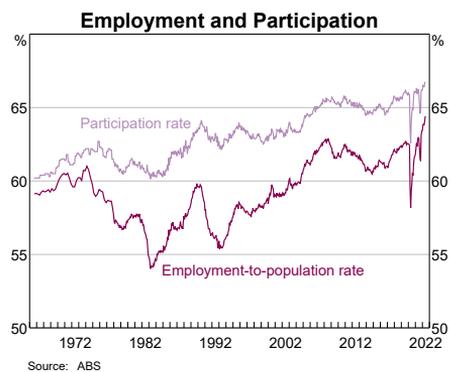
Demand for labour is strong

Employment has grown strongly in recent months, with the employment-to-population ratio reaching a record high level of 64.4 per cent in June (Graph 2.1). Employment increased by an average of 51,000 people per month over the past three months, compared

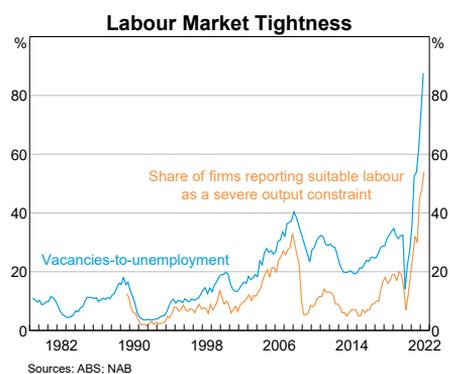
with an average of 21,000 in the 12 months to February 2020, despite population growth being lower than before the pandemic.

Leading indicators suggest that demand for labour will remain strong in the months ahead. Job vacancies and advertisements are at very high levels and there are nearly as many vacancies as there are unemployed people (Graph 2.2).

Graph 2.1



Graph 2.2



The supply of labour has increased in response ...

Labour force participation increased to a record high of 66.8 per cent in June. The rise in participation since the onset of the pandemic has been broadly based, and particularly strong for females and for people of both sexes aged 15–24 years and 55–64 years (Graph 2.3). In recent months, the youth participation rate reached its highest level since the mid-1990s. The participation rate of young people is more responsive to demand for labour than other age groups because they are less likely to be the primary income earner in their household. Further, youth employment tends to be concentrated in industries that are more sensitive to general economic conditions, such as accommodation & food services and retail trade.

... but labour market spare capacity has reached its lowest levels in decades

The labour market has continued to tighten in recent months amid strong labour demand. The unemployment rate fell to a near 50-year low of 3.5 per cent in June and the heads-based underutilisation rate declined to 9.6 per cent – the lowest rate since 1982 (Graph 2.4). Medium- and long-term unemployment rates have declined further in recent months; the medium-

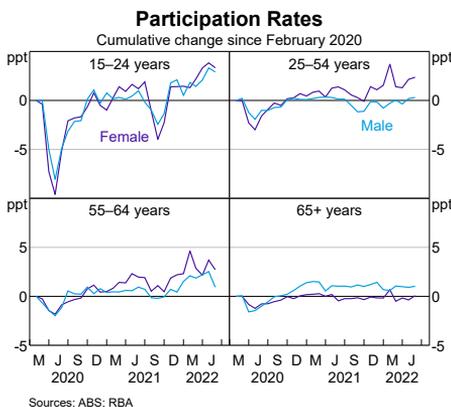
term unemployment rate, which is typically more representative of cyclical unemployment and so tends to be the most relevant for wages growth, is at its lowest level since the series began in 1991.

Hours-based measures of underutilisation have also declined to multi-decade lows as firms respond to demand by increasing the hours of existing staff. Many previously part-time employees have shifted into full-time work. Full-time employment in June was 7 per cent higher than its February 2020 level, while part-time employment was 0.6 per cent lower (Graph 2.5). The increased share of work that is full time has contributed to a rise in average hours worked to around pre-pandemic levels. This is despite an elevated number of employed persons continuing to work fewer-than-usual hours due to illness.

Hiring workers is becoming more challenging in the tight labour market

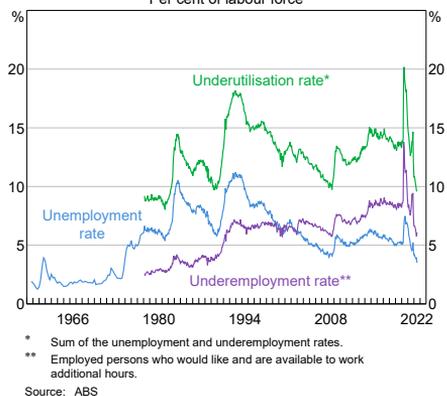
Hiring intentions reported by firms in surveys and the Bank’s liaison program remain strong. However, firms have also reported that finding suitable labour is a significant constraint on activity, with some expressing concerns about achieving their desired increases in headcount in the tight labour market. Firms have

Graph 2.3



Graph 2.4

Labour Underutilisation
Per cent of labour force



responded to labour availability issues by offering higher wage increases for specific workers, emphasising non-wage remuneration, and hiring less-experienced or less-qualified staff than previously.

Job vacancies remain high in most industries, including those that rely heavily on migrants for their workforce, such as accommodation & food services. Although permanent and long-term migration flows have largely returned to pre-pandemic levels, arrivals of students and working holidaymakers remain low, suggesting that vacancies may remain elevated for some time. Information from the Bank’s liaison program suggests that labour availability is yet to improve meaningfully following the reopening of the international border; some firms have attributed this to delays in visa approvals.

Job mobility remains higher than in the years preceding the pandemic in a range of industries and the number of people moving for a better job or because they want a change has continued to increase (Graph 2.6). However, overall job mobility has declined a little in recent months, particularly in professional services where mobility has returned to its long-run average. This is consistent with the earlier increase in mobility being largely a catch-up on job changes that were put on hold during the

pandemic. While job mobility in health care remains well above its long-run average, the number of people in health care expecting to change jobs in the next 12 months has declined to around average levels.

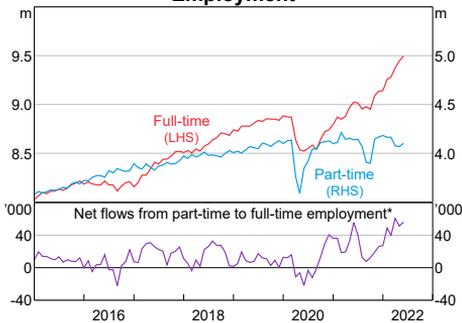
Strong labour market conditions continue to support household income

Household income increased by around 4 per cent over the year to the March quarter, to be more than 10 per cent higher than at the beginning of the pandemic. This was supported by strong growth in labour income as employment increased over this time (Graph 2.7). Timely indicators point to further strong growth in labour income in the June quarter, while social assistance payments have been supported by the indexation of these payments to inflation as well as additional ‘cost of living’ payments to welfare recipients.

Activity in the March quarter was resilient to the Omicron outbreak and east coast floods ...

The Australian economy grew by 0.8 per cent in the March quarter as domestic activity proved resilient to the Omicron outbreak and the flooding in New South Wales and Queensland that occurred throughout this period

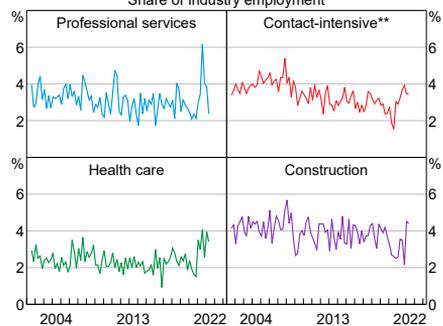
Graph 2.5
Employment



* Three-month rolling average.
Sources: ABS; RBA

Graph 2.6

Job Mobility by Industry*
Share of industry employment



* Based on the industry of new job.

** Includes accommodation & food services, arts & recreation and retail trade.

Sources: ABS; RBA

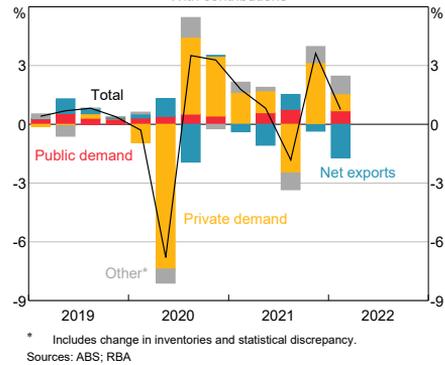
(Graph 2.8). The Omicron outbreak dampened activity a little, but was much less disruptive than previous waves of COVID-19 because of high vaccination rates and the absence of lockdowns. Growth in household consumption led the increase in domestic demand as discretionary spending continued to recover from prior restrictions and the full reopening of the international border enabled a pick-up in travel spending. Higher consumption saw the household saving ratio decline in the March quarter; however, at over 11 per cent, the saving ratio remained well above its average level in the years leading up to the pandemic (Graph 2.9).

Public consumption increased strongly in the March quarter supported by pandemic and flood-related spending. Dwelling investment fell as materials and labour shortages constrained activity, but business and public investment increased. Net trade subtracted from growth in the March quarter; exports declined due to production disruptions in the resources sector, while imports grew strongly as firms filled order backlogs and rebuilt inventories.

... and the domestic economy retained its strong momentum in the June quarter

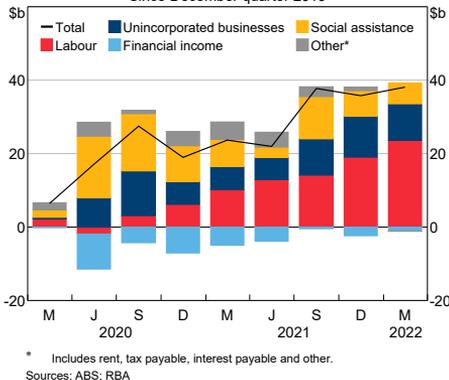
Timely indicators suggest that domestic demand increased strongly in the June quarter, driven by growth in household consumption. Retail sales volumes increased by 1.4 per cent in the June quarter, driven by discretionary goods and services consumption at cafes & restaurants, clothing & footwear shops and department stores (Graph 2.10). Information from retailers in the Bank's liaison program suggests retail sales values have remained at a high level in recent months, though price increases have made a larger contribution for some retailers as they pass on cost increases.

Graph 2.8
Quarterly GDP Growth
With contributions



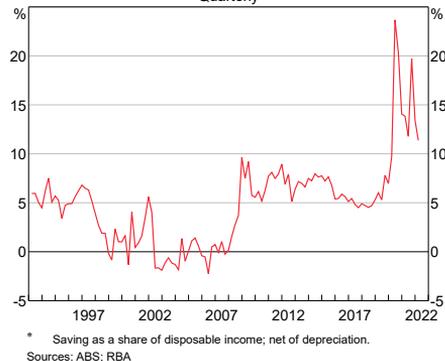
Graph 2.7

Change in Household Income
Since December quarter 2019



Graph 2.9

Household Saving Ratio*
Quarterly



Households are facing rising cost-of-living pressures, while higher interest rates are putting increased pressure on some household budgets. These developments have contributed to a sharp decline in consumer sentiment, which is now back around levels observed during the onset of the pandemic and the global financial crisis (Graph 2.11).

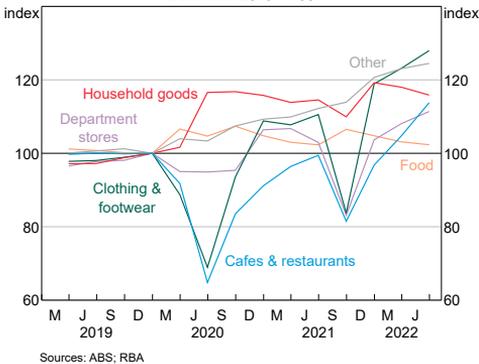
The outlook for business investment is positive ...

Business investment has grown by more than 10 per cent since its trough in mid-2020, underpinned by non-mining machinery and equipment investment (Graph 2.12). However,

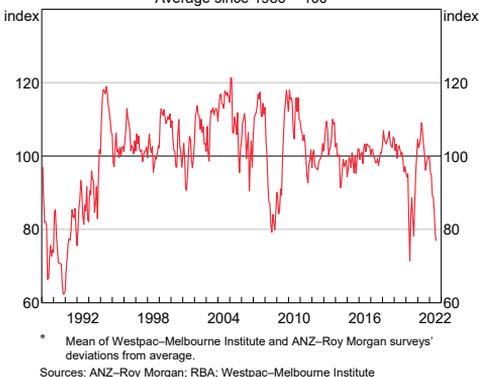
business investment remains below its pre-pandemic level as a share of GDP, reflecting lacklustre outcomes in other components. Non-residential construction investment has been hampered by supply chain issues, severe weather and capacity constraints. Growth in mining investment has also been subdued, despite very high prices for a range of commodities; this is consistent with information from the Bank's liaison program that suggests firms have been undertaking investment to sustain their level of production, rather than to expand capacity.

Survey measures of capacity utilisation and investment intentions point to a positive outlook for business investment. Non-mining capacity utilisation remained around its highest level in over three decades in June. The ABS Capital Expenditure Survey showed that firms have increased their expectations for investment in the 2022/23 financial year (Graph 2.13), a trend that has been broadly based across most industries. Information from the Bank's liaison program suggests firms remain optimistic about the longer term outlook for demand. However, some of the recent increase in investment spending intentions also reflects cost pressures, as a growing number of firms have noted that rising material and construction costs are

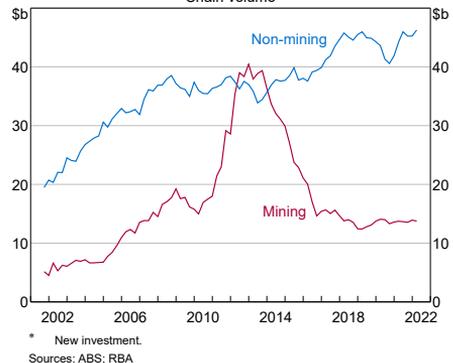
Graph 2.10
Retail Sales Volumes
December 2019 = 100



Graph 2.11
Consumer Sentiment*
Average since 1980 = 100



Graph 2.12
Private Business Investment*
Chain volume



increasing the nominal value of capital investments.

... but housing construction has been impeded by supply constraints and bad weather

A number of factors – including government policy measures, low interest rates and an apparent shift in preferences towards more space as people spent more time at home during the pandemic – supported demand for new housing and renovations over the past few years. The increase in detached housing approvals in 2021 resulted in a large pipeline of residential construction work (Graph 2.14). This pipeline will sustain construction activity even as demand for new housing eases, as indicated by new home sales, greenfield land sales and dwelling approvals.

The pace of construction activity has been constrained by supply chain issues, and capacity utilisation within the industry has been elevated for some time. Information from the Bank’s liaison program suggests there have been shortages and significant cost increases for labour and materials. Construction delays have been exacerbated by widespread rainfall along the east coast and absenteeism due to the Omicron outbreak. Rising costs have

compressed margins on fixed-price contracts, with some firms expecting more insolvencies in the industry.

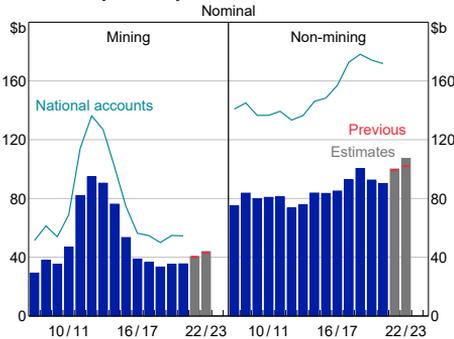
Housing prices are declining nationally, but conditions vary across the country

Housing prices have declined in a number of markets in recent months as interest rates have increased and market sentiment has deteriorated. Price declines have been largest in Sydney and Melbourne (Graph 2.15; Table 2.1). In these cities, auction volumes and clearance rates have declined, and the number of properties currently listed for sale is above average (Graph 2.16). Survey-based measures of housing price expectations and housing turnover have also declined since the beginning of the year. In some other capital cities housing price growth has slowed but remains positive, supported by a very low number of properties listed for sale.

Advertised rents in most states rose strongly over the first half of 2022, consistent with low vacancy rates and strong growth in household income (Graph 2.17). Vacancy rates in Sydney and Melbourne have declined recently, particularly in Sydney’s middle-ring suburbs. In other capital cities, vacancy rates remain around historical lows. Strong growth in rents for newly rented properties supported a modest pick-up in overall rents paid in the Consumer Price Index

Graph 2.13

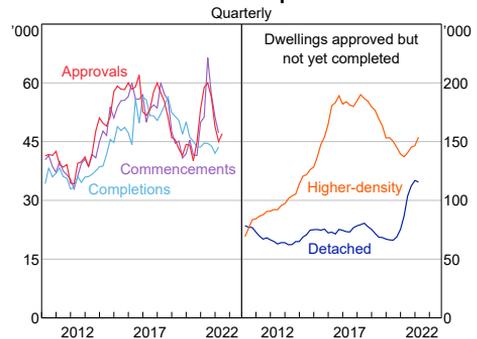
Capital Expenditure Intentions*



* Estimates are firms’ expected capital expenditure; adjusted for past average differences between expected and realised spending. Sources: ABS; RBA

Graph 2.14

Residential Pipeline



Sources: ABS; RBA

Table 2.1: Housing Price Growth

Percentage change, seasonally adjusted

	July	June	May	April	Year-ended	Five-year growth
Sydney	-1.8	-1.5	-1.2	-0.6	1.6	15
Melbourne	-1.1	-0.9	-0.6	-0.2	0.3	10
Brisbane	-0.4	0.5	0.9	1.3	22.1	45
Adelaide	0.7	1.6	1.5	1.7	24.1	48
Perth	0.6	0.9	0.6	0.7	5.5	18
Darwin	0.2	0.6	0.5	0.4	5.3	9
Canberra	-1.3	0.5	-0.1	1.4	12.1	53
Hobart	-0.9	-0.4	-0.0	0.1	10.1	62
Capital cities	-1.1	-0.7	-0.5	-0.0	5.4	18
Regional	-0.5	0.4	0.6	1.2	17.0	44
National	-0.9	-0.5	-0.2	0.2	8.0	23

Sources: CoreLogic, RBA

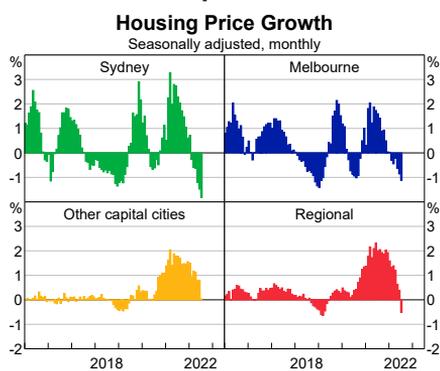
(CPI) in the first half of the year. Rental yields have increased slightly across most states in recent months as growth in advertised rents has outpaced growth in housing prices.

Growth in public consumption has been strong

Public demand increased by 2.5 per cent in the March quarter, reflecting strong growth in public consumption as defence personnel were deployed to assist flood-affected communities throughout Queensland and New South Wales

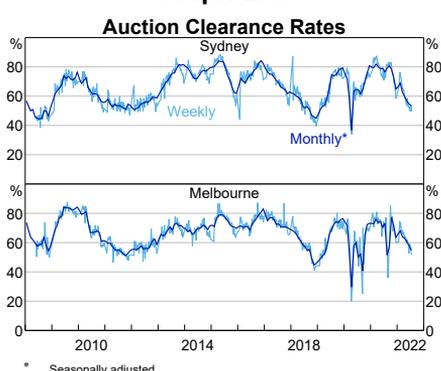
(Graph 2.18). Public consumption as a share of GDP remains at a very high level compared with the pre-pandemic period (Graph 2.19). By contrast, growth in public investment has been subdued over the past year or so. Public infrastructure projects have been delayed due to labour and materials shortages, alongside elevated capacity utilisation in the construction sector.

Graph 2.15



Sources: CoreLogic, RBA

Graph 2.16



* Seasonally adjusted.

Sources: APM, CoreLogic, RBA, REiV

Resource exports have begun to recover following recent production issues ...

Available data and information from the Bank's liaison program indicate that resource export volumes began to recover in the June quarter, following earlier declines because of protracted maintenance and weather-related disruptions. Rural exports have remained elevated over recent months, reflecting strong production and global demand.

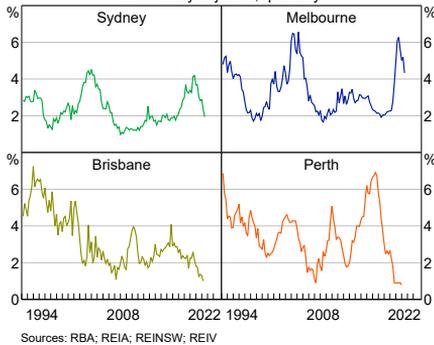
Import volumes have been supported by the filling of order backlogs, a rebuilding of inventories and the international border reopening. In values terms, however, exports have increased by more than imports, reflecting high prices for some energy-related commodities such as coal, which has taken the trade surplus to record highs (Graph 2.20).

... while services trade has picked up

Trade in services has continued to pick up following the full reopening of the international border, with departures recovering more quickly than arrivals. The slow recovery in arrivals reflects limited inflows of students and tourists, in part because of recent COVID-19 outbreaks and travel restrictions in China (Graph 2.21). Student visa numbers have increased and liaison contacts in the education sector anticipate that

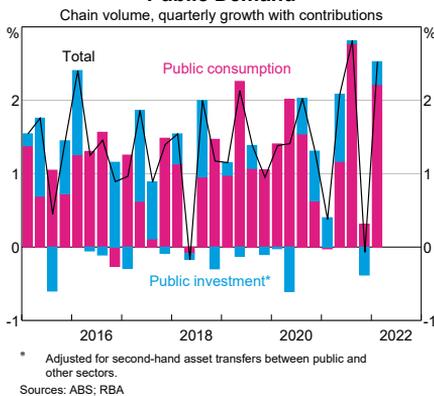
Graph 2.17

Rental Vacancy Rates



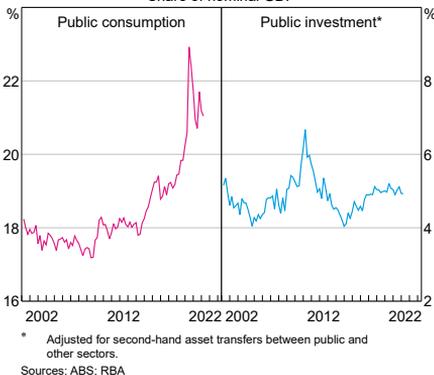
Graph 2.18

Public Demand



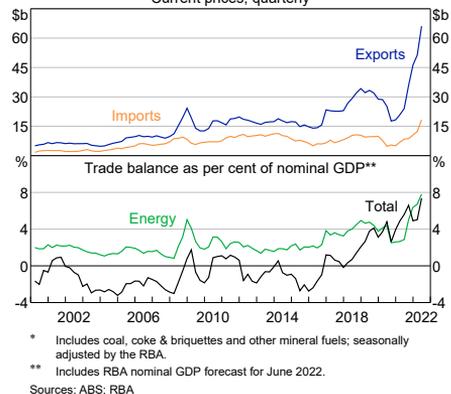
Graph 2.19

Components of Public Demand



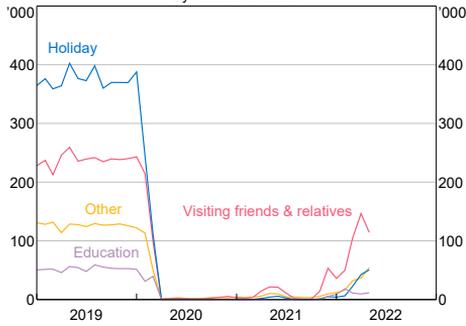
Graph 2.20

Australia's Energy Trade*



student enrolments will continue to pick up over the second half of this year and into early 2023. However, it will take at least a few years before the number of international students in Australia recovers to around pre-pandemic levels (Graph 2.22). 🇦🇺

Graph 2.21
Short-term Arrivals*
 By reason for travel



* Seasonally adjusted until March 2020; original data from April 2020 onwards.
 Sources: ABS; RBA

Graph 2.22
Primary Student Visas



* Seasonally adjusted until March 2020; original data from April 2020 onwards.
 Sources: Department of Home Affairs; RBA

3. Domestic Financial Conditions

Australian financial conditions have tightened as the Reserve Bank has taken steps in the normalisation of monetary conditions from the accommodative settings put in place to help insure the Australian economy against the worst possible effects of the COVID-19 pandemic. The Board has increased the cash rate target and the interest rate on Exchange Settlement (ES) balances by 175 basis points since early May, to 1.85 per cent and 1.75 per cent, respectively. This has occurred as other central banks in advanced economies have increased their policy rates relatively quickly and by more than earlier anticipated by financial market participants.

Australian Government bond yields have risen noticeably since late 2021. Bond yields have been quite volatile of late, in line with similar conditions in global bond markets. Yields increased sharply in June, on expectations of sharper monetary policy tightening in response to inflation, before retracing as market participants became concerned about an associated weakening in the outlook for global growth. Money market rates and yields at the short end of the yield curve have risen in recent months, reflecting the expected policy tightening in the period ahead. In Australia, current market pricing implies expectations of an increase of the cash rate to around 3 per cent by the end of 2022.

Banks' funding costs have risen considerably in recent months, reflecting the rise in market yields alongside increases in the cash rate. Lenders have passed on the cash rate increases up to July in full to reference rates for existing variable-rate housing borrowers and to most

variable-rate business borrowers. Some lenders have also announced the full pass-through of the August increase in the cash rate to housing reference rates. Deposit rates have also increased, with term deposit rates rising at a faster pace and by more than rates on at-call deposits. Growth in credit has remained strong and demand for housing finance has remained high. However, commitments for housing loans have declined a little in recent months, consistent with the easing of activity in the housing market and increases in interest rates, actual and prospective. Business debt has grown strongly, driven by the borrowing of medium-sized and large firms.

The Australian dollar has appreciated of late, largely retracing the depreciation over the preceding months. These developments have occurred amid concerns about global growth and uncertainty about the outlook in China, which have also been reflected in lower commodity prices over recent months.

AGS yields have been volatile

Yields on Australian Government Securities (AGS) have traded in a relatively wide range in recent months, after rising considerably since late 2021 (Graph 3.1). Since the previous *Statement*, AGS yields have declined, having traded in a 125 basis point range and reached a peak in mid-June around levels last seen in 2014.

Long-term AGS yields have generally followed moves in yields in international markets over recent months (Graph 3.2). Yields rose further in June in response to larger-than-expected

increases in inflation in advanced economies, which led to expectations that central banks would need to increase policy rates faster and to a higher level than previously anticipated. Since then, those increases have been retraced and yields are currently back around the levels seen in April, owing to concerns about a material slowdown in global growth. As is common in periods of higher volatility, AGS yields have moved by more than yields on US Treasuries; the spread between 10-year AGS and 10-year US Treasury yields widened to its highest level since 2014 alongside the increase in yields in June, before retracing lower as yields subsequently declined. In part, this reflects the effect of lower liquidity and a higher risk premium in AGS markets compared with US Treasury markets during periods when yields are moving around a lot.

Since late 2021, AGS yields have risen by more at the shorter end of the yield curve than at the longer end, reflecting increases in shorter term real yields and inflation compensation (which captures both inflation expectations and risk premia) (Graph 3.3). By contrast, the increase in longer-term AGS yields has been largely driven by higher real yields, while market measures of longer-term inflation expectations have remained anchored within the 2 to 3 per cent target range. This implies that market participants expect high inflation to be relatively

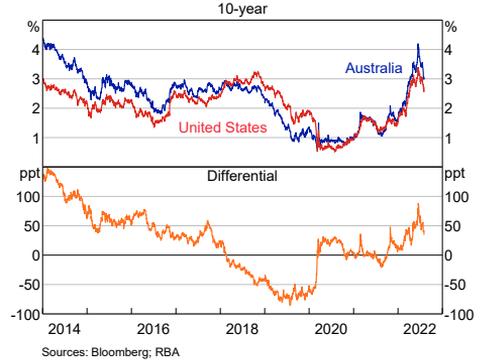
short lived, which is generally the case across advanced economies.

AGS issuance has slowed a little

Bond issuance by the Australian Office of Financial Management (AOFM) has slowed somewhat, reflecting consistently stronger-than-expected government revenue in 2021/22 reducing the AOFM's funding task (Graph 3.4). Issuance by state and territory borrowing authorities has continued at a relatively steady pace in recent months. The spreads between semi-government securities (semis) and AGS yields rose markedly in May and June as volatility and thus risk premia increased, but have declined more recently.

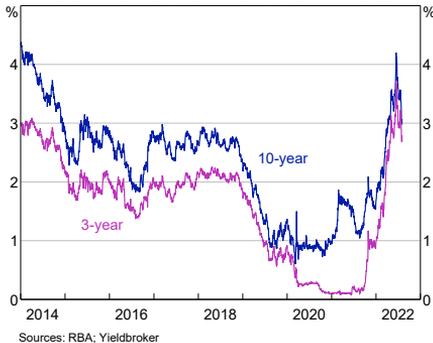
Graph 3.2

Government Bond Yields



Graph 3.1

Australian Government Bond Yields



Graph 3.3

Inflation Expectations



Most measures suggest bond markets continue to function reasonably well

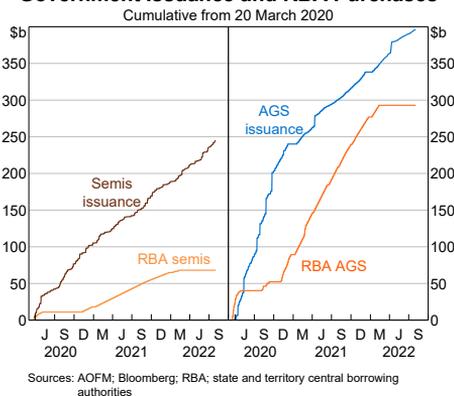
Bid-offer spreads for longer-term AGS and semis remain around their lowest levels in recent years, although they have widened a little following the increase in volatility in recent months. The implied yield on three-year bond futures contracts remained below the yield on three-year bonds over much of the past few months; arbitrage should keep this difference close to zero in an efficient market (Graph 3.5).

Demand to borrow AGS from the Bank has declined further from its recent peak of around \$13 billion per day in February, following the end of the Bank's bond purchase program during that month and continued issuance by

the AOFM (Graph 3.6). Borrowing still remains elevated, with an average of around \$6 billion of bonds per day borrowed from the Bank's stock by market participants in July. Demand remains focused on bonds with residual maturities of two to three years, particularly those where the amount available in private markets is more limited because of the Bank's earlier purchases. Bond dealers borrow these bonds to help settle their own transactions and the transactions of their clients. By lending these bonds back into the market for short periods, the Bank is supporting the functioning of government bond markets.

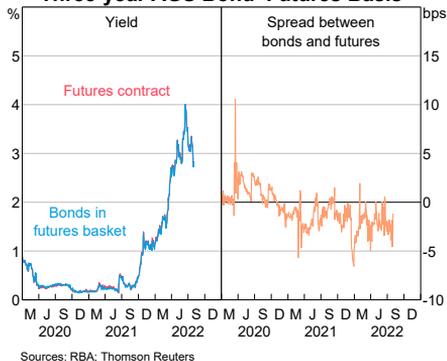
Graph 3.4

Government Issuance and RBA Purchases



Graph 3.5

Three-year AGS Bond-Futures Basis

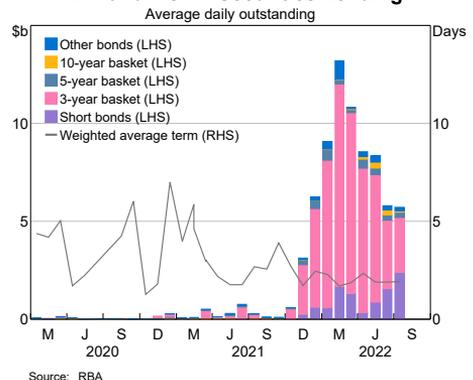


Cash rate expectations have increased further

Market expectations for the cash rate have increased further in recent months, alongside expectations for higher inflation in the near term in Australia and globally, and further near-term policy rate rises in other advanced economies. Following the increase in the cash rate target to 1.85 per cent in early August, prices for overnight indexed swap (OIS) contracts imply that market participants expect further increases in the cash rate target over the remainder of the year. Market pricing implies that the cash rate is expected to reach around 3 per cent by December and a peak of around 3¼ per cent in

Graph 3.6

RBA and AOFM Securities Lending



early 2023, consistent with the expectations of most market economists (Graph 3.7).

Transaction volumes in the cash market have picked up since earlier in the year and, as a result, the cash rate has been determined by market transactions on a majority of days since April. The cash rate has increased in line with the cash rate target since May, remaining 4 basis points below the target at 1.81 per cent in early August.

Money market rates have also increased further

Short-term money market rates, including bank bill swap rates (BBSW), have increased consistent with the recent rise in the cash rate and market expectations for further increases (Graph 3.8). The cost of Australian dollar funding from offshore short-term issuance (via the foreign exchange swap market) has also moved higher over the past three months.

Repurchase agreement (repo) rates at the Bank's regular open market liquidity operations (OMO) have increased further, with the OMO hurdle rate set at term-matched OIS plus a modest spread. This rate was 1.86 per cent at the OMO immediately following the August Board meeting. Demand for short-term liquidity

obtained at OMO remains relatively low, but has increased a little in recent months.

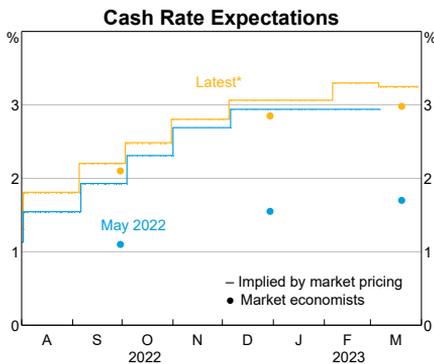
The Bank's balance sheet remains large but will decline significantly over the next few years

The Bank's balance sheet remains large by historical standards, reflecting the policy measures introduced by the Bank in response to the pandemic (Graph 3.9; Graph 3.10). Since the previous *Statement*, the size of the balance sheet is little changed. The composition of liabilities changed as government deposits declined and ES balances rose, largely owing to payments related to government debt maturities exceeding proceeds from new issuance over the period. The Bank's balance sheet will decline significantly over the coming years as Term Funding Facility (TFF) funding matures over 2023 and 2024 and the Bank's government bond holdings mature over a number of years.

Bank bond issuance declined in recent months

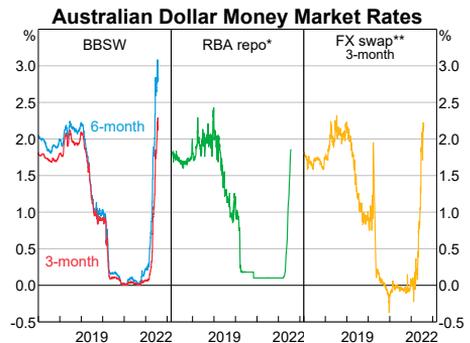
Bank bond issuance declined in recent months, but it remains high over the year to date following strong issuance in the March quarter (Graph 3.11). Banks raised \$30 billion in bond markets during the June quarter, with an

Graph 3.7



* Latest market economists' projections as at 3 August 2022.
Sources: Bloomberg; RBA

Graph 3.8



* Weighted average rate for morning open market operation repos.
** Implied AUD cost via US commercial paper issuance and a cross-currency swap.
Sources: ASX; Bloomberg; RBA; Tullet Prebon; US Federal Reserve

average tenor of around four years, which is a little lower than the average of recent years. Covered bond issuance was relatively high in the quarter at \$10 billion. This may reflect increased investor preference for secured products given the increased uncertainty about the economic outlook.

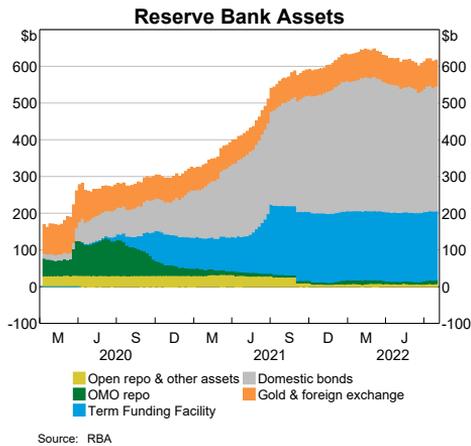
Bank bond yields remain around their levels of three months ago, after increasing sharply in the earlier part of the year. Yields on three-year bonds neared 5 per cent in June for the first time since 2012, before declining back to below 4 per cent more recently (Graph 3.12). These recent movements were broadly in line with

those in the swap rate (a reference rate for the pricing of fixed-income securities), with the spread to the swap rate also widening a little further since early May.

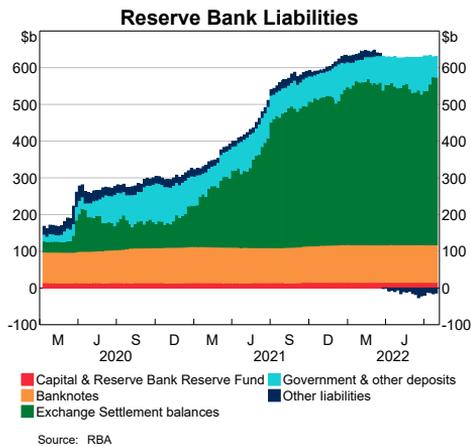
Issuance of RMBS by banks increased, while issuance by non-banks declined and spreads have widened

Issuance of residential mortgage backed securities (RMBS) remained robust in the June quarter and saw the first issuance by a major bank since 2021, although issuance by non-banks declined. Major and non-major banks accounted for almost half of the \$9 billion issued, which is their highest share since the TFF was announced in early 2020 (Graph 3.13). The low level of bank issuance prior to this was

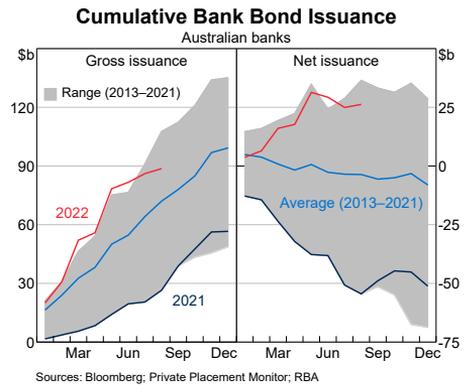
Graph 3.9



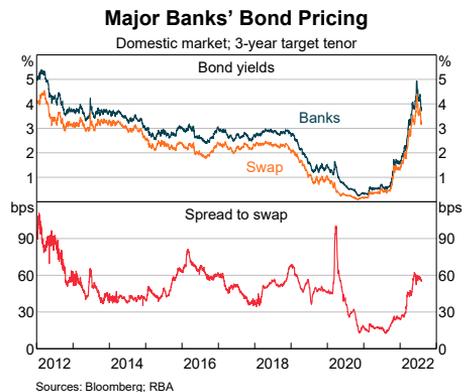
Graph 3.10



Graph 3.11



Graph 3.12



consistent with banks' ready access to alternative funding sources, including the TFF. Spreads on RMBS have widened since early in the year to be slightly above the average seen in the decade preceding the pandemic. Market liaison suggests that conditions since late February have been a little more challenging than over the preceding year or so. For example, some issuers had to increase efforts to contact potential investors to preplace notes.

Banks' funding costs have increased

Banks' overall funding costs have risen with the ongoing increase in market yields and the increases in the cash rate since May, to around the levels seen just before the pandemic. Much of banks' wholesale debt and deposit costs (new and existing) are linked to BBSW rates (either directly or via hedging), which have risen sharply owing to actual and expected increases in the cash rate (Graph 3.14). The increased cost of issuing long-term wholesale debt, such as bonds, is also adding to banks' funding costs. As noted above, bond yields have risen from very low levels in 2021 and remain around their level of three months ago. The spread to the swap rate has widened a little further in recent months. Banks' bond issuance over the year to date has been high by historical standards, as banks respond to the wind-down of the

Committed Liquidity Facility over 2022 and TFF maturities from next year. Increases to deposit rates are also putting upward pressure on banks' funding costs.

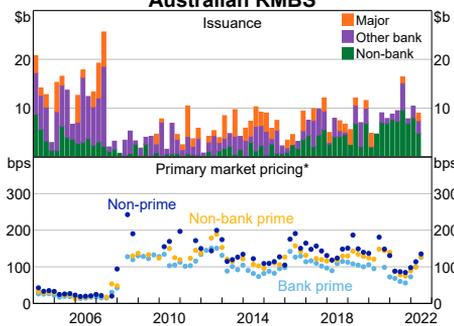
Rates on term and at-call deposits have increased

Banks raise around 60 per cent of their funding in the form of deposits. Since May, banks have increased rates paid on both at-call and term deposits. The average rate paid on at-call deposits – which make up the bulk of banks' deposits – rose by less than the cash rate over the June quarter (Graph 3.15). This is likely to have remained the case over July, based on changes in advertised rates. Increases to at-call deposit rates for households have been larger for savings products that require depositors to adhere to certain conditions to earn interest (e.g. the balance must increase in the month) than for online savings products without conditions. Some of the largest increases in deposit rates have been offered by smaller banks.

Banks have increased rates on new term deposits for both households and wholesale depositors since May. By contrast, earlier increases had largely been to wholesale term deposit rates. These tend to be priced with reference to BBSW rates, which moved higher

Graph 3.13

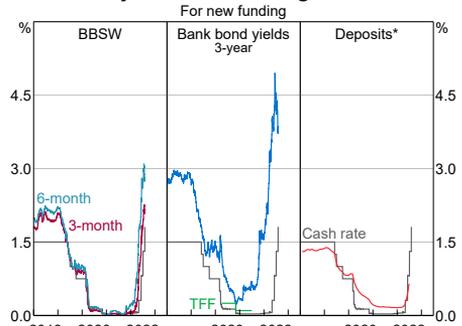
Australian RMBS



* Face-value weighted quarterly average of the primary market spread to bank bill swap rate for AAA-rated notes. Non-resident RMBS pricing not included.
Sources: Bloomberg; KangaNews; RBA

Graph 3.14

Major Banks' Funding Costs



* RBA estimates; excludes deposits in housing loan offset accounts.
Sources: AFMA; APRA; ASX; Bloomberg; major banks' websites; RBA; Refinitiv

earlier in anticipation of increases in the cash rate. Interest rates paid on outstanding term deposits have also increased, as maturing deposits have been replaced with new, higher-rate term deposits. As the spread between rates on new term and at-call deposits has widened, funding sourced from term deposits has increased, after falling steadily since early 2019 (Graph 3.16).

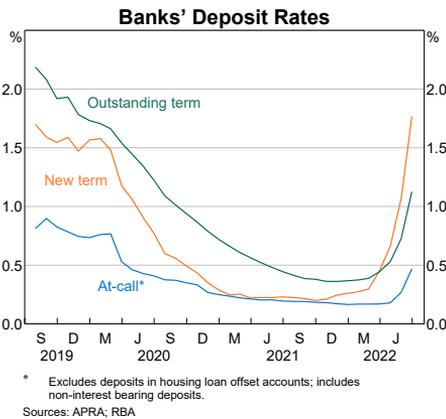
Interest rates on variable- and fixed-rate housing loans have risen ...

Most housing lenders have passed on the cash rate increases up to July in full to their standard variable rates (SVRs), which serve as reference rates for the roughly 65 per cent of outstanding

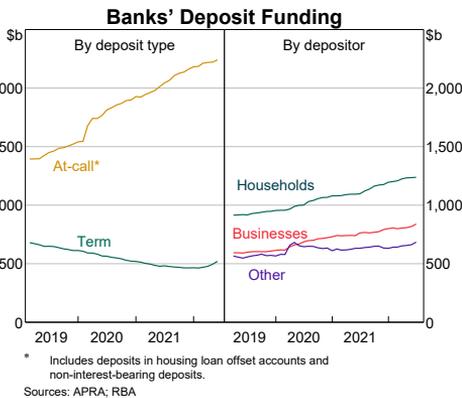
housing credit that is on a variable rate (Graph 3.17). However, average interest rates paid on outstanding variable-rate loans increased by slightly less than the cash rate over May and June (which is the latest available data) (Table 3.1). In part, this reflects lags in reported effects due to timing differences in borrowers' repayments. In addition, variable interest rates on new loans remain lower than those on outstanding loans, and some existing borrowers are likely to have refinanced at these lower rates with a different lender or renegotiated the rate of their existing loan with their current lender.^[1] At the time this *Statement* was finalised, some lenders had announced full pass-through of the August increase in the cash rate to their housing reference rates.

The average rate paid on new fixed-rate housing loans rose further alongside increases in swap rates, which are the pricing benchmark for these loans. As fixed rates on new loans have increased to be noticeably above rates on new variable-rate loans, the share of new lending at fixed rates has declined and is now well below early-2020 levels. The increase in the average rate paid on outstanding fixed-rate loans has been relatively modest, as existing fixed-rate loan terms gradually expire.

Graph 3.15



Graph 3.16



Graph 3.17

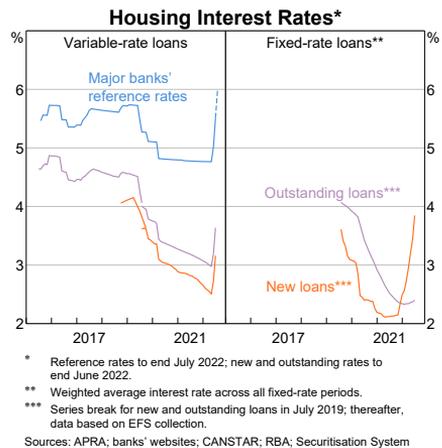


Table 3.1: Average Outstanding Housing Rates

June 2022

	Interest rate (per cent)	Change since Apr 2022 (basis points)	Change since Feb 2020 (basis points)
Cash rate target	0.85	75	10
Variable-rate loans			
– Owner-occupier	3.52	65	–6
– Investor	3.88	67	–9
All variable-rate loans	3.64	66	–7
Fixed-rate loans			
– Owner-occupier	2.28	5	–145
– Investor	2.63	4	–138
All fixed-rate loans	2.40	4	–146
Loans by repayment type ^(a)			
– Principal-and-interest	3.12	44	–50
– Interest-only	3.71	47	–51

(a) Weighted average across fixed- and variable-rate loans.

Sources: APRA, RBA

... which has started to flow through to a rise in interest payments on housing loans

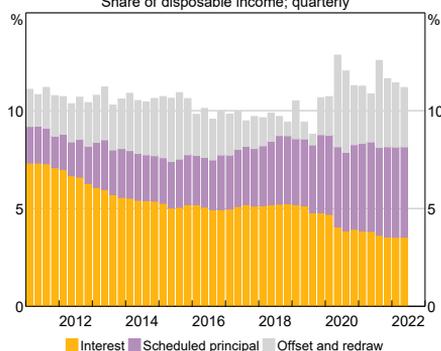
Interest payments on housing loans increased slightly in the June quarter reflecting the pass-through of the May and June cash rate increases to variable-rate borrowers (Graph 3.18). Pass-through of the increase in the cash rate in July and August will lead to further increases in interest payments over the coming months. Even so, the level of interest payments on housing loans will respond more gradually to changes in interest rates than in the past due to the higher fixed-rate share of credit (currently around 35 per cent of housing credit, compared with 20 per cent prior to the pandemic). The majority of these loans were issued at very low interest rates and will only be subject to a change in mortgage rates upon expiry of their fixed-rate period. Around one-quarter of total housing credit comprises loans with a fixed-rate period due to end in the next two years (Graph 3.19). These loans were taken out at an average fixed rate of around 2.4 per cent.

Net payments into offset and redraw accounts have declined a little since mid-2021, but remain above pre-pandemic levels. Since the onset of the pandemic in early 2020, mortgage borrowers' payments into offset and redraw accounts have been substantial, totalling around \$100 billion (which equates to about 6¼ per cent of annual household disposable income). As a result, the median variable-rate

Graph 3.18

Housing Loan Payments*

Share of disposable income; quarterly



* Seasonally adjusted and break-adjusted.

Sources: ABS; APRA; RBA

owner-occupier borrower had a repayment buffer equivalent to 1½ years' scheduled repayments at interest rates in late June.

Interest rates on business loans have risen from historical lows

Interest rates on variable-rate loans to small and medium-sized enterprises (SMEs) have increased over recent months (Graph 3.20). The major banks and a number of smaller banks have passed on the cash rate increases up to July in full to their published small business indicator rates (the pricing benchmark for many small business variable-rate products). As at June (the latest data available), the average variable rate paid on outstanding SME loans had increased by less than that on new loans, reflecting the usual lag in the adjustment of interest rates on existing variable-rate loans. Average outstanding variable rates on large business loans have also increased in recent months, rising by around 100 basis points between March and June. These rates are typically linked to the three-month BBSW rate, which has risen sharply since the start of the year.

Interest rates on fixed-rate loans to businesses have also picked up. In particular, average interest rates on new fixed-rate loans for SMEs – which account for just under 12 per cent of business loans by value – have increased sharply

since the start of the year, following the rise in longer-term swap rates (a key pricing benchmark for fixed-rate loans).

Growth in credit remains high

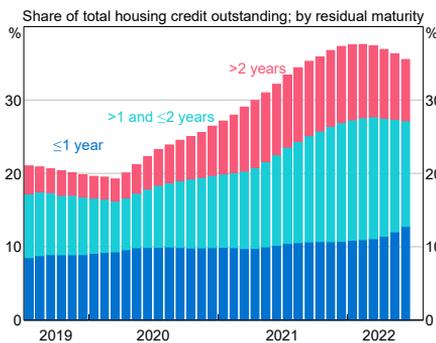
Growth in total credit has remained high in recent months, at around its fastest pace in more than a decade (Graph 3.21; Table 4.2). Total housing credit growth was little changed over the June quarter, while business credit growth picked up further, supported by robust business conditions, increased business investment and high levels of merger and acquisition (M&A) activity over the past year. Personal credit continued to decline over the first half of 2022, but at a slower pace than in late 2021. This is consistent with a recovery in consumer spending following the easing of lockdowns at the start of the year.

Demand for housing loans has eased but remains high

Housing credit growth remains around 7¾ per cent on a six-month-ended annualised basis. Owner-occupier credit growth has moderated over recent months, while investor credit growth has remained steady after picking up over 2021 (Graph 3.22).

Graph 3.19

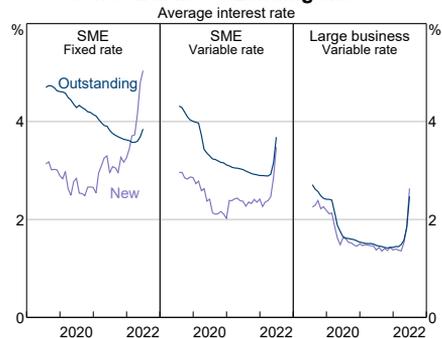
Fixed-rate Loan Share



Sources: APRA; RBA

Graph 3.20

Select Business Lending Rates*



* Large business fixed-rate lending is not shown, and accounts for around 8 per cent of lending to large businesses.

Sources: APRA; RBA

Table 3.2: Growth in Financial Aggregates

Percentage change^(a)

	Three-month annualised		Six-month annualised	
	Mar 22	Jun 22	Dec 21	Jun 22
Total credit	7.9	11.1	8.7	9.5
– Household	7.1	7.1	7.2	7.1
– Housing	7.8	7.6	8.0	7.7
– Owner-occupier	8.3	7.6	9.2	8.0
– Investor	6.9	7.6	5.6	7.2
– Personal	–2.2	–0.1	–4.2	–1.2
– Business	9.3	19.6	12.1	14.3
Broad money	5.3	10.0	12.4	7.6

(a) Figures are break-adjusted and seasonally adjusted.

Sources: ABS; APRA; RBA

Commitments for housing loans have declined across most states in the June quarter, consistent with slowing activity in the housing market, decreases in housing prices in a number of markets and rising interest rates (and the prospect of further rate rises). Commitments to owner-occupiers and investors have eased but remain close to their highest levels on record (Graph 3.23). Commitments to first home buyers have steadily declined since their peak in 2021, but remain above pre-pandemic levels.

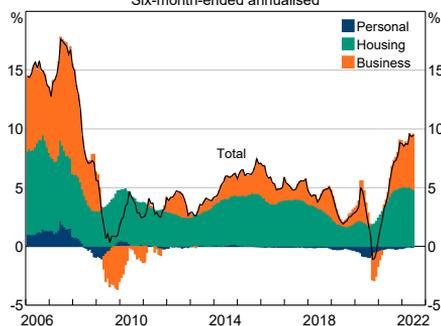
Growth in lending to businesses has picked up further in recent months

Growth of business lending has increased to the fastest pace in more than a decade. Growth has been driven by lending to medium-sized and large businesses, while lending to small businesses has been little changed for some time (Graph 3.24).

Businesses' demand for debt finance has been strong, and liaison suggests banks are meeting this demand, especially for larger businesses. Commitments for new business loans remain well above their average of the past decade.

Graph 3.21

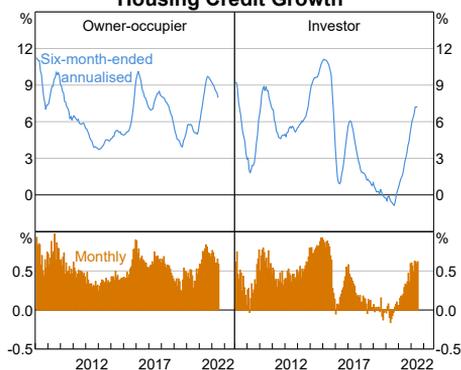
Contribution to Total Credit Growth*
Six-month-ended annualised



* Seasonally adjusted and break-adjusted.
Sources: APRA; RBA

Graph 3.22

Housing Credit Growth*



* Seasonally adjusted and break-adjusted.
Sources: APRA; RBA

Views on the outlook for business lending are mixed. Some banks expect lending growth to remain strong over the year, particularly for medium-sized and large firms, supported by strong economic conditions, the lagged effect on debt of high levels of M&A activity over the past 12 months and growth in business investment. However, other banks expect economic uncertainty, rising input costs and rising interest rates to contribute to some slowing in demand for additional debt. The mixed outlook for business lending was reinforced in July by participants at the Reserve Bank’s annual Small Business Finance Advisory Panel – drawn from small businesses across Australia – which provided valuable perspectives

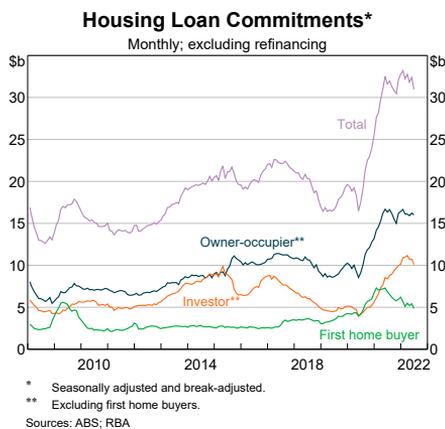
on the financial conditions facing small businesses.^[2]

Up until the end of June, government loan guarantee schemes supported some lending to SMEs. These schemes have now closed to new applications. As at May 2022, around \$15 billion in total loan commitments had been made since April 2020 under the SME Guarantee Scheme and SME Recovery Loan Scheme (compared with around \$220 billion in total SME loan commitments).

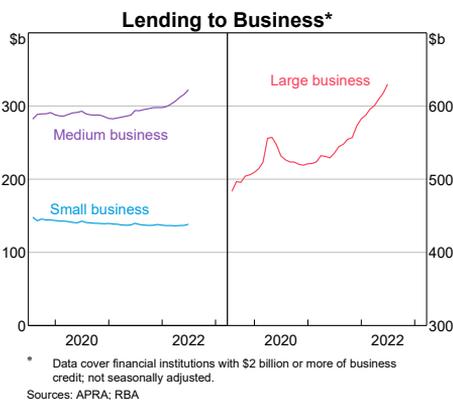
Growth of broader business debt remains strong

Growth in a broader measure of business debt remains well above the average of recent years, supported by continued strong growth in business credit (Graph 3.25). Notwithstanding this, weaker growth in non-intermediated debt has contributed to a slight easing in overall growth of business debt in recent months. Bond issuance in the year to date is well below average (Graph 3.26). Most issuance in the June quarter was in offshore markets; over half was issuance from resource-related corporations in their first issuance in bond markets this year.

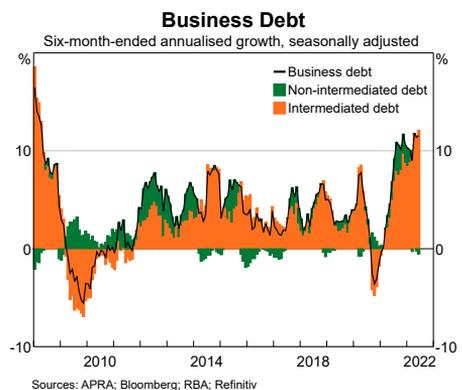
Graph 3.23



Graph 3.24



Graph 3.25



Australian equity prices declined alongside falls in global markets

The ASX 200 index has fallen by 8 per cent, on a total return basis, since its peak in April (Graph 3.27). The decline broadly mirrored that in overseas markets, reflecting the rise in interest rates and the prospect of further increases, as well as concerns around global growth. Equity market volatility has risen to be above the medium-term average in Australia and abroad, given some rise in uncertainty about the economic outlook.

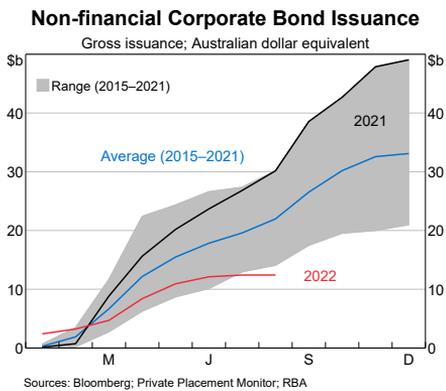
Falls in the ASX over recent months have been led by the resources sector. Materials stock prices are down by 16 per cent since mid-April, due to falls in the price of iron ore owing to

concerns about growth in China (Graph 3.28). Energy stocks are down by 2 per cent, as global energy prices have partly retraced the significant increase that followed Russia’s invasion of Ukraine. Falls were also seen across most other sectors, although defensive sectors – such as health care, consumer staples and industrials, which tend to have more consistent earnings across the economic cycle – outperformed the index.

Equity raisings have remained subdued

Equity raisings have declined in 2022, after a high level of activity in 2021. Liaison indicates that a number of initial public offerings have been deferred recently, but are expected to proceed when market conditions become more favourable. Overall, close to \$600 million was raised by companies listing on the ASX in the June quarter, largely in the resources sector (Graph 3.29).

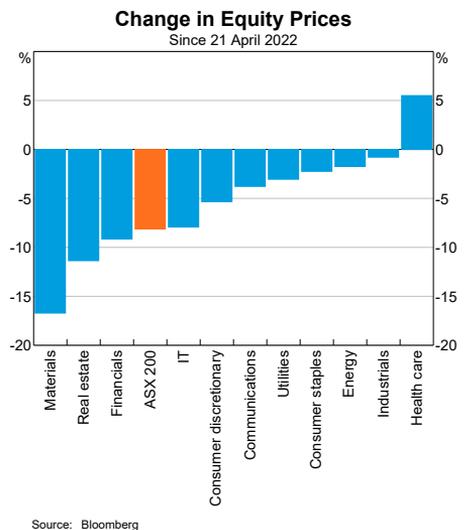
Graph 3.26



Graph 3.27



Graph 3.28



The Australian dollar has appreciated of late after depreciating over the preceding months

The Australian dollar has appreciated over recent weeks, partly reflecting a recovery in the prices of riskier assets alongside some paring back of US policy rate tightening expectations. It has now largely retraced the depreciation over the past few months that occurred amid concerns about global growth, uncertainty about the outlook for the Chinese economy and broad US dollar strength (see chapter on 'The International Environment'). Over recent months, the RBA index of commodity prices has fallen by around 15 per cent, to be around its levels at the beginning of the year (Graph 3.30). Short-term yields on Australian Government bonds have declined relative to those on government bonds in the major advanced economies compared with a few months ago.

The Australian dollar is 4 per cent lower against the US dollar over the year to date, while on a trade-weighted (TWI) basis it is 3 per cent above its levels at the beginning of the year (Graph 3.31). The difference largely reflects the appreciation of the Australian dollar against the Japanese yen and the euro. The Australian dollar is also slightly higher against the Chinese renminbi – which accounts for the largest weight in the TWI basket. The current level of

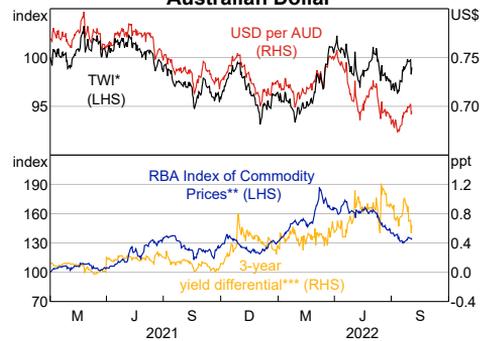
the Australian dollar is consistent with estimates of its fundamental levels, based on historical relationships with the forecast terms of trade and yield curve differentials.

Australia's financial account deficit narrowed in the March quarter

The narrowing of Australia's financial account deficit in the March quarter was associated with a smaller net outflow of capital over the same period. Net capital outflows were driven by debt-related investment abroad from Australia's financial sector; this was partly offset by inflows,

Graph 3.30

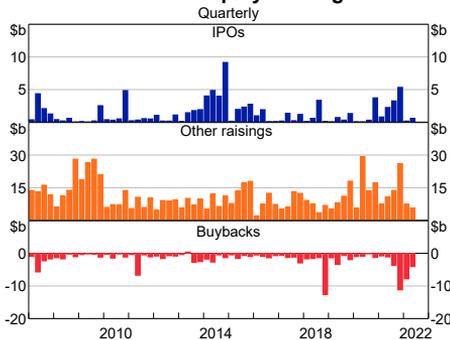
Australian Dollar



* Trade-weighted index, indexed to 1 January 2021 = 100.
 ** Indexed to 1 January 2021 = 100.
 *** Australian sovereign yield less yields of the United States, Japan and Germany, weighted by GDP.
 Sources: Bloomberg; RBA; Yieldbroker

Graph 3.29

Australian Equity Raisings*

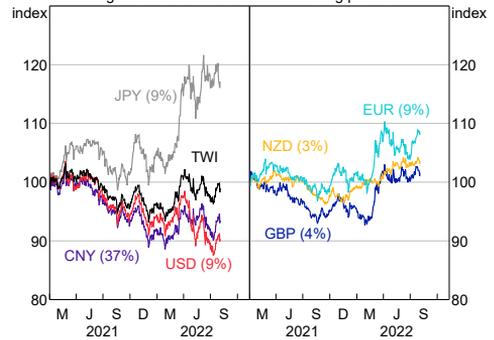


* All listed companies.
 Sources: ASX; RBA

Graph 3.31

Australian Dollar*

Against currencies of selected trading partners



* Indexed to 1 January 2021 = 100, TWI weights in parentheses.
 Sources: Bloomberg; RBA

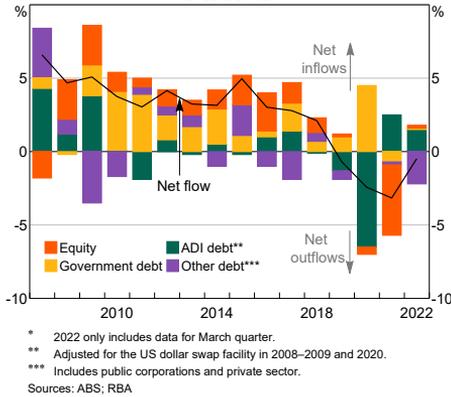
as Australian banks increased the amount of debt issued in offshore markets (Graph 3.32).

Australia’s net foreign liability position as a share of GDP is at its lowest level since the 1980s, having decreased further over the quarter (Graph 3.33). The recent decline reflected a

decrease in the long-term foreign debt liability position. By contrast, Australia’s foreign equity asset position decreased for the first time since 2020, reflecting valuation effects associated with the exchange rate and declining international equity prices. 🦋

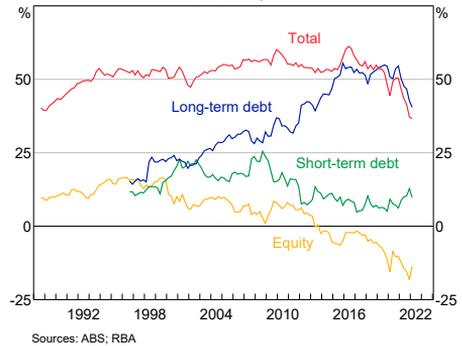
Graph 3.32

Net Capital Flows*
Per cent of GDP



Graph 3.33

Net Foreign Liability Position
Per cent of GDP



Endnotes

- [1] While SVRs serve as reference rates for variable-rate loans, most borrowers receive a discount to the reference rate. See RBA (2019), ‘Box D: The Distribution of Variable Housing Interest Rates’, *Statement on Monetary Policy*, November. Available at <<https://www.rba.gov.au/publications/smp/2019/nov/box-d-the-distribution-of-variable-housing-interest-rates.html>>
- [2] Further detail will be available in the forthcoming article: McCowage M and L Nunn, ‘The Current Climate for Small Business Finance’, *RBA Bulletin*, September.

4. Inflation

Inflation is high and broadly based. The pass-through of non-labour cost pressures (such as higher materials and transport costs) to consumer prices, enabled by strong demand conditions, continued to drive strong goods price inflation in the June quarter of 2022. Some of these upstream cost pressures are showing signs of easing but it will take some time before this affects prices paid by consumers. Higher input costs and strong demand have also contributed to a pick-up in services inflation in recent quarters. Short-term measures of inflation expectations have increased alongside the rise in inflation outcomes, but most medium- and long-term measures remain anchored to the inflation target and suggest that the current high inflation is expected to be relatively short lived.

Timely information from the Bank's liaison program and business surveys suggest that growth in labour costs has picked up. Firms expect that wages growth will increase over the year ahead, in line with the tight labour market, high inflation and an ongoing focus on retaining and attracting workers. Wage policy announcements by the Fair Work Commission (FWC) and a number of state governments are also expected to support a pick-up in wages growth in the period ahead. The Wage Price Index (WPI) for the March quarter of 2022 confirmed that overall wages growth remained around its pre-pandemic pace earlier in the year. While there were some areas of stronger wage increases, these were not particularly broadly based in the quarter.

Inflation in the June quarter was high

The headline Consumer Price Index (CPI) increased by 1.8 per cent (1.7 per cent seasonally adjusted) in the June quarter and by 6.1 per cent over the year – the highest year-ended CPI inflation since the early 1990s (Graph 4.1; Table 4.1). This outcome was higher than anticipated a few months ago, largely reflecting increases in fuel, fruit and vegetable prices.

Inflation continues to be broadly based. A wide range of items have contributed to the strong inflation outcomes in recent quarters, in contrast to late 2021 when a small number of items were driving overall inflation outcomes (Graph 4.2). Around three-quarters of prices in the CPI basket grew faster than 3 per cent in annualised terms in the June quarter (Graph 4.3).

Measures of inflation that remove the effect of irregular or temporary price changes indicate that underlying inflation was also high in the June quarter. Trimmed mean inflation was

Graph 4.1

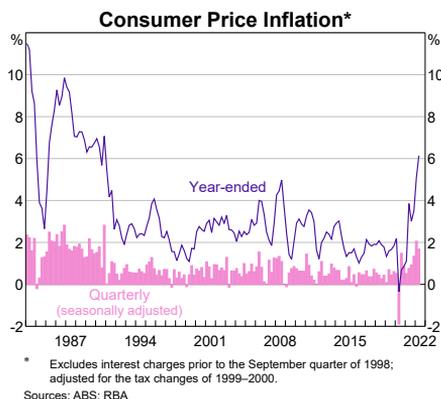


Table 4.1: Measures of Consumer Price Inflation

Per cent

	Quarterly ^(a)			Year-ended ^(b)
	June quarter 2022	March quarter 2022	June quarter 2022	March quarter 2022
Consumer Price Index	1.8	2.1	6.1	5.1
Seasonally adjusted CPI	1.7	2.1	–	–
– Tradables	2.2	2.8	8.0	6.8
– Tradables (excl. volatile items) ^(c)	1.7	1.8	5.1	3.6
– Non-tradables	1.5	1.6	5.3	4.2
Selected underlying measures				
Trimmed mean	1.5	1.5	4.9	3.7
Weighted median	1.4	1.0	4.2	3.0
CPI excl. volatile items ^(c)	1.5	1.7	5.3	4.0

(a) Except for the headline CPI, quarterly changes are based on seasonally adjusted data; those not published by the ABS are calculated by the RBA using seasonal factors published by the ABS.

(b) Year-ended changes are based on non-seasonally adjusted data, except for the trimmed mean and weighted median.

(c) Volatile items are fruit, vegetables and automotive fuel.

Sources: ABS; RBA

1.5 per cent in the quarter and 4.9 per cent over the year; this is the strongest outcome in year-ended terms since 1991 (Graph 4.4; Table 4.1).

Fuel prices increased further in the quarter

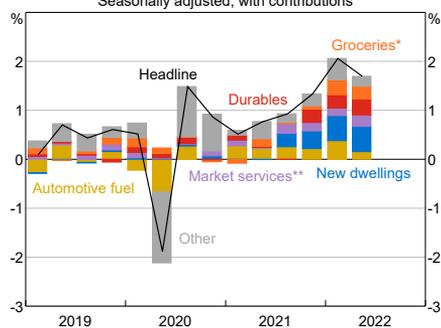
Fuel prices increased by 4 per cent in the June quarter, contributing around 0.2 percentage points to headline inflation (Graph 4.5). This was

primarily due to higher global prices and refining margins, reflecting the effects of the Russian invasion of Ukraine and robust global demand. Fuel prices increased by 32 per cent over the year to the June quarter, although prices have declined of late.

Graph 4.2

Quarterly CPI Inflation

Seasonally adjusted, with contributions

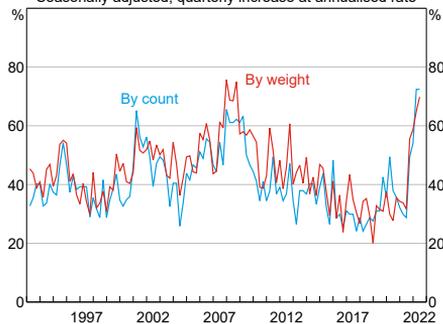


* Includes fruit and vegetables.
** Excludes domestic travel and telecommunications.
Sources: ABS; RBA

Graph 4.3

CPI Items Rising by More than 3 Per Cent*

Seasonally adjusted, quarterly increase at annualised rate



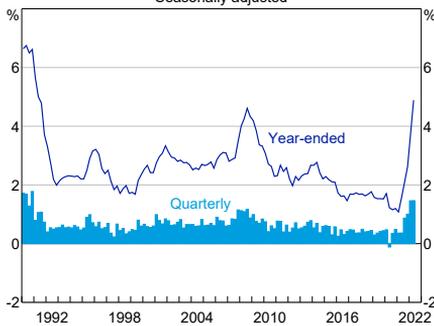
* Adjusted for the tax changes of 1999–2000.
Sources: ABS; RBA

Pass-through of upstream cost pressures continued to drive strong goods price inflation

The pass-through of upstream cost pressures, such as higher materials and transport costs, continued to boost prices across a number of goods-related sectors in the June quarter. Some of these cost pressures are showing signs of easing globally but it will take some time before this affects prices paid by Australian consumers. Additional demand for household goods and building materials induced by the flooding along the east coast is also expected to contribute to inflationary pressure for some goods in the near term.

Graph 4.4

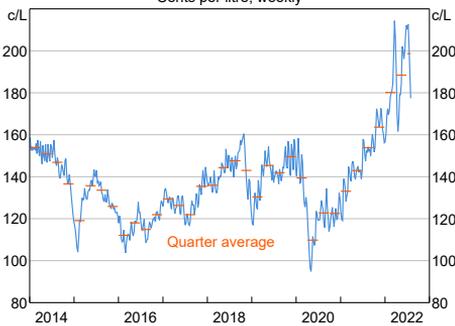
Trimmed Mean Inflation*
Seasonally adjusted



* Excludes interest charges prior to the September quarter of 1998 and deposit & loan facilities; adjusted for the tax changes of 1999–2000.
Sources: ABS; RBA

Graph 4.5

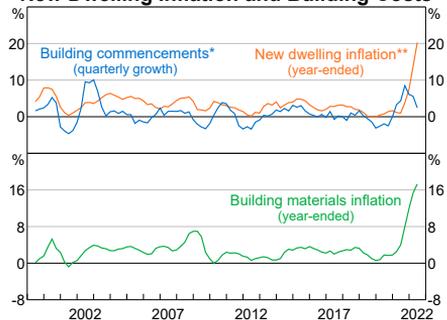
Unleaded Petrol Prices
Cents per litre, weekly



Sources: Australian Institute of Petroleum; RBA

Graph 4.6

New Dwelling Inflation and Building Costs



* Six-quarter average lagged by one quarter.
** Adjusted for the tax changes of 1999–2000.
Sources: ABS; RBA

Prices for new dwelling construction – which make up just under one-tenth of the CPI basket – increased by 5½ per cent in the June quarter to be 20 per cent higher over the year. This CPI item has made a large contribution to headline CPI movements, contributing around one-third of the total increase in the June quarter. This was driven primarily by further substantial increases in the prices charged by builders in all capital cities. Sustained strong demand for housing construction has enabled builders to pass through increased costs for labour and building materials; prices for building materials increased by 4.3 per cent in the June quarter and 17.3 per cent over the year (Graph 4.6). Measured prices for new dwellings also increased because fewer government grants for new home building were paid out in the June quarter than in the March quarter, although this accounted for only 0.4 percentage points of the total increase in the quarter.

Consumer durables inflation continued to increase strongly over the quarter to be a little over 5 per cent over the year – the highest annual growth since 1989 (Graph 4.7). This reflected ongoing upstream cost pressures, sustained global and domestic demand, and high transport costs. Price increases were particularly strong for furniture & household items and clothing & footwear (Graph 4.8).

Grocery prices (excluding fruit & vegetables) increased further in the June quarter as supermarkets continued passing through cost increases from suppliers (Graph 4.9). Prices were around 6½ per cent higher than a year ago – the highest rate of annual increase since 2008. Many food categories recorded strong price increases in the quarter; for example, bread and cereal products increased by 3.1 per cent, reflecting constrained global wheat supply. Food retailers in the Bank’s liaison program have become more willing to accept price increases from their suppliers due to the widespread cost increases their suppliers have faced, including for inputs

such as fertilisers, chemicals, packaging and transport.

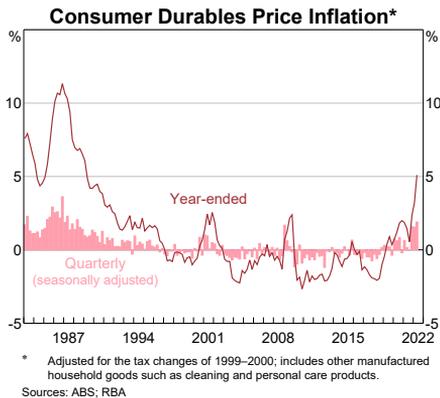
Prices of fruit & vegetables increased by nearly 5 per cent in the quarter to be around 7 per cent higher over the year. This primarily reflected adverse weather conditions, including the east coast flooding, which affected the availability of some items. COVID-19-related supply chain disruptions and higher input costs, such as for transport and fertiliser, also contributed to price rises.

Inflationary pressures increased for many services

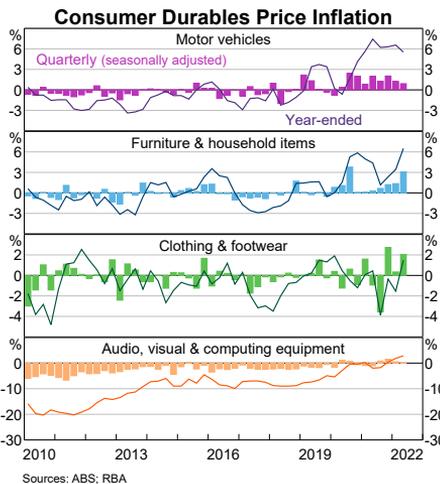
Input cost pressures and strong demand have contributed to large price increases for many services in recent quarters. Market services inflation, which covers a little over one-fifth of the CPI basket, picked up strongly in the June quarter to be around 4 per cent higher over the year – the fastest annual increase since 2002 (Graph 4.10). The prices of these services are generally among the most sensitive to domestic labour costs, although increases in non-labour costs have been a factor driving higher prices for some of these services in recent quarters, in particular for cafes and restaurants.

Increased use of state government vouchers such as the New South Wales ‘Dine & Discover’

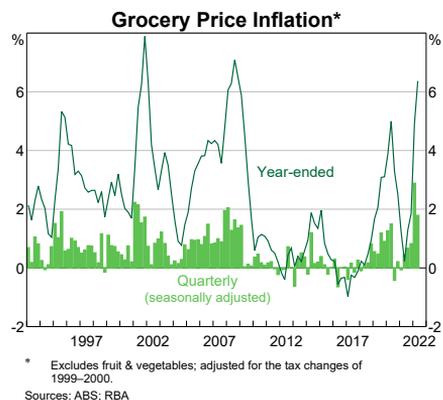
Graph 4.7



Graph 4.8



Graph 4.9



and Melbourne’s ‘Melbourne Money’ reduced the extent of the increases in measured prices of meals out & takeaway and domestic holiday travel & accommodation in the quarter; excluding such vouchers, underlying inflation in these categories was very strong in the quarter (Graph 4.11). These vouchers expired at the end of June and will boost measured market services inflation in the September quarter. Prices for domestic travel & accommodation services increased strongly over the year, reflecting high demand for domestic holidays and the effect of higher jet fuel costs on airfares.

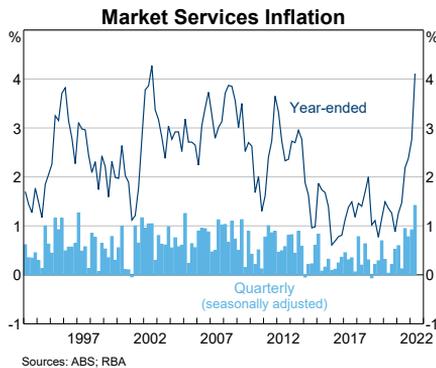
Rents – accounting for around 6 per cent of the CPI basket – increased by 0.7 per cent in the June quarter. Rents in Sydney and Melbourne

increased modestly, driven by increases for detached houses (Graph 4.12). Rents across other capital cities continue to record relatively strong rises, reflecting historically low vacancy rates. The gap between CPI rents (covering the entire rental stock) and advertised rents for new tenants remains large by historical standards (see chapter on ‘Domestic Economic Conditions’). Stronger advertised rents are expected to contribute to a further pick-up in CPI rent growth in the year ahead, although the timing and extent of this pass-through remains uncertain.

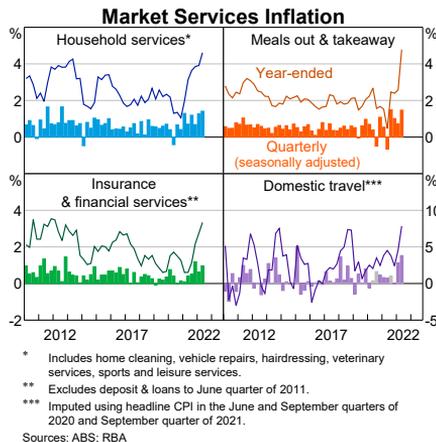
Growth in administered prices remained around pre-pandemic rates but is expected to pick up in the second half of the year

Administered inflation (excluding utilities) remains around pre-pandemic trends, as freezes on price increases of some items as well as rebates and other government policies continue to affect prices. Child care prices declined by nearly 7 per cent in the quarter, driven by the increase in the child care subsidy rate for families with more than one child in care and the New South Wales Before and After School Care voucher (Graph 4.13). Prices for medical and hospital services were around 3 per cent higher over the year, slightly below pre-pandemic rates

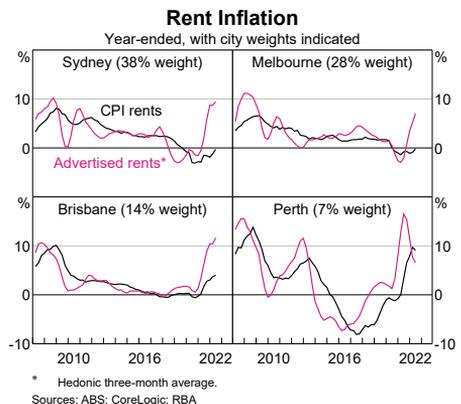
Graph 4.10



Graph 4.11



Graph 4.12



due to freezes in some private health insurance premiums. State and local government fees and charges were little changed in the quarter.

Retail electricity prices increased by around 1 per cent in the June quarter but were little changed over the year (Graph 4.14). Gas prices declined a little in the quarter but were 6½ per cent higher over the year. Wholesale electricity and gas prices have increased sharply over recent months, reflecting a combination of factors, including domestic supply disruptions, increased demand, and higher coal and gas prices (see 'Box A: Recent Developments in Energy Prices'). This will be passed through to retail prices in the September quarter, though the introduction of rebates by some state governments means that most of the effect on measured prices in the CPI will occur in the December quarter.

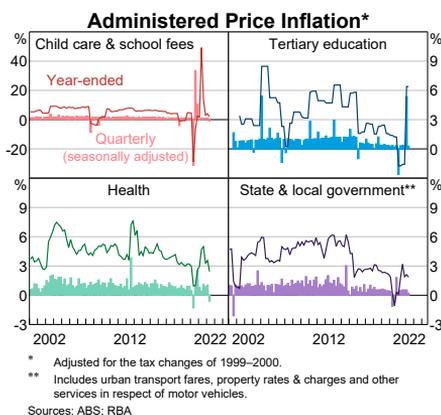
Short-term inflation expectations have increased further, but longer-term inflation expectations mostly remain consistent with the inflation target

Measures of short-term inflation expectations increased over the past quarter and are at a high level (Graph 4.15). This is consistent with the higher cost of living that households are experiencing, the Reserve Bank's public commentary that inflation will increase further

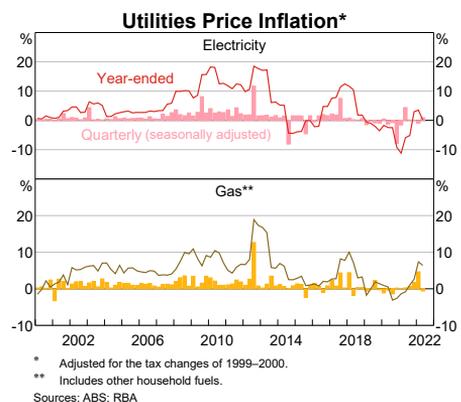
in the near term and general reports in the media of high inflation. The available evidence suggests that longer term inflation expectations remain anchored to the inflation target at this stage (Graph 4.16). Most medium- and long-term measures, including those from financial markets, remain within the inflation target range, suggesting that the current high inflation is expected to be relatively short lived. Long-term expectations of union officials have picked up to around 3½ per cent, the highest level since 2009.

Inflation expectations can influence firms' and households' wage negotiations and price-setting behaviour, and a number of firms in the business liaison program have noted that higher inflation outcomes have been a factor in recent wage negotiations. In general, though, firms expect wages growth over coming quarters to be less than current headline inflation, in part because some of the recent strength in inflation is seen as temporary. Some firms that do expect their base wages to increase by more than in the past also noted that the tight labour market was a major factor driving these wage expectations. A number of firms noted that they intend to look through some of the recent sharp inflation increases – a common practice in the past for wage setting – but are unsure as to how long they will be able to do so.

Graph 4.13



Graph 4.14



Reports of firms increasing prices in response to higher wages have so far largely been contained to professional services firms, where labour is the most significant cost and reports of higher wages growth have been more common.

Timely indicators suggest that wages growth has increased and will pick up further in the period ahead

Information from the Bank’s liaison program and other business surveys suggests that private sector wages growth has picked up. In liaison, there has been a marked increase in the share of firms reporting realised average wage increases

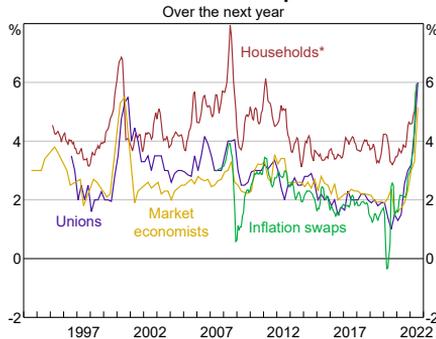
above 3 per cent (Graph 4.17). Many firms have continued to report that recent increases in average wages growth have been driven by larger regular or out-of-cycle increases for specific occupations or skills in high demand; in some cases, firms have reported paying higher increases to staff more broadly in response to elevated voluntary turnover. Reports of larger-than-average wage increases to date have been most common among construction and business services firms.

Liaison reports and surveys of wages growth expectations point to a further lift in wages growth over coming quarters (Graph 4.18). Over 60 per cent of firms that reported their expectations in the business liaison program in 2022 so far expect to raise wages by more than 3 per cent over the year ahead. Firms expect the pick-up will be broadly based, rather than limited to specific industries or occupations. The lift in expected wages growth reflects firms responding to higher voluntary turnover and stronger inflation.

In June, the FWC determined an increase of 5.2 per cent in the national minimum wage. Modern award wages will increase by a minimum of 4.6 per cent, with increases of up to 5.2 per cent for lower-paid workers (Graph 4.19). The increase was effective for most awards on

Graph 4.15

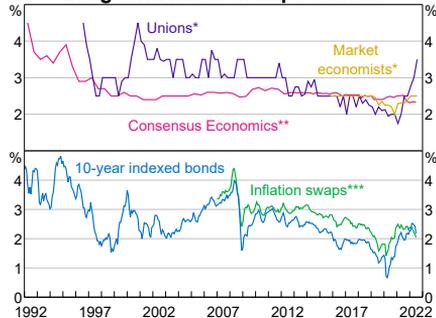
Short-term Inflation Expectations



* Smoothed.
Sources: Australian Council of Trade Unions; Bloomberg; Melbourne Institute of Applied Economic and Social Research; RBA; Workplace Research Centre

Graph 4.16

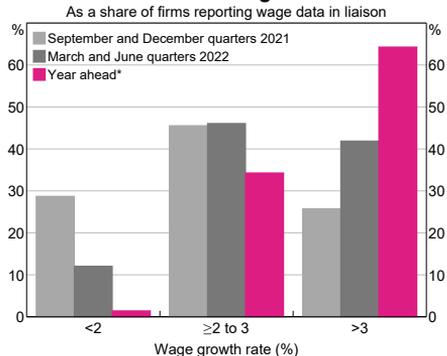
Long-term Inflation Expectations



* Average over the next 5–10 years.
** Average over 6–10 years in the future.
*** 5-years to 10-years forward.
Sources: Australian Council of Trade Unions; Bloomberg; Consensus Economics; RBA; Workplace Research Centre; Yieldbroker

Graph 4.17

Distribution of Wages Growth



* Expectations for the year ahead for firms reporting in the March and June quarters of 2022.
Source: RBA

1 July; a few industries that are still being impacted by the pandemic will have increases from 1 October, including aviation, tourism and hospitality. It is estimated that around one-third of all employees' wages are directly or indirectly linked to the decision.

Public sector wage announcements by a number of state governments are also expected to support wages growth over the next year. The New South Wales Government (Australia's largest employer) announced that it would raise its current (superannuation-inclusive) employee wage cap from 2.5 per cent to 3 per cent for 2022/23 and to 3.5 per cent in 2023/24 (conditional on productivity improvements). The

Western Australian Government raised its wage policy for 2022/23 and 2023/24 from around 2.5 per cent to 3 per cent per year. The Tasmanian Government raised its expectation for wages growth in new industrial agreements from 2 per cent in 2021/22 to 2.5 per cent in 2022/23. The Queensland Government announced a new wages policy, under which future wage increases for workers on expiring collective agreements will be determined in individual enterprise negotiations rather than at a whole-of-government level (where wage increases had previously been set at 2.5 per cent). A number of state governments have also offered lump-sum payments to some of their public sector employees in 2022/23, in part to offset higher living costs.

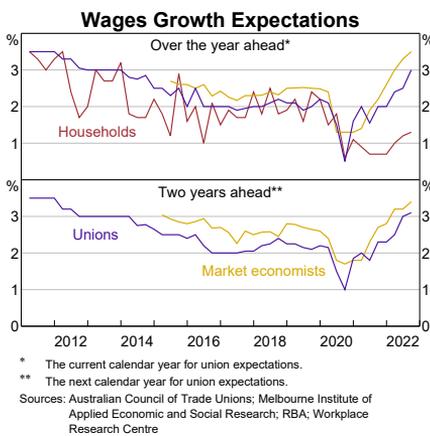
The superannuation guarantee increased from 10 per cent to 10.5 per cent of ordinary time earnings on 1 July 2022. Additional increases in the superannuation guarantee of 0.5 per cent are legislated to come into effect each year until 2025.

Wages growth increased in the March quarter but remained around its pre-pandemic pace

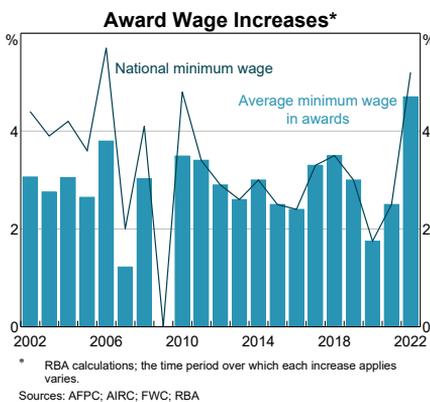
The WPI grew by 0.7 per cent in the March quarter and 2.4 per cent in year-ended terms. Private sector wages growth was 2.4 per cent for the third consecutive quarter (Graph 4.20). Public sector wages grew by 0.6 per cent in the March quarter and 2.4 per cent in year-ended terms; relatively few large enterprise agreements had increases scheduled in the quarter.

The share of industries with year-ended wages growth above 2.5 per cent increased in the March quarter, led by rental & real estate services, professional services, information media & telecommunications and manufacturing. Bonuses and commissions boosted growth in pay over the year; wages growth including bonuses and commissions increased at a slightly faster pace than the WPI in year-

Graph 4.18



Graph 4.19



ended terms. Wages growth was between 2 and 3 per cent in year-ended terms in most states and territories (Graph 4.21); there has been little evidence in recent quarters that wages growth has been faster in states where the labour market tightened earlier.

Most wage increases were between 2 and 3 per cent over the year to the March quarter (Graph 4.22); the share of jobs experiencing wage increases above 3 per cent remains much lower than was seen in the 2000s, although this has picked up a bit recently. Wages growth has been led by a pick-up for jobs where wages are set by individual arrangement (Graph 4.23); the average size of wage increases for these jobs (conditional on a wage change having occurred)

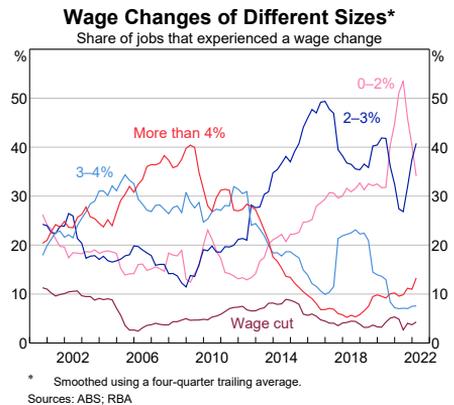
increased noticeably in the March quarter. By contrast, wages growth in public and private enterprise agreements was around 2 per cent in year-ended terms, which is below the rates that prevailed prior to the pandemic. Growth in award wages declined to 2.4 per cent in the March quarter, after being boosted recently by some jobs that received two award increases in 2021.

Real (inflation-adjusted) wages continued to decline in the March quarter, as consumer price inflation rose faster than wages growth (Graph 4.24). Cost-of-living pressures are likely to fall unevenly across households, as those with lower incomes spend a greater proportion on essential items and have relatively limited

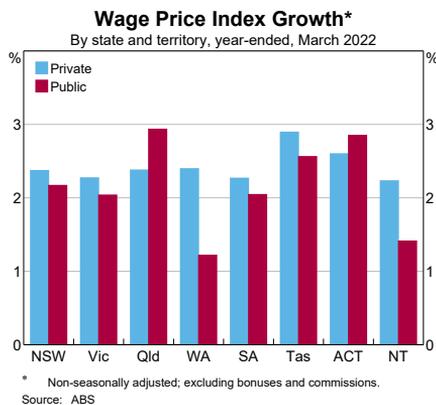
Graph 4.20



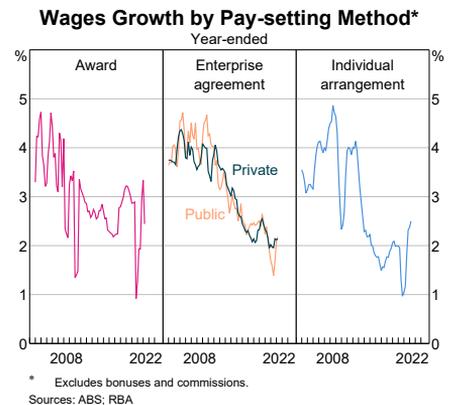
Graph 4.22



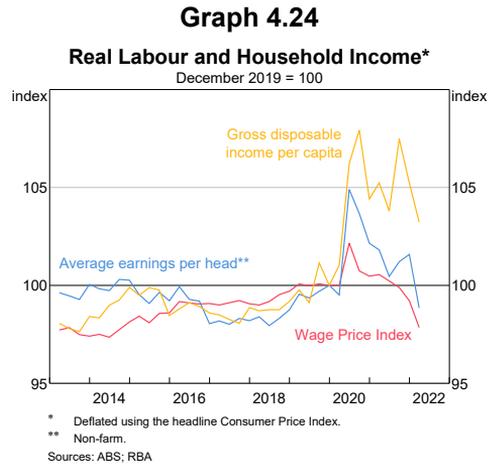
Graph 4.21



Graph 4.23



savings buffers to draw upon. However, some of these households will have their real income supported by the FWC decision and by increases in employment. Further, growth in total household income (which includes items like financial income and social assistance receipts) has recently been stronger than labour income growth; this is supporting household purchasing power in the higher inflation environment. 🏠



Box A

Recent Developments in Energy Prices

Wholesale electricity prices in the National Electricity Market (NEM) have increased sharply over the past six months, to be around four to five times higher in June and July than at the start of the year (Graph A.1). While futures markets suggest that wholesale electricity prices will decline over the coming quarters, they are expected to remain high relative to 2021. Wholesale gas prices are also significantly higher than one year ago.

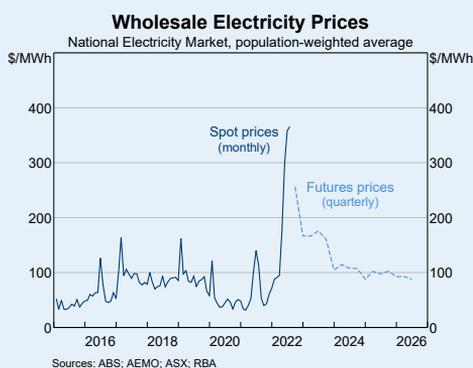
These higher wholesale prices will be passed through to retail electricity and gas prices for households and businesses over time, adding to Consumer Price Index (CPI) inflation. Such price increases directly affect inflation because these two items account for about 3½ per cent of the CPI basket. They also indirectly affect inflation, as businesses gradually pass these higher costs onto consumers via higher prices for goods and services.

A combination of factors has caused wholesale electricity prices to rise sharply

The NEM is the wholesale market through which generators sell and retailers buy electricity. Electricity generators submit bids into the NEM signalling how much electricity they are willing to supply and at what price; the generators that bid the lowest are then chosen to generate electricity to meet demand. The wholesale electricity price – or the ‘spot price’ – is the bid offered by the highest-bid generator that is chosen. The NEM operates across Queensland, New South Wales, the ACT, Victoria, South Australia and Tasmania. Western Australia and the Northern Territory each have separate electricity systems and regulatory arrangements.

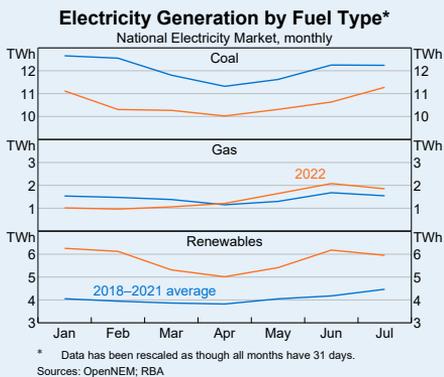
Around 60 per cent of electricity generation in the NEM stems from coal-fired power. As such, disruptions in several large coal-fired power plants over recent months put pressure on the supply of electricity. A number of plants have been offline in recent months, with some facing unplanned maintenance problems. Other plants produced less power than usual due to a combination of factors, including difficulty accessing sufficient coal because of supply chain issues and illness-related staff absenteeism, and/or production at some coal mines being disrupted by rainfall and extraction difficulties. As a result, coal-fired electricity generation has been substantially lower in 2022 than in recent years (Graph A.2).

Graph A.1



Another factor that has put upward pressure on electricity prices is the sharp increase in domestic and overseas thermal coal spot prices since the start of the year, from already elevated levels (Graph A.3). While many coal-fired generators source coal through long-term contracts or from their own mines, some source coal from spot markets. Moreover, in aggregate, generators have sourced a larger-than-normal share of coal from the spot market recently because of disruptions to usual coal supplies. As a result, generators have increased the price at which they are willing to supply electricity, increasing prices in the NEM.

Graph A.2

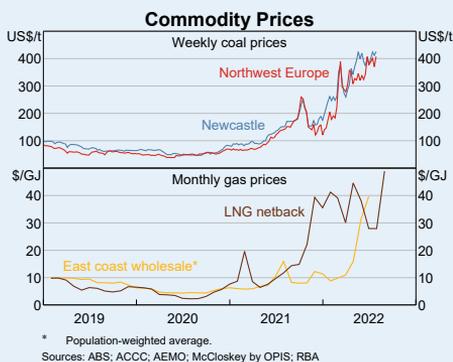


Meanwhile, total demand for electricity from the NEM was slightly higher in May, June and July this year compared with the same time in previous years (Graph A.4), coinciding with below-average temperatures on the east coast.

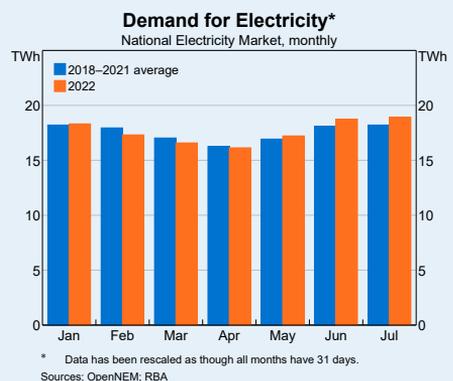
Lower coal-fired generation and higher electricity demand in the NEM has resulted in greater use of higher-cost gas-fired power plants to meet demand. The cost of gas-fired generation in early 2022 was almost double that seen in early 2021, with domestic wholesale gas prices rising from ~\$6/GJ to ~\$11/GJ over the year (for comparison, export-parity prices were around \$40/GJ in early 2022). However, the most significant price jump occurred in early May, when the increase in demand for gas-fired electricity generation drove a sharp increase in domestic wholesale gas prices, which reached \$40/GJ by the second week of May and have remained around this level since (Graph A.3).^[1] This higher price for wholesale gas inputs has led to even higher gas-fired electricity generation costs, and therefore higher wholesale electricity prices.

Lower-than-expected output from renewables generation for a time may have also contributed to the increase in wholesale

Graph A.3



Graph A.4



electricity prices. Overall, to date, renewables generation has been higher in each month of 2022 compared with previous years, largely due to an increase in capacity. However, electricity produced per unit of installed renewables capacity has been lower than in previous years, partly reflecting adverse weather on the east coast. This may have put further pressure on wholesale electricity prices if market participants had anticipated that renewables generators would supply more electricity into the NEM. Lower-than-expected output from rooftop solar may have also led households and businesses to demand more electricity from the NEM in recent months.

Wholesale electricity prices reached a peak in mid-June (Graph A.5). This led the Australian Energy Market Operator (AEMO), which oversees the NEM, to implement a price cap for a few days in some states. Subsequently, some generators withdrew from supplying electricity until directed to do so by AEMO, with liaison indicating that the \$300/MWh price cap was below the cost of production for some generation sources. As a result, the NEM became difficult to operate and AEMO suspended the NEM between 15 and 24 June. Since then, the NEM has been operating as usual and wholesale electricity prices have remained elevated.

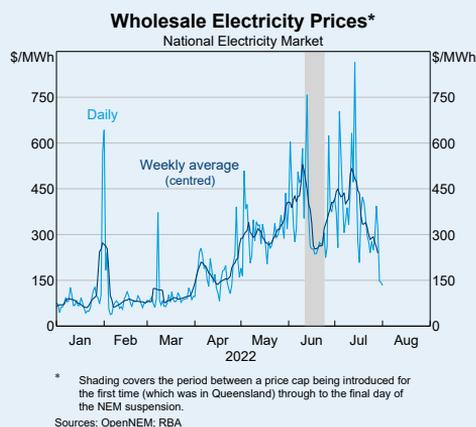
Higher wholesale prices will lead to higher prices for households and businesses

Households' electricity and gas prices are expected to increase significantly in the September quarter, following the recent increase in wholesale prices. However, the bulk of the effect of these higher prices on the CPI will be delayed until the December

quarter because some state governments have introduced energy rebates.

Wholesale energy costs account for about one-third of households' electricity and gas bills, as they directly affect retailers' costs.^[2] The pass-through from wholesale electricity prices to retail prices tends to be gradual, reflecting the fact that most retailers hedge at least some of their exposure to fluctuations in wholesale prices. In addition, the pass-through of these higher costs to the prices paid by customers is influenced by regulatory decisions about the default rate that customers are charged – commonly referred to as a default market offer (DMO) or standing offer – unless they shop around and get a market offer with a more competitive rate. The Australian Energy Regulator increased the default offers for electricity by 7–18 per cent in New South Wales, southeast Queensland and South Australia from 1 July 2022. The Victorian and Tasmanian regulators also announced a 5 per cent and 12 per cent increase, respectively, in their default offers from 1 July 2022. Around 10 per cent of residential customers across these regions are on default offers, with the remaining 90 per cent on market offers. Market offers

Graph A.5



have previously been priced at a significant discount to default offers; however, at least some of this discount has been eroded recently, with price increases for market offers in the east coast states and South Australia generally being larger than the increase in default offer prices. Meanwhile, retail electricity prices in Western Australia increased by 2½ per cent from 1 July 2022.

Contacts within the Bank's liaison program generally expect further significant increases in retail electricity prices in 2023. This is largely because the recently announced regulated price increases for 2022 were decided before the latest run-up in wholesale prices and because wholesale prices are expected to remain elevated. Therefore, a further increase may be required to allow retailers to recover their costs.

Electricity and gas prices faced by businesses will also increase. Larger businesses are expected to face greater increases in electricity and gas bills over the next year than smaller businesses and households because wholesale prices make up a larger share of their energy costs (due to higher usage). However, most large businesses are on multi-year fixed-price contracts for electricity and gas, and therefore higher wholesale prices will be passed through more gradually as contracts reset. These expected price increases are likely to have a further indirect effect on inflation, to the extent that firms pass increases in energy costs onto their customers via higher prices. ❖

Endnotes

[1] A price cap of \$40/GJ is administered in east coast wholesale gas markets once cumulative seven-day prices exceed certain thresholds. Price caps have been in effect in several states at various times since 30 May.

[2] The remaining two-thirds consists of network, environmental and retail costs.

5. Economic Outlook

Forecasts for global growth in 2022 and 2023 have been revised down since the *May Statement*, in response to the weaker outlook for real incomes and faster increases in policy rates. Growth in Australia's major trading partners is expected to fall well below the pre-pandemic average this year, in part because measures to suppress China's COVID-19 outbreak have weighed on activity there by much more than anticipated. One key uncertainty for the global growth outlook is how resilient consumer spending will be in response to a sharp slowing in real income growth and higher interest rates. It is also uncertain how persistent inflation will prove to be. A potential further tightening of supply in energy markets could impinge significantly on many economies, especially in Europe (see chapter on 'The International Environment').

The Australian economy is expected to grow strongly over 2022, before slowing next year. In the near term, GDP growth is expected to be supported by growth in household consumption and a recovery in services exports. Further ahead, higher consumer prices, rising interest rates and declining housing prices are expected to weigh on growth in private spending, at the same time as growth in public demand slows. Offsetting this to some extent, the elevated terms of trade will boost national income substantially. GDP is forecast to grow by 3¼ per cent over 2022, 1¾ per cent over 2023 and 1¾ per cent over 2024. These forecasts are lower than three months ago. Strong demand for labour is expected to see the unemployment rate decline to 3¼ per cent in

late 2022, lower than the previous forecast. The unemployment rate is then expected to rise gradually, in line with slowing growth in activity, but to remain low by the standards of recent decades.

Inflation is now the highest it has been since the early 1990s and is forecast to increase further in the second half of this year. Consumer price inflation is expected to reach around 7¾ per cent around the end of the year before starting to decline in early 2023. Underlying inflation is expected to increase to 6 per cent in year-ended terms in the second half of 2022, largely reflecting further pass-through of upstream cost pressures in many sectors. Absent additional supply shocks, some cost pressures will wane over time. Further increases in labour costs in response to the tight labour market are expected to become the primary driver of inflation outcomes later in the forecast period. Headline and underlying inflation are expected to return to the top of the inflation target range by late 2024.

The effect of high inflation and cost-of-living pressures on wage- and price-setting behaviour is a material risk to the inflation outlook. Higher expectations of future inflation could result in inflation remaining elevated for longer than currently anticipated. Another source of uncertainty for the domestic growth outlook relates to the competing forces affecting household spending. At present, household incomes are being sustained by strong labour demand, which is feeding into strong growth in employment and hours worked, and will ultimately lead to stronger wages growth. Also

household balance sheets are in generally good shape, underpinned by a high level of savings. Against those positive drivers of consumption, high inflation and rising interest rates are raising the cost of living and will weigh on households' spending. Household consumption could also be dampened by wealth effects as housing and other asset prices decline. How these competing forces net out is uncertain, and the balance could shift considerably over time. Other sources of uncertainty include the impact of supply shocks on price pressures and the persistence of disruptions from COVID-19.

Domestic activity

The Australian economy is expected to grow strongly over 2022 (albeit at a slower pace than previously expected), as household consumption is supported by strong labour income growth and education and travel services exports pick up. GDP growth is expected to slow in 2023 to below most estimates of potential output growth (Graph 5.1). The slowing is anticipated to be broadly based, with slower growth in household consumption, weaker dwelling investment as housing prices decline, a stabilisation of public demand at high levels after recent rapid growth, and slower growth in exports as the recovery in services exports nears completion.

Employment is forecast to grow strongly during 2022 before moderating as growth in activity slows. Since the start of this year, labour market outcomes have been robust and leading indicators of labour demand suggest this will continue in the near term. Participation in the labour force is expected to be sustained at historically high levels over the forecast period, supported by the cyclical strength in labour market conditions and the longer term trend toward increased participation among females and older Australians. The unemployment rate is forecast to decline to around 3¼ per cent in late 2022 before rising gradually thereafter, in line

with slower growth in activity (Graph 5.2). Broader measures of labour underutilisation that include workers who are underemployed are also forecast to decline to their lowest level in many years as firms increase staff hours to meet demand. Following the reopening of the international border earlier this year, immigration could help to alleviate labour shortages in some industries over time, while also adding to demand in the economy.

Inflation is high and is expected to increase further in the second half of the year. The forecast for headline inflation has been revised up substantially compared with a few months ago, reflecting broad-based pricing pressures that are not expected to ease until early next year, as well as expectations of large increases in retail electricity and gas prices over the coming year. Headline inflation is expected to peak around 7¾ per cent in year-ended terms towards the end of 2022, before declining back to the top of the inflation target range by the end of 2024 (Graph 5.3).

The near-term outlook for underlying inflation has also been revised higher, with an expected peak at around 6 per cent in late 2022 (Graph 5.4). A significant share of firms in the Bank's liaison program have increased prices or expect to do so over coming months as a result of earlier increases in input costs. Some upstream cost pressures are showing signs of easing but it will take some time before this affects prices paid by consumers. Underlying inflation is expected to ease from early 2023 and to be back to the top of the inflation target range by the end of 2024. This moderation is expected to occur more slowly than previously assumed as higher energy costs partly offset declines in other input costs arising from the easing in supply chain pressures.

The forecasts are based on some technical assumptions. The path for the cash rate reflects expectations derived from surveys of professional economists and financial market

Table 5.1: Output Growth and Inflation Forecasts^(a)

Per cent

	Year-ended					
	Jun 2022	Dec 2022	Jun 2023	Dec 2023	Jun 2024	Dec 2024
GDP growth	3½	3¼	2¼	1¾	1¾	1¾
(previous)	(3½)	(4¼)	(3)	(2)	(2)	(n/a)
Unemployment rate ^(b)	3.8	3¼	3½	3½	3¾	4
(previous)		(3¾)	(3½)	(3½)	(3½)	(n/a)
CPI inflation	6.1	7¾	6¼	4¼	3½	3
(previous)		(6)	(4¼)	(3¼)	(3)	(n/a)
Trimmed mean inflation	4.9	6	5	3¾	3¼	3
(previous)		(4¾)	(3½)	(3¼)	(3)	(n/a)
Year-average						
	2021/22	2022	2022/23	2023	2023/24	2024
GDP growth	3¾	4	3½	2¼	1¾	1¾
(previous)	(3¾)	(4½)	(4½)	(2¾)	(2)	(n/a)

(a) Forecasts finalised on 3 August. The forecasts are conditioned on a path for the cash rate broadly in line with expectations derived from surveys of professional economists and financial market pricing. Other forecast assumptions (assumptions as of *May Statement* in parenthesis): TWI at 63 (63); A\$ at US\$0.69 (US\$0.71); Brent crude oil price at US\$94bbl (US\$101bbl). The assumed rate of population growth is broadly in line with the profile set out in the Australian Government Budget 2022–23. Forecasts are rounded to the nearest quarter point. Shading indicates historical data, shown to the first decimal point.

(b) Average rate in the quarter.

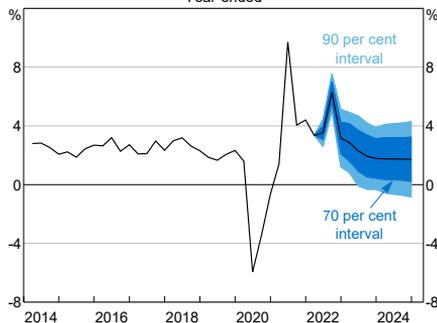
Sources: ABS; RBA

pricing, with the cash rate assumed to increase to around 3 per cent by the end of 2022, and then decline a little by the end of 2024. The exchange rate is assumed to be unchanged at its current level. Wholesale petrol prices are

assumed to be unchanged around their recent level, and the temporary discount in the fuel excise is assumed to be removed in line with government policy. Population growth projections are little changed from the May

Graph 5.1

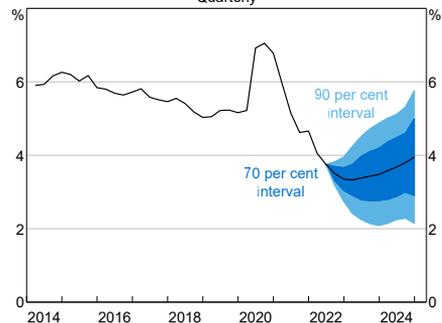
GDP Growth Forecast*
Year-ended



* Confidence intervals reflect RBA forecast errors since 1993.
Sources: ABS; RBA

Graph 5.2

Unemployment Rate Forecast*
Quarterly

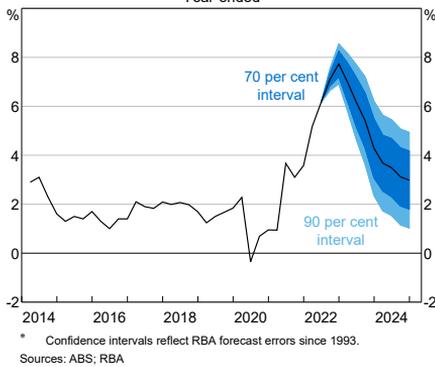


* Confidence intervals reflect RBA forecast errors since 1993.
Sources: ABS; RBA

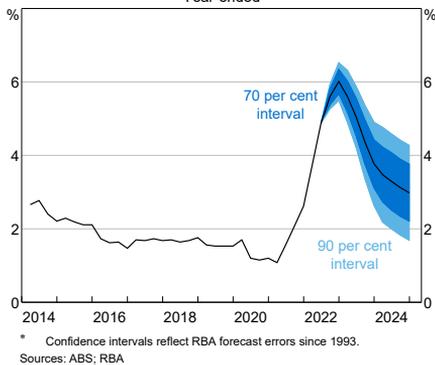
Statement and reflect assumptions used in the Australian Government Budget 2022–23.

The forecasts are also based on the assumption that any future waves of COVID-19 variants will mostly have a temporary impact on the economy, with limited restrictions on economic activity required and the labour market adjustment occurring mainly through a reduction in hours worked. The risk of more persistent disruptions from the virus is one of several uncertainties for the outlook (see ‘Key domestic uncertainties’, below).

Graph 5.3
Headline Inflation Forecast*
 Year-ended



Graph 5.4
Trimmed Mean Inflation Forecast*
 Year-ended

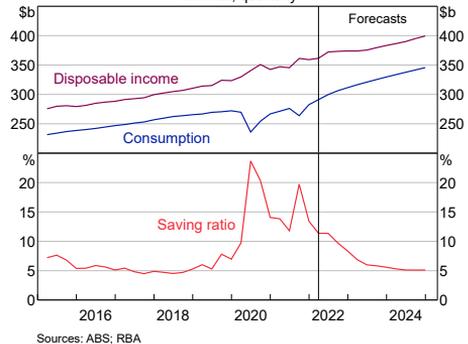


Household consumption, income and saving

Household consumption grew solidly in the first half of 2022 as spending on discretionary goods and services, including hospitality and travel, continued to recover. The resilience in spending partly reflects strong growth in household disposable income. The near-term outlook for consumption continues to be supported by strong labour market outcomes, though growth is forecast to ease over the remainder of 2022 as households’ budgets come under increased pressure from the rising cost of living (Graph 5.5). Higher prices, especially for food and fuel, are likely to impact low-income households in particular (which tend to spend a larger share of their income on these necessary items). While household balance sheets are generally strong and many households should be able to absorb these price increases, others have limited savings buffers and may have to reduce spending elsewhere. For some of these more vulnerable households, the impact of price rises will be mitigated to some extent by the indexation of social assistance payments twice per year, though price rises will reduce recipients’ real incomes in the near term.

Further out, growth in consumption is forecast to slow as rising prices and higher net interest payments weigh on real disposable income growth, and declines in housing prices lower net

Graph 5.5
Household Consumption and Income
 Nominal, quarterly



household wealth. The household saving ratio is expected to decline over the forecast period to just below its average level in the years prior to the pandemic.

Investment

The outlook for investment remains positive (Graph 5.6). A large pipeline of residential and non-residential projects is expected to sustain construction activity for at least the next year. However, the recent flow of data and information from the Bank's liaison program indicate that capacity constraints have intensified in some sectors, which will limit the pace of growth in construction activity for some time.

The pipeline of private non-residential construction work yet to be done has increased recently, reflecting additional commercial projects. By contrast, the outlook for dwelling investment has been downgraded. Demand for new detached dwellings is expected to be soft as a further decline in established housing prices and high construction costs reduce the incentive to build new dwellings. Prospects for higher density residential projects are brighter, as rental vacancy rates in Sydney and Melbourne have declined and as population growth

recovers following the reopening of the international border.

Non-mining machinery and equipment investment is expected to grow over coming years, consistent with information from the ABS Capital Expenditure Survey and the Bank's liaison program. However, ongoing supply chain disruptions are anticipated to weigh on growth in the near term. Further, the effect of government tax incentives appears to be waning after earlier strong growth, as some firms brought forward investment.

Mining investment is forecast to increase a little over coming years. Shortages of skilled labour and some materials have become more binding, which is expected to weigh on growth in the near term. Elevated commodity prices and recent strong growth in profits for Australia's main commodity producers have not resulted in a material change of investment plans.

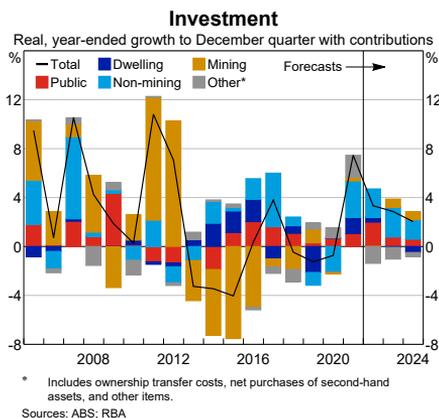
Public demand

Public consumption is forecast to have increased further in the June quarter from an already high level. Further ahead, public consumption is anticipated to decline as a share of nominal GDP as temporary spending measures introduced during the pandemic are unwound. Public investment is forecast to grow over the forecast period. The pipeline of public engineering work is anticipated to support a high level of public capital expenditure for several years, but the speed of the rollout will be constrained by labour and materials shortages for some time.

External sector

Exports are forecast to grow strongly over coming years. Travel and education exports have increased from very low levels following the full reopening of the international border and are expected to grow substantially in the period ahead, though the recovery has so far been slower than anticipated. Resource export

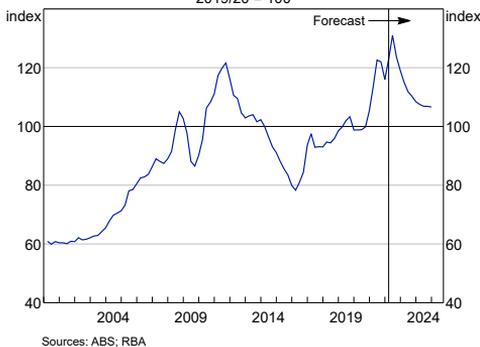
Graph 5.6



volumes have declined in recent quarters due to maintenance and weather-related disruptions weighing on production. As these disruptions fade, resource exports are expected to pick up. Meanwhile, rural production has benefited from ongoing favourable weather conditions. Rural exports are forecast to remain elevated, reflecting strong global demand for grains and disruptions to global supply from Ukraine and Russia. Import volumes are expected to increase a little faster than domestic demand over the next year as tourism recovers following the reopening of the international border.

The near-term outlook for the terms of trade has been boosted by high global energy prices, particularly LNG and thermal coal, reflecting ongoing disruptions in energy markets due to Russia's invasion of Ukraine. The terms of trade are expected to reach a record high level in the June quarter (Graph 5.7). Commodity prices are projected to decline over the forecast period but to remain higher than previously anticipated, contributing to a higher level of the terms of trade compared with three months ago. The trade balance is expected to decline from its record level, in line with the projected decline in commodity prices.

Graph 5.7
Terms of Trade
2019/20 = 100

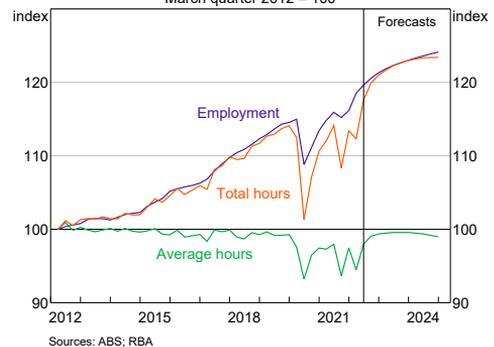


Labour market

Labour market conditions tightened in the first half of 2022 and leading indicators suggest this will continue in the months ahead. The labour market adjustment to illness- and weather-related disruptions has occurred mostly through a decline in hours worked, with the disruptions caused by higher-than-usual levels of illness more persistent than expected a few months ago. Employment growth is forecast to remain strong in 2022 before moderating thereafter as activity slows (Graph 5.8). The participation rate is expected to increase further over 2022 and remain around this level until the end of 2024, supported by strong labour demand and longer run structural drivers, such as higher participation rates among females and older Australians.

A broad range of measures of labour market spare capacity suggest the labour market is the tightest it has been in decades. The unemployment rate is forecast to decline to around 3¼ per cent in late 2022 before rising modestly thereafter as a result of slower growth in activity. An increase in average hours worked, which remain below their pre-pandemic trend, is also expected to be a key margin of adjustment in response to strong labour demand. Average hours worked are expected to rise above the pre-pandemic level by late 2022, leading to

Graph 5.8
Employment and Hours Worked
March quarter 2012 = 100



further declines in broader measures of labour underutilisation.

Wages

Wages growth is expected to pick up further as labour market conditions continue to tighten. The share of firms in the Bank’s liaison program reporting annual wages growth above 3 per cent has increased from around 25 per cent in late 2021 to 40 per cent in the June quarter. Around 60 per cent of firms expect that wages growth over the year ahead will be higher than current rates. The lift in expected wages growth reflects the response of firms to higher voluntary turnover, stronger inflation outcomes and the Fair Work Commission’s decision on minimum and award wages. Business surveys also indicate that labour costs are picking up.

Aggregate wages growth outcomes are expected to continue to be restrained by wages growth in public and private enterprise agreements, particularly in the near term, consistent with the multi-year duration of agreements. In recent months, the New South Wales, Western Australian and Tasmanian governments announced increases in their wage caps for public sector workers, while the Queensland Government removed its wage cap. These changes will support a pick-up in wages growth as new agreements are negotiated, although the direct effect on aggregate wages growth is likely to be small.

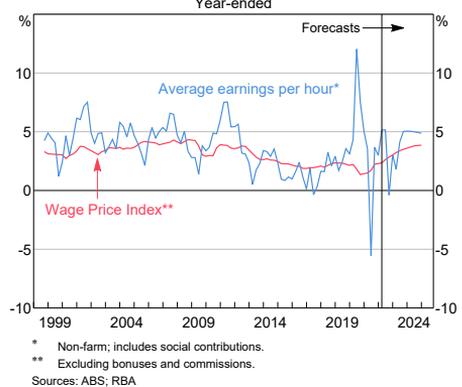
Growth in the Wage Price Index (WPI) – a narrow measure of base wages designed to measure changes in wage rates for a given quantity and quality of labour – is expected to pick up to around 3½ per cent by mid-2023 and 3¾ per cent by the end of 2024; this would be the fastest pace since 2012 (Graph 5.9). Broader measures of labour income growth are expected to increase at a faster rate than the WPI over the forecast period as employers use bonus payments to retain or attract staff and provide

temporary relief for the higher cost of living, as more hours are worked at overtime rates and as workers move jobs for higher pay. These broader measures imply less of a decline in real incomes than suggested by the narrower WPI measure (Graph 5.10).

Inflation

The outlook for inflation has been revised higher from a few months ago. In the near term, headline inflation is expected to be boosted by higher utilities prices, reaching a peak of around 7¾ per cent by the end of 2022 (Graph 5.11). Wholesale electricity and gas prices have increased sharply in recent months, reflecting

Graph 5.9
Wages and Earnings Growth
Year-ended



Graph 5.10
Real Labour Income*
December 2019 = 100



domestic supply disruptions, strong demand and high international coal and gas prices. As a result, retail electricity and gas prices are expected to increase by 10–15 per cent in the September quarter of 2022, with announced increases by energy retailers being generally above the default market offer increases set by energy regulators, particularly among smaller providers. However, the introduction of rebates by some state governments are expected to delay most of the direct effect of higher utilities prices on headline inflation until the December quarter of 2022.

Contacts in the energy sector in the Bank’s liaison program generally expect there to be further significant increases in retail utilities prices in 2023. As such, a further 10–15 per cent increase in retail utilities prices is assumed in 2023, although the exact size and timing of future increases remains highly uncertain. Businesses are expected to face larger increases in electricity prices than households because the wholesale component comprises a larger share of businesses’ electricity bills. Any second-round effects on CPI inflation are likely to be spread out over a few years because businesses often purchase electricity on two- to three-year fixed-price contracts.

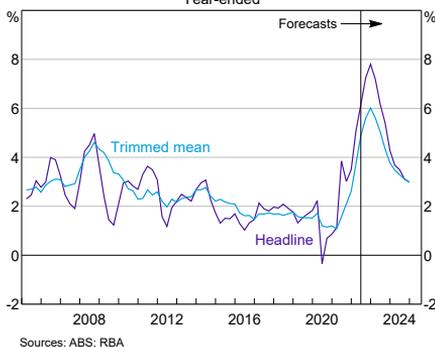
Global factors, including COVID-19-related disruptions to supply chains and the Russian

invasion of Ukraine have accounted for much of the increase in inflation over the past year. While there are some early signs that these upstream pressures are easing, earlier increases to input costs are expected to continue boosting consumer prices for some time. Domestically, strong demand, a tight labour market, flood-related disruptions and capacity constraints in some sectors are contributing to the upward pressure on prices.

Inflationary pressures have broadened significantly since late 2021 and domestic factors are increasingly playing a role. Price increases are becoming more common, impacting not only consumer durables and newly constructed homes but also groceries and market services. Grocery inflation has been elevated in recent quarters and this is expected to continue in the second half of 2022 as requests from suppliers to raise prices are gradually implemented in supermarkets – for example, substantial increases in the price of milk were introduced in early July. Price increases for new dwelling construction have been very strong, and are likely to persist in the near term before easing later in the forecast period. Further, as HomeBuilder and similar state government subsidies conclude and fewer grants are paid, more buyers will pay the full price for dwellings, which will contribute to measured inflation. Rental price inflation has picked up and is expected to increase further over 2022 as the impact of low vacancy rates on higher advertised rents over the past year or so works its way into the stock of outstanding rental agreements.

From early 2023, inflation is expected to moderate as global supply-side problems continue to ease and commodity prices stabilise, even if at a high level. Higher interest rates globally will also help moderate demand pressures. The pass-through of upstream non-labour cost pressures is anticipated to wane,

Graph 5.11
Inflation Forecasts
 Year-ended



while growth in labour costs is expected to pick up over the forecast period.

Key domestic uncertainties

The effect of high inflation and cost-of-living pressures on wage- and price-setting behaviour and inflation expectations

Inflation in Australia and internationally is likely to be elevated for a longer period than originally expected and result in a decline in real wages.

Cost-of-living pressures are changing how governments, businesses and households respond to changes in prices. Given the labour market is already tight, workers might be more able to demand and achieve higher wages to compensate for the increased cost of living, even in the absence of a lift in productivity. Information from the liaison program indicates that higher inflation outcomes are a factor in some current wage negotiations; this is likely to contribute to a pick-up in wages growth in the period ahead, though it is too early to tell what impact this is having on agreed wage outcomes. If employers pass these and other increased costs on to consumers, this could result in inflation remaining elevated for longer than currently anticipated.

Higher expectations of future inflation could lead to a broadening of second-round price increases by firms, leading to higher actual inflation. Indeed, retailers have indicated in liaison that they are now more willing to pass on input cost pressures to consumers, rather than accepting lower margins. To date, longer term measures of inflation expectations remain well anchored. It is important this remains the case in order to realise the path back towards an inflation rate between 2 to 3 per cent.

The outlook for household consumption

Household incomes have been sustained by robust labour demand, with stronger-than-expected growth in employment and hours

worked in recent quarters. Persistently strong demand for labour could result in sustained momentum in household consumption. Further, many households have built considerable savings buffers during the pandemic; if households are more willing to spend from these liquid savings than from other forms of wealth, spending would also be stronger than anticipated for a time. In addition, stronger-than-expected growth in domestic demand would see domestic inflation pressures build further.

A decline in real disposable incomes for the average household could weigh on consumption growth by more than expected, particularly if household wealth is also declining. While many households should be well placed to absorb higher interest costs without significant spending cuts, some households have low savings buffers and high debt relative to incomes, and so their spending may fall more sharply than others. The additional pressure on household budgets from rising prices could exacerbate these downside risks to consumption, particularly for lower income households; that said, it is hard to predict how declining real incomes might be reconciled with the current tight labour market. Consumption growth could also be weaker than anticipated in response to larger-than-expected falls in housing prices or other asset prices. The magnitude of the decline of housing prices arising from higher interest rates is uncertain, especially given the high level of prices relative to incomes. The outlook for residential construction is likewise sensitive to the paths of housing prices and interest rates.

The impact of a tight labour market and supply shocks on price pressures

Measures of labour market spare capacity are forecast to decline to their lowest levels in several decades and the participation rate is expected to remain at historically high levels. With limited recent historical experience to draw on, it is difficult to know how labour market

dynamics and wage and price pressures will evolve in these circumstances. The pace and composition of net overseas migration following the reopening of the international border is also a source of uncertainty for the labour market outlook; how much the border reopening will alleviate areas of acute labour shortages will depend on the effects on labour supply across regions, industries and occupations. Depending on these factors, it is plausible that unemployment falls even further, or that it drifts up towards the end of the forecast period, as growth in activity slows and the cost of labour increases.

How long the various supply-side issues facing the economy persist is another important source of uncertainty. These constraints could intensify or persist for longer than expected (as they have in some other economies). In time, businesses will be able to invest to expand their capacity to deliver goods and services; however, in the interim, inflation could be higher than expected and output growth lower, while capacity constraints bind. On the other hand, there are signs that global supply constraints are easing. Global prices of some goods could therefore stabilise or even decline in the period ahead, which would moderate inflation outcomes. This is especially likely if global demand slows more and sooner than currently expected. One way this might occur is if the simultaneous tightening of monetary policy across many economies impinges on demand

by more than the sum of individual-economy effects would imply.

The longer term effects of the pandemic and changes in the pattern of globalisation on potential growth and full employment in Australia are uncertain but tilted towards capacity being more limiting than previously assumed. It is possible that some of the recent changes in spending and production patterns are long-lasting and reduce productivity. In this event, any given rate of growth could be more inflationary than before the pandemic.

The persistence of disruptions from COVID-19

An ongoing uncertainty for the economy is the persistence of disruptions from COVID-19 variants. The number of people working fewer hours due to sick leave has remained elevated, reflecting high COVID-19 case numbers as well as influenza. Should high infection rates persist for an extended period, due to the emergence of new variants or lower protection from vaccines and past infection, then supply disruptions may pose a downside risk to activity and labour market outcomes. It is expected that labour market adjustments will occur mainly through a reduction in hours worked. The effect on inflation is uncertain; lower household consumption and higher unemployment would weigh on inflation but further disruptions to supply could support upstream cost pressures and result in higher inflation for longer than currently expected. ❖

