TE TAI ŌHANGA
THE TREASURY

Fortnightly Economic Update

8 July 2022

- Business and consumer confidence slump as rising prices squeeze incomes, but solid labour demand is supporting spending.
- Commodity prices fall as global markets focus on recession risks.
- Our Special Topic discusses recession risks in New Zealand.

Weak consumer and businesses sentiment highlights the challenging nature of the economic outlook. The pandemic continues to disrupt activity and strain heath resources, and sharply rising prices are cutting into household incomes and business profits.

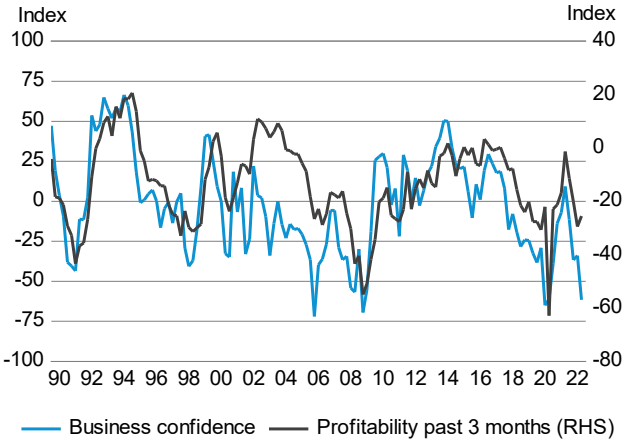
Sentiment is weak around the world, reflecting the common experience of recent times, including the removal of emergency levels of monetary and fiscal policy stimulus. The global economy is showing signs of cooling demand, while the anticipation of higher interest rates and how much that will dampen activity and employment is a key source of uncertainty. Tight labour markets are another common global feature. This tightness is helping to mitigate a sharper slowing in activity, but it is also adding to business costs, and ultimately to inflation, which shows few signs of easing.

Policymakers are navigating a path between restraining inflation and preserving high levels of employment in a highly uncertain world. Our Special Topic discusses the nature of the challenges facing the New Zealand economy from the perspective of past slowdowns and how policymakers can adapt to changes in the outlook.

Business confidence slumps…

Businesses are doing it tough across the board. Elevated prices and weakening activity are weighing on profits and confidence according to June's Quarterly Survey of Business Opinion (QSBO) (Figure 1). This reinforces the marked weakening in confidence seen in ANZ's Business Outlook (ANZBO) surveys over recent months. Cost pressures intensified over the past quarter and look set to continue while selling prices continued rising at pace. Meanwhile, firms' activity improved slightly relative to the March quarter, likely a result of Omicron numbers easing. Ultimately, the rapidly rising costs are weighing on profitability, and plans to invest in plant, machinery and equipment are being pared back.

Figure 1: Business confidence and profitability



Source: NZIER

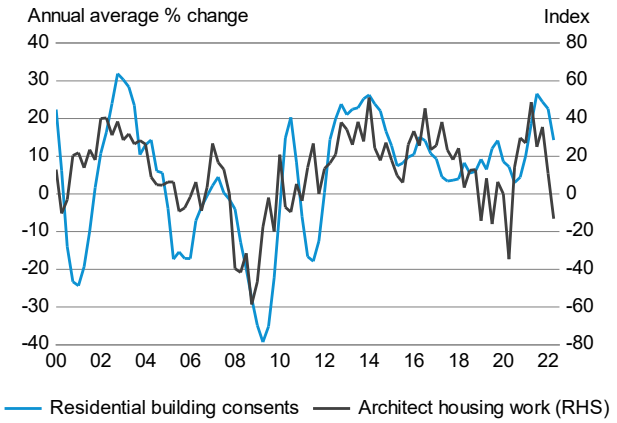
Despite the weaker activity outlook, businesses are facing record high difficulty finding labour, particularly in the building sector. Difficulty finding labour remains at record highs and employment intentions bounced back into the positives. In the building industry, over 60% of firms reported labour as the key constraint on activity, with 20% reporting materials were the major constraint. However, architects reported an easing in housing services demand, so these constraints may be close to peaking (Figure 2).

…as the building sector really feels the pinch…

The building sector is feeling particularly pessimistic as supply shortages bite and demand looks to be easing. Growth in residential building consents has levelled off over the past six months, driven by fewer consents for standalone homes. Data for May showed residential consents down 0.5% from April, after falling 8.5% in March. Consents will likely ease from here as construction costs spiral upwards and house prices fall. For June, Barfoot and Thompson's Auckland housing market report showed annual price growth and sales in the region continuing to trend down.

Prepared by the Treasury and released at https://treasury.govt.nz/publications/research-and-commentary/weekly-economic-updates

Figure 2. Building consents and architect work



Source: Stats NZ

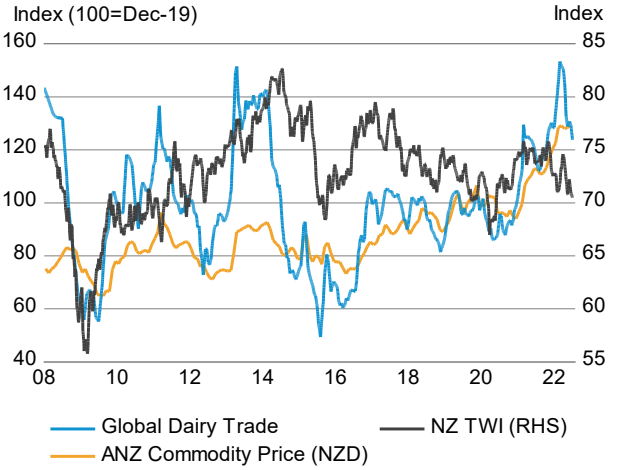
…and consumer sentiment remains depressed

Consumers look set to cut back on spending in coming months with consumer confidence remaining near record lows in June's ANZ Roy Morgan survey. Higher prices are reducing purchasing power and falling house prices are hurting household wealth. The squeeze on disposable incomes looks likely to continue in coming months and we expect that will be reflected in lower spending. But in the meantime, strong labour demand is supporting spending.

NZ commodity prices ease further

NZ's commodity export prices are trending down as global recession fears rise. The ANZ Commodity Price Index fell 0.4% in June and, following falls in the two preceding months, is 7% below its March peak. The easing trend has continued into July, with the GlobalDairyTrade's USD price index falling 4% to be 20% below its March peak. The NZD also been on a downtrend this year, which has helped to offset the weakness in world prices for domestic producers (Figure 3).

Figure 3: Commodity prices



Source: RBNZ, ANZ, Haver

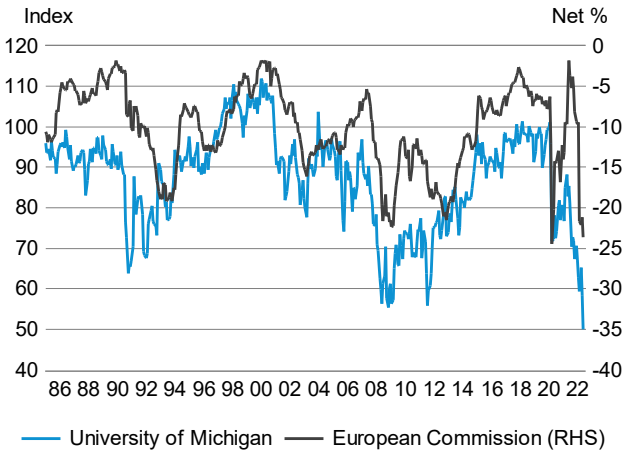
Global markets focus on recession risk…

Signs of slowing growth continue to accumulate, as high inflation and tightening financial conditions squeeze purchasing power, particularly in the US and Europe. However, signs of rebounding growth in China could provide an antidote to slower growth elsewhere.

…as indicators weaken in the US…

In the US, estimates of consumer spending continued to soften amidst a notable fall in consumer sentiment. Real private consumption spending dipped 0.4% in May, prompting some analysts to downgrade their expectations of GDP growth in the June quarter into negative territory. Following March's 0.4% quarterly GDP fall, a further fall would meet the technical definition of a recession (see our Special Topic for a further discussion). Earlier, the Conference Board's measure of consumer confidence fell to 98.7, all driven by the expectations component, while the University of Michigan version, which has historically been a better indicator of consumer spending, dropped further to a fresh record low (Figure 4).

Figure 4: US and euro area consumer sentiment



Source: Haver

Adding to growth concerns, June's ISM manufacturing survey fell to a two-year low of 53.5, reflecting declines in most major components. New orders were especially weak, dipping into contractionary territory for the first time since early 2020, with many anecdotes in the survey pointing to easing or stabilising demand. The ISM services survey also eased, to 55.3 from 55.9 in May, the lowest since mid-2020 and the employment sub-index fell into negative territory.

…and energy concerns weigh on the euro area

Euro area headline inflation hit a new record of 8.6% in June, well up on the 8.1% reading the previous month and slightly above market expectations. With inflation running well above the ECB's forecasts, the market expects a 25 basis point (bps) hike later this month and a 50bps hike in September. Meanwhile, euro area unemployment fell further in May, down one-tenth to 6.6%, although wide disparities are evident across the area – from 2.8% in Germany to 13.1% in Spain and 7.2% in France.

Euro area business sentiment held up in June, but it has fallen sharply in recent months, likely reflecting the outbreak of the war in Ukraine and its impact on costs. However, consumer views on both current and future views of personal finances and of the economy are very depressed (Figure 4).

Gas supply fears continue to hang over Europe. Russian gas supply has fallen to around half it 2021 levels and closure of the key Nord Stream 1 pipeline for maintenance next week is stoking fears that flows may not return to even current levels. Last month, Germany triggered phase two of the three-stage emergency gas plan, one step below the final emergency stage, which would trigger state control over distribution. Phase 2 enables utilities to pass on high prices to customers and thereby help to lower demand. Surging energy import prices drove Germany's trade balance into deficit in May, the first deficit since 1991.

China's reopening provides an offset

June Purchasing Managers Indexes (PMI) were back to expansion as COVID cases continued to decline, which is echoed by high-frequency data on domestic demand. The NBS manufacturing PMI rose 0.6 points to 50.2, while reopening dynamics lifted the service PMI nearly 7pts to 54.7. Looking ahead, the economy's recovery momentum will likely carry on into the third quarter.

The ASEAN regional manufacturing PMI was broadly steady in June, but uncertainty and price pressures will likely keep weighing on manufacturing.

The impact of China's lockdown on Japan was reflected in May's industrial production data, which fell 7.2% from the previous month. The quarterly Bank of Japan Tankan Survey also showed a sharp deterioration in business sentiment, echoing a broader global softening. However, the recovery in China points to an increase in manufacturing activity in coming months.

Australia's fiscal position improves

The Reserve Bank of Australia (RBA) delivered a second 50bp hike, taking the cash rate to 1.35%. Analysts expect rates to rise further and to be around 2.5% in early 2023.

The new Treasurer, Dr Jim Chalmers, has set 25 October as the date for a fresh 2022/23 Budget, which will update the budget position, outlook and all the key economic variables that were contained in the original 2022/23 Budget of the previous government. Budget repair will be a key focus to ensure the government has headroom to respond to future crises and to ease pressure on the RBA to raise rates.

Commonwealth financial statements for the year to May 2022 show a cumulative underlying cash deficit of 1.4% of GDP, lower than the 2.6% of GDP estimated at the time of the Budget. Analysts estimate the 2021/22 cash deficit could come in around 1.7% of GDP, compared to the Budget forecast of 3.5% of GDP.

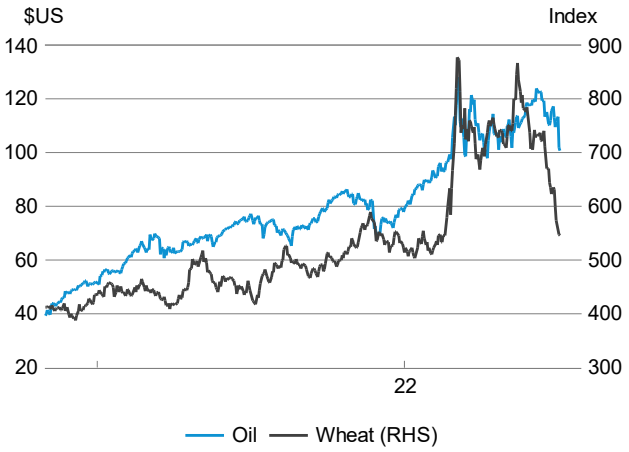
Retail sales rose 0.9% rise in May, well above market expectations, taking annual growth to a very strong 10.4%. Also up strongly were May export sales, up 9.5% from April, led by coal and gas. The monthly trade surplus widened to a record AU$16bn.

Commodity prices fall sharply

Prices for oil, metal and agricultural commodities have declined sharply amidst growing expectations of weaker demand and improved supply prospects, particularly for grains. Benchmark crude oil prices have fallen to around US$100 per barrel while wheat prices are down by more than a third from their post-invasion peak (Figure 5). Commodity markets remain vulnerable to supply side disruption but a stabilisation of prices in coming months would see food and energy inflation (ex-gas) come off the boil and remove some pressure on central banks.

Despite falling prices, food security remains a pressing issue given the conflict in Ukraine and ongoing risks of climate-related disruptions. In Egypt, which is heavily reliant on wheat imports, the World Bank approved a US$500mn program to help bolster food security. Before Russia's war on Ukraine, both countries accounted for roughly 80% of Egypt's wheat imports.

Figure 5: Oil and wheat prices



Source: Haver

Coming Up:

Date	Release
11 July	Electronic Cards (June)
12 July	International travel and migration (May), REINZ House Price Index (June)
13 July	RBNZ Official Cash Rate, Food prices (June)
18 July	Consumers price index (June qtr)
21 July	International trade (June)

Special Topic: The current economic slowdown

Summary

- Economic activity in New Zealand and a number of other countries is slowing with weaker growth expected to persist.
- The Treasury is not forecasting a recession in any meaningful sense of the word but does forecast slower growth reflecting the need for monetary policy to respond to excessive inflation.
- Downside risks have increased and it would not take much for low rates of growth to turn slightly negative but even then, the slowdown is likely to be differentiated from prior recessions:
  - the overall dip in GDP likely to be smaller
  - unemployment is expected to peak lower
  - interest rates are focused on constraining demand rather than shoring up demand following a shock
  - net migration is expected to add to the population
  - the terms of trade remain elevated.
- New Zealand recessions tend to be accompanied by shocks to the global economy. Global risks have intensified, with policymakers increasingly focused on reducing inflation in a backdrop of continued COVID-19 and geopolitical volatility.
- The characteristics of recessions and their impacts across the economy and society vary over time.
- Policy is not set in stone but may need to adapt to changing conditions.

Slower growth ahead…

The New Zealand economy, along with many others, appears to be entering a period of slower growth. GDP data is likely to be volatile from quarter to quarter – for example, GDP fell modestly in the March quarter, but we expect a rebound in the June quarter. However, over time we do expect the trend to slow. Treasury's most recent forecasts anticipated an average quarterly growth rate of 0.1% over 2023, compared to the long-term average of 0.6%.

… as economy faces multiple headwinds

The economy is facing multiple headwinds as well as a couple of stronger areas. However, the overarching reason to expect a slowdown is that in recent times the economy has "overheated" – demand to consume goods and services has exceeded the economy's capacity to supply, contributing to inflation. Left unchecked, high inflation could result in adverse social and economic consequences.

Bringing inflation down will require a better match between supply and demand in the economy. Economy-wide supply is generally either very slow moving (eg, productivity growth) or is dictated by global factors (eg, global shipping availability). Therefore, in practice bringing inflation under control will mainly mean demand cooling to a more sustainable level.

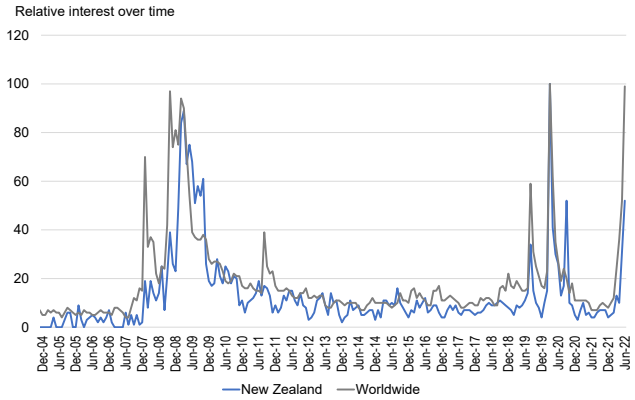
In an effort to cool demand in the economy, the Reserve Bank has so far increased the OCR from 0.25% to 2%. How much further interest rates need to rise in order to cool demand sufficiently is uncertain, and depends on broader economic conditions, such as:

- the impact of COVID-19 on economic activity, including the effect of opening the border
- the ongoing impact of the Russia's invasion of Ukraine
- the terms of trade (New Zealand export prices relative to import prices)
- whether global supply chain disruptions start to ease
- the speed of wage growth
- asset prices, such as houses and equities.

However, whether the slowdown is principally due to external factors such as the terms or trade, or due to higher interest rates, either way the existence of high inflation gives us strong reason to anticipate a slowdown of some kind.

Businesses and consumers are well aware of the above discussion, and a slowdown appears to be widely expected. This has included a surge in 'recession' focussed internet searches (Figure 1).

Figure 1: Intensity of 'recession' internet searches



Source: Google Trends

The Treasury is not forecasting a recession

In our *Budget Update* we do not forecast a recession – but do forecast a material slowing in activity. This is also true of other forecasters. It is worth comparing our forecast outlook to experiences in previous recessions to highlight key differences as well as identify any similarities.

Before looking at the characteristics of past recessions it is worth noting that there is no official definition of what constitutes a recession. A common definition – that a recession is when there are two or more successive declines in real GDP – aligns with other definitions a reasonable amount of the time, but not always, and is far from perfect (and therefore is sometimes called a 'technical recession'). A box later in this Special Topic examines the definition of recession in more detail as well as summarising the results of prominent research that dates previous New Zealand recessions.

Prior to COVID-19 New Zealand had experienced 9 periods of recession in the post WWII period

Periods of recession are summarised below from most recent to earliest.[1]

The Global Financial Crisis (GFC – 2007 to 2009) recession was a relatively lengthy downturn. Over much of the early and mid-2000s, inflation had remained above target. The Official Cash Rate (OCR) was raised from 5% at the end of 2003 to 8.25% in 2007. House prices had been rising rapidly but stalled in mid-2007 before declining over 2008. The 2007/2008 drought added to weakness in the domestic economy before the recession was extended by major shocks to the world economy and finance company failures. The terms of trade had risen over much of the early to mid-2000s, reaching three-decade highs at the start of 2008. Sharp falls in the terms of trade as the global economy shrank drove a large exchange rate depreciation and was accompanied with a substantial easing of monetary policy.

The Asian Financial Crisis & drought (1997 to 1998) saw a fall in export demand from Asian economies triggered by a regional financial crisis. In addition, a sustained drought hit the agricultural sector. Interest rates rose slightly, an atypical monetary policy response, largely attributed to the Reserve Bank's new 'Monetary Conditions Index' approach to policy. [2]

During **the early 90s recession (1990 to 1991)** a slowdown in the world economy was exacerbated by high public debt in New Zealand and the threat of credit downgrades. In response there was a sharp fiscal contraction. Monetary policy was relatively tight following periods of high inflation for much of the 1980s. Under the Reserve Bank Act (1989) monetary policy was to focus on achieving inflation in the 0% to 2% range by the end of 1993. Falls in house prices were accompanied by unemployment rising above 10%.

The late 80s recession (1987 to 1988) involved a global share market crash hitting New Zealand following a long period of erratic growth and high inflation; the value of the New Zealand share market halved, and an economy already part way through restructuring was weakened by the failure of major banks and corporations.

The second oil price shock (1982 to 1983) followed the initial oil price shock of 1979 and accompanying global recession. It placed a substantial burden on the already strained current account deficit and forced devaluation of the (then fixed) New Zealand dollar. Attempts to support demand by 'Think Big' projects were hampered by the relative import intensity of the measures.

The first oil price shock (1976 to 1978) involved a rise in oil prices and drastic reduction in the terms of trade from 1973 to 1976, triggering a domestic recession. This was intensified by substantial migration outflows and attempts to bring inflation under control from 1976.

During **the Wool Bust (1966 to 1967)** a collapse in wool prices resulted in New Zealand losing an eighth of its export income overnight – a product of the undiversified economy of the time. Maintaining a fixed exchange rate required controls on imports and increases in the (then directly controlled) prices of electricity and other utilities.

The COVID-19 period saw unprecedented declines as activity was restricted for health reasons

After a small fall in real GDP in the March 2020 quarter, the first lockdown saw a 10% quarterly decline in the June 2020 quarter – dwarfing previous quarterly declines. However, as restrictions were removed GDP bounced back in September 2020 to exceed the pre-COVID peak. The lockdown periods were unique in that parts of economic activity were deliberately curtailed to prevent physical interactions and increased spread of COVID-19. No doubt there will be ongoing debate about how to classify this period in the future but for this discussion it has been treated as an additional recession period.

Previous recessions provide a number of insights

Despite the varied nature of past downturns, there are a number of insights and trends:

- **International shocks** accompany each downturn (at times worsened by domestic imbalances).
- Often these international shocks coincide with tighter domestic monetary policy in response to periods of sustained inflation and excess demand.
- **Domestic policy responses can worsen recessions** if monetary policy does not respond sufficiently quickly, or fiscal policy does not respond or is poorly targeted.
- **The terms of trade have become less central in driving shocks over time.** Downturns of the 1960s and 1970s were driven primarily by large falls in the terms of trade; downturns of the 1980s and 1990s were accompanied by the terms of trade holding steady, while fluctuations in the terms of trade post- GFC were not associated with downturns (these fluctuations occurred around an upward trend).

[1] See Hall and McDermott(2016): https://doi.org/10.1080/00779954.2015.1129358.

[2] Pre-GFC descriptions are based on Reddell and Sleeman(2008): https://www.rbnz.govt.nz/hub/publications/bulletin/2008/rbb2008-71-02-01

- **Net migration has typically (but not always) fallen during a downturn.** The behaviour of net migration in an economic downturn is likely to reflect the performance of the New Zealand economy relative to other developed economies, particularly Australia.
- **Private investment has typically contracted sharply** and is only slightly offset by increases in government investment.
- **Exchange rate depreciation supported stabilisation in the GFC,** but adjustments had been more modest in prior downturns.

How does the current economic outlook compare to periods of recession in New Zealand?

Growth to slow rather than sizable GDP falls

A feature of the *Budget Update* economic forecasts is that economic growth is predicted to slow considerably later this year. In an underlying sense, this slowing has likely already begun but we anticipate that factors such as a resumption of international tourism and a fading of the negative impacts from Omicron will initially support growth.

With the economy proving resilient in its ability to rebound from the impacts of COVID-19, inflation has emerged as the primary challenge. Rising prices have reduced the real purchasing power of households and pushed consumer confidence to near record lows. The Reserve Bank has begun tightening monetary policy in response to high inflation and signalled an intention to continue doing so at pace. This has had an immediate impact on house prices, which are forecast to fall throughout 2022 and 2023.

Interest rates are rising…

Since the *Budget Update* was published the Reserve Bank has signalled that interest rates are likely to increase faster and by more than assumed. A similar shift in policy stance has also occurred in other central banks, including in Australia and the United States.

In addition to the impact on economic activity from rising interest rates, real government consumption is forecast to decline from the second half of 2022 as expenditure related to COVID-19 unwinds. The overall result is a significant slowdown in real activity after this year.

… to deliberately slow activity and reduce inflation

A marked slowing in economic activity is a key channel by which central banks aim to bring inflation down and involves reducing the imbalance between supply and demand in economies. The *Budget Update* forecasts included quarterly growth in the 0.1% to 0.3% range throughout 2023 and into 2024, in contrast to an average around 0.6%.

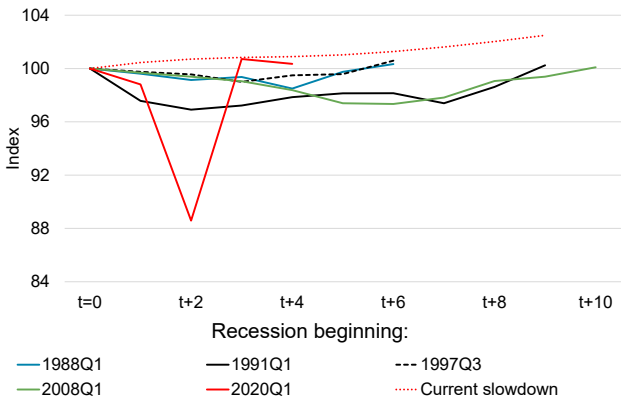
Importantly, the current slowdown differs from previous recessions in multiple ways

The *Budget Update* forecasts portray an economy that differs from previous recession periods in a number of ways:

- GDP is forecast to slow rather than experience multi-quarter falls.
- Unemployment is low and while forecast to increase, is not expected to reach levels experienced in previous recessions.
- Interest rates are rising to manage inflation rather than falling to shore-up demand. The resulting slowing in demand is the objective rather than an unexpected shock.
- Net migration is anticipated to pick up and contribute to population growth.
- The terms of trade remain around record levels.

A key contrast with times of recession is that real GDP is still anticipated to grow, albeit more slowly, rather than experiencing sizable falls (Figure 2).

Figure 2: GDP in previous recessions and the current slowdown[3]



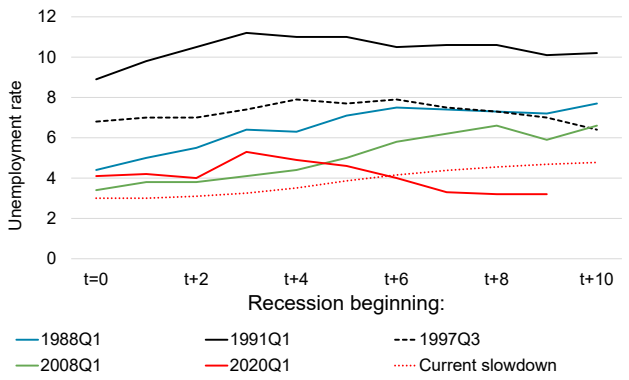
Sources: Statistics NZ, the Treasury

Unemployment is low and is not projected to reach levels seen in previous recessions

Slowing demand across the economy is forecast to see unemployment rise from its current lows. Increasing unemployment is a characteristic of most recessions. The current slowdown however sees unemployment start from a much lower base, and while we forecast a sustained rise in unemployment it does not reach the heights of past recessions (Figure 3).

[3] The current slowdown period captures the period beyond 2022Q3 when growth is forecast to be at its weakest. In this and later graphs, time=0 is the period immediately prior to the first decline in GDP.

Figure 3: Unemployment in previous recessions and the current slowdown

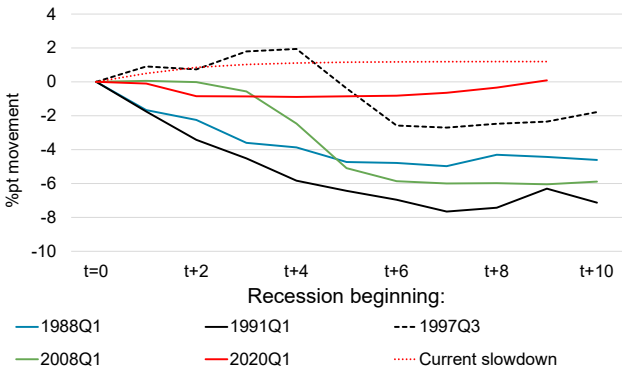


Sources: Statistics NZ, the Treasury

Interest rates are rising to contain inflation rather than easing to support demand

As noted above, rising interest rates are a deliberate response to reduce demand. During recessions, central banks usually reduce interest rates to help promote demand. Figure 4 shows that this has typically been the case for New Zealand recessions.

Figure 4: Interest rate (90 days) movements in previous recessions and the current slowdown

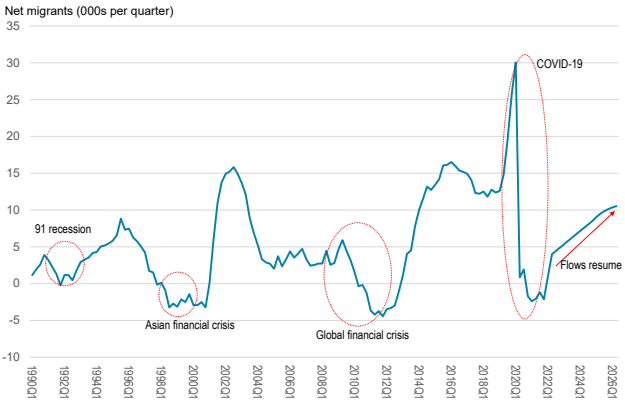


Sources: Reserve Bank of NZ, the Treasury

Net migration to add to population growth

Another insight was that net migration typically falls around recessions. This can be a contributing factor to lower activity levels or can be a response to reduced opportunities in New Zealand. This is illustrated in Figure 5 with the *Budget Update* forecasts assuming a steady pick up in net migration gains, acknowledging that there is a high degree of uncertainty in relation to the timing and magnitude of the expected increase.

Figure 5: Net migration



Sources: Statistics NZ, the Treasury

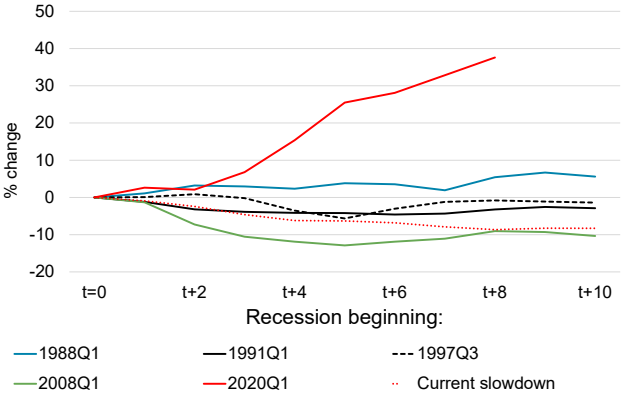
Terms of trade remain elevated

New Zealand's terms of trade (export prices relative to import prices) are at record highs. Large falls in the terms of trade were a feature of some earlier recessions. In general, the outlook for prices of key New Zealand exports remains favourable (and may even be supported in some instances by events such as the impact of the Ukraine conflict on commodity prices). Oil prices are obviously extremely high and constrained global supply is placing upward pressure on import prices in general. Over the forecast period we expect the terms of trade to remain elevated.

Falling house prices are a feature of the current outlook as well as a number of recessions

While house price falls were associated with several previous recessions there are important contextual differences (Figure 6). Current declines follow a period of rapid appreciation. They are also influenced by rising interest rates and represent one of the channels through which monetary policy influences activity.

Figure 6: Real house prices in previous recessions and current slowdown



Sources: CoreLogic, the Treasury

The Treasury is not forecasting a recession, but the risks are increasing

Given the slow rates of growth that are forecast, it is quite feasible that New Zealand could experience two quarters of negative growth at some point over the coming two years. However, the above discussion shows that Treasury is not forecasting a recession in any meaningful sense of the word. And although the economy is slowing, we are not currently seeing more worrisome signs of sharp (unanticipated) declines in demand. For example, ANZ noted that their June Business Outlook was nearing record lows but:

> *"… the main reason firms are so pessimistic on the outlook for profitability is not lack of demand, but rather supply-side constraints and cost pressures…*
>
> *Traditional recession-type problems such as cashflow/debtors and low turnover remain well down the list, but interest rates are now warranting more of a mention, unsurprisingly."*

That said, we expect demand to slow, something that very weak consumer confidence suggests is in train and therefore expect easing demand to increasingly impact on business confidence going forward, particularly for firms providing more discretionary aspects of consumer spending. More rapid declines in house prices could see consumer spending slow by more than expected.

A key feature of past recessions has been the importance of global factors and therefore the risk of a more substantial downturn will be closely tied to the fortunes of the global economy. Risks in this regard have increased since the Budget forecasts, with monetary policy increasingly focused on reducing inflation in a backdrop of continued COVID-19 and geopolitical volatility.

In the US, the Federal Reserve Chair has noted that executing a "soft-landing" will be difficult but that a pathway to get there involves increasing interest rates to manage demand.

Slowing activity has real costs…

Regardless, of whether growth slows to low rates or activity falls slightly, the impacts are real – businesses face less demand and offer less employment. The slowing in economic activity in both the Reserve Bank's May Monetary Policy Statement (*MPS)* and the *Budget Update* forecast the number of unemployed to increase by around 50 thousand.

… but impacts are felt unevenly across the economy…

Just as recessions have different macro characteristics, they are also felt unevenly across industries and society.

Table 1 shows how GDP across industries fared during past recessions. Generally, around half of industries saw their GDP fall. The COVID-19 period was the exception where lockdown saw activity fall in all industries apart from public administration and safety. The worst affected industries tend to be mining, construction and manufacturing. Service industries tend to be relatively less affected, albeit with industries such as retail trade and accommodation generally experiencing larger declines than for the wider economy.

Table 1: Recessionary impacts by industry

	GDP movments over recessions				
Recession beginning:	1988Q1	1991Q1	1997Q3	2008Q1	2020Q1
Agriculture, forestry, and fishing	-8.0	-0.1	-8.1	18.0	-4.0
Mining	-32.5	-9.1	-24.8	-20.9	-27.1
Manufacturing	-1.1	-7.4	-2.7	-19.7	-13.5
Electricity, gas, water, and waste services	1.3	0.0	11.0	5.5	-6.5
Construction	-8.2	-12.4	0.4	-9.7	-29.3
Wholesale trade	10.8	-8.6	-0.2	-11.5	-13.1
Retail trade and accommodation	-2.2	-3.8	0.6	-4.7	-23.0
Transport, postal, and warehousing	3.5	3.2	-0.6	-6.3	-31.6
Information media and telecommunications	0.2	1.0	0.9	3.0	-3.5
Financial and insurance services	-2.6	0.5	-0.4	3.9	-1.7
Rental, hiring, and real estate services	-3.0	1.6	0.0	2.7	-1.6
Prof, scientific, technical, admin, and support	1.0	0.3	0.8	-6.8	-10.0
Public administration and safety	-1.2	-4.8	-4.1	4.7	1.4
Education and training	2.3	2.5	-0.1	3.5	-8.2
Health care and social assistance	4.4	0.1	5.1	6.9	-2.7
Arts, recreation, and other services	-5.5	-0.6	3.4	-2.1	-25.6
Gross domestic product	**-1.5**	**-3.1**	**-1.0**	**-2.7**	**-11.4**
Number of industries that contracted	9	8	8	8	15
Industry decline 2-3 times that of GDP					
Industry decline > 3 times that of GDP					

Sources: Statistics NZ, the Treasury

… and across society

Detailed data on how downturns affect subgroups of the population and economy is focused on more recent events, but still provides some useful lessons.

Rising unemployment impacts Māori and Pacific people the most…

Unemployment for Māori and Pacific peoples rises faster than the rest of the population. During the GFC the unemployment rates for Māori and Pacific peoples rose by 3.6 and 7.9 percentage points respectively, substantially more than the 2.4 percentage point aggregate increase.

… with regional impacts varying by recession

Downturns do not affect all regions equally. The unemployment rate in Northland rose by 4.9 percentage points in the GFC, and by 3.2 percentage points In Waikato, compared to a 2.4 percentage point increase nationally. However, the pattern to these more severe regional impacts is not consistent. Following the Asian Financial Crisis, Southland, Canterbury, Manawatu-Whanganui and Northland were the most affected regions. In the downturn of the early 1990s, the labour market effects of the shock were most concentrated in Auckland, where the unemployment rate rose 3.3 percentage points, compared to a rise of 1 percentage point or less in most other regions.

It's not clear that recessions increase measures of inequality

Despite these impacts, downturns do not appear to translate into increases in measured inequality. Measuring inequality is complex, and the choice of metrics matters, especially as key measures of material wellbeing (for example, income and consumption) might show different patterns. However, on a measure accounting for household size, composition and housing costs, the ratio between the top earning and bottom earning fifth of households has not noticeably risen during downturns. The exception is the early 1990s, where other wide-ranging reforms were taking place in the economy. Other measures of inequality (for example, income ratios before housing costs and the Gini coefficient) show similar patterns.

Rising interest rates are necessary to reduce inflation…

While the costs associated with slowing activity are real, the alternative of persistently high inflation and falling real incomes (as inflation exceeds wage growth) would likely have more severe economic implications.

… but as always policy may need to adapt

Both the current economic outlook and the impact of policy on that outlook are uncertain. However, policy is never fixed on an irrevocable path. If aspects of the outlook change, then both monetary and fiscal policy may also need to adapt. An OCR now at 2% (and predicted to peak close to 4%) provides some room in which to adjust monetary policy if required, a point made in the May MPS that "*A larger and earlier increase in the OCR reduces the risk of inflation becoming persistent, while also providing more policy flexibility ahead in light of the highly uncertain global economic environment*".

Current fiscal policy settings, reflected in a projected return to surplus, supports monetary policy tightening to reduce inflationary pressures.

Similar to previous downturns, the forecast fiscal position is likely to erode if activity falls faster than currently anticipated as revenue declines and benefit expenditure increases. Fiscal policy may also need to consider distributional impacts, which as outlined above vary from downturn to downturn.

Promisingly, while the risks of slower economic activity have increased since *Budget*, tax revenue remains above forecast.

What is meant by Recession?

There is no single definition of what constitutes a recession, and a single definition is unlikely to be appropriate across time or countries. The National Bureau of Economic Research (NBER) in the United States has a long history of dating US business cycles. The NBER traditionally defines a recession as "*a significant decline in economic activity that is spread across the economy and that lasts for more than a few months.*" The dating of recessions by the NBER's committee involves assessing a wide variety of economic information to evaluate the depth, diffusion, and duration of a downturn.

Two quarters of negative growth?

A common definition for recession is that it reflects two or more quarters of negative real GDP growth. This definition is sometimes attributed to a 1974 New York Post article by Julius Shiskin (Commissioner of the United States Bureau of Labour Statistics)[4]. The article notes some approximate rules that cover the depth, diffusion, and duration dimensions above.

Duration – "declines in real G.N.P. for 2 consecutive quarters; a decline in industrial production over a six month period."[5]

Depth – "A 1.5 per cent decline in real G.N.P.; a 1.5% decline in non-agricultural employment; a two-point rise in unemployment to a level of at least 6 per cent."

Diffusion – "A decline in non agricultural employment in more than 75 per cent of industries over six month spans".

Shiskin noted that many people use the common definition of two quarters of decline which, while simplistic, had worked quite well in the past for the United States. This common definition is only a very partial one and does not include many important aspects that are considered relevant. Because of this, this common definition is often described as a "technical recession".

The "technical definition" has a number of limitations reflecting that it only covers one of the approximate rules (which Shiskin considered to only be a rough translation of the NBER's approach). For example, consecutive GDP declines of 0.1% would count as a technical recession but a 2% decline followed by a 0.5% rise would not – even though GDP would be lower in both quarters in the later example.

[4] 'The Changing Business Cycle', Julius Shiskin, New York Times (1 December 1974).

[5] At the time of Shiskin (1974) gross national product was the United States' key economic metric. They have subsequently switched to using gross domestic product.

In lamenting the tendency for headline grabbing recession calls, economist Brian Easton outlines a range of challenges with calling recessions based on the latest GDP data[6]. These include that GDP estimates are subject to error (with this margin of error likely greater than the March quarter 0.2% decline) and that data is often revised over time. He also reiterates that there is no official definition of recession in New Zealand. There is no universal definition that would be appropriate for all countries.

Past NZ recessions varied in length and severity

Hall and McDermott (2016) identify 9 periods of recession in New Zealand post World War II. They use the Bry-Broshan dating algorithm and test the robustness of their results to alternative specifications. As shown in Table 2, the recessions vary in length from 2 to 7 quarters and involved contractions in GDP of approximately 1% to 9%.

While there is no such thing as a typical recession, on average they have involved contractions of 4.0% post-World War II, with those in the past 35 years (the period for which official quarterly GDP is available) averaging 2.1%.

The period over late 2010 illustrates that the classification of recession periods can be influenced by the methods used to identify them. Real GDP declined modestly over the second half of 2010, a period affected by the September 2010 Canterbury earthquake. The use of a different dating algorithm by Hall and McDermott identified this as another recession period but that it is a relatively marginal call.

Table 2: New Zealand recession characteristics

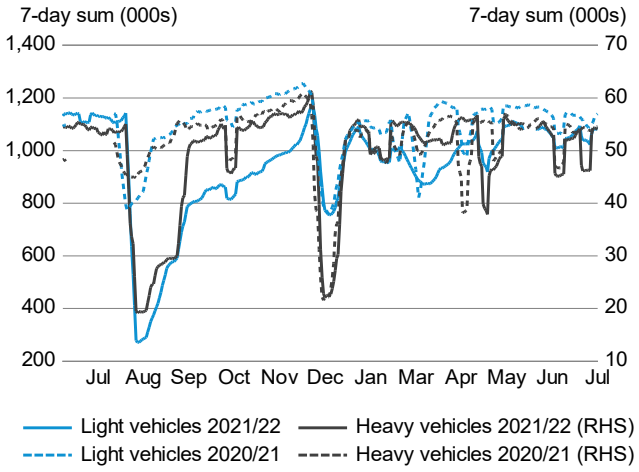
Pre-recession peak	Trough	Duration (qtrs)	Depth (%)	Depth (%) Latest data
1947q4	1948q4	4	-8.0	
1950q4	1952q2	6	-8.9	
1966q4	1967q4	4	-2.5	
1976q2	1978q1	7	-4.2	
1982q2	1983q1	3	-3.2	
1987q4	1988q4	4	-1.5	-1.5
1990q4	1991q2	2	-3.1	-3.1
1997q2	1998q1	3	-1.2	-1.0
2007q4	2009q1	5	-3.2	-2.7

Source: Hall and McDermott (2016), the Treasury

[6] https://www.pundit.co.nz/content/shock-horror-the-new-zealand-economy-is-in-recession-or-are-we

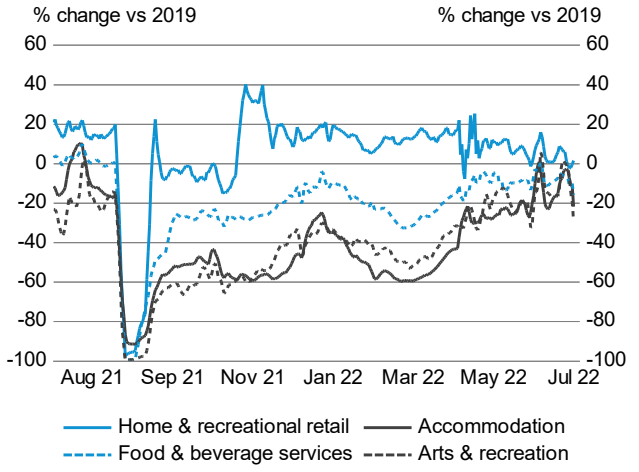
High-Frequency Indicators

Traffic and Freight Movement



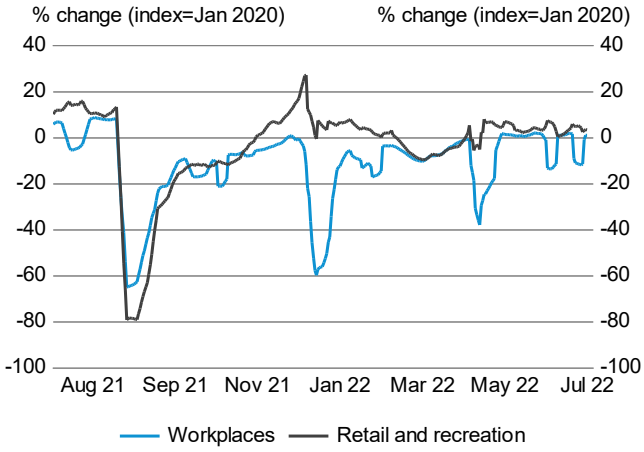
Source: Waka Kotahi NZ Transport Agency

Card Spending



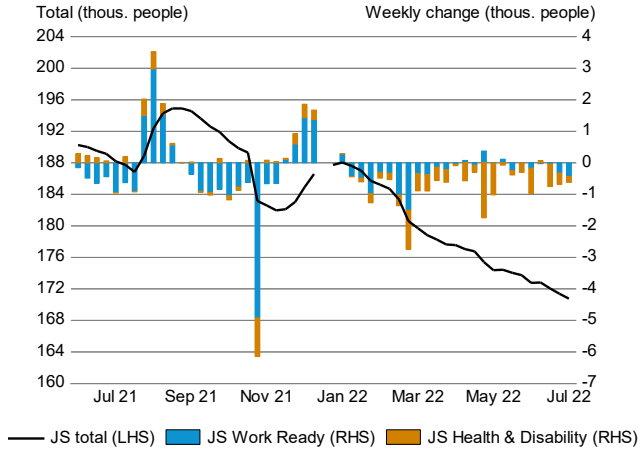
Source: Marketview data via MBIE

People Movements at Selected Locations



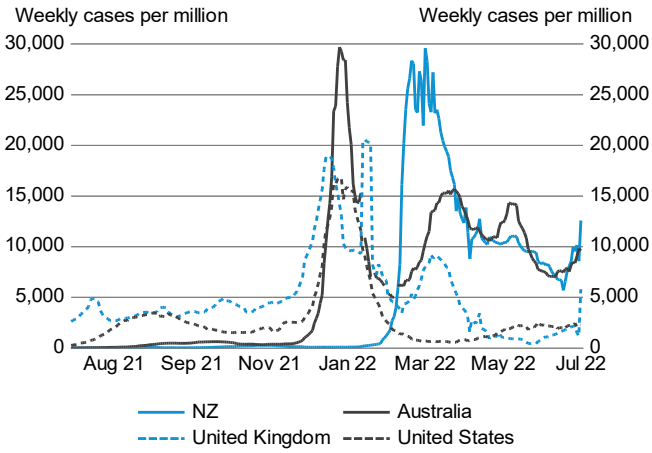
Source: Google/Haver

Jobseeker (JS) and Income Support Receipts



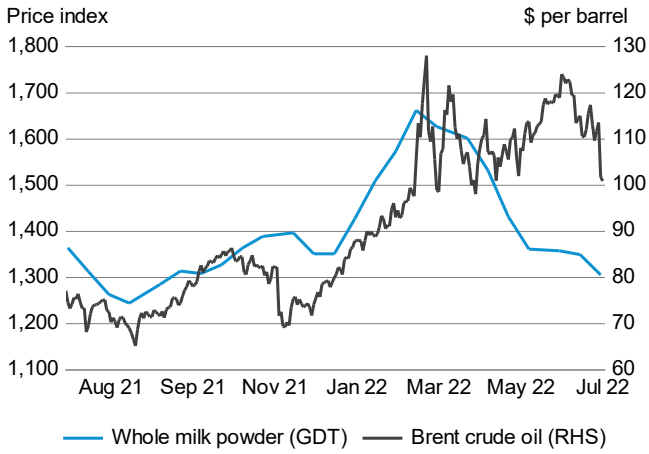
Source: MSD

COVID-19 Cases Per Million People



Source: John Hopkins University/Haver

World Commodity Prices



Source: Haver

Tables

Quarterly Indicators		2021Q1	2021Q2	2021Q3	2021Q4	2022Q1	2022Q2
Real Production GDP (1)	qpc	1.7	2.4	-3.8	3.0	-0.2	...
	aapc	-1.4	5.2	4.9	5.6	5.1	...
Current account balance (annual)	%GDP	-2.5	-3.3	-4.6	-5.8	-6.5	...
Merchandise terms of trade	apc	-0.9	-0.1	5.2	2.8	3.3	...
CPI inflation	qpc	0.8	1.3	2.2	1.4	1.8	...
	apc	1.5	3.3	4.9	5.9	6.9	...
Employment (HLFS) (1)	qpc	0.7	0.9	1.8	0.0	0.1	...
Unemployment rate (1)	%	4.6	4.0	3.3	3.2	3.2	...
Participation rate (1)	%	70.4	70.5	71.2	71.1	70.9	...
LCI salary & wage rates - total (2)	apc	1.6	2.1	2.4	2.6	3.0	...
QES average hourly earnings - total (2)	apc	4.0	4.0	3.5	3.8	4.8	...
Core retail sales volume	apc	5.3	30.0	-3.2	5.1	3.2	...
Total retail sales volume	apc	6.6	33.1	-5.1	4.4	2.3	...
WMM - consumer confidence (3)	Index	105.2	107.1	102.7	99.1	92.1	78.7
QSBO - general business situation (1,4)	net%	-7.1	9.3	-11.4	-36.6	-34.0	-61.6
QSBO - own activity outlook (1,4)	net%	4.6	30.4	8.8	6.7	5.3	-10.5
Monthly Indicators		**Jan 22**	Feb 22	Mar 22	Apr 22	May 22	Jun 22
Merchandise trade balance (12 month)	NZ$m	-7,765.4	-8685.1	-9329.1	-9286.7	-9520.8	...
Dwelling consents - residential	apc	-6.3	34.1	25.6	-6.9	7.8	...
House sales - dwellings	apc	-26.4	-30.9	-31.9	-33.2	-28.4	...
REINZ - house price index	apc	19.7	14.2	9.0	6.3	3.7	...
Estimated net migration (12 month total)	people	-11,288.0	-11530.0	-9447.0	-8668.0	...	...
ANZ NZ commodity price index	apc	26.5	29.2	20.9	17.5	16.5	14.5
ANZ world commodity price index	apc	19.7	20.4	18.0	13.2	6.2	4.8
ANZBO - business confidence	net%	...	-51.8	-41.9	-42.0	-55.6	-62.6
ANZBO - activity outlook	net%	...	-2.2	3.3	8.0	-4.7	-9.1
ANZ-Roy Morgan - consumer confidence	net%	97.7	81.7	77.9	84.4	82.3	80.5
NZAC	apc	2.7	1.8	1.7	...	...	...
Daily Indicators		**Fri 1/7/22**	**Mon** 4/7/22	**Tue** 5/7/22	**Wed** 6/7/22	**Thu** 7/7/22	**Fri** 8/7/22
NZ exchange and interest rates (5)							
NZD/USD	$	0.6231	0.6207	0.6225	0.6175	0.6161	...
NZD/AUD	$	0.9052	0.9116	0.9030	0.9069	0.9068	...
Trade weighted index (TWI)	index	70.48	70.40	70.45	70.30	70.27	...
Official cash rate (OCR)	%	2.00	2.00	2.00	2.00	2.00	...
90 day bank bill rate	%	2.85	2.83	2.83	2.85	2.85	...
10 year govt bond rate	%	3.79	3.67	3.69	3.60	3.69	...
Share markets (6)							
Dow Jones	index	31,097	...	30968	31038	31385	...
S&P 500	index	3,825	...	3831	3845	3903	...
VIX volatility index	index	26.7	...	27.5	26.7	26.1	...
AU all ords	index	6,720	6797	6818	6784	6837	...
NZX 50	index	10,753	10862	10965	11141	11112	...
US interest rates							
3 month OIS	%	1.58	1.58	1.58	1.58	...	...
3 month Libor	%	2.29	2.32	2.35	2.39	...	...
10 year govt bond rate	%	2.88	...	2.82	2.93	3.01	...
Commodity prices (6)							
WTI oil	US$/barrel	110.30	...	101.55	98.53	102.73	...
Gold	US$/ounce	1,797.45	1808.40	1772.00	1754.30	...	...
CRB Futures	index	589.70	...	582.81	581.37	...	...

(1) Seasonally adjusted
(2) Ordinary time, all sectors
(3) Westpac McDermott Miller
(4) Quarterly Survey of Business Opinion
(5) Reserve Bank (11am)
(6) Daily close

Data in italic font are provisional
... Not available

Country	Indicator		Nov 21	Dec 21	**2021Q4**	Jan 22	Feb 22	Mar 22	**2022Q1**	Apr 22	May 22	Jun 22
United States	GDP (1)	qpc			**1.7**				**-0.4**			
	Industrial production (1)	mpc	0.6	-0.2		0.4	0.8	0.7		1.3	0.1	...
	CPI	apc	6.8	7.0		7.5	7.9	8.5		8.3	8.6	...
	Unemployment rate (1)	%	4.2	3.9		4.0	3.8	3.6		3.6	3.6	...
	Employment change (1)	000s	647.0	588.0		504.0	714.0	398.0		436.0	390.0	...
	Retail sales value	apc	18.6	16.8		13.7	17.7	7.1		7.8	8.1	...
	House prices (2)	apc	18.3	18.5		19.0	20.3	21.1		21.2	...	...
	PMI manufacturing (1)	index	60.6	58.8		57.6	58.6	57.1		55.4	56.1	53.0
	Consumer confidence (1)(3)	index	111.9	115.2		111.1	105.7	107.6		108.6	103.2	98.7
Japan	GDP (1)	qpc			**1.0**				**-0.1**			
	Industrial production (1)	mpc	5.0	0.2		-2.4	2.0	0.3		-1.5	-7.2	...
	CPI	apc	0.6	0.8		0.5	0.9	1.2		2.5	2.5	...
	Unemployment rate (1)	%	2.8	2.7		2.8	2.7	2.6		2.5	2.6	...
	Retail sales value	apc	1.9	1.2		1.1	-0.9	0.7		3.1	3.6	...
	PMI manufacturing (1)	index	54.5	54.3		55.4	52.7	54.1		53.5	53.3	52.7
	Consumer confidence (1)(4)	index	39.2	38.8		36.6	35.1	32.5		32.0	33.1	32.3
Euro area	GDP (1)	qpc			**0.2**				**0.6**			
	Industrial production (1)	mpc	2.5	1.6		-0.8	0.5	-1.4		0.4	...	...
	CPI	apc	4.9	5.0		5.1	5.9	7.4		7.4	8.1	...
	Unemployment rate (1)	%	7.1	7.0		6.9	6.8	6.8		6.7	6.6	...
	Retail sales volume	apc	8.5	2.4		8.5	5.2	1.9		4.0	0.2	...
	PMI manufacturing (1)	index	58.4	58.0		58.7	58.2	56.5		55.5	54.6	52.1
	Consumer confidence (5)	index	-8.2	-9.3		-9.7	-9.5	-21.6		-22.1	-21.2	-23.6
United Kingdom	GDP (1)	qpc			**1.3**				**0.8**			
	Industrial production (1)	mpc	1.0	0.3		0.9	-0.3	-0.2		-0.6	...	...
	CPI	apc	4.6	4.8		4.9	5.5	6.2		7.8	7.9	...
	Unemployment rate (1)	%	4.1	4.0		4.0	3.8	3.7		3.8	...	...
	Retail sales volume	apc	3.3	1.3		9.7	7.5	1.5		-5.7	-4.7	...
	House prices (6)	apc	10.0	10.4		11.2	12.6	14.3		12.1	11.2	10.7
	PMI manufacturing (1)	index	58.1	57.9		57.3	58.0	55.2		55.8	54.6	52.8
	Consumer confidence (1)(5)	net %	-14.0	-15.0		-19.0	-26.0	-31.0		-38.0	-40.0	-41.0
Australia	GDP (1)	qpc			**3.6**				**0.8**			
	CPI	apc			**3.5**				**5.1**			
	Unemployment rate (1)	%	4.6	4.2		4.2	4.0	3.9		3.9	3.9	...
	Retail sales value	apc	6.2	5.0		5.8	9.1	8.2		11.1	10.3	...
	House Prices (7)	apc			**27.5**				**...**			
	PMI manufacturing (1)	index	54.8	48.4		48.4	53.2	55.7		58.5	52.4	54.0
	Consumer confidence (8)	index	105.3	104.3		102.2	100.8	96.6		95.8	90.4	86.4
China	GDP	apc			**4.0**				**4.8**			
	Industrial production	apc	3.8	4.3		7.5	7.5	5.0		-2.9	0.7	...
	CPI	apc	2.3	1.5		0.9	0.9	1.5		2.1	2.1	...
	PMI manufacturing (1)	index	50.1	50.3		50.1	50.2	49.5		47.4	49.6	50.2
South Korea	GDP (1)	qpc			**1.3**				**0.6**			
	Industrial production (1)	mpc	1.6	3.4		0.4	0.3	1.2		-3.3	0.1	...
	CPI	apc	3.8	3.7		3.6	3.7	4.1		4.8	5.4	6.0

(1) Seasonally adjusted
(2) Case-Shiller Home Price Index 20 city
(3) The Conference Board Consumer Confidence Index
(4) Cabinet Office Japan
(5) European Commission
(6) Nationwide House Price Index
(7) Australian Bureau of Statistics
(8) Melbourne/Westpac Consumer Sentiment Index