THE TREASURY
Kaitohutohu Kaupapa Rawa

Monthly Economic Indicators

New Zealand Government

April 2017

Executive Summary

- **Overall, recent data and business surveys point to economic expansion persisting at a solid pace in the March and June quarters**
- **Annual consumer price inflation picked up to 2.2%, as underlying price pressures continue to build**
- **Geopolitical risk creates market volatility with elections in Europe**

Economic indicators released in April suggest the economy expanded at a reasonable pace in the first quarter of 2017 and that underlying momentum will persist into the second quarter. However, mixed readings from some indicators mean uncertainty around the outlook has increased. On the one hand, surveyed business activity continues to suggest growth momentum will persist in the March and June quarters, and Electronic Cards Transactions over the three months to March point to solid quarterly growth in private consumption. On the other hand, housing indicators suggest residential investment could be a drag on growth in the near term, which, in combination with waning business and consumer confidence, suggests annual growth is unlikely to accelerate significantly over the first half of 2017 from its current rate of around 3%.

Nominal GDP is poised to grow strongly as prices pick up. Annual consumer price inflation rose to 2.2% in the March quarter, above expectations and the highest reading since 2011, which reflected the October 2010 increase in the goods and services tax. However, large contributions from some items, chiefly fuel and food prices, are expected to drop out of the annual calculation in 2018. Commodity export prices also lifted, particularly for dairy, firming up the likelihood for a farmgate milk price of $6.00/kg MS (or slightly above) in the current season. Over the eight months to February 2017, core Crown tax revenue was 1% above that forecast in the Half Year Economic and Fiscal Update 2016, consistent with stronger nominal GDP.

Early- to mid-April saw some volatility in financial markets, in particular markets adopted a ‘risk off’ stance. This was largely in response to growing geopolitical tension in Asia and parts of Europe and relatively weak economic data from the US including weak jobs growth for March. However, these market trends have largely reversed since the first round of the French election saw a market friendly result.

This month’s Special Topic, Illustrating Forecast Uncertainty, presents a set of fan charts that provide a quantitative visual assessment of uncertainty surrounding the Half Year Economic and Fiscal Update 2016 forecasts. Illustrating uncertainty around the outlook can help policy makers make more informed decisions by demonstrating that central forecasts are conditional on a set of key assumptions and judgements.

Analysis

Overall, data released in April suggest the economy expanded at a reasonable pace in the March quarter, with momentum likely to persist into the June quarter. The number of businesses reporting increased trading activity in both the current (March) and next (June) quarters was unchanged from December, which, if taken at face value, points to annual average growth slightly above 3% over the first half of 2017. However, some indicators have softened, with business and consumer confidence easing (but remaining above their historical average) and the housing market showing some signs of moderating.

The outlook for nominal GDP has strengthened with the Consumers Price Index (CPI) and commodity export prices rising. Compared to the *Half Year Economic and Fiscal Update 2016*, stronger nominal GDP has been reflected in recent tax outturns, with total core Crown tax revenue $462 million (1%) stronger than forecast in the eight months to February 2017.

These developments will be reflected in the *Budget Economic and Fiscal Update 2017*, to be released 25 May.

Business activity solid, but confidence softens

The NZIER's Quarterly Survey of Business Opinion (QSBO) showed general business confidence eased to its lowest level since March 2015, but remains well above average (Table 1). Confidence eased across all sectors, and was most notable among manufacturers and merchants. Builders remained relatively more optimistic, reflecting the healthy pipeline of construction projects ahead, with expected trading activity at its highest level in nearly three years.

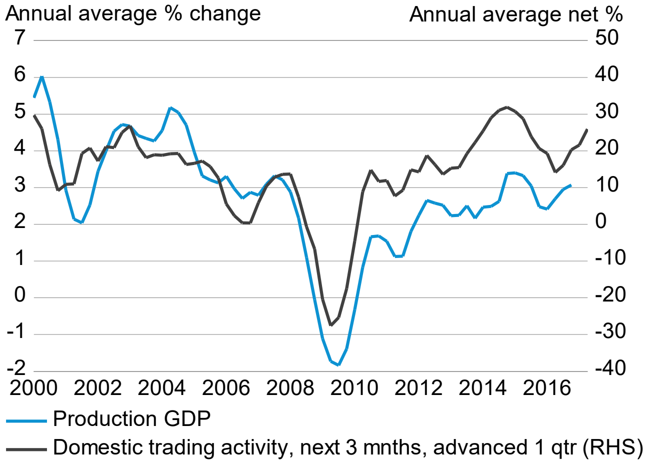
Table 1: Summary of key QSBO results

Net % of firms experiencing / expecting an increase in:		Dec 2016	Mar 2017	Series average
General business situation	Actual	25	17	-4
	sa.	26	16	-4
Domestic trading activity (sa.)	Past 3m	21	21	11
	Next 3m	25	25	15
Employment (sa.)	Past 3m	10	12	-4
	Next 3m	16	11	0
Ease of finding labour (sa.)	Skilled	-36	-39	-18
	Unskilled	-19	-23	13
Investment (plant and machinery, sa.)		17	17	0
Average costs	Next 3m	18	29	42
Selling prices	Next 3m	22	29	31

Source: NZIER

Firms reported their own trading activity for both the current and next quarter as unchanged from December, pointing to GDP growth of just over 3% in the first half of 2017 (Figure 1).

Figure 1: QSBO trading activity points to solid growth



Sources: Statistics New Zealand, NZIER

Capacity utilisation reached a historic high, consistent with elevated investment intentions and expectations for higher selling prices.

Indicators of activity in the services sector point to a healthy pace of expansion in the March quarter, with the BNZ-BusinessNZ Performance of Services Index (PSI) remaining elevated in March and New Orders/ Business at their highest level in almost 10 years.

March quarter consumption solid, despite lower spend in the month

Seasonally adjusted retail spending, as measured by Electronic Card Transactions, declined 0.3% in March, following a 0.6% fall in February. However, the 2.7% surge in January meant retail spending was up 1.7% for the March quarter as a whole – similar to the 1.5% increase recorded in the 2016 December quarter. Over the past three months, spending increased in five of the six retail industries, with the largest increase in fuel retailing, in part reflecting higher petrol prices. Excluding the motor vehicle-related industries, spending was up 1.2 percent in the quarter. Overall, retail spending across the March quarter points to nominal private consumption growth of around 1% in the March quarter. Allowing for price increases, this would translate into real consumption growth slightly below 1%, a pick-up from the December quarter.

The ANZ-Roy Morgan consumer confidence survey eased in April, but held up above average suggesting momentum in consumption growth will persist into the June quarter. Waning confidence was particularly acute in Auckland, possibly in relation to slowing house prices.

Housing market moderates in March…

Real Estate Institute of New Zealand (REINZ) data portrayed a buoyant, albeit moderating, housing market in March. The newly released national House Price Index (HPI) was unchanged from February, as Auckland prices fell 0.3% while prices elsewhere rose 0.6%. On an annual basis the national HPI was up 10.0%, with Auckland prices up 8.3%. The HPI has been constructed to incorporate a wide range of attributes, such as number of bedrooms and land area, to construct a more precise and timely indicator. Sales volumes declined 15.5% in the year to March, but were up a modest 2.3% in seasonally adjusted terms from February.

Following a period of weakness from mid-2016, the number of seasonally adjusted building consents rebounded 14% in February. However, despite the monthly tick up, overall consents data for the past few months suggest residential investment will be a drag on growth in the near term. That said, looking beyond the near term, the fundamental drivers of demand remain intact, particularly high net migration and low interest rates. Consistent with moderation in the housing market, the stock of housing debt rose 0.4% in February, the slowest monthly increase since April 2015.

…while net migration remains high

Annual net migration inflows rose 600 in March to 71,900 – another record high. On a seasonally adjusted basis, net migration inflows were up slightly from February, as departures fell by more than arrivals. Ongoing high net migration inflows are expected to remain a key driver of aggregate growth in the near term.

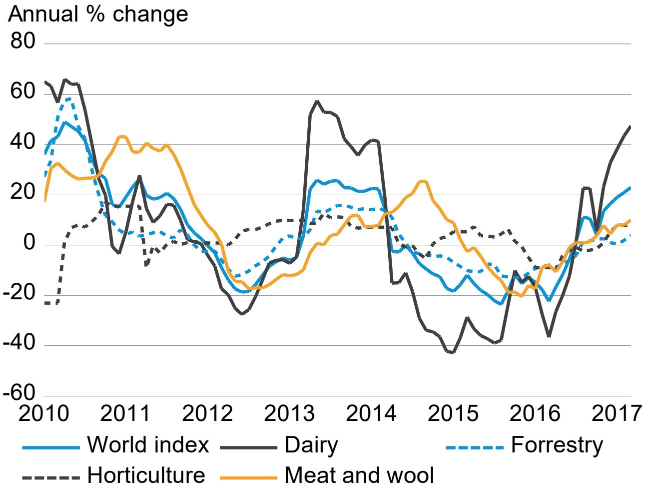
International visitor arrivals for March were down 0.2% compared to March 2016, driven largely by a 7.1% decline in Australian visitors. The decline is partly owing to Easter being observed a month later than last year, with April arrivals likely to bounce back. Overall, visitor arrivals remain elevated, up 8.9% on an annual basis.

Commodity prices continue to recover

The situation for dairy exporters improved in April as prices picked up. The GDT price index rose 4.7% in April, with the average price for whole milk powder rising from US $2,855/MT to US $2,998/MT. If recent momentum is maintained there could be some upside to Fonterra's forecast farmgate milk price of $6.00/kg MS for the current season.

The ANZ world commodity price index rose 0.4% in March, and was up 3.4% in NZD terms following the 2.9% depreciation in the month. On an annual basis, the world price and NZD price indices were up 23.0% and 16.5% respectively, driven largely by dairy (Figure 2).

Figure 2: ANZ world commodity prices

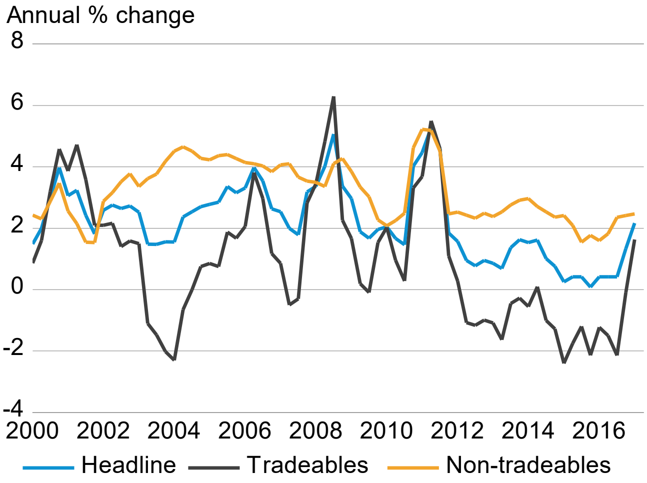


Source: ANZ

Annual inflation above 2% and expectations…

Annual Consumers Price Index (CPI) inflation rose to 2.2% in the March quarter, up from 1.3% in the 2016 December quarter. The increase was driven largely by tradables inflation (Figure 3), owing to higher food and petrol prices. The latter partially reflected previous petrol price declines dropping out of the annual calculation – an impact that is expected to continue for the rest of 2017. While higher food price inflation is likely to persist in the June quarter (owing to bad weather) some of this is likely to reverse in subsequent quarters. Accordingly, some of the recent strength in tradeables inflation is expected to be temporary. Annual non-tradables inflation continued to lift at a relatively moderate pace, driven largely by housing related costs (the cost of new housing and rents). Higher excise tax on cigarettes and tobacco also contributed.

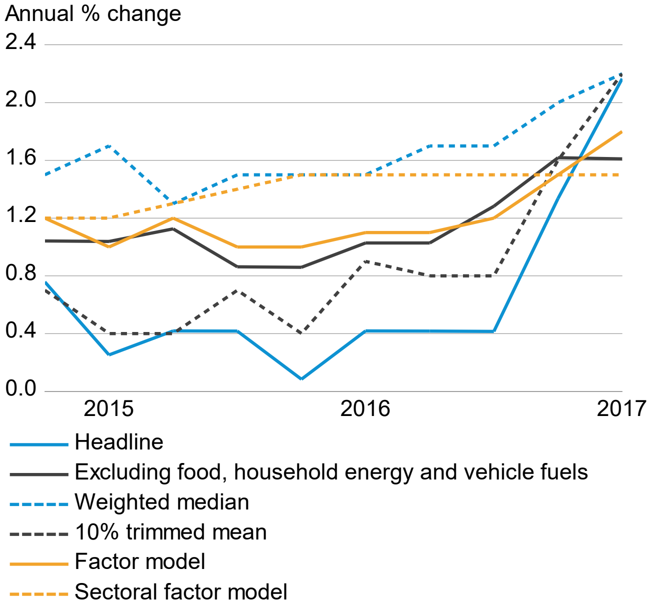
Figure 3: CPI inflation



Source: Statistics New Zealand

Indicators of underlying inflation (core inflation) either rose or were unchanged in the quarter (Figure 4), suggesting pricing pressures continue to build and that downside risks to inflation are abating. This is consistent with the QSBO, which showed more firms expecting to increase prices in the quarter ahead.

Figure 4: Measures of core inflation



Sources: Statistics New Zealand, Reserve Bank

In the absence of any additional shocks, we expect annual inflation to hold up around 2% over 2017, before declining in early 2018 as recent temporary factors drop out of the annual calculation. Thereafter, inflation is expected to pick up to 2% as the degree of spare capacity in the economy diminishes and global inflation recovers.

…but interest rate outlook broadly unchanged

Overall, the stronger-than-expected March inflation outturn has not materially affected expectations for monetary policy settings. Even though quarterly inflation was higher than forecast in the Reserve Bank's February *Monetary Policy Statement*, much of this variance can be explained by food and petrol price rises, which are unlikely to have a lasting impact on annual inflation over the medium term. Market pricing for the Official Cash Rate was broadly unchanged following the release, with the Reserve Bank expected to remain on hold in both May and June, and around a 30% probability of a hike priced in by November.

Tax revenue above forecast

Core Crown tax revenue for the eight months to February 2017 was 1% above the *Half Year Economic and Fiscal Update 2016* forecast. Most of the variance-from-forecast came from corporate tax, supported by higher-than-forecast taxable profits through both the 2016 and 2017 tax years. Most other major tax types were close to forecast. Updated tax forecasts, incorporating the Treasury's latest macroeconomic forecast and tax outturns up to March, will be released in the *Budget Economic and Fiscal Update 2017* on 25 May.

Geopolitical risk creates market volatility…

Early- to mid-April saw some volatility in financial markets, in particular markets adopted a 'risk off' stance, largely in response to growing geopolitical tension in Asia and parts of Europe. However, relatively weak economic data has also contributed to recent market movements. The 'risk off' sentiment manifested itself with falls in the S&P 500 and US Treasury bond yields, and increases in the price of gold and value of the yen. The VIX implied volatility index broke 16.0, its highest level since the US election in November last year.

…with elections underway in France…

In Europe the French-German 10 year government bond yield spread widened over much of the month as recent polling suggested the first round of the French presidential election was likely to be fairly tight. The first round was concluded on the 23rd of April with Macron and Le Pen progressing to the second round on the 7th of May. This will mark the first time in modern French history that the presidency will have been won by someone outside the two main political parties. The result has been widely viewed as positive by the market, with the euro jumping 2% on the day, largely reflecting the market view that Macron is likely to win the second round of voting.

Since first round results were confirmed markets have largely reversed their early-April trends, adopting a 'risk on' stance and narrowing the French-German 10 year government bond yield spread. Share market volatility has also dropped significantly, with the VIX falling to 10.9, its lowest level this year.

…and on the horizon for the UK.

The UK Prime Minister, Theresa May, announced a snap election for the 8th of June 2017. This came as a surprise given she had ruled out the possibility of an early election as recently as last month. The pound jumped approximately 2% at the announcement, potentially reflecting the market view that the Conservative Party is likely to increase their majority, which could provide an easier path to a 'soft Brexit' with less internal conflict. Combined with a win for Macron in the French elections, this could see a much more stable outlook for Europe in coming years.

Earlier this month, the EU released guidelines on the process for Brexit negotiations. They suggest a two stage process, focussing first on the UK's legal requirements under the current regime before any trade negotiations can occur. The guidelines also stated that the UK will be required to abide by existing EU laws during the separation period. The guidelines are now being reviewed by member states with adoption (or not) occurring at the April 27th summit.

New macroprudential policy for Australia

The RBA remained on hold this month, as widely expected. They cited household indebtedness as a potential risk but also noted that macroprudential measures recently introduced by the Australian Prudential Regulation Authority (APRA) should help. Measures introduced by APRA this month include a limit on the amount of interest-only mortgage lending that banks provide, from almost 40% at present down to 30%. The RBA's semi-annual *Financial Stability Review* noted that risks related to the housing market stemmed from rising household indebtedness and from the possibility of oversupply in some markets. However, the stability of the banks themselves was not seen as a risk. On New Zealand, the *Review* noted that risks to the dairy sector had eased due to a rise in dairy prices, although some underlying vulnerabilities remained. Internationally, the RBA highlighted financial disruption in China as a key risk.

Australia's recent data have been mixed. Retail sales contracted for the second consecutive month, down 2.7% in February from a year ago. Building approvals rose 8.3% in February to be 1.7% up on the same month a year ago. However, the macroprudential measures outlined above are likely to reduce demand going forward. The unemployment rate remained at 5.9% in March, seemingly at odds with the strength of business sentiment, which improved further in NAB's quarterly survey.

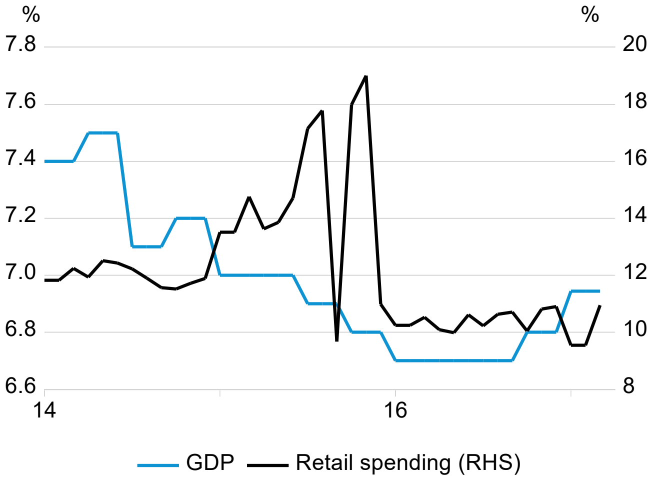
IMF increases its forecast for global growth

The IMF released its World Economic Outlook this month with an updated set of economic forecasts. The report showed an upward revision to global growth for 2017 from 3.4% (in the October report) to 3.5%, with the 2018 forecast unchanged at 3.6%. This is the first time the IMF have upwardly revised their near term forecast for global growth in six years. Behind the forecasts was a general improvement in the outlook for advanced economies, including the US, UK, euro area, and Japan. However, the IMF noted that risks are skewed to the downside and highlighted risks including protectionism, US monetary policy, and geopolitical risks.

Strong first quarter performance from China

GDP growth for China came in higher than most analysts had expected. GDP grew by 6.9% yoy in the first quarter of 2017, higher than the 6.8% yoy recorded for Q4 2016. The stronger GDP growth was supported by robust indicators for March. Notably retail spending, industrial production, and fixed asset investment all increased from the already strong January/February figures. These outturns suggest a strong start to the second quarter if momentum continues. Alongside this positive hard data, softer data was also supportive of a strong first quarter. Both the manufacturing and services PMI's increased in March, to 51.8 and 55.1 respectively (up by 0.2 and 0.9).

Figure 5: China GDP and retail spending



Source: Haver

Mixed US data and planned changes to the Fed's balance sheet policy unsettle monetary policy expectations

The March Federal Open Market Committee (FOMC) minutes showed most members favoured a reduction in the Fed's balance sheet. Fed member Williams was quick to note that any change to the balance sheet would occur gradually and would likely be accompanied by fewer rate hikes than might otherwise be the case.

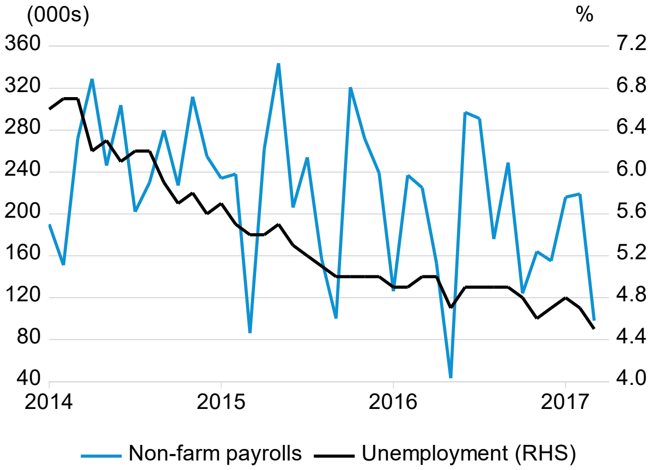
US business sentiment eased in March, possibly reflecting a pullback in expectations around the prospects of fiscal stimulus following last month's failed healthcare reforms. The US manufacturing and non-manufacturing ISM eased to 55.2 from 55.7 and to 57.2 from 59.7 respectively, while Markit PMI's also declined.

Turning to the hard data, the non-farm payroll report showed fairly weak jobs growth of just 98,000 in March and revisions saw a cumulative 38,000 taken off the previous two months. However, a constant labour force participation rate meant that the unemployment rate was nudged down to 4.5%, its lowest level since 2007.

Headline PCE inflation (the Fed's preferred measure) rose to 2.1% in February, surpassing the Feds target of 2.0% for the first time since 2012. The core PCE deflator for February also came in slightly higher than expected, rising to 1.8%. However, CPI inflation for March fell back from 2.7% yoy to 2.4% yoy.

Throughout much of April weaker data, geopolitical risks and uncertainty around tax reform saw expectations of monetary policy tightening fall. However these falls have been largely reversed since the French election and some renewed momentum on tax reform from the Trump administration.

Figure 6: US labour market

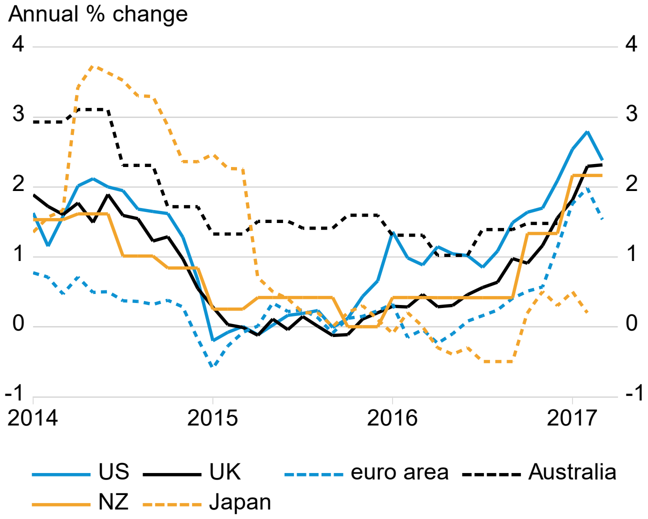


Source: Haver

Weak data in Europe while Japan's data were mixed

Euro area headline inflation fell from 2.0% to 1.5% yoy in March (Figure 7) and core inflation eased from 0.9% to 0.7%, both weaker than expected. Currently markets are pricing fairly stable policy from the ECB over the next 12 months, reinforced by ECB President Mario Draghi's comments that the Bank's current policy stance remained appropriate.

Figure 7: World CPI



Source: Haver

In Japan, the Tankan survey for the March quarter showed improved business conditions across a wide range of firms. This followed data including weaker CPI inflation, but a lower unemployment rate. Annual inflation fell 0.1% point to 0.3% in February while core inflation (as calculated by the BoJ) fell back into negative territory, down 0.2% points to -0.1%. On the other hand, the unemployment rate fell by 0.2% points to 2.8%, although employment fell.

Special Topic: Illustrating forecast uncertainty

The Treasury publishes economic forecasts at least twice during the year. These forecasts are communicated as a central track which represents our view of the most likely path the economy will take over a forecast horizon. However, forecast uncertainty is ever present. There are four main reasons for forecast uncertainty:

- Firstly, the forecast is a conditional forecast. Our assessment of the economic outlook is based on current economic conditions and policy settings. If there is a change in fiscal policy or an unpredictable economic event happens, we need to revise our forecasts. For this reason, the actual outcome could be quite different from the forecasts.
- Secondly, economic forecasting is a blend of both art and science. Although the forecasts are generated by a set of quantitative relationships and identities, assumptions and judgements always come into play.
- Thirdly, the economy is made up of a large number of different individuals whose behaviour and motivations vary over time, meaning that past relationships may not be a good indicator to the future.
- The fourth area is that there are measurement errors associated with most economic variables.

Scenarios are one way to illustrate uncertainty…

In order to illustrate the risks to the forecasts, the Treasury usually provides two alternative scenarios which illustrate how outcomes could differ from the central forecasts. For example, in the *Half Year Economic and Fiscal Update 2016* (HYEFU), one of the scenarios was about the stronger growth in the latter half of 2016 accelerating in 2017. It has turned out that the nominal GDP outturn is more in line with this scenario than the central forecast even though some of the underlying story described in the scenario did not eventuate. The main reason for providing scenario analysis is to illustrate that the economic outlook is uncertain, which policy makers need to take into account when making decisions.

…but another is through the use of fan charts

This special topic examines another approach for presenting the inherent uncertainty of economic forecasts. The uncertainty about the future outcomes of a variable is described by a fan chart that quantifies the probability of a particular observation falling below or exceeding certain values. The approach was first employed by the Bank of England[1]. The New Zealand Treasury has used fan charts for describing uncertainty associated with its tax revenue forecasts since the 2010 Half Year Update. The methodology used in this note is similar to that used in producing tax revenue fan charts. A full summary of the methodology can be found in Treasury Working Paper 10/08.

Past forecast errors are used as the basis for determining the likely range of possible outcomes. The greater the historical errors, the greater the extent of uncertainty surrounding any point estimate. The data used in this special topic are based on the Treasury's Budget and Half Year Update forecasts made over the period from 2001 to 2016. In total, there are 31 forecasts. In addition a key assumption is made that the resulting forecast errors are normally distributed. This assumption means that the width of the fans either side of the central forecast are symmetric. It also means that two thirds of observations are expected to fall within one standard deviation of the central forecast and 90 percent within two standard deviations. The greater the historical errors then the larger the resulting standard deviations of the errors and hence the wider the fan charts[2].

Presented below are a set of fan charts for a number of key economic variables, namely real GDP, 90-day interest rates, the Trade Weighted Index exchange rate, the unemployment rate, inflation, and nominal GDP. In this set of graphs, the outer limit of the fan chart represents the 90th percentile of the 2016 HYEFU forecasts. In other words, we would expect that in only 10 (5 below and 5 above) out of 100 occasions the actual outcomes will fall outside the coloured area of the fan chart. The 70th percentile are represented by the inner dark grey band. Each pair of lighter colour area represent another 10th percentile.

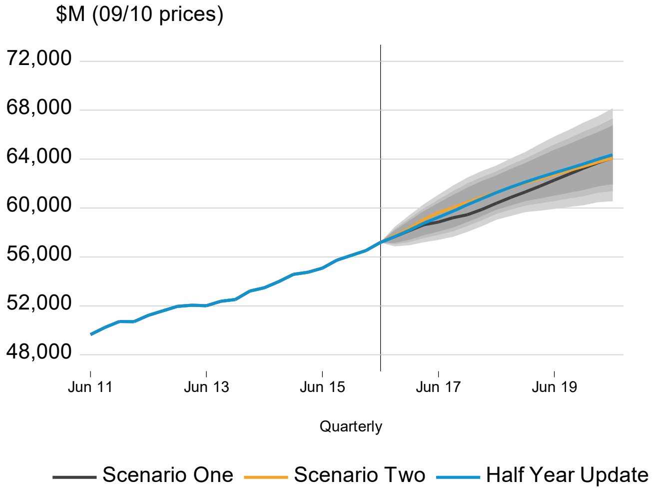
Uncertainty associated with forecasts of real GDP

Figure 1 shows a fan chart for real expenditure GDP. The width of the fan increases further into the forecast period, highlighting that the accuracy of predictions deteriorates as the length of the forecast horizon increases. In other words, unsurprisingly, the further away from the present the more uncertain the future is.

1 Inflation Report February 1996, Bank of England.

2 For example, the periods used to construct the fans include extreme events, such as the global financial crisis (GFC) and the Canterbury earthquakes.

Figure 1: Real Expenditure GDP



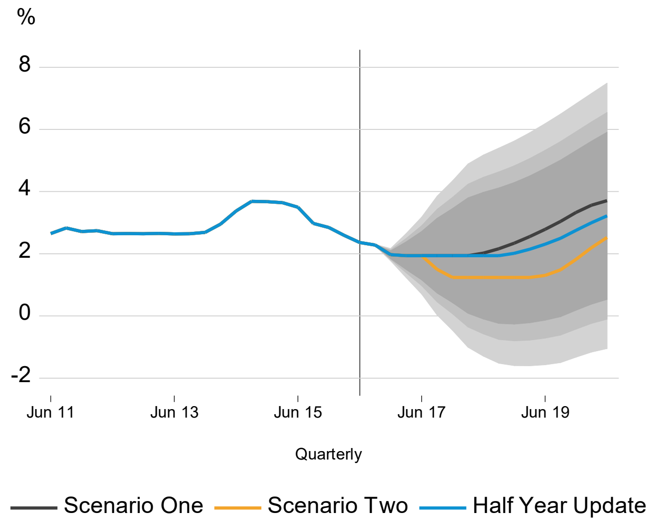
Sources: Statistics New Zealand, the Treasury

Furthermore, the distribution of risks is not uniform and the greatest proportion of occurrences lie close to the central forecast. For example, the fan chart suggests that there is a 70% chance that the actual outturn will be within the band of ± 4% of the central forecasts in 2020q2 and there is 90% chance that the actual outturn will be within the band of ± 6% of the central forecasts for the same quarter. That is to increase the number of observations covered by the band by 29% (ie from 70 to 90 percent), we need to increase the width of the band by 50% (from 4% to 6%).

Finally, it is also interesting to note that both the scenarios that were presented in the HYEFU lie well within the 70th percentile. It suggests that both the scenarios in the update were not “black swan” events (eg. the GFC) that by their nature are unpredictable and fall outside the normal range of possibilities, but instead illustrate scenarios within normal bounds.

Uncertainty associated with forecasts of interest rates

Figure 2: 90-day Bill Rate

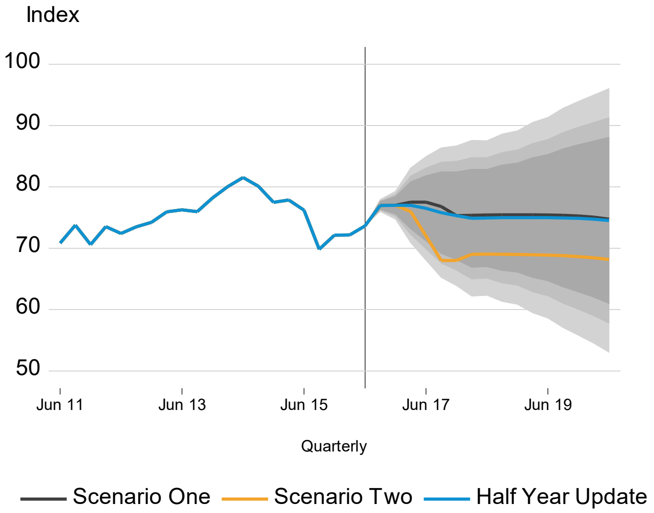


Sources: Reserve Bank, the Treasury

Figure 2 illustrates the uncertainty associated with the interest rate track. These forecasts assumed that the Reserve Bank would hold its benchmark rate at a record low for a sustained period of time with the next move not predicted until the end of 2018. Figure 2 shows that by the end of 2017, there is a 30% chance that the 90-day bill rate will have risen well above 3.5% or have fallen below 0.5%. However, there is a limit as to how low nominal interest rates can go when the interest rate reaches zero. Therefore, when the forecasted path for interest rate is low, a truncated fan chart may be appropriate.

Uncertainty is particularly high for forecasts of the exchange rate

Figure 3: Trade Weighted Index



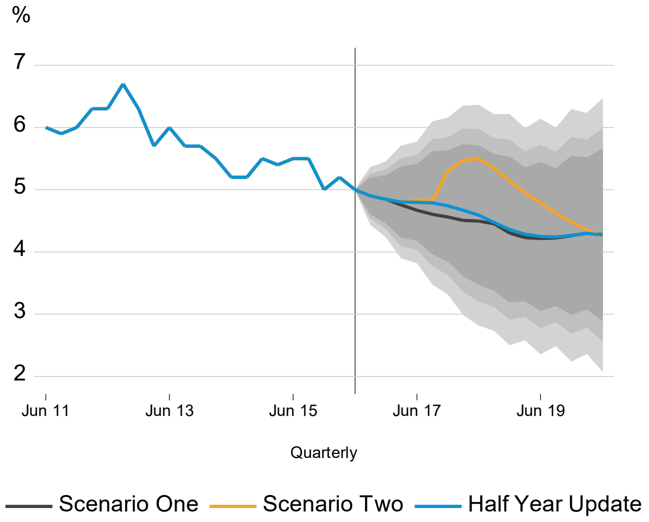
Sources: Reserve Bank, the Treasury

Figure 3 shows that there is a high chance that the exchange rate path will turn out to be very different from the forecast track in the HYEFU. Forecast errors for the exchange rate are relatively large compared with other key macro variables, highlighting that our ability to forecast the exchange rate is not as good as it is for other economic variables (for which there is still considerable uncertainty).

Uncertainty associated with forecasts of the unemployment rate

For the unemployment rate forecasts, the 70% percentile interval ranged from 5.8% to 3.8% for the one-year-ahead forecasts (see Figure 4). To put it another way, at the time the forecasts were published it is estimated that there was a 15% chance that the unemployment rate would increase to 5.8% or higher within a year and there was also the same probability that the unemployment rate would decrease to 3.8% or lower within a year.

Figure 4: Unemployment Rate

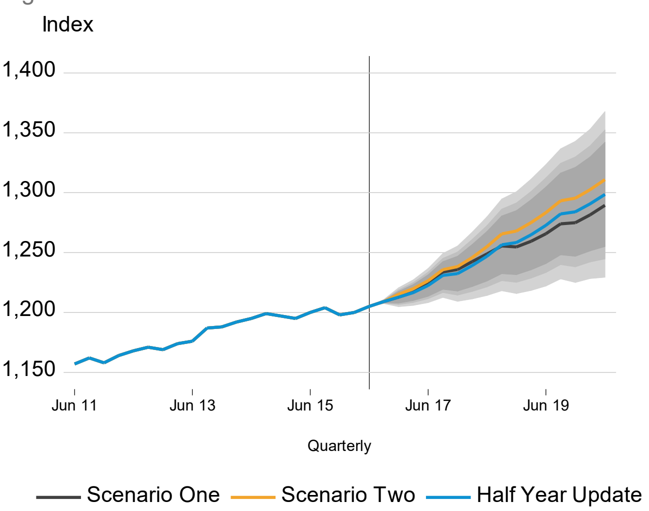


Sources: Statistics New Zealand, the Treasury

Inflation

Apart from real output, another key macro variable that has a significant influence on nominal GDP is the consumers price index (CPI). Figure 5 shows that the magnitude of forecast errors is similar to that of real expenditure GDP for forecast horizons of more than 2 years. For example, there is a 10% chance that the level of CPI is 5% higher or lower in the second quarter of 2020 than was forecast in HYEFU.

Figure 5: Consumer Price Index

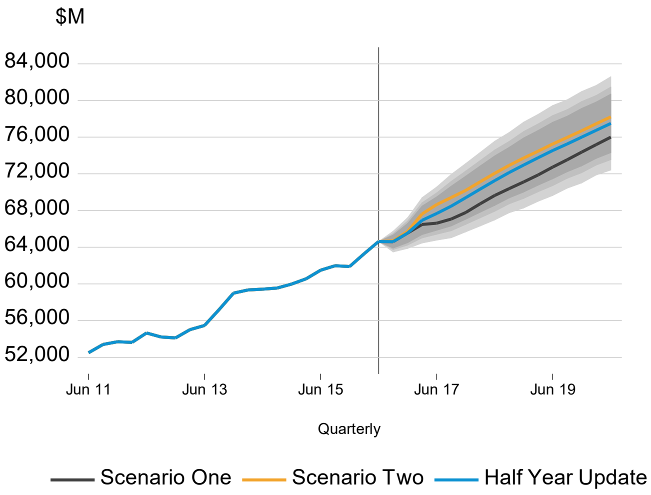


Sources: Statistics New Zealand, the Treasury

Nominal GDP

The final figure displays a fan chart for nominal GDP. The overall level of uncertainty is slightly higher than that for real output, reflecting that past forecast errors for both inflation and output are not highly correlated. Furthermore, some other macro variables such as the terms of trade also play a vital role in determining the level of nominal GDP. There is a 10% chance that the level of nominal GDP will be 7% higher or lower than expected in 2020Q2.

Figure 6: Nominal GDP



Sources: Statistics New Zealand, the Treasury

In summary, we have presented a set of fan charts to provide quantitative assessments of uncertainty surrounding the HYEFU 2016 forecasts. This additional information helps to give a visual picture of the potential uncertainty associated with the outlook, which is relevant for policy decisions.

Monthly Economic Indicators is a regular report prepared by the Forecasting team of the Treasury.

Contact for enquiries:

The Treasury
PO Box 3724, Wellington
NEW ZEALAND

information@treasury.govt.nz
Tel: +64 4 472 2733
Fax: +64 4 473 0982

New Zealand Key Economic Data

Quarterly Indicators

		2015Q3	2015Q4	2016Q1	2016Q2	2016Q3	2016Q4	2017Q1
Gross Domestic Product (GDP)								
Real production GDP	qtr % chg[1]	1.0	1.0	0.7	0.8	0.8	0.4	...
	ann ave % chg	3.1	2.5	2.4	2.7	2.9	3.1	...
Real private consumption	qtr % chg[1]	0.6	1.4	0.4	2.1	1.4	0.4	...
	ann ave % chg	2.8	2.9	2.8	3.2	4.0	4.3	...
Real public consumption	qtr % chg[1]	-0.4	-0.1	1.2	0.1	1.2	1.1	...
	ann ave % chg	2.8	2.6	2.7	1.9	1.9	2.3	...
Real residential investment	qtr % chg[1]	2.6	1.5	4.4	5.1	0.6	0.1	...
	ann ave % chg	3.2	2.0	2.8	6.3	9.0	11.0	...
Real non-residential investment	qtr % chg[1]	2.9	-2.5	1.8	1.1	0.7	1.8	...
	ann ave % chg	4.3	2.2	2.4	2.4	1.9	3.4	...
Export volumes	qtr % chg[1]	2.2	0.1	-0.6	3.5	-1.1	-3.8	...
	ann ave % chg	7.6	6.8	5.5	4.9	3.1	1.6	...
Import volumes	qtr % chg[1]	-2.1	0.8	0.7	2.9	1.7	1.9	...
	ann ave % chg	5.6	3.6	2.1	1.3	2.4	4.2	...
Nominal GDP - expenditure basis	ann ave % chg	2.8	3.3	4.0	4.1	4.5	5.6	...
Real GDP per capita	ann ave % chg	1.2	0.6	0.4	0.6	0.9	0.9	...
Real Gross National Disposable Income	ann ave % chg	1.5	1.4	1.9	2.5	3.1	4.1	...
External Trade								
Current account balance (annual)	NZ$ millions	-8,529	-8,321	-7,821	-7,371	-7,618	-7,112	...
	% of GDP	-3.5	-3.4	-3.1	-2.9	-3.0	-2.7	...
Investment income balance (annual)	NZ$ millions	-9,581	-9,207	-8,752	-8,337	-8,221	-7,911	...
Merchandise terms of trade	qtr % chg	-3.8	-2.0	4.2	-2.0	-1.1	5.7	...
	ann % chg	-3.6	-3.2	-0.4	-3.8	-1.1	6.7	...
Prices								
CPI inflation	qtr % chg	0.3	-0.5	0.2	0.4	0.3	0.4	1.0
	ann % chg	0.4	0.1	0.4	0.4	0.4	1.3	2.2
Tradable inflation	ann % chg	-1.2	-2.1	-1.2	-1.5	-2.1	-0.1	1.6
Non-tradable inflation	ann % chg	1.5	1.8	1.6	1.8	2.4	2.4	2.5
GDP deflator	ann % chg	0.7	0.3	0.9	0.1	1.2	3.9	...
Consumption deflator	ann % chg	1.1	0.7	0.8	0.7	-0.1	0.6	...
Labour Market								
Employment (HLFS)	qtr % chg[1]	-0.3	1.1	1.2	2.4	1.3	0.8	...
	ann % chg[1]	1.4	1.4	2.0	4.5	6.1	5.8	...
Unemployment rate	%[1]	5.6	4.9	5.2	5.0	4.9	5.2	...
Participation rate	%[1]	68.3	68.3	68.8	69.7	70.1	70.5	...
LCI salary & wage rates - total (adjusted)[5]	qtr % chg	0.4	0.4	0.4	0.4	0.5	0.4	...
	ann % chg	1.6	1.5	1.6	1.5	1.7	1.6	...
QES average hourly earnings - total[5]	qtr % chg	1.0	0.3	0.3	0.5	0.5	-0.1	...
	ann % chg	2.3	2.1	2.4	2.1	1.7	1.3	...
Labour productivity[6]	ann ave % chg	0.8	0.5	0.8	-0.2	-1.2	-2.2	...
Retail Sales								
Core retail sales volume	qtr % chg[1]	1.3	1.4	1.0	2.5	0.2	0.6	...
	ann % chg	5.2	5.2	4.8	6.4	5.0	3.8	...
Total retail sales volume	qtr % chg[1]	1.6	1.3	0.9	2.2	0.7	0.6	...
	ann % chg	5.7	5.3	4.9	6.0	5.1	3.9	...
Confidence Indicators/Surveys								
WMM - consumer confidence[3]	Index	106	111	110	106	108	113	112
QSBO - general business situation[4]	net %	-14.5	14.7	1.7	18.6	25.7	28.3	17.1
QSBO - own activity outlook[4]	net %	21.7	21.6	3.8	16.8	39.2	27.0	20.6

Monthly Indicators

		2016M10	2016M11	2016M12	2017M01	2017M02	2017M03	2017M04
External Sector								
Merchandise trade - exports	mth % chg[1]	9.7	-11.7	9.2	0.9	-2.8	...	...
	ann % chg[1]	3.0	-5.0	-0.2	0.3	-5.5	...	...
Merchandise trade - imports	mth % chg[1]	2.1	-8.6	3.9	3.6	0.1	...	...
	ann % chg[1]	0.1	-5.6	-1.0	7.2	4.0	...	...
Merchandise trade balance (12 month total)	NZ$ million	-3247	-3175	-3139	-3408	-3794	...	...
Visitor arrivals	number[1]	304,380	305,010	300,540	305,980	300,100	304,620	...
Visitor departures	number[1]	310,410	302,540	312,890	301,320	301,740	302,290	...
Housing								
Dwelling consents - residential	mth % chg[1]	0.2	-8.6	-7.5	2.1	14.0	...	...
	ann % chg[1]	9.6	6.1	-13.1	3.4	1.6	...	...
House sales - dwellings	mth % chg[1]	-8.7	4.0	-1.9	-6.1	1.1	...	...
	ann % chg[1]	-14.2	-5.9	-10.7	-14.7	-14.2	...	...
REINZ - house price index	mth % chg	0.3	0.8	0.3	-0.9	0.4	...	...
	ann % chg	14.4	14.9	13.5	11.7	10.5	...	...
Private Consumption								
Electronic card transactions - total retail	mth % chg[1]	0.5	0.0	0.1	2.7	-0.6	-0.3	...
	ann % chg	4.2	5.1	5.8	5.6	2.6	5.6	...
New car registrations	mth % chg[1]	3.1	-0.9	-1.9	1.5	0.4	3.5	...
	ann % chg	13.1	13.3	7.8	12.2	7.3	16.5	...
Migration								
Permanent & long-term arrivals	number[1]	11,090	11,000	10,900	11,290	11,020	10,800	...
Permanent & long-term departures	number[1]	4,880	4,830	4,920	4,910	5,040	4,700	...
Net PLT migration (12 month total)	number	70,282	70,354	70,588	71,305	71,333	71,932	...
Commodity Prices								
Brent oil price	US$/Barrel	49.52	44.73	53.22	54.58	54.87	51.59	*52.74*
WTI oil price	US$/Barrel	49.81	45.73	52.06	52.56	53.46	49.48	*51.41*
ANZ NZ commodity price index	mth % chg	2.1	3.2	2.0	-1.1	0.6	3.4	...
	ann % chg	-4.6	3.0	9.4	8.6	9.2	16.5	...
ANZ world commodity price index	mth % chg	0.7	3.2	0.7	-0.1	2.0	0.4	...
	ann % chg	4.0	13.6	16.5	19.1	20.9	23.0	...
Financial Markets								
NZD/USD	$[2]	0.7159	0.7153	0.7049	0.7126	0.7220	0.7009	*0.6986*
NZD/AUD	$[2]	0.9395	0.9489	0.9579	0.9547	0.9428	0.9197	*0.9264*
Trade weighted index (TWI)	June 1979 = 100[2]	76.87	77.93	78.12	78.55	78.78	76.54	*76.14*
Official cash rate (OCR)	%	2.00	1.75	1.75	1.75	1.75	1.75	1.75
90 day bank bill rate	%[2]	2.15	2.07	2.03	1.98	2.02	1.98	*1.97*
10 year govt bond rate	%[2]	2.54	2.99	3.33	3.23	3.29	3.28	*3.05*
Confidence Indicators/Surveys								
ANZ - business confidence	net %	24.5	20.5	21.7	...	16.6	11.3	...
ANZ - activity outlook	net %	38.4	37.6	39.6	...	37.2	38.8	...
ANZ-Roy Morgan - consumer confidence	net %	122.9	127.2	124.5	128.7	127.4	125.2	121.7
Performance of Manufacturing Index	Index	55.0	54.4	54.5	53.2	55.7	57.8	...
Performance of Services Index	Index	56.9	58.4	58.5	59.4	58.7	59.0	...

qtr % chg	quarterly percent change
mth % chg	monthly percent change
ann % chg	annual percent change
ann ave % chg	annual average percent change

1 Seasonally adjusted
2 Average (11am)
3 Westpac McDermott Miller
4 Quarterly Survey of Business Opinion
5 Ordinary time
6 Production GDP divided by HLFS hours worked

Sources: Statistics New Zealand, Reserve Bank of New Zealand, NZIER, ANZ, Haver, Westpac McDermott Miller, ANZ-Roy Morgan, REINZ, BNZ-Business NZ