NZIER INSIGHT

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Recession: what are the chances?

Talk that a recession could hit the global and New Zealand economies has ramped up in recent months. We look at some of the warning signs we should be watching out for, and the tools available to combat the effects if a recession really was to occur.

Discussion about the potential for a recession to hit at least one of the major economies has intensified in recent months. The US Federal Reserve has become more cautious about the outlook for the US economy, and over the past year has moved from a hiking bias to cutting interest rates. Here in New Zealand, the Reserve Bank embarked on another easing cycle by cutting the Official Cash Rate (OCR) at its May meeting and followed up with a 50 basis points cut at its August meeting.

We look at what current conditions are telling us about the state of the New Zealand economy, and by considering the common indicators of a recession discuss how worried we should be. We also look at the levers available to try and combat the effects of a recession.

What is a recession?

One definition of a recession is when an economy faces two consecutive quarters where its gross domestic product (GDP) has fallen. A decline in economic activity is often associated with weakening demand, which causes firms to reduce production. The National Bureau of Economic Research (NBER) defines a recession as "a significant decline in economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales".

While there are recession indicators, debate abounds about their effectiveness in predicting a recession, and also in how well these indicators can show *when* a recession is coming.

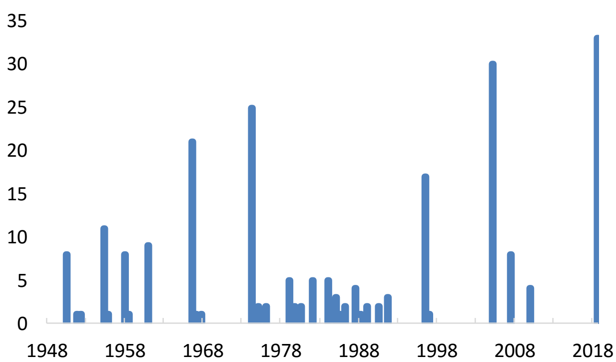
Timing

An economy typically goes through a business cycle where a period of strong expansion is followed by a period of declining growth. The length of business cycles varies between countries, and across cycles but through time upswings have become longer and recessions shallower. The NBER has kept a record of all the US business cycle expansions and contractions, and shows that over the period 1945 to 2009, there were 11 business cycles with an average duration of 69.5 months. The most recent US business cycle that ended in June 2009 lasted 91 months.[1] Meanwhile, the September 2019 quarter marks the 22nd consecutive quarter of GDP growth in the US economy, with annualised GDP growth running at around 2 percent.

Here in New Zealand, the economy has been growing since 2010 – marking eight and a half years of growth. The 34 consecutive quarters of growth is the longest stretch of economic growth in the period since 1947, when records for quarterly GDP estimates began.[2]

Figure 1 Consecutive quarters of growth in NZ GDP

Number of quarters



Source: NZIER data1850, Statistics NZ

[1] https://www.nber.org/cycles.html

[2] Data1850 https://data1850.nz/

Are we overdue for a recession, or have economic cycles become structurally longer through the decades? We look at what common indicators of recession suggest for the New Zealand economy.

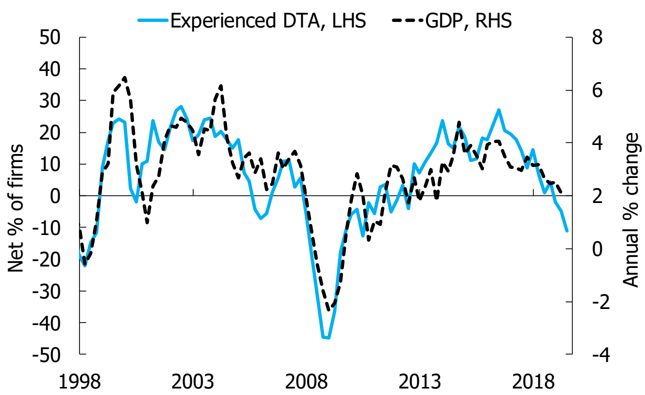
Business confidence and activity

The NZIER *Quarterly Survey of Business Opinion* (QSBO) has received increased attention in recent years, both for the sharp decline in headline business confidence as well as the deterioration in a range of activity indicators within the survey. In particular, the firms' own trading activity measure points to a marked slowing in activity in the New Zealand economy.

Headline business confidence is at its lowest level since March 2009, while firms' own trading activity has recently fallen to its lowest level since September 2010. Concerningly, it indicates annual GDP growth will ease to around 1 percent over the coming year. This outcome would suggest the potential for two quarters where the New Zealand economy experienced little growth, or even a small contraction in activity for two quarters – one definition of a recession.

Figure 2 Domestic trading activity and GDP

Net % of firms; Annual % change



Source: Statistics NZ, NZIER

Recent NZIER analysis on the usefulness of business confidence to predict the next recession finds that the QSBO is a good indicator of the *direction* of economic growth, given it encapsulates the impact of a wide range of the factors that determine economic growth.[3] We find the average experienced and expected activity indicators have good explanatory power for the likely changes in economic activity. The QSBO is most useful when a range of activity indicators are considered together, rather than each in isolation.

Overall, the latest QSBO indicates further slowing in the New Zealand economy, with the potential for two consecutive quarters of small declines in activity – which would satisfy one definition of a recession.

Unemployment rate

Sharp increases in the unemployment rate are often associated with recessions, regardless of the level of the unemployment rate.

Claudia Sahm, an economist at the US Federal Reserve, developed the Sahm Recession Indicator, which predicts the probability of a recession occurring over the coming year based on the current unemployment rate relative to its low over the past year. This indicator takes the three-month average of the current unemployment rate and compares this to its low point over the previous twelve months.

This Sahm Recession Indicator, based on US data over the period 1970 to 2019, shows that when the current unemployment rate is 0.30 to 0.39 percentage points higher than its low over the past year, there is a 40 percent chance of a recession over the coming year. When the gap is 0.40 to 0.49, this probability rises to 76 percent.[4]

This indicator suggests that the current risk of a recession in the US is low. The US indicator is well below 0.3 percentage points, reflecting the continued solid state of the US labour market.

What it means for New Zealand

Applying this indicator to historical New Zealand employment and GDP data suggests it has the potential to overestimate the probability of a recession in the New Zealand economy. Since the last technical recession in late 2010, this gap (based on a two-quarter moving average of the current unemployment rate given volatility in the data) has reached 0.30 percentage points four times.

With the September 2019 labour market data showing the unemployment rate increasing from its 11-year low of 3.9 percent in the previous quarter to 4.2 percent, at face value this suggests a reasonable chance of recession over the coming year. However, given the volatile nature of the New Zealand unemployment rate from quarter to quarter, a two-quarter moving average is more appropriate, and applying this shows the Sahm Recession Indicator remains

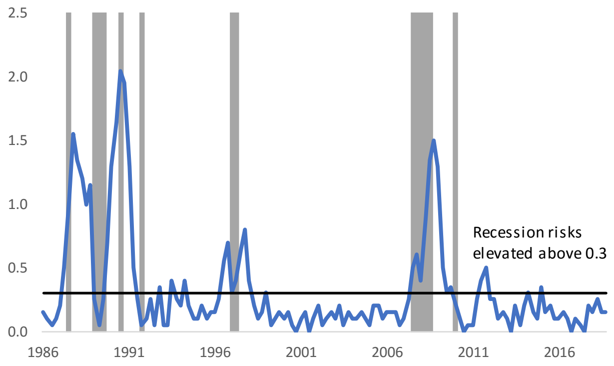
[3] Torshizian, E. and Maralani, M., *Is the sky falling?* NZIER Insight 2019-82. https://nzier.org.nz/static/media/filer_public/b9/87/b9877606-df8f-47cd-8568-6302b5ab09f4/nzier_insight_82_business_confidence.pdf

[4] https://www.brookings.edu/blog/up-front/2019/06/06/how-will-we-know-when-a-recession-is-coming/

steady at 0.15 – suggesting a low risk of recession in New Zealand over the coming year.

Figure 3 Sahm Recession Indicator on NZ data

Shaded areas denote technical recessions



Source: Statistics NZ, NZIER

However, Ms Sahm does note that her Indicator is based on historical relationships in the US, and other labour markets may behave differently.

Yield curve

Another key recession indicator watched closely by financial markets is the slope of the yield curve, primarily the difference in yields between the 10-year Government bonds and the three-month bills.

Yield curves are typically upward sloping, to reflect the compensation (i.e. interest rate) investors usually require for keeping their investments tied up for a longer period of time, and the risk of inflation eroding the value of their investment. However, when there is uncertainty about the longer-term economic outlook, investors are likely to accept a lower return on their investment in safe Government bonds.

When long-term interest rates fall below short-term interest rates, the yield curve is said to have inverted – seen by financial markets that a recession is imminent. Every recession in the past 60 years has been preceded by an inversion of the US yield curve, with this indicator having only provided one false positive (in 1966) over that period.[5]

The Federal Reserve Bank of New York's indicator based on the difference in yields between the 10-year and the 3-month Treasury rates saw the chances of a recession in mid-2020 at almost a third.[6]

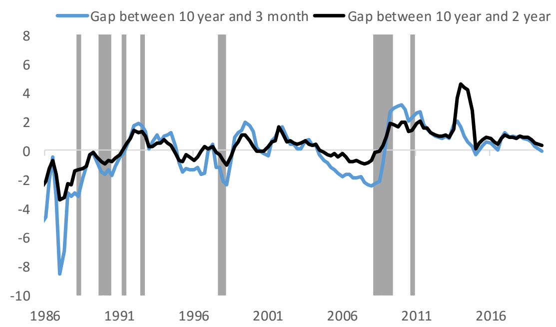
However, the US Federal Reserve bond purchases to stimulate the economy have also pushed US long-term bond yields lower than what investors' expectations of the US economic outlook may suggest. This yield curve indicator also provides little clue as to *when* recession will hit.

What it means for New Zealand

Here in New Zealand, the yield curve's usefulness as a recession indicator has been patchier. Although data since 1985 shows six instances of when the New Zealand yield curve inverted (i.e. when the 10-year Government bond yield was below the 3-month bank bill rate) and seven instances of the New Zealand economy facing a technical recession, there does not appear to be a relationship as to the timing of each of these incidents.

Figure 4 NZ yield curves

Difference in yields



Source: RBNZ, Statistics NZ, NZIER

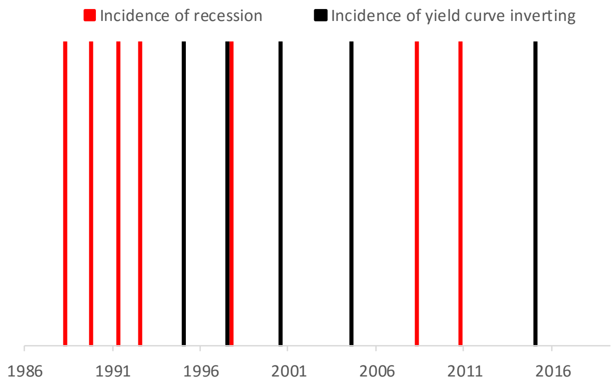
Historically the inversion of the New Zealand yield curve does not appear to be a reliable predictor of a recession in New Zealand. The difference in yields between the 10-year Government bond and the 3-month bank bill last turned negative in early 2015, but no recession followed.

5 FRBSF Economic Letter: Economic Forecasts with the Yield Curve https://www.frbsf.org/economic-research/files/el2018-07.pdf

6 The Yield Curve as a Leading Indicator https://www.newyorkfed.org/research/capital_markets/ycfaq.html

Figure 5 Timing of recession and yield curve inversion

Difference between the 10-year and the 3-month yields



Source: RBNZ, Statistics NZ, NZIER

So even though the difference in yields between the 10-year Government bond and the 3-month bank bill has turned negative in recent months, it does not suggest a recession is imminent in the New Zealand economy. Meanwhile, the difference between the 10-year and the 2-year Government bond yields remains positive.

Levers to combat recession

Taking the findings from the range of recession indicators overall suggests the New Zealand economy is unlikely to head into recession over the coming year. But activity is clearly slowing.

Given New Zealand is a small open economy, the global growth outlook will be a key influence on whether the New Zealand economy falls into recession. A contraction in the economy of our major trading partners would likely lead to reduced demand for New Zealand exports, which in turn would reduce New Zealand production. *Consensus Economics*[7] shows expectations for annual GDP growth across our major trading partners will average just over 3 percent over the coming years. This should support continued growth in New Zealand export demand.

There are some two primary demand side levers at policymakers' disposal to reduce the effects of recession: monetary policy and fiscal policy. In addition, structural policies that work on the supply side also have an important role to play. These supply side policies include employment policies which affect the flexibility of the labour market and mobility of workers, and regulation of the use of land which affects the ability for new housing supply to come onto the market in response to increased housing demand.

We now focus on and discuss how demand side tools are applied, particularly in the New Zealand context.

Monetary policy

The central bank can undertake expansionary monetary policy to try and stimulate demand and activity. This involves cutting the policy rate and/or increasing money supply through quantitative easing. Lowering costs to use money would boost demand by encouraging borrowing and spending amongst households and businesses.

Lower interest rates mean reduced opportunity costs in using the money now relative to the future. This encourages investment, as businesses and households can use the money now to make a return, for example on plant and machinery or employing more people. This spending in turn boosts demand in the economy. For example, increased employment means higher household income, which encourages households to spend.

Some major central banks have embarked on quantitative easing, in which they have added money into the economy. The increased supply of money means that businesses and households are more likely to spend it to make a return.

Here in New Zealand, the Reserve Bank embarked on another easing cycle in May 2019 by cutting the OCR on concern about the slowing New Zealand economy. This has led mortgage rates to fall to record lows. As interest rates fall towards zero, there are concerns about the potency of monetary policy diminishing. More recently, there have been calls from the RBNZ Governor that "monetary policy needs mates" to help boost the supply side and from a loosening of fiscal policy.[8]

Fiscal policy

Governments can stimulate the economy by spending more or cutting taxes. Government spending can take the form of either direct spending infrastructure or goods and services such as healthcare, or through direct transfers to households which increase discretionary spending. Similarly, tax cuts to either businesses or households increase the potential for spending. All these measures, to varying extents, boost demand in an economy. Hamer-Adams and Wong (2018)[9] found that on average over 1990 to 2017, changes in tax revenue had the largest impact on

7 https://www.consensuseconomics.com/

8 RBNZ Governor Orr's speech *We are not alone with Monetary Policy*, August 2019 https://www.rbnz.govt.nz/news/2019/08/we-are-not-alone-with-monetary-policy

9 *Quantifying Fiscal Multipliers in New Zealand: the Evidence from SVAR Models*, RBNZ Analytical Notes, June 2018 https://www.rbnz.govt.nz/-/media/ReserveBank/Files/Publications/Analytical%20notes/2018/an2018-05.pdf?revision=e00f1a52-f865-43b6-a18a-9d0768f58d8b

the New Zealand economy in the first year, while public investment had the least.

In the first instance, automatic stabilisers kick in when an economy is slowing. This covers the increase in welfare paid as a result of an increase in unemployment from a downturn in the labour market, and reduced tax revenue received by the Government as a result of lower household income and corporate profitability. Governments can choose to inject additional stimulus into the economy beyond these automatic stabilisers.

The OECD in its recent *Economic Outlook* highlighted the need for governments globally to take a bigger role in stimulating activity in the advanced economies. In principle extremely low interest rates mean governments can invest in infrastructure to support both near-term demand and plan for the future (thus increasing certainty and business confidence) at lower borrowing costs.[10] In practice, however, planning and other restraints means it is hard to accelerate infrastructure projects in time to offset the decline in private demand.

Having fiscal policy step up to support monetary policy would also lessen financial distortions that come from excessively loose monetary policy. This is particularly pertinent given there is now little scope for monetary policy to ease further to provide additional stimulus to advanced economies.

Here in New Zealand, RBNZ Governor Orr has also repeatedly called for the Government to spend more and loosen restrictions to stimulate the economy. The Government has been prudent with its spending as it focused on reducing net debt. However, its surpluses in recent years means it has scope to increase quality spending should the economy continue to slow.

Conclusion

Like the world economy overall, the New Zealand economy is slowing, and indicators are mixed as to whether a recession is on the way over the coming year. Given the nature of business cycles, and those who have watched the classic movie 'Being There'[11] will be fully aware, an economic slowdown is generally a matter of when rather than if.

Policymakers can reduce the severity of such slowdowns through monetary and fiscal policies to ensure the economy has a solid enough foundation to recover. Given policy changes tend to take effect with a lag, these recession indicators provide useful guidance to ensure policy responses are timely and can potentially minimise the effect of any global recession.

This Insight was written by Christina Leung at NZIER, December 2019. The assistance of Derek Gill is gratefully acknowledged.

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10 OECD Interim Economic Outlook http://www.oecd.org/economy/outlook/

11 'Being There' is a 1979 comedy-drama starring Peter Sellers about a naïve and sheltered gardener whose unaffected gardening wisdom about the passing of the seasons is mistaken for profound economic advice.