

A brief history of the QSBO

1961-2011

NZIER working paper 2011/2

About NZIER

Established in 1958, the NZ Institute of Economic Research Inc (NZIER) is a non-profit incorporated society based in Wellington. Our aim is to be the premier centre of applied economic research in New Zealand.

We pride ourselves on our independence and reputation for delivering quality analysis in the right form, and at the right time, for our clients. NZIER is also known for its long-established Quarterly Survey of Business Opinion and Quarterly Predictions.

Acknowledgements

This paper was originally prepared for and presented at the New Zealand Association of Economists Conference, June/July 2011.

Each year NZIER devotes some of its resources to undertake and make freely available economic research and thinking aimed at promoting a better understanding of New Zealand's important economic challenges. This paper was funded as part of this public good research programme.

NZIER is very grateful for the long standing support from the Reserve Bank of New Zealand and the New Zealand Treasury for the production and maintenance of the Quarterly Survey of Business Opinion.

Over the last 50 years a significant number of New Zealand economists have contributed to the evolution of the QSBO. Buckle and Silverstone (2011) provide a list of all the people that have worked on the QSBO, which is presented as Appendix A.

Authorship

This report has been prepared at NZIER by James Allen and Peter O'Connor.

Introduction

NZIER's Quarterly Survey of Business Opinion (QSBO) is one of New Zealand's leading economic indicators. March 2011 marked the 50th anniversary of the QSBO.

The QSBO provides data driven insights into how firms are responding to current economic events. Due to its reliability and responsiveness compared to related official statistics, the QSBO has become a key indicator for businesses and policy-makers.

Over the past 50 years a significant number of New Zealand economists have contributed to the evolution of the QSBO.

The QSBO

- First published June 1961
- Quarterly survey of 2,200 CEOs about recent and expected performance
- Covers manufacturing, merchants, builders, architects, and services sector
- Snapshot of the economy in almost real time
- Key indicator for Reserve Bank and policy-makers
- 50 years of data for business analysis
- 36 years of consistent data for academic research

Foundation: the why and the how

There are a number papers and books that discuss the history of the QSBO. This section draws on a number, including Gillion (1964), Bowie and Easton (1987), Assendelft (1988), Buckle (1988), and Briggs (1997).

Why survey business opinion?

Business and policy decisions are made every day based on the best information available. People have a greater chance of making good decisions if the information they have is accurate and up-to-date. A problem with economic information is that official statistics can take a number of months to gather, collate, and publish. These delays can cause decision-makers to rely on out-of-date information, or information from informal and potentially unreliable sources. The QSBO was designed to fix this issue by providing quick and accurate indicators of economic activity.

The problem of official statistics delay is not specific to New Zealand. Gillion (1964) credits the Institut für Wirtschaftsforschung (IFO) in Munich for first developing qualitative business surveys as a solution to this problem. Assendelft (1988) contends that this work began in 1948, as the German official statistics system was still in disarray following the war.

Bowie and Easton (1987) note that the IFO's development was known as the "Konjunkturtest", or tendency survey. This technique allowed a quick assessment of business conditions via an opinion poll of a sample of senior executives. The poll would include questions regarding a number of specific economic aspects about that executive's business, both in the immediate past and future. By totalling their responses, the survey provides a timely indicator of current and expected economic conditions.

A number of other international institutions also began to implement the Munich technique, including the Confederation of British Industry, and the European Economic Commission.

The birth of the QSBO

Professor Conrad Blyth, NZIER's first director, was responsible for implementing both of the Institute's flagship publications, the Quarterly Survey of Business Opinion and Quarterly Predictions. In his contribution to *The evolving Institute*¹, Prof. Blyth notes that the encouragement he received from a number of academics. For example Buckle (1988) describes that Horace Belshaw and Colin Simkin, professors of economics at Auckland University, at the time stressed that such a survey:

“should prove immediately useful for purposes of forecasting, because in other countries it appears that there is a fairly satisfactory relationship between the results of such questionnaires and more traditional index numbers or official series. It should also prove of value for more fundamental research that the Institute might undertake into business behaviour and, in particular throw light upon the difficult but important questions of the degree of uniformity of business expectations and their relation to business outcomes. “

Following this encouragement, Professor Blyth instituted the first survey for the June quarter of 1961. This survey was sent to 100 NZIER members involved in the manufacturing and building sectors, and included 19 questions.

Survey design

The QSBO's aim is to provide information on current trends and provide predictions of economic conditions, and to do so in a timely manner. To meet this aim, the QSBO has to minimise any delays related to completion, collection and analysis of the survey.

A common delay in generating typical economic indicators is the time lag between the event and the availability of quantitative information. This lag, and the effort required to report this quantitative information increases the administrative burden for the surveyed business. An increase in the administrative burden tends to lower the completion rates of surveys.

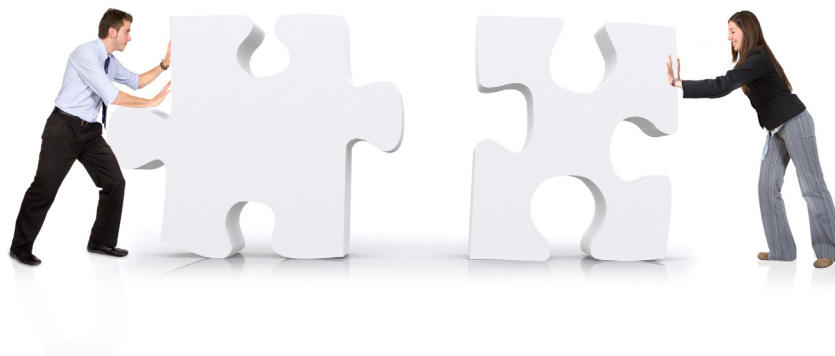
The QSBO removes this delay by not requiring any quantitative information. The survey questions typically require a response of:

- 'Increase'
- 'Decrease'
- 'Much the same as previous'.

This design is intended to allow a chief executive, or a nominated officer, to use their knowledge of their business to complete the survey within five minutes and return it. NZIER then aggregates the responses across industries, sectors, regions, or employment levels to assess the changes in business expectations or performance.

This survey design allows for the results to be published within days of the end of each quarter. For example, the survey forms for the 200th edition were sent on 4 March 2011, responses received between 10 and 29 March 2011, and the results were published on 5 April 2011.

¹ *The evolving Institute* is a series of recollections of NZIER Directors that was published to celebrate the first 50 years of the Institutes existence. It is available at: <http://nzier.org.nz/publications/the-evolving-institute-nzier-1958-2008>



Significant developments

The first QSBO asked 19 questions and surveyed 100 of NZIER's members from the manufacturing industry. The 200th QSBO asked at most 25 questions and surveyed over 2,200 firms across manufacturing and building, merchants, services and architects.

One of the most significant developments occurred in September 1978 when the QSBO was released publically for the first time. Prior to then, the QSBO had been restricted to NZIER and its members only. This development was welcomed, and as related in Bowie and Easton (1987), Robert Muldoon, the then Finance Minister commented:

"This is the first time the results of the Survey have been published and it is a welcome addition to the statistics available for economic analysis. The government has received this series on a confidential basis since the first Surveys were taken. We have found it a particularly useful indicator of business confidence. The Institute is to be congratulated for its work in the preparation of this series."

The changes to the QSBO over time have made the survey more representative of the economy and allowed for more detailed analysis, which led to better results.

Industry groups

In the early 1960s, manufacturing was the major industry in New Zealand and the target of the survey. However, after the first run of the survey, it was clear that other sections of the economy were not represented in the survey. Merchants became included in the QSBO from survey two, with questions more suitable to retailers and wholesalers.

Architects were added to the QSBO three years later, initially as an experiment. The survey questions for Architects are different from the other sectors and focus particularly on the outlook for the building sector. These responses are not included in the economy-wide aggregate results that are reported.

The services sector was introduced to the QSBO from 1966, reflecting the increasing importance of services over time. The proportion of service firms in the survey has increased over time through resampling as they have become a larger part of the economy.

Including new sectors has allowed the survey to keep up with economic developments and ensures the results are more representative of the entire economy.

Questions

The QSBO survey is the one of the longest running business confidence surveys in the world. While there have been changes in sectors and samples, the questions asked have been largely unchanged over the period, aside from aesthetic changes to make the form easier for firms to complete.

Over the duration of the QSBO, survey 58 in September 1975 represents the most significant change in the history. As the questionnaires track firm size and operating location, the number of categories was expanded to enhance the level of detail produced in the results. Due to this change, the categories are sufficient to produce results at a small, medium and large firm level.

Since 1975 only three minor changes have been made. Two questions have been added, one asking about the volume of sales over the next six months for merchants, the other about the present level of stock (finished goods) for manufacturers and builders. There was also a reshuffle of services responses for firm type.

The QSBO, therefore, is a continuous database of New Zealand business indicators dating back 36 years. This data is a rich source of information, and overtime, has been actively used by academics. Some of these uses are discussed in section 4.3.

Sample size and sampling technique

A deteriorating sample is an issue for all long-term surveys. Over time firms dissolve, merge or shift overseas and stop submitting QSBO surveys. While this is happening, the composition of the economy is changing as new firms are created across different industries. To reflect these changes, NZIER regularly re-populates its sample.

The sampling method for the QSBO has evolved over time. The QSBO started as a survey given to members of NZIER. As the importance of the survey grew, sampling was extended beyond members to reflect the state of the whole economy. The main deviations from representation is that we include only firms with 6 or more employees, and include all firms with more than 200 staff.

Statistics New Zealand's Business Frame was initially used to develop representative samples of firms within the QSBO's industry classifications. Unfortunately, rules changed around the use of the Business Frame, which can only be used to develop statistics of national significance. This usually involves purchasing the data from commercial business databases that can stratify companies into the desired ANZSIC groups and firm sizes.

Insights

Figure 1 shows the long-term behaviour of the QSBO's indicator of Domestic Trading Activity and New Zealand's GDP. The two series are similar, especially during some of the most significant events of New Zealand's recent economic history. As such the QSBO is an excellent indicator of that quarter's economic performance.

Policy insights

The QSBO has provided insights into a number of New Zealand's significant economic events over the last 50 years. These insights have provided information for policy-makers and businesses. Academic research also uses the long-term QSBO database to provide insights into aspects of the New Zealand economy.

Employment Contracts Act 1991

The QSBO was used to provide an early ex-post analysis of the impacts of the Employment Contracts Act (ECA). The timely results held up well against more detailed econometric analysis that could only be completed after years later once other economic data became available.

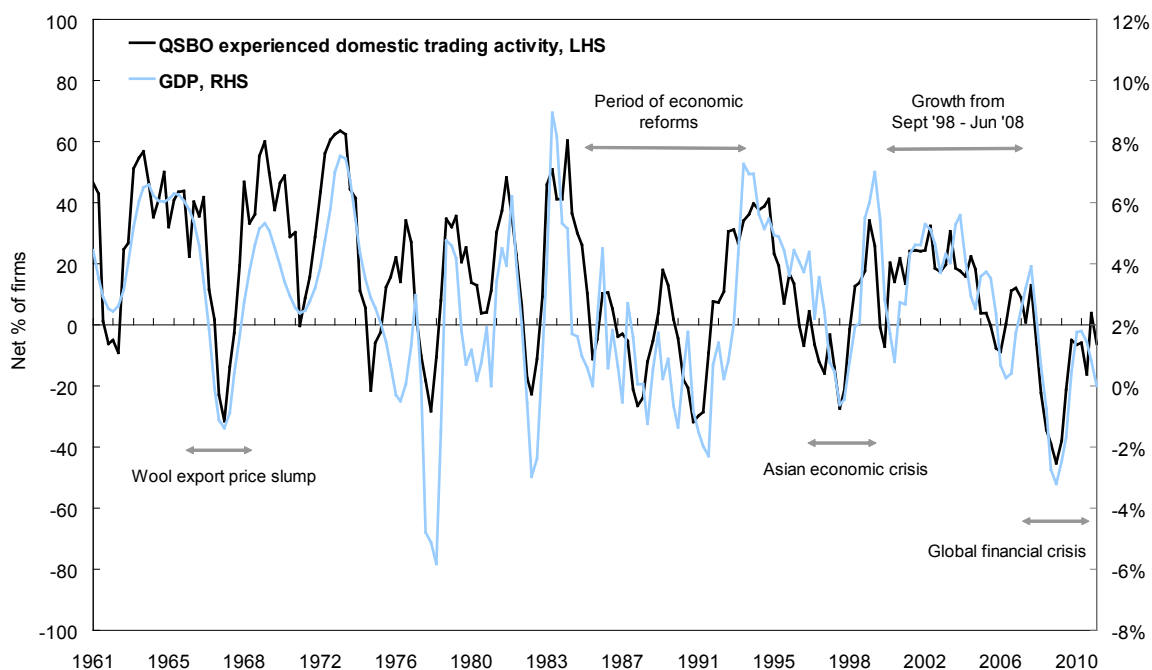
The ECA was implemented in 1991 and represented a significant reform of New Zealand's labour laws. Morrison (1996) states that the Act:

- reduced legislative backing for unions
- strengthened the direct relationship between employees and employers
- removed obstacles to different types of employment contract and working arrangements.

The March 1993 QSBO provided an ex-post analysis of the impacts of the ECA. Businesses were asked how the ECA had affected their enterprise over the previous year. The results were:

- a large net majority of businesses reported increased flexibility of operations, labour productivity, and management quality
- a small number of firms reported increases in wage rates and employment
- a large net majority of businesses reported lower cost of hiring additional labour and of shedding labour.

Figure 1 QSBO as an indicator of New Zealand's economic history



Source: NZIER Quarterly Survey of Business Opinion (DTA), Statistics New Zealand (GDP)

The following year, an initial econometric analysis of the Act's impact was completed by Maloney (1994). The analysis reported that:

- there was no statistical evidence of the ECA having any direct effects on employment or wages
- that the ECA indirectly increased employment by 1 percent between June 1991 and December 1993
- that the ECA indirectly decreased real wages by 0.5 percent between June 1991 and December 1993.

A more detailed econometric analysis was reported in Maloney (1998). This study analysed the impacts of the ECA after five years. This report found that:

- the ECA had no impact on the level of wages over the post-ECA period
- the ECA was responsible for between 12.0 percent and 17.9 percent of the increased employment over the period (14.3 percent)
- the ECA reduced labour productivity growth over the five year period by between 0.29 percent and 0.54 percent.

With the exception of labour productivity, the results of the QSBO's analysis published in 1993 held up well against detailed econometric analysis published over the following five years. The survey is not usually a suitable substitute for such analysis. But the special surveys were suited to provide ex-post analyses on topical policy issues within a short timeframe, where a lack of data meant that other economic techniques were not yet feasible.

Global Financial Crisis

The financial crisis that began with the United States housing market correction in 2007, spread around the world and started impacting heavily on New Zealand in 2008. The Reserve Bank (2008a, 2008b, 2009) was concerned about:

- constrained liquidity
- weakened domestic demand
- domestic house market contraction.

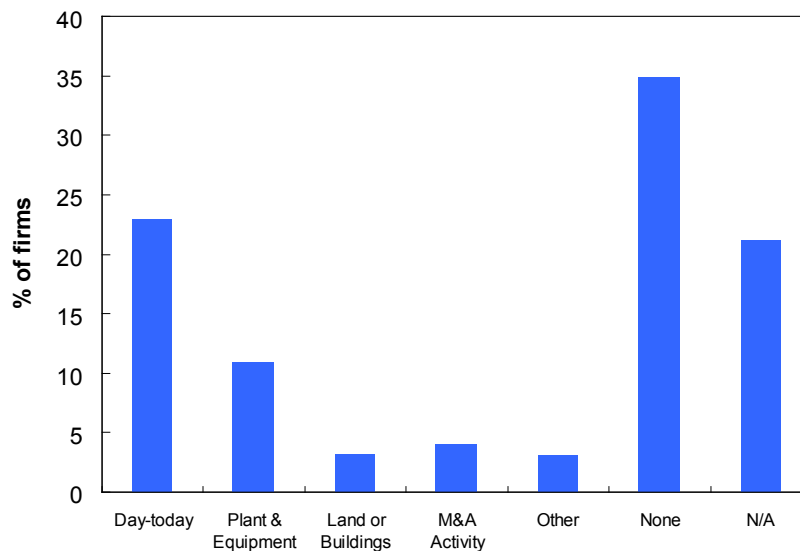
The government responded with both fiscal and monetary stimulus. The Reserve Bank reduced the OCR by 575 basis points from 8.25 percent in July 2008 to 2.5 percent in April 2009. The main component of the fiscal stimulus was a series of tax cuts.

The June 2009 QSBO included additional questions to assess the impact to date of the global financial crisis on doing business in New Zealand. This assessment was intended to provide an up-to-the minute insight into whether New Zealand firms were affected by liquidity constraints, as this was a major concern at the time (alongside the risk of a lack of demand).

One question asked firms where they had been most affected by financing constraints over the last year. Figure 2 shows that a third of firms had experienced no financial constraint, and that 22 percent of firms were most impacted in their day-to-day operations.

Figure 2 Main area of impact from financial constraint

% of 826 replies



Source: NZIER Quarterly Survey of Business Opinion

The main conclusion was that liquidity was a constraint for less than half of the firms. In other words, it suggested that the Reserve Bank or policy-makers did not have to implement additional policies to resolve a financial market liquidity problem. Instead, monetary and fiscal changes that stimulated demand might be seen by firms as a bigger priority.

Business insights

Canterbury earthquake

The Canterbury earthquake caused huge damage to Christchurch. Businesses and economic policy-makers had no information about the scale, length, or geographic distribution of the likely economic impacts. In its March 2011 Monetary Policy Statement, released just 16 days after the earthquake, the Reserve Bank reduced the OCR by 50 basis points. The Reserve Bank noted that it “has had to make many important assumptions based on limited information”. It also noted that “these judgements will be tested as new information comes to hand” (Reserve Bank 2011).

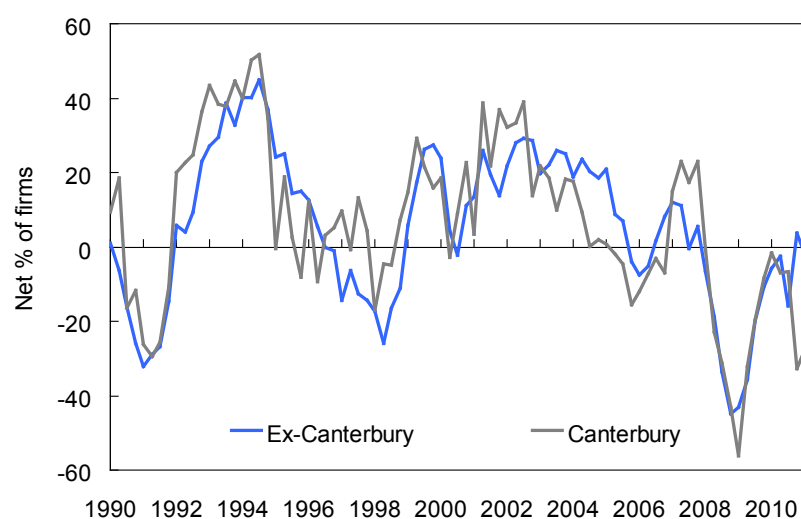
The QSBO, and other smaller sample tendency surveys such as the National Bank’s Business Outlook Survey, provided the first indication of the likely impacts of the earthquake.

The March 2011 QSBO provided focused analysis on the impacts of the earthquake. The results showed clearly that the earthquake had caused a significant disruption to the Canterbury economy. Figure 3 contrasts the disruption in Canterbury against the economic activity in the rest of the country.

Further results showed that Canterbury differed from the rest of the country in high building intentions, to replace damaged buildings (Figure 4), and expected labour market uncertainty (Figure 5). In most of the other variables reported, Canterbury was aligned with the rest of the economy. Figure 6 highlights an example where price expectations are similar across the country.

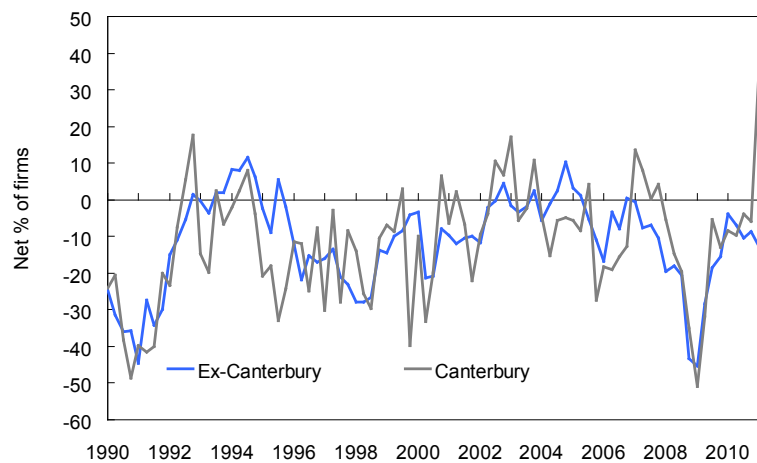
These results have two key implications. First, the scale of the challenges to getting Canterbury back on its feet was apparent, both in terms of buildings and infrastructure and labour market or employee support. Second, the rest of the country remained resilient following the earthquake. It gave firms around the rest of the country the confidence to make productive decisions and to continue trading.

Figure 3 Trading activity – Canterbury & rest



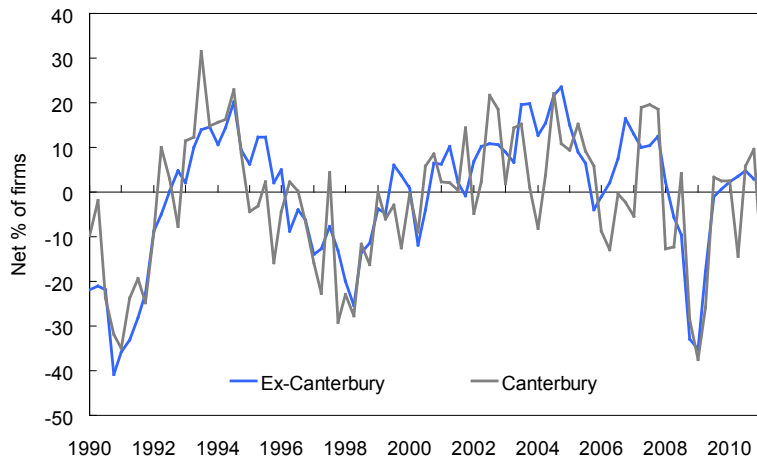
Source: NZIER Quarterly Survey of Business Opinion

Figure 4 Building intentions, next 3 months, Canterbury & rest



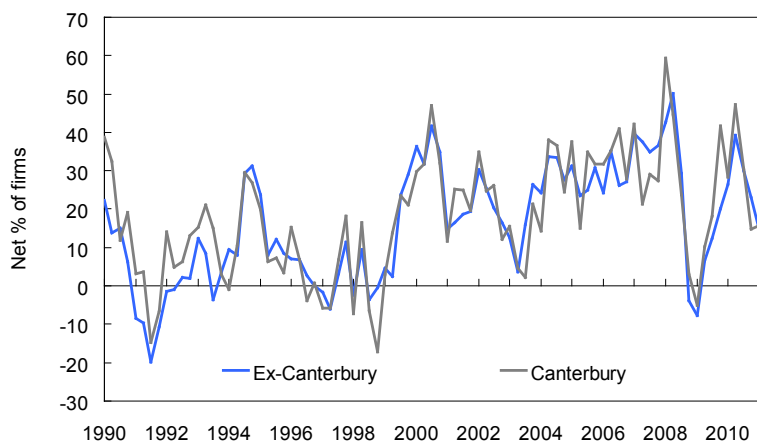
Source: NZIER Quarterly Survey of Business Opinion

Figure 5 Employment, next 3 months, Canterbury & rest



Source: NZIER Quarterly Survey of Business Opinion

Figure 6 Average prices, next 3 months Canterbury & rest



Source: NZIER Quarterly Survey of Business Opinion

Academic insights

Over the years the QSBO has been widely used by academics and policy-makers. Reviewing all of this work is beyond the scope of this note. We do, however, briefly outline three examples to provide a taste of this work. Further examples can be found in Bowie and Easton (1987) and Buckle and Silverstone (2011).

Pricing behaviour

Pricing decisions of New Zealand firms have been examined using QSBO data, and compared to international evidence. For example, Coleman and Silverstone (2007) find a number of differences in the frequency of price changes by New Zealand firms, which is similar to the findings of international studies. Some firms adjust prices every quarter, while others change every second year. The authors also note that changes in costs, rather than demand, are more likely to cause New Zealand firms to change prices. Firms are also more likely to adjust prices as demand falters, instead of increasing demand. These findings have obvious implications for how monetary policy operates on or affects firms in New Zealand.

Investment forecasting

QSBO data has also been shown to add value to forecast models. Buckle et al (1999) found that responses to the investment intentions question of the QSBO significantly improve investment forecast models. Typically forecast models use data drawn from firm balance-sheets. As such information is usually difficult to come by, the QSBO's investment intentions indicator is a useful proxy for investment.

Capacity utilisation

Excess capacity within an economy provides room for output to increase without price increases. Low levels of excess capacity put inflation pressure on any economic expansion. To run effective monetary policy a timely indicator of capacity is needed.

The QSBO provides such a timely and cost effective capacity utilisation index (Hodgetts 2004). The QSBO asks firms about their scope for increasing production without increasing costs. The capacity utilisation index draws on the responses to this question and shows how intensively a firm is using its plant and equipment. This index is one of a number of variables the Reserve Bank uses to assess the current business cycle and the nature of inflationary pressures on firms.

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Appendix A : QSBO editors and managers 1961-2011

Issue	Period	Editor(s)	Managers
1 to 5	1961:2-1962:2	Conrad Blyth, Allan Catt, Peter Elkan, Paul Hamer, Bill Poole	
6 to 37	1962:3-1970:2	Bill Poole	Bill Poole
38-65	1970:3-1977:2	Kerrin Vautier	Kerrin Vautier
66-72	1977:3-1979:1	Jules Ellis	J.F. McGill
73-81	1979:2-1981:2	Kerry McDonald	Joe Boullon
82-91	1981:3-1983:4	Cathryn Ashley-Jones	Joe Boullon
92-93	1984:1-1984:2	Robert Bowie	Joe Boullon
94-95	1984:3-1984:4	David Grimmond	Joe Boullon
96	1985:01:00	Mark Benseman	Joe Boullon
97-109	1985:2-1988:2	Robert Bowie	Joe Boullon, Eric Assendelft
110-131	1988:3-1993:4	Alan Bollard	Phil Briggs, Eric Assendelft
132-138	1994:1-1995:3	Phil Briggs	Phil Briggs
139-141	1995:4-1996:2	John Yeabsley	Phil Briggs
142-144	1996:3-1997:1	Phil Briggs, David Cooling	David Cooling
145-150	1997:2-1998:3	Phil Briggs, Matthew Hassan	Matthew Hassan
151-154	1998:4-1999:3	Phil Briggs, Donna Purdue	Matthew Hassan, Donna Purdue
155-159	1999:4-2000:4	Phil Briggs, Matthew Hassan, Lisa Yee	Lisa Yee
160-161	2001:1-2001:2	John Ballingall, Doug Steel	Peter Gardner
162-166	2001:3-2002:3	Peter Gardner, Doug Steel	Peter Gardner
167	2002:04:00	Peter Gardner, Phil Briggs	Peter Gardner, Phil Briggs
168	2003:01:00	Peter Gardner, Mark Walton	Peter Gardner, Mark Walton
169	2003:02:00	Peter Gardner, Doug Steel	Peter Gardner, Doug Steel
170-172	2003:3-2004:1	Peter Gardner, Mark Walton	Peter Gardner, Mark Walton
173-175	2004:2-2004:4	Doug Steel, John Stephenson	Doug Steel, John Stephenson
176-178	2005:1-2005:3	Grant Andrews	Grant Andrews, John Stephenson
179-189	2005:4-2008:2	Brent Layton	Brent Layton
190-192	2008:3-2009:1	Johannah Branson	Johannah Branson
193	2009:02:00	Jean-Pierre de Raad	Jean-Pierre de Raad
194-200	2009:3-2011:1	Shamubeel Equb	Shamubeel Equb

Jane Barnett, Diana Cook, Ian Duncan, Nicola Hunn, Brendan O'Donovan, John Savage, Susan Snively and Stan Vandersyp participated, on occasions, as an editor or manager.

Assistance has also been provided by Corina Basher, Rhonda Boqisch, Ashleigh Coetzer, Claire Gall, Gail Dallimore, Vickie Evans, Kathryn Featherstone, Frances Gamble, Raewyn Hodges, Elizabeth Hodgson, Danielle de Joux, Ryoko Ito, Carolina Lopez, Jessica Matthewson, Cherloe Morgan, Deborah O'Connor, Peter O'Connor, Joanna Smith, Sarah Spring, Lisa Tomason, Alice Wang and Paddi Wilson.

Source: Buckle and Silverstone (2011)



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