



# ESRI Research Note

*The KBC Bank/ESRI Consumer Sentiment Index*

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**\*David Duffy, Ciara Morley and Dorothy Watson<sup>1</sup>**

## 1. Introduction

Since 2002 KBC Bank and the ESRI have published a monthly Consumer Sentiment Index, building on a dataset that dates back to February 1996. Across many countries, consumer sentiment is a commonly used indicator of consumer spending, which is an important element of economic growth. Trends in this component are important for forecasting and planning. In Ireland, the Consumer Sentiment Index has been used as an input into macro-economic modelling and has also been shown to perform well as a leading indicator of economic trends. Recently, the Consumer Sentiment Index has been used in the 'Nowcasting' model which forms an input to the short-term forecasts of the *Quarterly Economic Commentary*.

In the US, measures of consumer confidence by the University of Michigan and the Conference Board receive much attention, both domestically within the US but also internationally. Such indicators have a broader use than solely as an input to model-based forecasts. By providing some barometer of consumer sentiment, they are an additional piece of information that may be used by those analysing, or interested in, the health of the economy. In an Irish context, Goggin (2008)<sup>2</sup> tested the relationship between the Consumer Sentiment Index and official data such as GDP, unemployment and personal expenditure and finds some forecasting potential, particularly with regard to the overall trend.

This note provides an overview of trends in the KBC Bank/ESRI Consumer Sentiment Index for Ireland and its two key sub-indices since 1996. We also outline some developments in how the data are collected and provide some detail on the new Dublin Consumer Sentiment Index, which is derived from the same survey dataset.

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<sup>1</sup> We would like to acknowledge the comments of Frances Ruane (ESRI) and Austin Hughes (KBC Bank) on an earlier draft. Any remaining errors are the responsibilities of the authors.

<sup>2</sup> Goggin, J. (2008). "An Analysis of the Potential of the European Commission Business and Consumer Surveys for Macroeconomic Forecasting", Special Article, *Quarterly Economic Commentary*, Winter 2008, Dublin: The Economic and Social Research Institute.

## **2. What does the KBC Bank/ESRI Consumer Sentiment Index Show?**

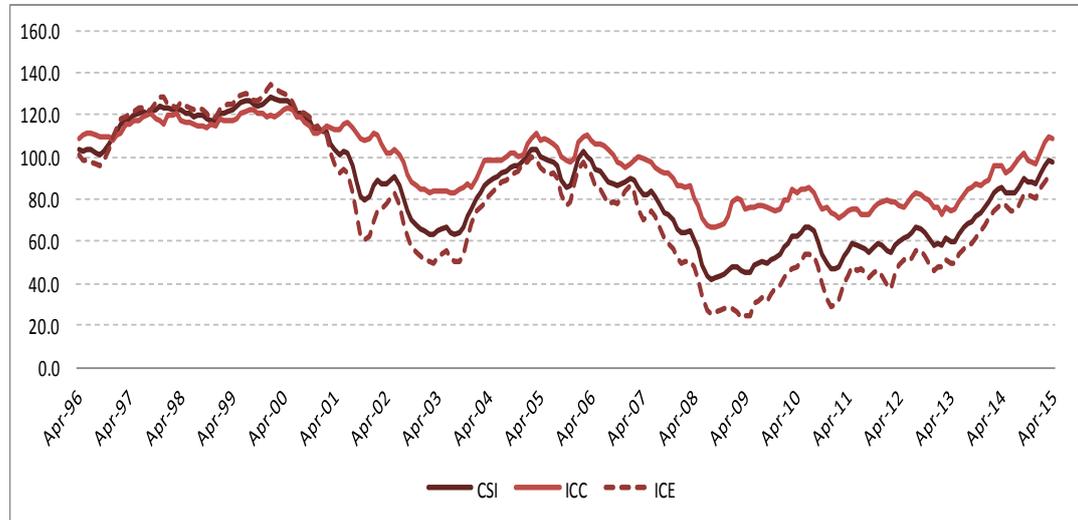
Monthly data for the KBC Bank/ESRI Consumer Sentiment Index are available from February 1996. Figure 1 displays the three-month moving average Consumer Sentiment Index (CSI) as well as the three-month moving average of two sub-indices; the Index of Current Expectations (ICE) and the Index of Current Conditions (ICC). Each of these sub-indices is based on a different combination of a sub-set of the five components of the sentiment index. The ICE is based on consumers' perceptions of their future financial situation, their economic outlook for the country as a whole and expectations about employment in Ireland. For this reason it is viewed as a forward-looking index providing some insight into consumer expectation. The other main sub-index, the ICC is based on how consumers feel about their current financial circumstances compared to 12 months ago, as well as their perception of the current buying environment for large household purchases. Therefore, this index is used to provide insight into how consumers view current economic conditions. A similar approach is used in the production of other sentiment indices such as the consumer confidence measure produced by the University of Michigan and the EU Commission.

The survey provides us with a measure of consumer sentiment over a period when there were substantial changes in the Irish economy – the Celtic Tiger era and the boom and bust of the 2000s. From Figure 1 it is clear to see that over the 19-year period, the three indices follow broadly similar trends. It is noteworthy that during periods of strong economic growth, or 'boom' periods, the indices move very closely together. This is to be expected as consumers will tend to feel positive about all aspects of the economy, including their own personal financial situation, during periods of strong growth. This is most obvious in the period prior to the dot-com crash in 1999-2001 and to a lesser extent a similar trend is also observed in the 2003-2007 period. The relationship appears weaker during periods widely accepted as 'bust' or recessionary periods, such as the early 2000s and most notably during the most recent crisis period from 2008. In these periods consumer expectations would appear to be more adversely affected as consumers become more uncertain about the outlook for their finances, the labour market and the economy.

The data also suggest a shift in the indices in early 2006 prior to the property and financial crash. In all three indices, the decline began in January 2006 some two years before the impact of the Great Recession. This suggests that, prior to the crash, consumers were becoming more guarded in their view of future expectations as well as becoming more tentative regarding their current financial situation. It is difficult to determine the exact reasons for this decline in 2006 but

it may be related to media coverage of concerns from the OECD and Central Bank that the Irish property market was overvalued by some 20 to 60 per cent.

**FIGURE 1** Consumer Sentiment Index (three-month moving average, Q4 1995 = 100)



Source: ESRI.

Between the peak of sentiment in early 2005 and the trough in August 2008, the ICE experienced the largest decline, falling by 75 index points. In comparison, the overall sentiment index declined by just over 60 index points. This suggests that consumers' perception of the outlook for the economy, their own financial situation and employment opportunities became much more negative. Indeed consumer perception of employment opportunities and future financial situation declined by 104 and 74 index points respectively – the largest falls of all five of the main sentiment components.

Undoubtedly there is monthly volatility in the Irish consumer index, although this is not unusual and is similar to both the US and EU confidence measures. This is primarily due to changing expectations, with a lower level of change evident in consumers' perceptions of their current conditions. Despite this monthly volatility, when we graph the three-month moving average (as depicted in Figure 1), which smoothes out some of this volatility, over the long-run it is much easier to determine the trends in sentiment. Since the trough of mid-2008, the overall trend in each of the indices suggests a positive improvement in consumer sentiment. This is also reflected by the fact that each of the three indices has recovered almost all of the losses incurred over the recent crisis period.

Across the 19 years of data available, most variation occurs in the component regarding consumers' view of employment opportunities in the next 12 months. The employment component reached a peak of 201 index points in early 2000 when the economy was at close to full employment. Over subsequent years consumers' perception of the outlook for the labour market became more negative, with the index declining to a low of just 6.4 index points in March 2009. Given the impact of the economic downturn on the economy and the labour market, with a sharp rise in unemployment, consumers were finding it very difficult to remain optimistic about future employment opportunities.

### 3. How the Data are Collected<sup>3</sup>

The data used to construct the indices are taken from a nationally representative telephone survey carried out by the ESRI on a monthly basis, with a sample size of 800 respondents, since April 2008. A fresh national sample is used each month. Post-stratification is used in selecting the person to be interviewed in each household based on gender, age group and employment situation. The numbers required in each category are based on national figures from the *Quarterly National Household Survey*. In practice, this involves interviewers (once they make contact with a household) asking to speak, in particular, to someone in the 'difficult to reach' groups, such as men, younger adults and people with full-time jobs.

For the landline part of the survey, we find that on average about 19 per cent of numbers selected are valid private household numbers which are answered and where there is someone in the household eligible for interview (that is, in the age/gender/economic status group for which the required number of interviews has not yet been completed). Among these contacted numbers, the response rate in terms of completed questionnaires was 53 per cent in 2013. The large majority of the non-respondents are refusals. There are also numbers where no contact was made. In calculating an overall response rate, we need to make an assumption about whether or not these numbers are valid household numbers. If we assume that the eligibility rate is the same among the non-contacted numbers as among those where eligibility has been determined, the response rate was estimated at 41 per cent for the landline sample in 2013.<sup>4</sup>

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<sup>3</sup> Details of the survey methodology are given in the Appendix.

<sup>4</sup> The eligibility rate (E) is calculated as  $E = (C+R)/(C+R+I)$ , where C=number completed; R=number refusals and other non-response (due to illness etc) and I = number ineligible (out of service, not a residential address). It is assumed that this percentage of the non-contacted number would have been eligible. The response rate (RR) is calculated as  $C/(C+R+ENC)$ , where C=number completed; R=number refusals and other non-response (due to illness etc) and ENC = the estimated number of eligible non-contacts.

### *The introduction of a mobile telephone sample*

Since September 2013, the survey has included a mobile-only sample. The mobile telephone sample is designed to complete a minimum of 125 interviews each month with people who have a mobile telephone but who do not have a landline in the home. This group has increased in size and is particularly important among young adults. For the mobile telephone sample, we have an additional screening criterion in that we wish to include only those who do *not* also have a landline in the home. On average in 2013 we have found that only 9 per cent of the contacted numbers (5 per cent of the numbers dialled) connect to a person who is eligible to be interviewed.<sup>5</sup> Of the connected calls to a person known to be eligible, 52 per cent complete the interview. If we assume that the eligibility rate is the same for the 'unknown eligibility' telephone numbers (non-contacts, early refusers) as among those where eligibility has been determined, and re-calculate the response rate on this basis, it was 26 per cent for the mobile sample in 2013.

Putting together the figures for the landline sample and the mobile sample, the response rate for the months in 2013 where both are included (i.e. from September onwards) is 53 per cent of the contacted numbers known to be eligible and 37 per cent when re-calculated to take account of the likely eligibility rate among the non-contacts.

When the survey has been completed, the structure of the completed sample is calibrated against population totals in terms of gender, age group, marital status, level of education, economic status and region. This is done to ensure that the calculated indices are representative of the national population.<sup>6</sup>

#### **4. Dublin Consumer Sentiment Index**

In late 2014 the Institute was asked by Dublin City Council to examine the feasibility of constructing a sentiment index for the Dublin region. Increasingly there is an interest in the performance of different regions and Morgenroth (2014) has shown that the regions perform differently with regard to output levels, employment growth and the unemployment rate.<sup>7</sup> Beginning in the first quarter of 2015, a Consumer Sentiment Index for the Dublin region is now produced. The Dublin Consumer Sentiment Index is calculated using the same methodology as the KBC Bank/ESRI Consumer Sentiment Index. However, to ensure that the Dublin Index is representative of the Dublin region, a new set of

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<sup>5</sup> This does not include the 17 per cent of dialled numbers where the person refuses before the interviewer can determine whether they are eligible (i.e. whether they are aged over 16 and have no landline telephone in the home).

<sup>6</sup> Details of how the index is constructed are available online at [www.esri.ie](http://www.esri.ie).

<sup>7</sup> Morgenroth, E. (2014). "Two-speed recovery? Spatial development in Ireland", ESRI *Quarterly Economic Commentary* Research Note 2014/4/2.

weights was constructed taking account of the age and sex of the population. In the process of constructing the new weights, the latest data available were used, including adjustments to the QNHS data following the censuses of 2006 and 2011. Therefore, the Dublin index is not directly comparable to the published national index which was weighted based on the data available at the time of publication.

Figure 2 shows the Dublin Consumer Sentiment Index following a similar trend to that of the national index. The Dublin index peaked in the first quarter of 2005 and reached a trough in Quarter 2, 2009. The impact of entry to the bailout programme is evident in the latter half of 2010. Over recent quarters the Dublin index has followed a broadly upward trend, although there has been some volatility. The Dublin Consumer Sentiment Index increased in the first quarter of 2015 to 148.9 from 132.1 in the final quarter of 2014. The improvement in Dublin sentiment was broadly based, with all five components of the survey increasing relative to the previous quarter (and compared to the first quarter of 2014). The Dublin consumer sentiment reading for the first quarter of 2015 is the highest in the history of the Dublin series which stretches back to 2003.

**FIGURE 2** Dublin Consumer Sentiment Index (2003 = 100)



Source: ESRI.

The improvement in consumer sentiment in Dublin in recent times has been primarily the result of more positive expectations. In the first quarter of 2015 the proportion of Dublin consumers expecting the economic situation to get better in the next 12 months reached 68 per cent compared to 58 per cent in the final three months of 2014. Consumers are also more positive about the outlook for

their personal finances with 30 per cent expecting an improvement in the next 12 months.

**TABLE 1** Survey Index Results (2003 = 100)

	Q1 2014	Q2 2014	Q3 2014	Q4 2014
Dublin Consumer Sentiment Index	130.6	131.0	134.3	132.1
Dublin Index of Current Conditions	90.6	95.8	92.3	92.7
Dublin Index of Consumer Expectations	173.9	169.3	179.8	174.8

Source: ESRI.

Data for Quarter 1 2015 suggest that, on balance, the household finances of Dublin consumers weakened in the past 12 months but the breadth of deterioration was notably smaller than in previous quarters and with a modest improvement in financial circumstances envisaged in the next year, there has been some improvement in the buying climate of late. As a result, there has been an increase in the current conditions reported by Dublin consumers in the early months of 2015. However, this has been more muted than the rise in their expectations.

## 5. Summary

The KBC Bank/ESRI monthly Consumer Sentiment Index provides a useful insight into how consumers perceive their personal financial circumstances as well as the broader economic climate. The main underlying questions also help us to track how consumers feel about their current financial situation and how they expect prospects to develop over the next 12 months. These five components of the survey can provide a lot of insight into the main sentiment index which tends to vary substantially from one month to the next.

In addition, we now, on a quarterly basis, provide a Consumer Sentiment Index for Dublin. The availability of the index for Dublin opens the possibility for further research on some of the regional aspects of economic trends which might be linked to movements in other indicators available at a regional level such as house prices and unemployment. In recent years, items, such as house prices for example, have increased at a much faster rate within Dublin compared to the rest of the country. Therefore some insight may be drawn on how consumer sentiment within the capital is trending and how it is linked to these other economic outcomes.

Since 2002 the KBC Bank/ESRI Consumer Sentiment Index has provided a measure of consumer confidence in Ireland, as well as a measure of perceptions of the current situation and consumer expectations. Over time the survey methodology has been adapted to include households that only have a mobile telephone. More recently, the Consumer Sentiment Index has been used in the 'Nowcasting' model which forms an input to the short-term forecasts of the *Quarterly Economic Commentary*.

## Appendix

Since the sample has two components (a landline sample and a mobile telephone sample) there are two distinct selection processes. The landline sample is selected in three stages:

- 25 primary sampling units (or areas) are selected from the GeoDirectory (a listing of all addresses in Ireland), using random sampling with implicit stratification by urban/rural location, socio-economic characteristics of the area and age structure of the population in the area.
- A set of start addresses is selected at random within each area.
- The addresses are used to look up a telephone number, which is then used to generate a bank of 100 numbers.
- The interviewers dial each number up to four times at different times of day and days of the week in an attempt to make contact.
- Once contact is made at the household, the interviewers select the respondent at the household level, using post-stratification controls by gender, broad age group and economic status. Interviewers are required to complete a set number of questionnaires in each area, with a given number of adults in each gender, age and economic status category.

The mobile sample is selected by Amárach Research<sup>8</sup> as follows:

- A simple random sample of mobile telephone numbers is selected from a set of numbers maintained by Amárach research drawn from nationally representative address-based samples.
- From each number a bank of 100 numbers is generated.
- Once the interviewer makes contact with the number, it is screened to ensure that a) the person answering is aged 16 or over and b) lives at an address that does not have a landline. Where these two criteria are met, the person is invited to complete the interview.

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<sup>8</sup> A consulting and market research company.