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Good news, bad news, consumer sentiment and consumption behavior

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ABSTRACT

We explore the reaction of heterogenous consumers to a range of financial and economic news and find asymmetry in the response to news where consumers react to bad news but not to good news. This asymmetry holds uniformly across heterogeneous consumer groups and is consistent with the popular negativity bias in psychology. We find asymmetric mapping from news to consumer sentiment and from consumer sentiment to aggregate consumption that supports the notion of asymmetric consumption behavior.

1. Introduction

We explore the reaction of heterogenous consumers to news. Few empirical studies in macroeconomics allow for heterogeneity between consumers. This is in large part a reflection of the lack of time series data. Detailed panel datasets exist for many developed economies but their survey frequency is typically low and it is generally not straightforward to match panel data to national accounts data. In this paper, we proxy consumption behavior with consumer sentiment data. We use the Westpac–Melbourne Institute Consumer Sentiment Index constructed from a monthly survey of 1200 Australian households. Respondents are questioned on the short and medium term outlook for the economy, current and future household financial conditions and are questioned on whether it is a good time to buy major household items. The aggregate Consumer Sentiment Index (CSI) is the average of the responses to these five questions. Although the relationship between consumer sentiment and consumption is not one for one, sentiment does map into consumption.[1] So the reaction of consumers to news in the sentiment

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[1] Among the many studies that show the tight relationship between consumer sentiment and consumption are: Carroll, Fuhrer, and Wilcox (1994), Acemoglu and Scott (1994), Utaka (2003), Souleles (2004), Bryant and Macri (2005), Chua and Tsiaplias (2009) and Barsky and Sims (2012).

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survey should be indicative of how consumers adjust their consumption behavior in the wake of news. We explore the reaction of heterogeneous consumers (disaggregated by age, gender, household income, home ownership and voting intentions) to a range of financial and economic news. We investigate whether good and bad news have asymmetric effects on consumer sentiment and whether increases and decreases in consumer sentiment have asymmetric effects on aggregate consumption. Empirical studies typically assume a symmetric mapping from news to consumer sentiment and consumption.[2] But if consumers react asymmetrically to good and bad news, assuming symmetry in empirical applications is likely to bias the results.

Consumer sentiment surveys are almost ideal for exploring the behavior of consumers with different characteristics as these types of survey are representative, monthly as opposed to large scale annual household panels, and span a relatively long time period. Studies on consumer sentiment typically use consumer sentiment surveys to forecast macro variables or try to identify drivers of sentiment. We do neither but rather utilize the heterogeneity of respondents to inform behavior of heterogeneous consumers.

The paper has two main contributions. First, it demonstrates that households react asymmetrically to good and bad news, supporting the presence of a negativity bias. Second, households with different characteristics react to news differently.

We analyze the effects of good and bad news on the aggregate CSI and the effects of positive and negative changes in the aggregate CSI on Australian real aggregate consumption, or real household final consumption expenditure which is part of the Australian national accounts. We then disaggregate consumer sentiment responses to news by age, home ownership, voting intentions, gender and income. Ideally, we would have liked to link the sentiment responses by disaggregated consumer groups to their consumption expenditures. However, detailed consumption data from the Australian national accounts are only available for different expenditure items such as food, rent or purchases of vehicles. No national accounts data are available for consumer groups disaggregated by household characteristics such as age, gender or income. Household survey measures of consumption like the Household Expenditure Survey of the Australian Bureau of Statistics (ABS) (conducted every five years) or the Household Income and Labour Dynamics in Australia (HILDA) survey (conducted every year) are of low frequencies and do not map directly into national accounts measures of household consumption.

We examine reactions to news about the labor market, monetary policy and the Australian and US share markets and match these with the consumer sentiment survey. Specifically, news are defined as the actual changes in (i) the Australian national unemployment rate, (ii) the target cash rate (Australia's central bank rate set by the Reserve Bank of Australia (RBA)), (iii) the Australian Standard and Poor's 200 stock index (S&P 200), and (iv) the US Standard and Poor's 500 stock index (S&P 500). For unemployment and target cash rate news, data releases and monetary policy announcements are matched with survey periods. For example, the December 2011 CSI survey (conducted 5–10 December 2011) is matched with the 0.1% point rise in the unemployment rate for November 2011 reported by the ABS on 8 December 2011. For share price news, we focus on daily changes during the survey period. Specifically, the daily changes in share prices from Monday 5 December 2011 to Friday 9 December 2011 are matched with the December 2011 CSI survey.

To re-iterate, we define news as the announced changes in the underlying economic and financial series (new public information) and are abstracting from media news. We analyze consumer reactions to new public information, not to news surprises. In this context, expectations are not relevant. If the unemployment rate falls or share prices rise, that is good news regardless of what people expected. The unemployment rate may not have fallen by as much or share prices may not have increased by as much as people expected but the decline/rise is still good news regardless. Expectations are crucial for surprises (or shocks) but not for the analysis presented here.

Our empirical results provide overwhelming evidence of a negativity bias in the mapping from news to consumer sentiment and from sentiment to consumption. Respondents only react to bad news and the negativity bias holds across all specifications. Also, decreases in consumer sentiment have a negative effect on consumption while increases have no effect. Gender, home ownership and age do not seem to be important drivers of the behavior examined here. An unexpected result is the importance of political conviction in consumer sentiment. Respondents are substantially more optimistic if the political party they support forms government and are substantially more pessimistic if the party they support is in opposition.

The paper is organized as follows. Section 2 gives a description of the data and the matching of consumer sentiment data with news and consumption data. Section 3 outlines the empirical models. Section 4 discusses the empirical results, demonstrates the importance of voting intentions and reflects on how the results fit with explanations of the negativity bias put forward in the literature. Section 5 offers some concluding remarks.

2. Data

Monthly CSI survey data are available from 1992 but data disaggregated by household characteristics are consistently available only from January 1996. We match the monthly CSI survey data with four different news items between January 1996 and December 2011, and match the monthly survey data with quarterly real consumption between 1992Q1 and 2011Q4. We only investigate the relationship between sentiment and consumption from 1992 onwards, though quarterly

[2] There are two contrasting views of the role of consumer sentiment (confidence) in macroeconomics; for a detailed discussion, see Ludvigson (2004) and Barsky and Sims (2012). The "animal spirits" view suggests that autonomous fluctuations in consumer sentiment have causal effects on economic activity (Blanchard, 1993; Hall, 1993; Romer, 1990). Meanwhile, the "news" view of consumer sentiment suggests that the relationship between consumer sentiment and subsequent economic activity arises because consumer sentiment conveys fundamental news (information) about the current and future states of the economy (Barsky & Sims, 2012; Cochrane, 1994).