

## **Non-technical summary for ‘Smells Like Animal Spirits: The Effect of Corporate Sentiment on Investment’**

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Economists have long been interested in the effect of animal spirits (or sentiment) on the economy. I ask an old question – ‘do changes in animal spirits affect investment?’ – and provide a new answer using modern machine learning methods. Specifically, I use text analysis to develop a simple new indicator of sentiment for individual Australian companies. This sentiment indicator is based on the share of positive and negative words that companies use in their annual reports each year. When a company uses more positive words, or fewer negative words, in their annual report compared to the previous report, this is assumed to mean that sentiment at the company has risen. If corporate sentiment matters to investment, we would expect investment to increase in response to higher sentiment.

I also explore the mechanisms that link investment to sentiment. There may be a link between sentiment and investment because sentiment captures optimism and pessimism, or animal spirits, among managers compared to investors (‘noise’) or because sentiment proxies for private information that managers have about the future prospects of the company (‘news’).

### **What do we learn?**

Company-level investment is very sensitive to changes in the new sentiment indicator, even controlling for fundamentals, such as current and expected profits, as well as measures of company-level uncertainty.

The effect of sentiment on investment is relatively persistent, which is consistent with the managers having private information about the future prospects of the company, albeit less persistent than other news shocks, such as a change in expected profits. However, investment is not more sensitive to sentiment at ‘opaque’ companies in which managers are likely to be better informed than investors, which argues against the private information story. Overall, I argue that the sensitivity of investment to sentiment reflects both fundamental factors and animal spirits.

Corporate investment has been weak in Australia since the global financial crisis (GFC) and demand-side factors, such as lower sales growth, explain more than half this persistent weakness. Low sentiment and heightened uncertainty weighed on investment during the GFC but have been less important factors since then.

### **What does it mean for policymakers?**

If company investment is affected by changes in animal spirits then there may be a role for macro policy to manage the economy by influencing the expectations of company decision-makers. So having a variety of communication channels that target decision-makers could matter, including speeches, business liaison programs and surveys dedicated to measuring the beliefs and uncertainties of business managers.

The ability of simple text-based indicators to predict investment – a macro variable that is very difficult to forecast – is consistent with similar findings for equity returns in the corporate finance literature. Based on this, policymakers should consider investing more resources in state-of-the-art machine learning methods and extracting information from non-traditional sources of data, such as text, audio and visual media.