Institution: Royal Holloway, University of London		
Unit of Assessment: 16 Economics and Econometrics		
Title of case study: Changing statistical agencies' practices on early data release		
Period when the underpinning research was undertaken: 2014-2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s): Professor Alessio Sancetta	**Role(s) (e.g. job title):** Chair of Economics	**Period(s) employed by submitting HEI:** 2012 - date
Period when the claimed impact occurred: 2016-2017		
Is this case study continued from a case study submitted in 2014? N		

1. Summary of the impact

Professor Sancetta's research uncovered movements in financial asset prices that could only be explained by information leakages of macroeconomic data. This finding stimulated journalistic investigations, precipitated a change in government data release policy and reduced the practice of informed trading.

Sancetta's research evidenced that an informational advantage in financial markets in the United States was driven by the pre-release of macroeconomic data (including to government members, advisers and journalists). Informed by Professor Sancetta's research, and using his research methodology, journalists in the Wall Street Journal replicated the findings in other countries with similar pre-release policies, including the UK and Germany. This led to a series of press reports, which generated debate among public bodies, including the House of Common's Treasury Select Committee, UK's Financial Conduct Authority and Germany's Federal Statistical Office (Destatis), led to a change in early data release policies by the UK and Germany's statistical offices. Sancetta and co-authors found evidence that the policy change reduced trading in the UK.

2. Underpinning research

Information leakages from public officials and journalists with access to embargoed data has long been suspected by practitioners in the financial sector. They regularly identified suspicious movements of the price of financial instruments before macroeconomic announcements were released. However, the evidence was purely anecdotal, as academic research had not found any evidence consistent with information leakages.

Professor Sancetta's work on theoretical econometrics, coupled with extensive experience working for the private sector on high frequency trading in financial markets, provided the right combination to develop an appropriate methodology to distinguish whether the movements before official announcements were consistent with leakages (i.e. informed trading) or whether they could be ascribed to other reasons, such as randomness or good forecasting. The key question was whether announcements that are pre-released (i.e. in the hand of public officials, their advisers or journalists before their official release to the general public) are associated with financial market behaviour that is different from announcements that are released without giving early access to anyone.

Professor Sancetta's research used a detailed dataset - starting in 2008 - of all main US macroeconomic announcements and high frequency futures data. It established the possibility of pre-released macroeconomic announcements being leaked which had been previously dismissed. The research found clear evidence of informed trading about 30 minutes before the announcements are released. Most notably, these movements were significantly stronger for macroeconomic announcements that were pre-released, relative to announcements that were not.

Results show that these movements cannot be explained by standard market behaviour, such as market participants' ability to forecast correctly. For example, using Bloomberg's forecast reports of individual analysts shows that even the best forecasts cannot be associated with the observed market gains.

Professor Sancetta's research introduced several innovations with respect to previous academic research, accounting for why their work was able to find evidence of informed trading where previous research had failed to do so. First, whilst researchers had established that prices react to macroeconomic news, they were not able to appropriately distinguish movements before and after the release of the information. Second, Sancetta's research showed the importance of choosing the appropriate price frequency and time-window to uncover evidence of a pre-announcement drift in financial assets' prices. Finally, the research included a larger and more comprehensive set of influential announcements than previous research. This allowed for a more systematic analysis of the main mechanism behind the price movements before the macroeconomic announcements, namely information leakages.

3. References to the research

Alexander Kurov, Alessio Sancetta, Georg Strasser and Marketa Halova Wolfe (2016), "Price Drift before U.S. Macroeconomic News: Private Information about Public Announcements?" European Central Bank working paper No 1901/May 2016. https://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp1901.en.pdf

Later published in Journal of Financial and Quantitative Analysis, 2019, vol. 54, 449-479 https://doi.org/10.1017/S0022109018000625.

The Journal of Financial and Quantitative Analysis is consistently ranked among the top-5 journals in Finance, according to a variety of sources, including this article in a peer-reviewed journal: https://www.sciencedirect.com/science/article/abs/pii/S0378426610003006 (ungated version: https://www.rug.nl/staff/k.f.roszbach/fjranking.pdf)

Professor Sancetta is the main theoretical econometrician in a team of researchers in finance, using time series econometric techniques to investigate price behaviour in financial markets. The team includes Professor Alexander Kurov, Fred T. Tattersall Research Chair in Finance at West Virginia University, Georg Strasser, a Senior Economist in the Monetary Policy Research Division of the European Central Bank, and Marketa Halova Wolfe, an Associate Professor in Economics at Skidmore University.

Professor Sancetta's contribution to the research project stems from his expertise in the academic field of time series econometrics, coupled with his private sector experience. In particular, he has developed singular insights on the role of high frequency trading strategies and insider trading that were crucial for this research.

4. Details of the impact

There was a long-held suspicion among finance practitioners and specialised journalists that information leakages ahead of macroeconomic announcements were common and generated informed trading. Previous academic research had found no conclusive evidence to back that claim. Professor Sancetta established a new methodology and tools to test such hypothesis and produced evidence of leaked pre-released announcements and informed trading. By inspiring journalists on leading newspapers to use the research's methodology in other contexts, this research led to a change in government policies about financial data release in UK and Germany and a reduction in informed trading in the UK.

Informing journalistic investigations

Professor Sancetta's research provided evidence and a methodology for journalists to investigate and produce newspaper articles in relation to the possibility of informed trading in countries with different pre-release data policies and practices, such as the US, UK, Germany and Sweden.

[text removed for publication], a journalist at the Wall Street Journal (circulation in 2017: more than 2,000,000 daily copies, including 1,270,000 digital subscribers), collaborated with the research authors to generate this new evidence. In his testimonial letter (E2), [text removed for publication] states that "'*[text removed for publication]*."

This resulted in a series of articles that documented informed trading in the UK using the methodology developed by Professor Sancetta and data for 2011 to 2017. For example, Mike Bird reported that "*The timing of price moves in British markets suggests some investors are informed about sensitive, unpublished economic data*" (E8). Bird also compares the movements of the British Pound and the Swedish Krona ahead of official releases. The journalist noted that in Sweden nobody outside the statistics office had access to the data before release, while in Britain, "*over a hundred lawmakers, advisers and press officers get to see some numbers up to a day before it comes out*" (E9). The results showed that movements in the British currency could be observed in the hour before the data was released, while no similar movements were found in the Swedish currency. Similar patterns as in the UK were found in German trading data, where pre-announcement release of data was common.

Other journalists at important news agencies picked up the research and reported on it. The research findings were highly referenced several times by the international press, including CNN Money (digital readership: 19,000,000 unique visitors per month globally), The Financial Times (circulation: approximately 170,000 print and 740,000 digital subscribers globally), and Bloomberg (circulation: around 320,000 subscribers globally) (E10).

Informing policy debate and shaping policy

The wide coverage of the research reached key stakeholders, leading to the second type of impact: a public debate that resulted in policy change, i.e. the abandonment of pre-release practices by statistical agencies in UK and Germany. The research played a key role in this process. [text removed for publication], in his testimonial letter, referring to the research, writes, "[text removed for publication] " (E2)

This change in policy was the result of a public debate on the merits and dangers of pre-releasing macroeconomic announcements that was put in motion by the journalistic coverage and new insights described in the previous section. A number of open letters involving high ranked civil servants, thinks tanks and other stakeholders show that the research reached their attention. This is highlighted by [text removed for publication] in his testimonial letter, where he states that "[text removed for publication]*."* Other examples include the letter from [text removed for publication], of the Adam Smith Institute to the Cabinet Office, saying, *"*[text removed for publication]". (E3)

The concerns mobilised policy makers and eventually led the Office of National Statistics in the UK to abandon the practice of providing information to public officials, advisers and journalists ahead of the release of key macroeconomic data. For example, Andrew Tyrie (Chairman of UK Parliament's Treasury Select Committee) wrote to Andrew Bailey (Chief Executive of the Financial Conduct Authority, FCA): "*I have seen recent press reports which suggest that ONS statistics may be being leaked prior to their official release*, *and that this information is being used for inappropriate gain in financial markets. The FCA will want to consider this matter, if it is not already doing so, given one of its objectives is to protect and enhance the integrity of the UK financial system*." (E4)

Professor Sancetta was invited to the FCA to present and discuss the research's findings, including the evidence regarding informed trading in the UK and Sweden mentioned previously. Subsequently, in his response to Parliament, Andrew Bailey wrote: "*I can confirm that we have liaised closely with the ONS since allegations came to light around suspicious trading in advance of the release of ONS data, and will continue to do so as necessary. As of 1 July, the ONS no longer provides Government officials with early access to its data because it is concerned that current practice undermines public trust*." (E5) This was confirmed by John Pullinger, the National Statistician for the United Kingdom at the time, in a letter highlighting the relevance of the public debate when informing the change in policy: "*there have been wider public concerns highlighted in a letter to The Times signed by 114 academics and other experts. On the basis of all the information now available to me I consider that the public benefit likely to result from pre-release access to ONS statistics is outweighed by the detriment to public trust in those statistics likely to result from such access. [...] I have therefore decided that pre-release access to ONS statistics will stop with effect from 1 July 2017*." (E6)

Similar events took place in Germany. Destatis, the German statistics agency, stopped the pre-release of macroeconomic data to journalists in December 2017. This came after the publication of an article in the Wall Street Journal that used Professor Sancetta's methodology on German data. As reported in the Wall Street Journal (and later confirmed by Destatis by email, E7), "[*e*]*arlier this week, a spokesman for Destatis, the German statistics agency, said the Journal's analysis had prompted a discussion as to whether what [they] are doing is still timely. On Friday, the office said it would stop its the practice of providing economic data releases to news agencies under embargo*."

The change in policy prompted by Professor Sancetta's research had its intended effect in reducing informed trading. Follow-up ongoing research by Professor Sancetta and co-authors (E 1) finds that, after the change in policy by the ONS, financial assets in the UK do not show any more movements that are consistent with information leakages ahead of public release of official data.

5. Sources to corroborate the impact

E1. Alexander Kurov, Alessio Sancetta and Marketa Halova Wolfe (2019) Drift Begone! Drift Begone! Release Policies and Preannouncement Informed Trading

E2. Testimonial letter from [text removed for publication], Wall Street Journal, 24/09/2019

E3. Letter from [text removed for publication], Adam Smith Institute, 15/03/2017

E4. Letter from Andrew Tyrie, Treasury Select Committee, 15/03/2017

E5. Letter from Andrew Bailey, FCA, 01/08/2017

E6. Letter from John Pullinger, UK Statistics Authority, 15/06/2017

E7. Wall Street Journal article titled "Germany Stops Data Embargoes After Analysis Shows Suspect Market Moves" by Mike Bird, Nina Adam, Patricia Kowsmann, 22/12/2017 and 24/8/2020 email from Destatis confirming the change in policy in 2017.

E8. Wall Street Journal article titled "Are U.K. Economic Data Leaking?" by Mike Bird, 13/03/2017

E9. Wall Street Journal article, "Pound's Response to U.K. Data Is Half Over Before Numbers Are Out", 26/04/2017.

E10. CNN article "Are Sensitive U.S. Economic Reports Being Leaked" by Alanna Petroff, 03/05/2016