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DOI
10.1080/13504851.2017.1403555

Publication date
2018

Document Version
Final published version

Published in
Applied Economics Letters

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Citation for published version (APA):
https://doi.org/10.1080/13504851.2017.1403555
‘Whatever it takes’ and the role of Eurozone news

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ABSTRACT
This letter shows that the ‘Whatever it takes’ speech by ECB President Draghi on 26 July 2012 and the ensuing installation of the Outright Monetary Transactions framework are associated with a reduction in the domestic and cross-border effect of Eurozone news on absolute yield changes in Eurozone sovereign debt. These results are consistent with the popular view that these actions helped to avoid a collapse of the Eurozone.

KEYWORDS
Eurozone; news; break test; crisis; ‘Whatever it takes’

JEL CLASSIFICATION
E58; E62; G12; G15; H63

I. Introduction
On 26 July 2012, European Central Bank (ECB) President Mario Draghi stated: ‘Within our mandate, the ECB is ready to do whatever it takes to preserve the euro. And believe me, it will be enough’. Even though the Eurozone officially does not have a lender of last resort, Draghi signalled that the ECB would go as far as necessary within their mandate to save the Euro. Shortly after Draghi’s speech, on August 2, the Outright Monetary Transactions (OMT) framework was announced, which became operational on 6 September 2012. In the popular press it has been widely claimed that these actions have indeed calmed the Eurozone sovereign debt markets, a conclusion also supported, for example, by De Grauwe and Ji (2013) and Saka, Fuertes, and Kalotychou (2015).

Using an update of the news database by Bahaj (2014), this article revisits this claim empirically by testing whether Draghi’s speech and the ensuing OMT actions indeed reduced the impact of news on domestic and foreign changes in Eurozone sovereign debt yields. Our results do confirm a break in the transmission of news in this period. In particular, while highly significant before, the cross-border effects on absolute yield changes are absent in the period after.

The remainder of this article is as follows. Section II presents the data, Section III the empirical framework and Section IV the results. Section V concludes.

II. The data
We extend the news database constructed by Bahaj (2014), which is based on the EuroIntelligence news briefing from July 2009 until March 2013. This briefing is released every weekday around 9 o’clock in the morning and contains the previous day’s most important economic and political news from the Eurozone. It focuses on news from the ‘crisis countries’ Cyprus, Greece, Spain, Ireland, Italy and Portugal. The timing of the news is checked by looking up the time at which the news appears for the first time on Bloomberg. Therefore, the EuroIntelligence news briefing is used as a filter to determine which news can be considered sufficiently important, while the timing of the news comes from Bloomberg (usually the day before it is reported on EuroIntelligence). News is only considered news if it falls into one of the following five categories created by Bahaj (2014): political events,
foreign interventions (for example, statements by foreign politicians, bailout agreements, etc.),\textsuperscript{2} technical events,\textsuperscript{3} fiscal data (in particular, news about data revisions, future fiscal projections, data quality, etc.) and instability. Besides these categories, news must also be ‘time-able’ in the sense that it is possible to isolate at what time the news event occurs. Furthermore, an event must be limited to a single country in the above group. Although more news may be available to investors, these categories capture a substantial fraction of the relevant news. Following Bahaj’s (2014) approach, we have extended his database until July 2016. For consistency reasons this was done by only one of the authors. Table 1 records the number of days that there is news about one of our six countries. Probably not surprisingly, the largest numbers of news days and news events are associated with Greece.

Further, we take from Datastream the 10-year benchmark public debt closing yields for our crisis countries, plus the US and Germany. The dollar–euro exchange rate and the ECB main refinancing rate are also taken from Datastream. The S&P500-based Chicago Board Options Exchange Volatility Index (VIX) is the daily closing index taken from the Chicago Board Options Exchange. There are some days missing due to US bank holidays. Hence, out of a total of 1828 weekdays between 1 July 2009 and 1 July 2016, we are left with 1701 days in our sample.

### III. Empirical framework

We estimate the following regression model:

\[
|\Delta yield_{it}| = c_i + \sum_{j=2}^{L} p_j |\Delta yield_{i,t-j}| \\
+ \alpha news_{it} + \beta \sum_{j \neq i} news_{jt} \\
+ \gamma D_{DR} \times news_{it} + \theta D_{DR} \\
\times \sum_{j=0}^{L} \delta_{j} controls_{i,t-j} + D_{DR} \\
\times \sum_{j=0}^{L} \omega_{j} controls_{i,t-j} + \varepsilon_{it}
\]

where $|\Delta yield_{it}|$ is the absolute change of the end-of-day benchmark 10-year government bond yield. We use the absolute yield change, because we do not distinguish between ‘good’ and ‘bad’ news and, hence, it is not a priori clear into which direction a news event should affect a yield. Moreover, in line with most of the relevant literature, we expect that more news as such produces more volatility in the financial markets. Unobserved country fixed effects are captured by $c_i$. In our analysis below, we include five lags of the dependent variable, i.e. the number of lags corresponds to one work week. Because of the large number of observations in the time dimension, the standard bias associated with fixed-effects panel estimation with lags of the dependent variable as regressors will be negligible. Further, $news_{it}$ measures the number of news events specific to the country $i$. Hence, for $news_{it} = \sum_{j \neq i} news_{jt}$ is foreign news to country $i$, i.e. the sum of the news events in the crisis countries other than country $i$ in our sample. We thus allow for the possibility of a spillover of foreign news onto domestic absolute yield changes. $D_{DR}$ is a dummy variable that is zero before the day of Draghi’s speech, 26 July 2012, and one from this day onwards (inclusive). We interact this dummy with the other variables to test for a difference in the coefficients before and after the speech.

The variable $controls_{i,t-j}$ includes a set of control variables that are expected to be potentially relevant

\begin{table}[h]
\centering
\begin{tabular}{cccccccc}
\hline
 & Cyprus & Greece & Spain & Ireland & Italy & Portugal & All \\
\hline
Days with no news & 1665 & 1368 & 1527 & 1599 & 1548 & 1558 & 969 \\
1 event & 29 & 261 & 158 & 84 & 130 & 125 & 456 \\
2 events on same day & 4 & 51 & 13 & 16 & 18 & 16 & 189 \\
3 events on same day & 0 & 17 & 3 & 2 & 3 & 2 & 52 \\
4 events on same day & 3 & 2 & 0 & 0 & 0 & 0 & 23 \\
5 events on same day & 0 & 1 & 0 & 0 & 2 & 0 & 9 \\
6 events on same day & 0 & 1 & 0 & 0 & 0 & 0 & 3 \\
Total news days & 36 & 333 & 174 & 102 & 153 & 143 & 732 \\
Total news events & 49 & 433 & 193 & 122 & 185 & 163 & 1145 \\
\hline
\end{tabular}
\caption{Numbers of news days and news events, 1 July 2009–1 July 2016.}
\end{table}

\textsuperscript{2}For example, a statement by a German politician about Greece would be considered a news event for Greece.

\textsuperscript{3}Bahaj (2014) defines these as ‘technical market news directly related to the event country sovereign bond market. This includes the results from important bond auctions (either from a liquidity perspective or due to their signalling value), pronouncements by credit rating agencies and decisions from the ISDA over whether certain policy actions (such as the bond buy-back programme) constitute technical default’.
for changes in sovereign yields. These variables include the change in the VIX index, the change in the dollar–euro exchange rate, the changes in the German and US benchmark 10-year government debt yields and the change in the ECB main refinancing rate. We also allow for lagged effects of the controls. The VIX is based on market expectations of near-term stock price volatility implicit from option prices and serves as a global risk indicator, as in De Santis (2014). The dollar–euro exchange rate, defined as the amount of dollars for one euro, serves as an indicator of regional risk. An increase in risk in the Eurozone reduces the attractiveness of Eurozone assets. The US 10-year government yield controls for global market conditions and the German 10-year government yield for Eurozone market conditions. The ECB main refinancing rate reflects the ECB’s perspective of the economic outlook for the Euro area. Finally, ε_{it} is a mean-zero error term.

IV. Results

Table 2 reports the coefficient estimates for a panel including Ireland, Italy, Portugal and Spain. We do not report the estimates of the coefficients of the lags of the dependent variable. They are significant in most cases, and their magnitude shrinks with the length of the lag. Although we also have news for Cyprus and Greece, we do not include these countries as cross-sectional units in the panel. There is only a limited number of news events for Cyprus, while preliminary estimation shows that Greece responds fundamentally differently to news than the other countries. However, the news events from these countries are included as foreign news. SEs are clustered. Regression (1) includes only domestic news, and shows that before Draghi’s speech one additional domestic news event increases the change in the sovereign yield by about 2 basis points, while after the speech the effect is still significant, but only about one-third as large. The difference between the effects before and after Draghi’s speech is highly significant, as shown by the p-value of the test of $\alpha = \gamma$ in the next column. Regression (2) adds foreign news. Now, the size of the response of the absolute yield change to domestic news falls by more than half after Draghi’s speech. Foreign news is highly significant before the speech: one additional foreign news event has an effect of about 0.6 basis points. However, after the speech the effect becomes insignificant and very close to zero. This result suggests that Draghi’s speech and the ensuing OMT actions have

<table>
<thead>
<tr>
<th>Break date</th>
<th>Coefficient estimates before break date 26 July 2012</th>
<th>p-Value of test equal coefficients before and after break</th>
</tr>
</thead>
<tbody>
<tr>
<td>c_i</td>
<td>0.023***</td>
<td>0.022***</td>
</tr>
<tr>
<td>Coefficient estimates before break date 26 July 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>news_{it}</td>
<td>0.022***</td>
<td>0.021***</td>
</tr>
<tr>
<td>for_news_{it}</td>
<td>0.0058***</td>
<td>0.0020</td>
</tr>
<tr>
<td>ΔDE10_{it}</td>
<td>0.28*</td>
<td>−0.13*</td>
</tr>
<tr>
<td>ΔUS10_{it}</td>
<td>−0.13*</td>
<td>0.27*</td>
</tr>
<tr>
<td>ΔVIX_{it}</td>
<td>0.0018</td>
<td>0.0020</td>
</tr>
<tr>
<td>ΔFX_{it}</td>
<td>0.20</td>
<td>0.27</td>
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<tr>
<td>ΔECB_{it}</td>
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<td>−0.14</td>
</tr>
<tr>
<td>Coefficient estimates after break date 26 July 2012</td>
<td></td>
<td></td>
</tr>
<tr>
<td>news_{it}</td>
<td>0.0073**</td>
<td>0.000</td>
</tr>
<tr>
<td>for_news_{it}</td>
<td>0.0089***</td>
<td>0.001</td>
</tr>
<tr>
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<td>0.074</td>
</tr>
<tr>
<td>ΔUS10_{it}</td>
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<td>0.078</td>
</tr>
<tr>
<td>ΔVIX_{it}</td>
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<td>0.75</td>
</tr>
<tr>
<td>ΔFX_{it}</td>
<td>−0.24**</td>
<td>0.29</td>
</tr>
<tr>
<td>ΔECB_{it}</td>
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<td>0.14</td>
</tr>
<tr>
<td>N</td>
<td>5584</td>
<td>5584</td>
</tr>
<tr>
<td>R^2 adjusted</td>
<td>0.195</td>
<td>0.198</td>
</tr>
</tbody>
</table>

Notes: (i) Model is estimated over the period 1 July 2009–1 July 2016, (ii) clustered SEs, (iii) fixed effect panel regression, (iv) countries included: Ireland, Italy, Portugal and Spain, (v) N = number of observations, (vi) * = 10% significance, ** = 5% significance, *** = 1% significance

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4Here, and in the sequel, significance is understood to be significance at the 10% level, or higher.
eliminated the potentially harmful cross-border spillovers of news.

We also observe that in both regressions the change in the ECB main refinancing rate and the VIX become significant and positive after Draghi’s speech, although the coefficient of the VIX becomes slightly smaller. The change in the foreign exchange rate becomes significant and negative. By contrast, the changes in the German and U.S. ten-year yields lose their significance.

If we set the break date at one of the other two relevant dates mentioned above, i.e. at the official announcement date of the OMT on August 2 and the formal starting date of the OMT on September 6, then the results are qualitatively and quantitatively unaltered. This is not surprising, given how close these dates are to Draghi’s speech date. Finally, we have repeated our regressions replacing the changes in German and US yields with their absolute values. The point estimate of the coefficient on foreign news in the period before Draghi’s speech becomes marginally smaller. However, as before, the coefficient is highly significant before and insignificant after the speech.

V. Conclusion

In this article we have explored how news affects daily absolute changes in sovereign yields before and after Draghi’s ‘whatever it takes’ speech and the ensuing installation of the OMT. Our results are consistent with the broad consensus in the media that his speech has had a calming effect on the markets. While both domestic and foreign news are (highly) significant in the period before, the effect of domestic news more than halves, while the effect of foreign news is almost completely eliminated and insignificant in the period after, indicating a strong reduction in potentially harmful cross-border news spillover effects.

Disclosure statement

No potential conflict of interest was reported by the authors.

References


5 The estimates are available from the authors upon request.
6 The estimates are available from the authors upon request.