Supplementary Material to

*The Unintended Consequences of the Zero Lower Bound Policy*

by Marco Di Maggio and Marcin Kacperczyk
The sample is all prime money market funds. The data span the period January 2005-December 2013. The first two columns provide the results for the entire sample over the full period. The subsequent two columns (High Rate) restrict the sample to the period of high interest rates (Fed funds rate greater than 1%). In the next two columns (Low Rate), we restrict the sample to the period of low interest rates (Fed funds rate between 0 and 1%). The following four columns focus on the low-rate regime and summarize the data of funds whose sponsors are affiliated with a financial institution (Affiliated) and for funds whose sponsors are independent asset management companies (Independent).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Unconditional</th>
<th>High Rate</th>
<th>Low Rate</th>
<th>Low Rate: Affiliated</th>
<th>Low Rate: Independent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>St. dev.</td>
<td>Mean</td>
<td>St. dev.</td>
<td>Mean</td>
</tr>
<tr>
<td>Fed Rate (in %)</td>
<td>1.83</td>
<td>2.02</td>
<td>3.65</td>
<td>1.31</td>
<td>0.06</td>
</tr>
<tr>
<td>Fund Return (in bps)</td>
<td>231.07</td>
<td>206.28</td>
<td>419.13</td>
<td>114.58</td>
<td>46.95</td>
</tr>
<tr>
<td>Spread (in bps)</td>
<td>47.24</td>
<td>53.84</td>
<td>53.85</td>
<td>61.78</td>
<td>40.74</td>
</tr>
<tr>
<td>Maturity (in days)</td>
<td>40.29</td>
<td>13.05</td>
<td>39.55</td>
<td>12.85</td>
<td>41.00</td>
</tr>
<tr>
<td>Concentration (in %)</td>
<td>27.63</td>
<td>17.52</td>
<td>31.91</td>
<td>18.43</td>
<td>23.50</td>
</tr>
<tr>
<td>Expenses Charged (in bps)</td>
<td>38.54</td>
<td>25.38</td>
<td>49.69</td>
<td>27.98</td>
<td>27.63</td>
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<tr>
<td>Expenses Incurred (in bps)</td>
<td>56.99</td>
<td>32.38</td>
<td>58.36</td>
<td>32.62</td>
<td>55.65</td>
</tr>
<tr>
<td>Subsidy (in bps)</td>
<td>18.34</td>
<td>27.33</td>
<td>8.50</td>
<td>20.50</td>
<td>27.97</td>
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<td>Fund Size (in $Million)</td>
<td>8703</td>
<td>21651</td>
<td>7083</td>
<td>17173</td>
<td>9481</td>
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<tr>
<td>Family Size (in $Million)</td>
<td>151599</td>
<td>253903</td>
<td>122320</td>
<td>204508</td>
<td>182160</td>
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<tr>
<td>Age (in years)</td>
<td>15.80</td>
<td>7.86</td>
<td>13.40</td>
<td>7.04</td>
<td>18.13</td>
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<td>Fund Flow (in %)</td>
<td>0.05</td>
<td>4.78</td>
<td>0.26</td>
<td>5.24</td>
<td>-0.16</td>
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<td>Fund Flow Volatility (in %)</td>
<td>3.66</td>
<td>3.86</td>
<td>4.12</td>
<td>4.27</td>
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<td>Independent Sponsor (in %)</td>
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<td>49.17</td>
<td>40.37</td>
<td>49.07</td>
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<td>Bank Affiliated Sponsor (in %)</td>
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<td>59.63</td>
<td>49.07</td>
<td>58.56</td>
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<td>U.S. Treasuries &amp; Agency</td>
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<td>0.16</td>
<td>0.07</td>
<td>0.13</td>
<td>0.13</td>
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<td>Repurchase Agreements</td>
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<td>0.15</td>
<td>0.14</td>
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<td>0.17</td>
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<td>Floating-Rate Notes</td>
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<td>0.20</td>
<td>0.17</td>
<td>0.17</td>
</tr>
<tr>
<td>Commercial Paper</td>
<td>0.30</td>
<td>0.22</td>
<td>0.34</td>
<td>0.24</td>
<td>0.26</td>
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<tr>
<td>Asset-Backed Commercial Paper</td>
<td>0.11</td>
<td>0.14</td>
<td>0.13</td>
<td>0.15</td>
<td>0.10</td>
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<td>Institutional Funds (in %)</td>
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<td>46.76</td>
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<td>46.71</td>
<td>46.14</td>
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<td>Number of Funds</td>
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<td>326</td>
<td>274</td>
<td>159</td>
<td>115</td>
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Table A.2: Variation in Reputation within Independent Fund Sponsors
The design follows Table 5. *Business Risk* is the ratio of assets under management held by a fund family in non-money funds and total assets under management. Panel A presents the results for the 3-month announcement horizon and Panel B for the 6-month horizon.

### Panel A: 3-Month Horizon

<table>
<thead>
<tr>
<th>Variable</th>
<th>Exit</th>
<th>Spread</th>
<th>Holdings Risk</th>
<th>Maturity</th>
<th>Concentration</th>
<th>Subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event</td>
<td>0.001</td>
<td>25.207**</td>
<td>4.368*</td>
<td>-0.120</td>
<td>0.018*</td>
<td>-0.050***</td>
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<td></td>
<td>(0.002)</td>
<td>(12.275)</td>
<td>(2.439)</td>
<td>(0.936)</td>
<td>(0.010)</td>
<td>(0.015)</td>
</tr>
<tr>
<td>Event × Business Risk</td>
<td>-0.001</td>
<td>-11.003*</td>
<td>-3.661*</td>
<td>-1.774*</td>
<td>-0.016</td>
<td>0.062***</td>
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<tr>
<td></td>
<td>(0.003)</td>
<td>(6.241)</td>
<td>(2.349)</td>
<td>(1.002)</td>
<td>(0.012)</td>
<td>(0.019)</td>
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<tr>
<td>Controls</td>
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<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Sponsor F.E.</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Year F.E.</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
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### Panel B: 6-Month Horizon

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<th>Holdings Risk</th>
<th>Maturity</th>
<th>Concentration</th>
<th>Subsidy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Event</td>
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<td>22.596**</td>
<td>7.848***</td>
<td>2.395**</td>
<td>0.036***</td>
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<td>(0.004)</td>
<td>(10.835)</td>
<td>(2.016)</td>
<td>(0.958)</td>
<td>(0.008)</td>
<td>(0.011)</td>
</tr>
<tr>
<td>Event × Business Risk</td>
<td>-0.001</td>
<td>-11.003**</td>
<td>-8.226***</td>
<td>-4.705***</td>
<td>-0.039***</td>
<td>0.079***</td>
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<td>(0.005)</td>
<td>(4.826)</td>
<td>(2.367)</td>
<td>(1.113)</td>
<td>(0.009)</td>
<td>(0.015)</td>
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<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Sponsor F.E.</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Year F.E.</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>9802</td>
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<td>10,633</td>
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Table A.3: Fund Risk and ZIRP Shocks: Conditioning on Survival

The design follows that in Table 5 (Panel A) and Table 6 (Panel B). We restrict our estimation to the sample of funds that are present in both periods before and after the event.

Panel A: Time-Series Evidence

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<th></th>
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</thead>
<tbody>
<tr>
<td>Event</td>
<td>34.329***</td>
<td>0.954***</td>
<td>-1.216**</td>
<td>0.005***</td>
<td>21.341**</td>
<td>0.879***</td>
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<td>0.005***</td>
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<tr>
<td></td>
<td>(12.113)</td>
<td>(0.323)</td>
<td>(0.503)</td>
<td>(0.002)</td>
<td>(10.471)</td>
<td>(0.271)</td>
<td>(0.386)</td>
<td>(0.001)</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Year/Month-Fixed Effects</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Sponsor-Fixed Effects</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
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<td>Observations</td>
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<td>16,879</td>
<td>16,882</td>
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<td>23,527</td>
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Panel B: Cross-Sectional Evidence

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</tr>
</thead>
<tbody>
<tr>
<td>Independent Sponsor</td>
<td>-3.748</td>
<td>6.178*</td>
<td>4.633***</td>
<td>-0.008</td>
<td>-0.979</td>
<td>5.382</td>
<td>5.016***</td>
<td>-0.016</td>
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<tr>
<td></td>
<td>(2.837)</td>
<td>(3.305)</td>
<td>(1.355)</td>
<td>(0.023)</td>
<td>(2.893)</td>
<td>(3.476)</td>
<td>(1.469)</td>
<td>(0.022)</td>
</tr>
<tr>
<td>Independent Sponsor×Event</td>
<td>9.167***</td>
<td>2.507***</td>
<td>-0.823*</td>
<td>0.020*</td>
<td>4.972***</td>
<td>3.865**</td>
<td>-1.776**</td>
<td>0.034***</td>
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<td></td>
<td>(1.212)</td>
<td>(0.801)</td>
<td>(0.473)</td>
<td>(0.011)</td>
<td>(1.631)</td>
<td>(1.556)</td>
<td>(0.702)</td>
<td>(0.010)</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Year/Month-Fixed Effects</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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</tr>
<tr>
<td>Observations</td>
<td>16,830</td>
<td>16,882</td>
<td>16,879</td>
<td>16,882</td>
<td>23,462</td>
<td>23,527</td>
<td>23,524</td>
<td>23,527</td>
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Table A.4: Comparisons across Interest Rate Regimes: Conditioning on Sponsor Type

The design follows that in Table 8. All control variables are defined in Table 5 and Table 6.

Panel A: Fund Exit

<table>
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<td>-20.098***</td>
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<td>(0.008)</td>
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<tr>
<td>Independent Sponsor</td>
<td>34.970***</td>
<td>--</td>
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<tr>
<td></td>
<td>(3.888)</td>
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<td>Independent Sponsor×Low Rate</td>
<td>8.796***</td>
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<tr>
<td></td>
<td>(1.587)</td>
<td>(0.001)</td>
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</table>

| Controls                           | Yes | Yes |
| Year-Month-Fixed Effects           | No  | Yes |
| Sponsor-Fixed Effect               | No  | Yes |
| Observations                       | 920 | 98,795 |

Panel B: Fund Risk

<table>
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<th>(3)</th>
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<tbody>
<tr>
<td>Independent Sponsor</td>
<td>-0.239</td>
<td>-0.130</td>
<td>-0.904</td>
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<td></td>
<td>(0.893)</td>
<td>(2.535)</td>
<td>(1.042)</td>
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<td>Independent Sponsor×Low Rate</td>
<td>2.449**</td>
<td>7.328**</td>
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<td>0.038**</td>
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<td>(1.224)</td>
<td>(2.905)</td>
<td>(1.170)</td>
<td>(0.017)</td>
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| Controls                           | Yes | Yes | Yes | Yes |
| Week-Fixed Effect                  | Yes | Yes | Yes | Yes |
| Observations                       | 94,521 | 95,264 | 95,253 | 95,264 |

Panel C: Fund Expenses

<table>
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<td>Independent Sponsor</td>
<td>0.012</td>
<td>0.062</td>
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<td>(0.027)</td>
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<td>(0.027)</td>
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<td>Independent Sponsor×Low Rate</td>
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<td>-0.018</td>
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<td>(0.024)</td>
<td>(0.022)</td>
<td>(0.030)</td>
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</table>

| Controls                           | Yes | Yes | Yes | Yes |
| Week-Fixed Effects                 | Yes | Yes | Yes | Yes |
| Observations                       | 98,795 | 98,484 | 98,484 | 98,484 |
Table A.5: The Effects of Unexpected Monetary Shock

The design follows Table 5. Monetary Shock is the first principal component of the unexpected shock to changes in Treasury yields around FOMC announcements. Control variables mimic the corresponding definitions from Tables 5-7. All regressions are at the weekly level. High Rate restricts the sample to the period of high interest rates (Fed funds rate greater than 1%). Low Rate restricts the sample to the period of low interest rates (Fed funds rate between 0 and 1%). Standard errors are clustered at the week level. ***, **, * represent 1%, 5%, and 10% significance.

### Panel A: Fund Exit

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<td></td>
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<td>Monetary Shock</td>
<td>Full Sample</td>
<td>High Rate</td>
<td>Low Rate</td>
</tr>
<tr>
<td></td>
<td>-0.012</td>
<td>0.009</td>
<td>-0.048**</td>
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<td>Yes</td>
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<td>Year/Month-Fixed Effects</td>
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<td>Yes</td>
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<td>Sponsor-Fixed Effects</td>
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### Panel B: Fund Risk (Low-Rate Regime)

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<td>Holdings Risk</td>
<td>Maturity Risk</td>
<td>Concentration</td>
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<td>-0.001**</td>
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<td>Year/Month-Fixed Effects</td>
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<td>Yes</td>
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<tr>
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<td>(3) Charged Expenses</td>
<td>(4) Incurred Expenses</td>
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<td>----------------------</td>
<td>----------------------</td>
<td>----------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td></td>
<td>Full Sample</td>
<td>High Rate</td>
<td>Low Rate</td>
<td>Full Sample</td>
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<tr>
<td>Monetary Shock</td>
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<td>0.002</td>
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<tr>
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<td>Yes</td>
<td>Yes</td>
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<tr>
<td>Observations</td>
<td>98,795</td>
<td>50,337</td>
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