Hitting the headlines
Public operational risk losses in the banking sector (2014/15)
September 2016
Hitting the headlines

Contents

About ORX News

Launched in October 2012, ORX News has become an industry-leading provider of publicly reported operational risk loss event data.

ORX News currently has more than 50 Subscribers, who can draw upon more than 5,300 operational risk events in over 125 countries.

The ORX News researchers can collectively speak eight major languages, and are dedicated to providing Subscribers with the latest operational risk loss events from around the globe.

For more information about ORX News, please contact: news@orx.org

Alternatively, visit the ORX News page: www.orx.org/Pages/News-Service.aspx

ORX News reporting standards

ORX News reports operational risk events within 72 hours of first being mentioned in mainstream or local media. The threshold for reporting an operational risk loss is generally set at USD 1 million, taking into account currency fluctuations.

Additionally, ORX News covers loss events which could be of special interest to News Subscribers or which have likely exceeded the threshold even if a specific loss amount has not been reported. This group of events typically includes data breaches and undisclosed settlements.

According to the ORX News reporting conventions, losses are categorised when first reported with subsequent losses occurring in the same jurisdiction and Business Line and caused by the same underlying Event Type being added to the first report. This allows ORX News to provide Subscribers with detailed but concise summaries about operational risk events.
This overview of our ORX News database draws from publicly reported operational risk losses in the financial sector. It analyses the frequency and severity of losses incurred by financial institutions in 2014 and 2015 across Business Lines, Event Types, and geographical regions.

This report complements our annual ORX Operational Risk Loss Report which analyses data anonymously submitted by ORX Members. The two reports differ by data source: this report is based on publicly available data collected in the ORX News database and the other uses private Member data. By focusing on publicly reported losses, this report takes a wider approach and assesses developments in the global financial sector more generally.

The ORX News database includes loss events experienced by financial institutions which exceed USD 1 million and were publicly reported in the media since 2009. It constitutes a comprehensive dataset of publicly reported loss events as well as information about their causes, circumstances, and consequences. The database covers losses suffered by both ORX Member firms and non-member institutions.

ORX is a not-for-profit industry association dedicated to advancing the measurement and management of operational risk in the global financial sector. It acts as a forum for the development of common operational risk standards, cutting-edge research and collective learning.

To find out more about ORX, please visit our website: www.orx.org

The last two years have shown a considerable decrease in the severity of operational risk losses. In 2015 ORX News reported 725 losses totalling EUR 40.26 billion, compared to 844 loss totalling EUR 79.95 billion in 2014.

The years 2014 and 2015 suggest institutions are still dealing with the legacy of the 2007/08 financial crisis. They continued to resolve mis-selling allegations related to mortgage backed securities (MBS) and residential mortgage backed securities (RMBS). The fines, compensation, and settlements in Trading & Sales* constituted a large part of these industry loss amounts, particularly in North America.

Moreover, with the US Department of Justice bringing the Swiss Bank Program for Category 2 banks to a close, many financial institutions operating private banking units in Switzerland were able to settle allegations that they helped US citizens evade domestic tax obligations. While these settlements implied large fines in Private Banking, they did not necessarily close this chapter for the concerned banks, as the recent Panama leaks have shown. Indeed, financial authorities in the US and beyond have announced their intentions to investigate a number of financial institutions and their role in the facilitation of tax evasion.

Looking at operational risk losses from the last two years, ORX News found that North American, and especially US, losses are still dominating the news, followed by losses incurred by financial institutions in Western Europe.

On a global scale, the largest aggregated losses in 2015 were incurred in Retail Banking and Commercial Banking. The majority of losses in the last year were due to instances of failures in Clients, Products & Business Practices or Internal Fraud. Our data shows that internal fraud schemes caused larger losses in 2015, but decreased in their frequency in comparison to the previous year. The increase in losses due to internal fraud affected many global areas, but most of all Europe and Africa.

In 2015 ORX News reported 725 public operational risk losses, amounting to EUR 40.26 billion.
The last two years at a glance

As of 1 January 2016, ORX News can draw on a database containing almost 5,000 operational risk events in the financial and insurance sector. The database has been growing steadily since its inception in 2012.

The year 2015 showed that the frequency of reported operational risk events remained stable in comparison to the previous year, with an increase in the number of reported losses in the second half of the year contributing to this fact (see figure 1). Furthermore, the number of loss events is close to that of 2013 and has the potential to increase as the database continues to grow.

Total aggregated losses declined from EUR 79.95 billion reported in 2014 to EUR 40.26 billion in 2015. This led to the aggregated loss amount falling below the five year average of EUR 55.25 billion for the first time since 2011.

Fluctuations in the severity of incurred losses underline the unpredictability and idiosyncratic character of operational risk. In 2014, aggregated losses peaked at EUR 37.23 billion in Q3, while they reached an annual high of only EUR 17.27 billion during the same quarter a year later (see figure 2). Increases in quarterly losses during Q1 and Q3 can typically be attributed to reporting conventions of financial institutions announcing operational risk-related provisions and losses.

Not surprisingly, the average amount of aggregated quarterly losses in 2014 fluctuated considerably around a two year average of EUR 16.03 billion. During the following year, the average quarterly loss was mostly below this average.

In each quarter, the median losses were noticeably below the average losses (see figure 3), with the two year average being EUR 99.6 million. The median loss ranged from an overall low of EUR 3.8 million in Q2 2014 to an overall high of EUR 6.5 million in the following quarter. The considerable differences between the average and median values reflects the heavy-tailed distribution of operational risk losses, with a few extreme losses distorting the picture.¹

The geographic distribution of losses

North America and especially the US have been the focal point of the majority of operational risk losses in the ORX News database (see figure 4). This can be attributed to three main causes:

- US media and financial reporting conventions lead to a higher number of operational risk losses being publicly disclosed and reported.

- Comparatively higher regulatory standards in the domestic financial sector contribute to misconduct being prosecuted more often and class action lawsuits standing a higher chance of success.2

- Over recent years financial institutions with operations in the US have experienced a number of exceptionally large loss events. These outliers include losses relating to the mis-selling of MBS, RMBS and the manipulation of Libor and FX rates. They also include a range of settlements over Bernard Madoff’s Ponzi scheme. For example, in January 2014 JPMorgan paid USD 2.59 billion (EUR 1.91 billion) for failing to inform US authorities about the scheme. These outliers explain to a considerable degree why the 2014 North American losses totalled EUR 62.38 billion, in comparison to only EUR 23.03 billion in 2015.

- The data shows considerable differences in aggregated operational risk losses in Africa, Asia/Pacific and Latin America and the Caribbean between 2014 and 2015. In these regions it is often a few large loss events which can considerably change the aggregated amount of operational risk losses reported year-on-year.

For example, in Africa aggregated losses were notably higher in 2015 than in 2014. This increase was largely due to a MUR 25 billion (EUR 613 million) Ponzi scheme, which was detected at Bramer Bank in February 2015. In fact, this loss event constituted almost half of total aggregated losses in the region in 2015.

Conversely, in Asia/Pacific 2014 losses exceeded 2015 losses due to a small number of loss events constituting a large part of aggregated losses. Over a quarter of the aggregated 2014 losses was incurred by General Electric (GE). The company announced in February 2014 that it would pay JPY 175 billion (EUR 1.2 billion) to Shinsei Bank to end refund obligations related to GE’s sale of its Japanese consumer loan business to the bank.

Similarly, in Latin America and the Caribbean a single cyber fraud scheme affecting 30 Brazilian banks led to aggregated losses of BRL 8.57 billion (EUR 2.82 billion) in 2014. This accounted for over half of the region’s losses.

Figure 4. Public operational risk losses per geographical region. US losses still dominate the news.

Top losses around the world

When adding up losses per Business Line in each country, the evidence suggests that in 2015 the highest aggregated losses were incurred in Retail Banking and Commercial Banking (see figure 5). ORX News found that Retail Banking is on top of the list in 26 countries, eight of which were European countries, including Russia. Commercial Banking led the list in 16 countries, with many of these belonging to the Asia/Pacific region.

Private Banking was the Business Line with the largest aggregated losses in six countries, many of which were formerly or are still today known as tax havens, such as Switzerland, Luxembourg, and Gibraltar.

Financial institutions operating in the US incurred the biggest overall losses in their Global Markets Business Line, as did those operating in China, Belgium, Ireland, and Argentina.

Corporate Items, covering events that are experienced by the entire firm or a large part of the firm, led to the top overall losses in Italy, Nigeria, Trinidad and Tobago, Turkey and Ukraine. These losses were often due to managerial errors, financial misconduct or embezzlement at the managerial and top executive levels. For example, in July 2015 it was reported that former executives of Cassa di Risparmio di Ferrara (Carife) had been charged for causing the bank EUR 309.5 million in damages between 2007 and 2013. The former executives were accused of not revealing relevant information about the serious financial difficulties experienced by Carife while also making questionable management and investment decisions. Carife had been previously put under administration by the Italian Ministry of Economy and Finance which, after insufficient results during supervisory inspections, questioned the financial stability of the bank.

Figure 5. Business Lines with the highest aggregated loss in each country in 2015. High losses in retail banking were a wide-spread concern.
Event Types with more severe losses in 2015

Although aggregated operational risk losses decreased in 2015, there were notable increases in losses caused by specific Event Types, such as *Internal Theft & Fraud* and *Unauthorised Activity*.

ORX News found that in 2015 each geographic region was struggling with its own areas of concern (see figure 6). Most prominently, financial institutions in Africa, Eastern, and Western Europe were faced with a rise in internal theft and fraud, with 2015 losses exceeding the previous year’s loss levels by over EUR 1 billion in each region. This increase was most pronounced in Eastern Europe, where an additional EUR 1.33 billion was attributable to internal fraud schemes. This development was to a considerable extent due to a range of Russian financial institutions which became victims of internal fraud at the top executive level. The biggest of these cases reported by ORX News was that of Mosobibank, whose executives and one former founder are believed to have embezzled RUB 76 billion (EUR 1.33 billion) from the bank.

In comparison, external fraud led to a rise in operational risk losses only in North America and Latin America and the Caribbean. In North America, comprising the US and Canada in the database, aggregated operational risk losses due to external fraud increased by EUR 375.17 million, exceeding the increase in loss levels due to internal fraud, which rose by EUR 246.76 million.

The biggest increase in losses due to a single Event Type in these two countries was of EUR 1.87 billion due to unauthorised activity.

Aside from rising concerns with regard to internal fraud, financial institutions in Western Europe have seen a high number of additional losses attributable to failures in their suitability, disclosure and fiduciary practices. Moreover, losses related to transaction capture, execution and maintenance exceeded last year's level by EUR 418.1 million. For example, in October 2015 Barclays provisioned GBP 290 million to compensate UK customers who were charged incorrect FX rates.

Financial institutions in Latin America and the Caribbean were affected by a considerable increase in losses due to *Improper Business or Market Practices*. In March 2015 ORX News reported on Conticorp, which had been ordered to pay USD 192 million (EUR 176.7 million) after it had sold shares which were actually worthless to Interamerican Asset Management Fund.

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Figure 6. Although aggregated operational risk losses decreased in 2015, there were considerable increases in losses caused by specific Event Types. Losses due to *Internal Theft & Fraud* have increased.
6

Business Lines and Event Types in focus

Financial institutions suffered high losses in Trading & Sales over recent years, which were predominantly due to problems with their Clients, Products & Business Practices (see figure 7 and figure 8 in the appendix). Many of these losses involved settlements and fines over the sale of derivative products, which turned bad during the financial crisis. Beyond MBS and RMBS, they included the sale of swaps and other derivatives. The losses incurred in this Business Line and due to this Event Type were EUR 10.95 billion in 2015, which was considerably less than the EUR 43.89 billion in losses reported in the year before. This indicates that a large part of the legal issues following the financial crisis have been resolved, although some cases are still outstanding.

While the number of internal fraud schemes decreased in 2015, the average severity of these events increased. In 2014, ORX News reported 215 internal theft and fraud events for all Business Lines. This number decreased to a total of 141 the following year (figure 9 and figure 10 in the appendix). At the same time aggregated losses increased from EUR 10.53 billion to EUR 14.36 billion.

In line with this development, the number of fraud cases in Commercial Banking due to internal fraud declined considerably from 75 cases reported in 2014 to only 30 last year, but roughly EUR 570 million more was embezzled in schemes involving bank employees. Agricultural Bank of Greece was hit the hardest when it suffered damages of EUR 5 billion due to fraudulent loan practices among bank officials. An estimated 1,300 illegal loans were allegedly granted over a period of twelve years.

Interestingly, Retail Banking experienced high losses due to external fraud in 2014, which then slumped from EUR 2.94 billion to merely EUR 371 million in 2015. At the same time, internal fraud increased, with losses of EUR 3.71 billion reported in 2015. Often those two Event Types go hand-in-hand, as experienced by Wilmington Trust, which lost USD 195 million (EUR 143.4 million) due to a loan officer providing illegal real estate loans to developers. Often it is the involvement of a single employee that makes an external an internal fraud event, regardless of the extent of the employee’s role in the scheme.

The ORX Global Banking database

The ORX Global Banking database offers the most complete set of loss events available in the financial services industry. It includes all losses of EUR 20,000 or more experienced by each Member of ORX. This means that the association securely receives, anonymises, quality assures and publishes data and reports sourced from approximately 15,000 loss events every quarter.

As of 30 June 2016, the Global Banking database contained almost 525,400 loss events worth a total value of EUR 343.97 billion. Find out more here.

ORX Standards

ORX Members are required to submit data to a common standard and in a common format. The standards for the categorisation of operational risk losses are developed and maintained by the ORX Definitions Working Group. These standards are published, in detail, as the ORX Operational Risk Reporting Standards (ORRS).

When submitting their operational risk loss data, ORX Members categorise each loss with labels including a Business Line and Event Type. The Business Line describes the area of the bank that suffered the loss, while the Event Type describes what happened. The Business Lines and Event Types established in the ORRS are closely aligned to those established under the Basel framework.

ORX News uses the same standards when categorising publicly reported operational risk losses.

Find out more and receive your own copy of the ORRS.
The ORX News and ORX Global Banking databases

The ORX News and ORX Global Banking databases are two different but complementary resources providing key operational risk data. The databases distinguish themselves in their samples and approach to operational risk management, thereby providing a quantitative and qualitative view of operational risk losses.

The ORX Global Banking database consists of operational risk losses experienced by ORX Member institutions and shared through anonymous distribution via ORX. In order to preserve anonymity only limited contextual information is presented, which is balanced by an extensive classification scheme established in the ORX Operational Risk Reporting Standards (ORRS). With data going back to Q1 2002, the ORX Global Banking database has developed into an indispensable resource for quantitative operational risk loss data used in scenario analysis, stress testing and capital calculation.

Losses in the ORX News database are given exactly the same event categorisation as those in the ORX Global Banking database, but the losses covered are incurred by financial institutions in the global financial sector as a whole. This makes ORX News digests ideal to raise management awareness of operational risk losses incurred by both Member and non-Member firms and serve as a primary resource in scenario analysis workshops and emerging risk analysis.

The two datasets have proven as ideal sources for a complementary approach to operational risk management due to their different samples as well as their comparability due to their consistent classification. Indeed, a 2013 survey amongst ORX Members showed that they typically use ORX Global Banking data in combination with ORX News case studies as inputs to their scenario creation and validation process.


The sixth annual ORX report on the banking operational risk loss data is based on loss events recorded between 1 January 2010 and 31 December 2015. In this period, ORX Members reported over 300,000 loss events equal to or greater than EUR 20,000. These losses totalled more than EUR 215 billion of gross loss.

In 2015 Members reported more losses of a larger average value. The 2015 average gross loss amount was EUR 907,147, an increase of 36% on the previous five-year average of EUR 708,041. In 2015 Members reported ten losses of over EUR 1 billion which significantly influenced this average. They also contributed to a total loss of EUR 48 billion, 43% higher than the average of the previous five years.

This report highlights how the reported losses have evolved, assessing the frequency and severity of losses across Business Lines, Event Types and regions.

This report is due to be published soon. Visit our website to find out more and to join our mailing list to receive the report as soon as it is published.
Media bias and other insights from two ORX databases

ORX News shares consistent data standards with the ORX Global Banking database, which make it possible to compare the two datasets. Comparing the ratios of losses reported in each Business Line and Event Type in the News database with those recorded in the Global Banking database provides some interesting insights in two regards.

First of all, the Global Banking database consists of a sample of 74 data-submitting banks which provide quarterly anonymous reports of every loss event experienced on their balance sheets. Accordingly, the data shows a percentage distribution of operational risk losses which also includes those losses which are often not publicly reported. For example, with regard to technology and infrastructure failures, the extent of the losses are usually not made public. Therefore, by comparing the two databases one can determine to what extent public and media reporting provides an adequate picture of operational risk events in the industry.

Secondly, the two datasets allow ORX Members to compare their loss ratios to those experienced by the global financial sector as a whole. For better comparison, the percentages based on the data from the Global Banking database only include loss events exceeding EUR 1 million.

The data from both databases shows that the largest percentage of losses was incurred due to failures with regard to clients, products and business practices. The 2014 values are both just under 80%. In 2015 the values diverged, which is partially due to the considerable increase of internal fraud events in 2015 reported in the ORX News database. Nevertheless, issues relating to clients, products and business practices caused 57.64% of all losses reported in the ORX News database for 2015.

The comparison of the two databases also shows that internal fraud affected the global banking sector as a whole more than ORX Members over the past two years, both with regard to the frequency and severity of the aggregated losses. At the same time, the evidence shows that failures in execution, delivery and process management were more pronounced among ORX Members than would be expected from public reports. This can be attributed to the fact that internal fraud events are more often publicly reported than losses of the latter Event Type. For example, an internal fraud may result in a public criminal trial. A process event is unlikely to be publicised unless it has a very large impact.

Operational risk losses in retail banking made up a much larger fraction of 2015 losses in the Global Banking database than in the ORX News database. These losses among ORX Members were primarily attributable to failures with regard to clients, products and business practices. Conversely, trading and sales made up a considerably higher fraction of losses in the ORX News database with regard to their aggregated losses but not to their frequencies. Characteristically, this Business Line can at times lead to exceptionally high losses following regulatory and legal actions in relation to mis-selling practices of securities and derivatives. Furthermore, internal fraud schemes such as insider trading can also lead to unusually high losses in this Business Line.

While operational risk losses in commercial banking in the Global Banking database exceeded those in the ORX News database in 2014, this reversed in the following year. Even though this holds true in relative terms, losses in commercial banking decreased in 2015 in both databases in absolute terms.

In 2015 57.64% losses reported by ORX News were caused by failures relating to Clients, Products & Business Practices. This compares to 85.83% of losses caused by the same Event Type, which were reported in the ORX Global Banking database.
Conclusion

The analysis of recent operational risk loss data provides insights into short-term developments affecting the global financial sector and potential new areas of concern in certain Business Lines or due to particular Event Types. In this regard, the 2014/15 report on public operational risk losses draws three main conclusions:

1) Total aggregated losses declined from EUR 79.95 billion reported in 2014 to EUR 40.26 billion in 2015 and aggregated losses fell below the five year average of EUR 55.25 billion for the first time since 2011. As a consequence, operational risk losses reported in 2015 have decreased in their average severity in comparison to 2014. While this is a welcome development, one has to account for some exceptionally large losses incurred by a limited number of financial institutions in 2014.

As addressed in this report, the number and extent of fines, compensation and settlement payments related to the mis-selling of various derivative products decreased in 2015, which explains some of the lower average severity observed during the last year. This development shows that a large part of legal liabilities connected to the early years of the financial crisis have been resolved, even if it does not mean that they are necessarily coming to a close.

2) Retail Banking and Commercial Banking were the two Business Lines which incurred the greatest aggregate losses in the largest number of countries. (Trading & Sales had larger aggregate losses worldwide but these were concentrated in a smaller number of countries).

The national financial sectors which incurred their largest aggregated losses in Retail Banking included a considerable number of European countries, but also affected domestic sectors in other areas of the world, such as Africa, Asia/Pacific and Latin America and the Caribbean. The largest aggregated losses in commercial banking were prevalently incurred in the Asia/Pacific region.

3) On a regional scale, this report presented the Event Types which led to increased losses in 2015 over 2014 levels. It found that most of the six major global regions analysed each faced their own rising areas of concern.

In three of these regions, namely Africa, Eastern and Western Europe, Internal Theft & Fraud led to the largest additional losses caused by a single Event Type. This development is closely related to the more general finding that internal theft and fraud events increased in their average severity in 2015, even if they were less frequent, leading to increased losses due to this Event Type overall.

In comparison, financial institutions in North America were faced with rising operational risk losses caused by instances of unauthorised activity, while financial institutions in Latin America and the Caribbean were struggling with increased losses due to Improper Business or Market Practices.
Figure 7. Aggregated losses by Business Line (BL) and Event Type (ET) in the ORX News database in 2015
(Losses in EUR millions; for short forms of the Event Types see the key below)

<table>
<thead>
<tr>
<th>BL</th>
<th>Corporate Finance</th>
<th>Trading &amp; Sales</th>
<th>Retail Banking</th>
<th>Commercial Banking</th>
<th>Clearing</th>
<th>Agency Services</th>
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Figure 8. Aggregated losses by Business Line (BL) and Event Type (ET) in the ORX News database in 2014
(Losses in EUR millions; for short forms of the Event Types see the key below)

<table>
<thead>
<tr>
<th>BL</th>
<th>Corporate Finance</th>
<th>Trading &amp; Sales</th>
<th>Retail Banking</th>
<th>Commercial Banking</th>
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<th>Total</th>
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<td></td>
<td>1.14%</td>
<td>2.07%</td>
<td>0.49%</td>
<td></td>
</tr>
<tr>
<td>EDPDM</td>
<td>34</td>
<td>268</td>
<td>134</td>
<td>11</td>
<td>48</td>
<td>17</td>
<td>8</td>
<td>28</td>
<td>135</td>
<td>686</td>
<td>0.86%</td>
<td>14.30%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>450</td>
<td>45,146</td>
<td>11,279</td>
<td>10,820</td>
<td>6,976</td>
<td>849</td>
<td>432</td>
<td>1,142</td>
<td>2,564</td>
<td>79,945</td>
<td>56.47%</td>
<td>14.11%</td>
<td>16.55%</td>
</tr>
<tr>
<td>% of total</td>
<td>0.56%</td>
<td>56.47%</td>
<td>14.11%</td>
<td>16.55%</td>
<td>8.73%</td>
<td>0.29%</td>
<td>1.12%</td>
<td>0.54%</td>
<td>1.43%</td>
<td>3.21%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Global Banking data</td>
<td>4.38%</td>
<td>26.29%</td>
<td>19.74%</td>
<td>30.41%</td>
<td>0.17%</td>
<td>0.66%</td>
<td>1.33%</td>
<td>0.48%</td>
<td>1.45%</td>
<td>15.11%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Key
IF = Internal Fraud
EF = External Fraud
EPWS = Employee Practices & Workplace Safety
CPBP = Clients, Products & Business Practices
NDPS = Natural Disasters & Public Safety
TIF = Technology & Infrastructure Failure
EDPM = Execution, Delivery & Process Management

Colour Value
Red ≥10%
Orange <10% and ≥5%
Yellow <5% and ≥0.5%
Green <0.5%

3. For better comparison, the percentages are based on loss events exceeding EUR 1 million in the Global Banking database. The 2015 values are based on a sample of 64 ORX Member institutions in the financial sector. The 2014 values are based on a sample of 61 ORX Member institutions.
### Figure 9. Frequency of loss events by Business Line (BL) and Event Type (ET) in the ORX News database in 2015
(For short forms of the Event Types see the key below)

<table>
<thead>
<tr>
<th>BL ET</th>
<th>Corporate Finance</th>
<th>Trading &amp; Sales</th>
<th>Retail Banking</th>
<th>Commercial Banking</th>
<th>Clearing</th>
<th>Agency Services</th>
<th>Asset Management</th>
<th>Retail Brokerage</th>
<th>Private Banking</th>
<th>Corporate Items</th>
<th>Total</th>
<th>% of total</th>
<th>Global banking data%</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF</td>
<td>1</td>
<td>13</td>
<td>72</td>
<td>75</td>
<td>3</td>
<td>1</td>
<td>13</td>
<td>8</td>
<td>11</td>
<td>18</td>
<td>215</td>
<td>25.47%</td>
<td>3.05%</td>
</tr>
<tr>
<td>EF</td>
<td>1</td>
<td>6</td>
<td>95</td>
<td>81</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>192</td>
<td>22.75%</td>
<td>13.94%</td>
</tr>
<tr>
<td>EPWS</td>
<td>2</td>
<td>4</td>
<td>25</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>38</td>
<td>4.50%</td>
<td>3.34%</td>
</tr>
<tr>
<td>CPBP</td>
<td>9</td>
<td>25</td>
<td>118</td>
<td>90</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>24</td>
<td>24</td>
<td>5</td>
<td>351</td>
<td>41.59%</td>
<td>31.30%</td>
</tr>
<tr>
<td>NDPBS</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0.24%</td>
<td>1.02%</td>
</tr>
<tr>
<td>TIF</td>
<td>1</td>
<td>9</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>39</td>
<td>4.62%</td>
<td>44.08%</td>
</tr>
<tr>
<td>EDPM</td>
<td>32</td>
<td>129</td>
<td>324</td>
<td>193</td>
<td>13</td>
<td>5</td>
<td>32</td>
<td>43</td>
<td>44</td>
<td>29</td>
<td>844</td>
<td>3.79%</td>
<td>15.28%</td>
</tr>
</tbody>
</table>

| % of total | 3.45% | 14.34% | 36.41% | 12.69% | 3.31% | 7.17% | 4.97% | 12.97% | 3.31% |
| Global banking data% | 1.79% | 19.02% | 38.04% | 18.87% | 1.40% | 2.17% | 2.95% | 4.74% | 3.57% | 7.45% |

### Figure 10. Frequency of loss events by Business Line (BL) and Event Type (ET) in the ORX News database in 2014
(For short forms of the Event Types see the key below)

<table>
<thead>
<tr>
<th>BL ET</th>
<th>Corporate Finance</th>
<th>Trading &amp; Sales</th>
<th>Retail Banking</th>
<th>Commercial Banking</th>
<th>Clearing</th>
<th>Agency Services</th>
<th>Asset Management</th>
<th>Retail Brokerage</th>
<th>Private Banking</th>
<th>Corporate Items</th>
<th>Total</th>
<th>% of total</th>
<th>Global banking data%</th>
</tr>
</thead>
<tbody>
<tr>
<td>IF</td>
<td>1</td>
<td>13</td>
<td>72</td>
<td>75</td>
<td>3</td>
<td>1</td>
<td>13</td>
<td>8</td>
<td>11</td>
<td>18</td>
<td>215</td>
<td>25.47%</td>
<td>3.05%</td>
</tr>
<tr>
<td>EF</td>
<td>1</td>
<td>6</td>
<td>95</td>
<td>81</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td>192</td>
<td>22.75%</td>
<td>13.94%</td>
</tr>
<tr>
<td>EPWS</td>
<td>2</td>
<td>4</td>
<td>25</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>38</td>
<td>4.50%</td>
<td>3.34%</td>
</tr>
<tr>
<td>CPBP</td>
<td>29</td>
<td>86</td>
<td>119</td>
<td>30</td>
<td>2</td>
<td>3</td>
<td>16</td>
<td>24</td>
<td>24</td>
<td>5</td>
<td>351</td>
<td>41.59%</td>
<td>31.30%</td>
</tr>
<tr>
<td>NDPBS</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>0.24%</td>
<td>1.02%</td>
</tr>
<tr>
<td>TIF</td>
<td>1</td>
<td>9</td>
<td>6</td>
<td>5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>7</td>
<td>3</td>
<td>4</td>
<td>39</td>
<td>4.62%</td>
<td>44.08%</td>
</tr>
<tr>
<td>EDPM</td>
<td>32</td>
<td>129</td>
<td>324</td>
<td>193</td>
<td>13</td>
<td>5</td>
<td>32</td>
<td>43</td>
<td>44</td>
<td>29</td>
<td>844</td>
<td>3.79%</td>
<td>15.28%</td>
</tr>
</tbody>
</table>

| % of total | 3.79% | 15.28% | 38.99% | 22.87% | 1.54% | 0.59% | 3.79% | 5.09% | 5.21% | 3.44% |
| Global banking data% | 2.98% | 14.60% | 43.65% | 19.39% | 1.31% | 2.25% | 3.27% | 2.69% | 4.07% | 5.81% |

### Key

- **IF** = Internal Fraud
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- **EDPM** = Execution, Delivery & Process Management

<table>
<thead>
<tr>
<th>Colour</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>≥10%</td>
</tr>
<tr>
<td>Orange</td>
<td>&lt;10% and ≥5%</td>
</tr>
<tr>
<td>Yellow</td>
<td>&lt;5% and ≥0.5%</td>
</tr>
<tr>
<td>Green</td>
<td>&lt;0.5%</td>
</tr>
</tbody>
</table>

4. For better comparison, the percentages are based on loss events exceeding EUR 1 million in the Global Banking database. The 2015 values are based on a sample of 64 ORX Member institutions in the financial sector. The 2014 values are based on a sample of 61 ORX Member institutions.
Managing risk together

ORX believes many heads are better than one. We’re here to bring the best minds of the international operational risk community together. By pooling our resources, sharing ideas, information and experiences, we can learn how best to manage, understand and measure operational risk and become less vulnerable to losses. We work closely with over 90 Member firms to develop a deeper understanding of the discipline and practical tools. We set the agenda, maintain industry standards, and garner fresh insights.

ORX is owned and controlled, on an equal basis by its Members.

For more information about ORX, visit our website at www.orx.org

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