

# POLAND

## Key characteristics of the insurance market



|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>Introduction.....</b>  | <b>2</b>  |
| 1.1      | General.....  | 2         |
| 1.2      | Balance sheet.....  | 2         |
| 1.3      | Solvency II ratios.....   | 3         |
| <b>2</b> | <b>Investments, deposits, cash and cash equivalents.....</b>                | <b>4</b>  |
| 2.1      | Scope.....  | 4         |
| 2.2      | Asset exposure.....   | 5         |
| 2.3      | Equity exposure.....  | 7         |
| <b>3</b> | <b>Index-linked and unit-linked investments.....</b>                        | <b>10</b> |
| 3.1      | Scope.....  | 10        |
| 3.2      | Asset exposure.....   | 10        |
| 3.3      | Equity exposure.....  | 11        |
| <b>4</b> | <b>Insurance products.....</b>  | <b>13</b> |
| 4.1      | Overview.....   | 13        |
| 4.2      | Life insurance products.....  | 14        |
| 4.3      | Non-Life insurance products.....  | 15        |
| 4.4      | Average duration.....   | 16        |
| <b>5</b> | <b>Accounting &amp; Tax framework.....</b>                                  | <b>17</b> |
| 5.1      | Accounting framework.....   | 17        |
| 5.2      | Tax framework.....  | 17        |
| <b>6</b> | <b>Historical data.....</b>   | <b>19</b> |
| 6.1      | Index-linked and unit-linked investments in comparison to total assets..... | 19        |
| 6.2      | Solvency II – excluding index-linked and unit-linked investments.....       | 20        |
| 6.3      | Solvency I – excluding index-linked and unit-linked assets.....             | 21        |
| 6.4      | European Central Bank – including index-linked and unit-linked assets.....  | 22        |
| 6.5      | Trends in Equity Investments.....   | 25        |

## 1 Introduction

### 1.1 General

At the end of 2017 (2017 Q4), 60 insurance companies<sup>1</sup> in Poland submitted their Solvency II related reporting package to the Polish National Supervisory Authority (NSA). These companies accounted for 0,420% of Total assets of insurance undertakings operating within the European Union (EU).

The table below illustrates the number of Solvency II reporting submissions in Poland by insurance activities and the importance of the country within the EU, based on Total assets.

**Table 1 - Insurance reporting submissions**

| Insurance reporting submissions            | #             |
|--|---------------|
| Life undertakings                          | 26            |
| Non-Life undertakings                      | 34            |
| Reinsurance undertakings                   | 0             |
| Composite undertakings                     | 0             |
| <b>Total</b>                               | <b>60</b>     |
| <b>Total assets PL / Total assets EU %</b> | <b>0,420%</b> |
| <b>Ranking PL based on Total assets EU</b> | <b>15</b>     |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

### 1.2 Balance sheet

At the end of 2017 (2017 Q4), Poland was the number 15 country in the EU insurance market in terms of assets held with an amount of 47 471 million EUR reported under Solvency II rules.

With regards to the Assets held for index-linked and unit-linked contracts, Poland ranked number 14 in terms of absolute amount with 13 343 million EUR invested in this category. However, with 28,1% of Total assets of this category, Poland was above the EU average, i.e. 24,3% in terms of Total assets.

In terms of technical provisions, 12,7% of the total balance sheet relates to the life business (i.e. non index-linked and unit-linked business), while 16,8% represented non-life obligations.

**Table 2 - Solvency II balance sheet (S.02.01) and EU comparison (solo)**

| in Mio EUR   | PL            |           |               | EU            |               |               |               |              |
|--|---------------|-----------|---------------|---------------|---------------|---------------|---------------|--------------|
|  | Amount        | Rank      | %             | %             | Avg           | Min           | Max           | StD          |
| Investments, deposits, cash and cash equivalents             | 31 246        | 15        | 65,8%         | 67,8%         | 67,3%         | 22,6%         | 90,1%         | 17,2%        |
| Assets held for index-linked and unit-linked contracts       | 13 343        | 14        | 28,1%         | 24,2%         | 24,3%         | 2,5%          | 59,3%         | 16,2%        |
| Other assets   | 2 882         | 13        | 6,1%          | 8,1%          | 8,4%          | 2,1%          | 19,5%         | 4,9%         |
| <b>Total assets</b>  | <b>47 471</b> | <b>15</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>0,0%</b>  |
| Technical provisions - life                                  | 6 025         | 16        | 12,7%         | 46,3%         | 32,2%         | 3,0%          | 64,2%         | 17,9%        |
| Technical provisions - non-life                              | 7 968         | 13        | 16,8%         | 6,6%          | 12,9%         | 2,4%          | 38,5%         | 9,1%         |
| Technical provisions - index-linked and unit-linked          | 12 151        | 15        | 25,6%         | 25,1%         | 23,4%         | 2,4%          | 58,4%         | 16,0%        |
| Other liabilities  | 5 355         | 13        | 11,3%         | 8,9%          | 9,0%          | 4,0%          | 21,3%         | 3,9%         |
| <b>Total liabilities</b>                                     | <b>31 499</b> | <b>15</b> | <b>66,4%</b>  | <b>86,9%</b>  | <b>77,6%</b>  | <b>49,1%</b>  | <b>92,7%</b>  | <b>11,1%</b> |
| Excess of assets over liabilities                            | 15 972        | 13        | 33,6%         | 13,1%         | 22,4%         | 7,3%          | 50,9%         | 11,1%        |
| <b>Total liabilities + Excess of assets over liabilities</b> | <b>47 471</b> | <b>15</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>0,0%</b>  |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

<sup>1</sup> In the report, the term 'insurance companies' indicates both direct insurance and reinsurance companies. The insurance market therefore also refers to insurers and reinsurers.



The balance sheet item Investments, deposits, cash and cash equivalents will be further detailed in section 2, while section 3 will focus on Assets held for index-linked and unit-linked contracts.

### 1.3 Solvency II ratios

At the end of 2017 (2017 Q4), the Polish insurance market as a whole had available own funds that were more than double the Solvency Capital Requirement (SCR) levels required by the European Solvency II Directive. The reported SCR ratio amounted to 260% without long-term guarantee (LTG) and transitional measures, and is significantly above that of the EU, which amounted to 237% at year-end 2017. Out of the 28 EU Member States, Poland is ranked at the 5<sup>th</sup> position in terms of the reported SCR ratios.

Table 3 – Solvency II ratios and EU comparison

**Table 3 - Solvency II own funds and SCR (S.23.01) and EU comparison (solo)**

| in Mio EUR   | PL           |           | EU          |             |             |             |             |
|--|--------------|-----------|-------------|-------------|-------------|-------------|-------------|
|  | Amount       | Rank      | %           | Avg         | Min         | Max         | StD         |
| Total available own funds to meet the SCR            | 15 565       | 13        | -           | -           | -           | -           | -           |
| SCR  | 5 995        | 14        | -           | -           | -           | -           | -           |
| <b>Surplus available own funds</b>                   | <b>9 570</b> | <b>12</b> | -           | -           | -           | -           | -           |
| <b>Ratio of Eligible own funds to SCR</b>            | <b>260%</b>  | <b>5</b>  | <b>237%</b> | <b>225%</b> | <b>135%</b> | <b>361%</b> | <b>52%</b>  |
| Ratio of Eligible own funds to SCR (10th percentile) | 137%         | 12        | 136%        | 138%        | 110%        | 193%        | 19%         |
| Ratio of Eligible own funds to SCR (25th percentile) | 164%         | 12        | 162%        | 164%        | 128%        | 214%        | 24%         |
| Ratio of Eligible own funds to SCR (50th percentile) | 221%         | 9         | 215%        | 208%        | 144%        | 300%        | 37%         |
| Ratio of Eligible own funds to SCR (75th percentile) | 307%         | 8         | 306%        | 280%        | 164%        | 445%        | 59%         |
| Ratio of Eligible own funds to SCR (90th percentile) | 418%         | 10        | 457%        | 396%        | 173%        | 643%        | 99%         |
| <b>Ratio of Eligible own funds to MCR</b>            | <b>745%</b>  | <b>6</b>  | <b>640%</b> | <b>613%</b> | <b>282%</b> | <b>933%</b> | <b>170%</b> |

Source: EIOPA statistics and Deloitte-CEPS analysis

EIOPA's report on long-term guarantees measures and measures on equity risk published on 18 December 2018 mentions the average impact of the use of LTG and transitional measures. At year-end 2017, no results were shown for Poland since the undertakings do not apply any of the measures.<sup>2</sup>

<sup>2</sup> [https://eiopa.europa.eu/Publications/Reports/2018-12-18%20\\_LTG%20AnnualReport2018.pdf](https://eiopa.europa.eu/Publications/Reports/2018-12-18%20_LTG%20AnnualReport2018.pdf)

## 2 Investments, deposits, cash and cash equivalents

### 2.1 Scope

The asset allocation of Polish insurance undertakings is mainly analysed through the reported Solvency II Exposure List (S.06.02). The classification of the Solvency II Balance Sheet (S.02.01) follows the legal nature of the assets in terms of classification, which can differ, from the exposures reporting.

Based upon the comparative view below, we note that amounts reported in the Solvency II Exposure List (S.06.02) and Solvency II Balance Sheet (S.02.01) do not differ.

**Table 4 - Solvency II balance sheet (S.02.01) and Solvency II exposure list (S.06.02) comparison**

| in number   | Exposure list PL |               | Solvency II balance sheet PL |               | Difference |
|---|------------------|---------------|------------------------------|---------------|------------|
|   | #                | %             | #                            | %             | #          |
| Life undertakings   | 26               | 43,3%         | 26                           | 43,3%         | 0          |
| Non-Life undertakings   | 34               | 56,7%         | 34                           | 56,7%         | 0          |
| Reinsurance undertakings  | 0                | 0,0%          | 0                            | 0,0%          | 0          |
| Undertakings pursuing both life and non-life insurance activity | 0                | 0,0%          | 0                            | 0,0%          | 0          |
| <b>Total</b>  | <b>60</b>        | <b>100,0%</b> | <b>60</b>                    | <b>100,0%</b> | <b>0</b>   |

| in Mio EUR  | Exposure list PL |               | Solvency II balance sheet PL |               | Difference  |
|---|------------------|---------------|------------------------------|---------------|-------------|
|   | Amount           | %             | Amount                       | %             | %           |
| Holdings in related undertakings, incl. participations and equities | 7 006            | 22,4%         | 7 007                        | 22,4%         | 0,0%        |
| Holdings in related undertakings, including participations          | n/a              | n/a           | 6 925                        | 22,2%         | n/a         |
| Equities  | n/a              | n/a           | 82                           | 0,3%          | n/a         |
| Equities - listed   | n/a              | n/a           | 62                           | 0,2%          | n/a         |
| Equities - unlisted   | n/a              | n/a           | 20                           | 0,1%          | n/a         |
| Collective Investments Undertakings                                 | 4 009            | 12,8%         | 4 009                        | 12,8%         | 0,0%        |
| Bonds   | 17 523           | 56,1%         | 17 523                       | 56,1%         | 0,0%        |
| Loans and mortgages   | 712              | 2,3%          | 712                          | 2,3%          | 0,0%        |
| Property  | 470              | 1,5%          | 470                          | 1,5%          | 0,0%        |
| Deposits  | 1 114            | 3,6%          | 1 119                        | 3,6%          | 0,0%        |
| Cash and cash equivalents   | 411              | 1,3%          | 406                          | 1,3%          | 0,0%        |
| Other investments   | 0                | 0,0%          | 0                            | 0,0%          | 0,0%        |
| <b>Total</b>  | <b>31 246</b>    | <b>100,0%</b> | <b>31 246</b>                | <b>100,0%</b> | <b>0,0%</b> |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

#### 2.1.1 Listed and unlisted equity

The distinction between listed and unlisted equity is made based upon the reported Solvency II Balance Sheet (S.02.01). Table 5 below compares the listed and unlisted equity, whereby Holdings in related undertakings (including participations) are excluded.

**Table 5 - Listed and unlisted equity exposure based upon the Solvency II balance sheet (S.02.01)**

| in Mio EUR            | PL        |           |               | EU            |               |               |               |             |
|-----------------------|-----------|-----------|---------------|---------------|---------------|---------------|---------------|-------------|
|                       | Amount    | Rank      | %             | %             | Avg           | Min           | Max           | StD         |
| Equities - listed     | 62        | 20        | 75,2%         | 83,7%         | 75,0%         | 12,8%         | 99,6%         | 21,1%       |
| Equities - unlisted   | 20        | 17        | 24,8%         | 16,3%         | 25,0%         | 0,4%          | 87,0%         | 21,1%       |
| <b>Total equities</b> | <b>82</b> | <b>21</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>0,0%</b> |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

Based upon the quarterly reporting as of Q4 2017, Polish insurers invested 75,2% of their directly-held equity positions in listed equity in comparison to an average of 75,0% in the EU. With an amount of 62 million EUR, Poland ranked number 20 in the EU.

With an invested amount of 20 million EUR, unlisted equity constituted a significant portion of the equity investment category of the directly-held equity investments, i.e. 24,8%. This placed Poland as the number 17 in the EU.

## 2.2 Asset exposure

From an asset exposure perspective, the insurance market in Poland mainly invested in Government bonds and Corporate bonds (in total 56,0% of Total Investments, deposits, cash and cash equivalents), Collective Investment Undertakings (12,8%), and Equity (22,4%).

Within the bond categories, the insurance market was not equally exposed to government securities (52,6%) and corporate debt (3,4%), categories for which Poland ranked number 13 and number 20 in the EU, respectively. Comparing the different assets classes, we note that the government bonds asset class shows the highest standard deviation of 18,9%.

The category of Collective Investment Undertakings was the third most important for the Polish insurance market in terms of asset exposures. Within this category, the industry was mainly exposed to Debt funds, Asset allocation funds and Equity funds for which Poland ranked respectively number 13, number 8, and number 14 in the EU.

Equity was the second category to which the Polish insurers had the most exposure. Equity of real estate related corporation constitutes a negligible part within the 22,4% of the total equity exposure.

**Table 6 - Asset exposure based upon the Solvency II exposure list (S.06.02)**

| in Mio EUR  | PL            |           |               | EU            |               |               |               |              |
|---|---------------|-----------|---------------|---------------|---------------|---------------|---------------|--------------|
|   | Amount        | Rank      | %             | %             | Avg           | Min           | Max           | StD          |
| <b>Equity</b>   | <b>7 006</b>  | <b>11</b> | <b>22,4%</b>  | <b>12,0%</b>  | <b>9,5%</b>   | <b>1,1%</b>   | <b>28,1%</b>  | <b>6,5%</b>  |
| Common equity   | 6 761         | 11        | 21,6%         | 10,4%         | 7,8%          | 1,0%          | 22,5%         | 6,0%         |
| Equity of real estate related corporation                     | 3             | 23        | 0,0%          | 1,0%          | 1,1%          | 0,0%          | 4,0%          | 1,2%         |
| Other equity  | 242           | 12        | 0,8%          | 0,6%          | 0,6%          | 0,0%          | 2,0%          | 0,7%         |
| <b>Collective Investment Undertakings</b>                     | <b>4 009</b>  | <b>14</b> | <b>12,8%</b>  | <b>19,2%</b>  | <b>12,8%</b>  | <b>1,5%</b>   | <b>41,6%</b>  | <b>9,3%</b>  |
| Equity funds  | 644           | 14        | 2,1%          | 3,2%          | 2,7%          | 0,4%          | 10,9%         | 2,4%         |
| Private equity funds  | 9             | 15        | 0,0%          | 0,5%          | 0,5%          | 0,0%          | 6,9%          | 1,3%         |
| Debt funds  | 1 720         | 13        | 5,5%          | 7,8%          | 5,6%          | 0,8%          | 18,0%         | 4,9%         |
| Money market funds  | 196           | 15        | 0,6%          | 2,3%          | 1,1%          | 0,0%          | 6,3%          | 1,6%         |
| Asset allocation funds  | 1 112         | 8         | 3,6%          | 1,1%          | 0,8%          | 0,0%          | 3,9%          | 1,0%         |
| Real estate funds   | 317           | 12        | 1,0%          | 1,6%          | 0,8%          | 0,0%          | 3,3%          | 0,9%         |
| Alternative funds   | 2             | 19        | 0,0%          | 0,4%          | 0,3%          | 0,0%          | 3,1%          | 0,6%         |
| Infrastructure funds  | 0             | -         | 0,0%          | 0,2%          | 0,1%          | 0,0%          | 0,9%          | 0,2%         |
| Other   | 8             | 18        | 0,0%          | 2,0%          | 0,9%          | 0,0%          | 7,2%          | 1,7%         |
| <b>Government bonds</b>                                       | <b>16 439</b> | <b>13</b> | <b>52,6%</b>  | <b>28,7%</b>  | <b>39,7%</b>  | <b>10,0%</b>  | <b>77,0%</b>  | <b>18,9%</b> |
| <b>Corporate bonds</b>  | <b>1 067</b>  | <b>20</b> | <b>3,4%</b>   | <b>26,9%</b>  | <b>21,6%</b>  | <b>1,8%</b>   | <b>47,3%</b>  | <b>11,2%</b> |
| <b>Structured notes</b>                                       | <b>16</b>     | <b>16</b> | <b>0,1%</b>   | <b>1,3%</b>   | <b>0,5%</b>   | <b>0,0%</b>   | <b>2,5%</b>   | <b>0,6%</b>  |
| <b>Collateralised securities</b>                              | <b>1</b>      | <b>17</b> | <b>0,0%</b>   | <b>0,6%</b>   | <b>0,6%</b>   | <b>0,0%</b>   | <b>9,3%</b>   | <b>1,8%</b>  |
| <b>Mortgages and loans</b>                                    | <b>712</b>    | <b>14</b> | <b>2,3%</b>   | <b>4,8%</b>   | <b>3,8%</b>   | <b>0,3%</b>   | <b>26,3%</b>  | <b>5,2%</b>  |
| <b>Property</b>   | <b>470</b>    | <b>16</b> | <b>1,5%</b>   | <b>2,0%</b>   | <b>3,5%</b>   | <b>0,8%</b>   | <b>11,6%</b>  | <b>2,6%</b>  |
| <b>Deposits</b>   | <b>1 114</b>  | <b>13</b> | <b>3,6%</b>   | <b>2,8%</b>   | <b>3,6%</b>   | <b>0,2%</b>   | <b>16,6%</b>  | <b>3,6%</b>  |
| <b>Cash and cash equivalents</b>                              | <b>411</b>    | <b>17</b> | <b>1,3%</b>   | <b>1,4%</b>   | <b>4,3%</b>   | <b>0,5%</b>   | <b>16,6%</b>  | <b>3,5%</b>  |
| <b>Other investments</b>                                      | <b>0</b>      | <b>-</b>  | <b>0,0%</b>   | <b>0,1%</b>   | <b>0,1%</b>   | <b>0,0%</b>   | <b>0,9%</b>   | <b>0,3%</b>  |
| <b>Not reported</b>   | <b>0</b>      | <b>-</b>  | <b>0,0%</b>   | <b>0,0%</b>   | <b>0,0%</b>   | <b>0,0%</b>   | <b>0,3%</b>   | <b>0,1%</b>  |
| <b>Total Investments, deposits, cash and cash equivalents</b> | <b>31 246</b> | <b>15</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>0,0%</b>  |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis



### 2.2.1 Asset exposures between Life, Non-Life and Composite insurance undertakings, and reinsurers

Table 7, based upon the Asset Exposure reporting (S.06.02) of Q4 2017, gives further insight into the investment behaviour of Life, Non-Life and Composite insurance companies, and reinsurers.

**Table 7 - Asset exposure based upon Solvency II exposure list (S.06.02) for Life, Non-Life and Composite insurance undertakings, and reinsurers**

| in %  | PL            |               |                           | EU            |               |                           |
|---|---------------|---------------|---------------------------|---------------|---------------|---------------------------|
|   | Life          | Non-life      | Composite and reinsurance | Life          | Non-life      | Composite and reinsurance |
| <b>Equity</b>   | <b>4,4%</b>   | <b>32,5%</b>  | -                         | <b>6,6%</b>   | <b>18,3%</b>  | <b>16,5%</b>              |
| Common equity   | 3,7%          | 31,7%         | -                         | 5,0%          | 16,2%         | 14,9%                     |
| Equity of real estate related corporation                     | 0,0%          | 0,0%          | -                         | 1,0%          | 0,8%          | 1,2%                      |
| Other equity  | 0,8%          | 0,8%          | -                         | 0,6%          | 1,3%          | 0,4%                      |
| <b>Collective Investment Undertakings</b>                     | <b>16,4%</b>  | <b>10,8%</b>  | -                         | <b>22,4%</b>  | <b>22,3%</b>  | <b>13,8%</b>              |
| Equity funds  | 1,0%          | 2,7%          | -                         | 3,7%          | 2,9%          | 2,7%                      |
| Private equity funds  | 0,0%          | 0,0%          | -                         | 0,5%          | 0,5%          | 0,5%                      |
| Debt funds  | 9,5%          | 3,3%          | -                         | 9,7%          | 9,7%          | 4,7%                      |
| Money market funds  | 1,1%          | 0,4%          | -                         | 2,8%          | 1,4%          | 2,0%                      |
| Asset allocation funds  | 4,8%          | 2,9%          | -                         | 1,3%          | 1,2%          | 0,9%                      |
| Real estate funds   | 0,0%          | 1,6%          | -                         | 1,6%          | 1,8%          | 1,4%                      |
| Alternative funds   | 0,0%          | 0,0%          | -                         | 0,3%          | 0,3%          | 0,5%                      |
| Infrastructure funds  | 0,0%          | 0,0%          | -                         | 0,2%          | 0,2%          | 0,3%                      |
| Other   | 0,0%          | 0,0%          | -                         | 2,3%          | 4,3%          | 0,8%                      |
| <b>Government bonds</b>                                       | <b>67,3%</b>  | <b>44,4%</b>  | -                         | <b>28,1%</b>  | <b>19,1%</b>  | <b>33,4%</b>              |
| <b>Corporate bonds</b>  | <b>3,2%</b>   | <b>3,6%</b>   | -                         | <b>29,2%</b>  | <b>29,3%</b>  | <b>22,9%</b>              |
| <b>Structured notes</b>                                       | <b>0,0%</b>   | <b>0,1%</b>   | -                         | <b>1,4%</b>   | <b>0,6%</b>   | <b>1,5%</b>               |
| <b>Collateralised securities</b>                              | <b>0,0%</b>   | <b>0,0%</b>   | -                         | <b>0,8%</b>   | <b>0,6%</b>   | <b>0,5%</b>               |
| <b>Mortgages and loans</b>                                    | <b>1,5%</b>   | <b>2,7%</b>   | -                         | <b>7,4%</b>   | <b>3,2%</b>   | <b>2,3%</b>               |
| <b>Property</b>   | <b>0,9%</b>   | <b>1,8%</b>   | -                         | <b>2,0%</b>   | <b>2,5%</b>   | <b>1,7%</b>               |
| <b>Deposits</b>   | <b>5,2%</b>   | <b>2,7%</b>   | -                         | <b>0,8%</b>   | <b>1,6%</b>   | <b>5,8%</b>               |
| <b>Cash and cash equivalents</b>                              | <b>1,0%</b>   | <b>1,5%</b>   | -                         | <b>1,0%</b>   | <b>2,5%</b>   | <b>1,4%</b>               |
| <b>Other investments</b>                                      | <b>0,0%</b>   | <b>0,0%</b>   | -                         | <b>0,2%</b>   | <b>0,0%</b>   | <b>0,1%</b>               |
| <b>Not reported</b>   | <b>0,0%</b>   | <b>0,0%</b>   | -                         | <b>0,0%</b>   | <b>0,0%</b>   | <b>0,0%</b>               |
| <b>Total Investments, deposits, cash and cash equivalents</b> | <b>100,0%</b> | <b>100,0%</b> | -                         | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b>             |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

At EU level Non-Life insurers invested a significantly higher portion of their Investments in Equity (18,3% equity investments) in comparison to pure Life insurers (6,6% equity investments). In Poland this difference was even more pronounced, and we note that Non-Life insurers invested 7 times more of their assets into this category than their Life counterparts. As no Polish Composite insurance data is available, no numbers are reported for Composite in Table 7.

On the other hand, at EU level, pure Life insurers and also Composite insurers allocated a larger share of their investments to government bonds as compared to Non-Life insurers. A noteworthy observation was the contrast in behaviour between Polish Life insurers and their counterpart at EU level with regard to the corporate bonds: Polish Life insurers reported 3,2% of their investments in this category, in sharp contrast to the EU level which amounted to 29,2%.

## 2.3 Equity exposure

Based upon the information included in the Solvency II Exposure List (S.06.02) and Balance Sheet (S.02.01), equity exposures can be calculated and presented in different ways:

- Equity exposure as the sum of Equity (Common equity, Equity of real estate related corporation and Other equity), Equity and Private equity funds, and Equity risk included in structured notes;
- Equity of real estate related corporation could be seen as a property exposure. Therefore equity exposures are presented including and excluding Equity of real estate related corporation;
- The equity amounts of the Solvency II Exposure List does not provide further details whether the equity exposures relate to listed or unlisted equity positions. In addition, the Solvency II Exposure List does not mention whether the equity relates to Holdings in related undertakings, including participations;
- Therefore, the listed and unlisted share amounts reported in the Solvency II Balance Sheet are considered and integrated as an equity exposure indicator. A rescaling is performed in case a difference is noted between the two Solvency II information sets (Exposure List versus Balance Sheet). The adjusted equity exposure stemming from this analysis excludes the Equity exposure coming from Holdings in related undertakings, including participations. These holdings can potentially be important within insurance groups.

**Table 8 - Equity exposure based upon Solvency II balance sheet (S.02.01) and Solvency II exposure list (S.06.02)**

| in Mio EUR   | PL           |           |              | EU           |              |             |              |             |
|--|--------------|-----------|--------------|--------------|--------------|-------------|--------------|-------------|
|  | Amount       | Rank      | %            | %            | Avg          | Min         | Max          | StD         |
| <b>Equity</b>  | <b>7 006</b> | <b>11</b> | <b>22,4%</b> | <b>12,0%</b> | <b>9,5%</b>  | <b>1,1%</b> | <b>28,1%</b> | <b>6,5%</b> |
| Common equity  | 6 761        | 11        | 21,6%        | 10,4%        | 7,8%         | 1,0%        | 22,5%        | 6,0%        |
| Equity of real estate related corporation                                | 3            | 23        | 0,0%         | 1,0%         | 1,1%         | 0,0%        | 4,0%         | 1,2%        |
| Other equity   | 242          | 12        | 0,8%         | 0,6%         | 0,6%         | 0,0%        | 2,0%         | 0,7%        |
| <b>Collective Investment Undertakings - Equity funds</b>                 | <b>653</b>   | <b>14</b> | <b>2,1%</b>  | <b>3,8%</b>  | <b>3,2%</b>  | <b>0,4%</b> | <b>14,7%</b> | <b>3,5%</b> |
| Equity funds   | 644          | 14        | 2,1%         | 3,2%         | 2,7%         | 0,4%        | 10,9%        | 2,4%        |
| Private equity funds   | 9            | 15        | 0,0%         | 0,5%         | 0,5%         | 0,0%        | 6,9%         | 1,3%        |
| <b>Structured notes - Equity risk</b>                                    | <b>0</b>     | <b>-</b>  | <b>0,0%</b>  | <b>0,2%</b>  | <b>0,1%</b>  | <b>0,0%</b> | <b>0,6%</b>  | <b>0,1%</b> |
| <b>Total Equity exposure</b>   | <b>7 660</b> | <b>12</b> | <b>24,5%</b> | <b>16,0%</b> | <b>12,7%</b> | <b>2,5%</b> | <b>37,4%</b> | <b>8,4%</b> |
| <b>Equity without Equity of real estate related corporation</b>          | <b>7 003</b> | <b>11</b> | <b>22,4%</b> | <b>11,0%</b> | <b>8,4%</b>  | <b>1,1%</b> | <b>24,1%</b> | <b>6,1%</b> |
| <b>Equity exposure without Equity of real estate related corporation</b> | <b>7 657</b> | <b>12</b> | <b>24,5%</b> | <b>15,0%</b> | <b>11,7%</b> | <b>2,4%</b> | <b>33,3%</b> | <b>7,9%</b> |
| <b>Equities market value balance sheet (rescaled to CIC scope)</b>       | <b>82</b>    | <b>21</b> | <b>0,3%</b>  | <b>3,6%</b>  | <b>3,2%</b>  | <b>0,1%</b> | <b>20,6%</b> | <b>4,0%</b> |
| Equities - listed (rescaled to CIC scope)                                | 62           | 20        | 0,2%         | 3,0%         | 2,6%         | 0,0%        | 15,4%        | 3,2%        |
| Equities - unlisted (rescaled to CIC scope)                              | 20           | 17        | 0,1%         | 0,6%         | 0,6%         | 0,0%        | 5,2%         | 1,0%        |
| <b>Equity exposure based upon (Un)Listed equities (rescaled)</b>         | <b>736</b>   | <b>15</b> | <b>2,4%</b>  | <b>7,6%</b>  | <b>6,5%</b>  | <b>1,2%</b> | <b>29,8%</b> | <b>6,7%</b> |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

The observed standard deviations at EU level are relatively high given the asset allocation in percentage between the different asset classes at EU level.

In Poland, we note that equity exposures coming from Collective Investment Undertakings amount to 2,1% and are higher than the listed and unlisted equity exposures which in total amount to 0,3%. Furthermore, the listed and unlisted equities in Poland are not similar to the asset allocation at EU level.



### 2.3.1 Direct and indirect equity exposure

**Table 9 - Direct and indirect equity exposure based upon Solvency II exposure list (S.06.02)**

| in Mio EUR  | PL           |           |               | EU            |               |               |               |              |
|---|--------------|-----------|---------------|---------------|---------------|---------------|---------------|--------------|
|   | Amount       | Rank      | %             | %             | Avg           | Min           | Max           | StD          |
| <b>Direct equity</b>                              | <b>7 006</b> | <b>11</b> | <b>91,5%</b>  | <b>75,2%</b>  | <b>73,4%</b>  | <b>39,2%</b>  | <b>94,5%</b>  | <b>15,9%</b> |
| Common equity                                     | 6 761        | 11        | 88,3%         | 64,8%         | 59,4%         | 28,6%         | 93,3%         | 19,0%        |
| Equity of real estate related corporation         | 3            | 23        | 0,0%          | 6,4%          | 8,4%          | 0,0%          | 39,1%         | 9,6%         |
| Other equity                                      | 242          | 12        | 3,2%          | 3,9%          | 5,7%          | 0,0%          | 35,3%         | 8,8%         |
| <b>Indirect equity</b>                            | <b>654</b>   | <b>14</b> | <b>8,5%</b>   | <b>24,8%</b>  | <b>26,6%</b>  | <b>5,5%</b>   | <b>60,8%</b>  | <b>15,9%</b> |
| Collective Investment Undertakings - Equity funds | 653          | 14        | 8,5%          | 23,6%         | 25,9%         | 4,6%          | 60,6%         | 15,7%        |
| Equity funds                                      | 644          | 14        | 8,4%          | 20,2%         | 22,8%         | 4,6%          | 52,9%         | 13,4%        |
| Private equity funds                              | 9            | 15        | 0,1%          | 3,3%          | 3,1%          | 0,0%          | 28,4%         | 5,7%         |
| Structured notes - Equity risk                    | 0            | -         | 0,0%          | 1,3%          | 0,7%          | 0,0%          | 4,0%          | 1,0%         |
| <b>Total Equity exposure</b>                      | <b>7 660</b> | <b>12</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>0,0%</b>  |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In 2017 Q4, the insurance market in Poland was mainly invested in Direct equity (91,5% of total equity), with Indirect equity constituting a much smaller share (8,5% of Total equity).

In terms of direct equity exposure, Poland ranked number 11 and number 23 in the EU, with regards respectively to the exposure amount to Common equity and Equity of real estate related corporation.

Within the Indirect equity category, Equity funds constituted the bulk of investments with 8,4% of Total equity, significantly more than the amount invested in Private equity funds.

### 2.3.2 Equity by location

**Table 10 - Equity exposure by location based upon Solvency II exposure list (S.06.02)**

| in Mio EUR   | PL           |            |                |              |
|--|--------------|------------|----------------|--------------|
|  | EU home      | EU other   | outside EU (1) | Total        |
| <b>Equity</b>  | <b>6 767</b> | <b>235</b> | <b>4</b>       | <b>7 006</b> |
| Common equity  | 6 528        | 228        | 4              | 6 761        |
| Equity of real estate related corporation                | 0            | 3          | 0              | 3            |
| Other  | 238          | 4          | 0              | 242          |
| <b>Collective Investment Undertakings - Equity funds</b> | <b>597</b>   | <b>53</b>  | <b>4</b>       | <b>653</b>   |
| Equity funds   | 597          | 44         | 4              | 644          |
| Private equity funds                                     | 0            | 9          | 0              | 9            |
| <b>Structured notes - Equity risk</b>                    | <b>0</b>     | <b>0</b>   | <b>0</b>       | <b>0</b>     |
| <b>Total Equity exposure</b>                             | <b>7 364</b> | <b>288</b> | <b>8</b>       | <b>7 660</b> |

| in %   | PL           |              |                |               |
|--|--------------|--------------|----------------|---------------|
|  | EU home      | EU other     | outside EU (1) | Total         |
| <b>Equity</b>  | <b>96,6%</b> | <b>3,4%</b>  | <b>0,1%</b>    | <b>100,0%</b> |
| Common equity  | 96,6%        | 3,4%         | 0,1%           | 100,0%        |
| Equity of real estate related corporation                | 9,8%         | 85,9%        | 4,3%           | 100,0%        |
| Other  | 98,5%        | 1,5%         | 0,0%           | 100,0%        |
| <b>Collective Investment Undertakings - Equity funds</b> | <b>91,3%</b> | <b>8,1%</b>  | <b>0,5%</b>    | <b>100,0%</b> |
| Equity funds   | 92,7%        | 6,8%         | 0,5%           | 100,0%        |
| Private equity funds                                     | 0,0%         | 100,0%       | 0,0%           | 100,0%        |
| <b>Structured notes - Equity risk</b>                    | <b>0,0%</b>  | <b>85,5%</b> | <b>14,5%</b>   | <b>100,0%</b> |
| <b>Total Equity exposure</b>                             | <b>96,1%</b> | <b>3,8%</b>  | <b>0,1%</b>    | <b>100,0%</b> |

(1) The following countries are included in the class 'outside EU': IS, LI, NO, AU, CA, JP, US, CH and countries grouped under the caption 'Rest of World'. In addition some investments are not assigned to an individual country and are also included in this class.

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis





Based upon the Q4 2017 reporting with regards to the location of equity investments, insurers established in Poland favoured domestic investments to a large extent, dedicating to these 96,6% of their direct equity investments, and 91,3% of their indirect investments.

Table 10 also showed that besides the home market, Poland insurers invested significantly more in equity of other EU Member States than that of non-EU Member States. Lithuania, Latvia and the Netherlands were the preferred destinations.

**Table 11 - Direct equity exposure by location based upon Solvency II exposure list (S.06.02)**

| in Mio EUR   | PL           |               |
|--|--------------|---------------|
|  | Amount       | %             |
| <b>Home country</b>  | <b>6 767</b> | <b>96,6%</b>  |
| PL   | 6 767        | 96,6%         |
| <b>Top 5 countries (outside home country)</b>                      | <b>233</b>   | <b>3,3%</b>   |
| LT   | 186          | 2,7%          |
| LV   | 27           | 0,4%          |
| NL   | 9            | 0,1%          |
| LU   | 7            | 0,1%          |
| Rest of World and unassigned                                       | 4            | 0,1%          |
| <b>Home + Top 5 countries (outside home country)</b>               | <b>7 001</b> | <b>99,9%</b>  |
| <b>Total Direct equity exposure (with real estate corporation)</b> | <b>7 006</b> | <b>100,0%</b> |

| in Mio EUR  | PL           |               |
|---|--------------|---------------|
|   | Amount       | %             |
| <b>Home country</b>   | <b>6 767</b> | <b>96,6%</b>  |
| PL  | 6 767        | 96,6%         |
| <b>Top 5 countries (outside home country)</b>                         | <b>233</b>   | <b>3,3%</b>   |
| LT  | 186          | 2,7%          |
| LV  | 27           | 0,4%          |
| NL  | 9            | 0,1%          |
| LU  | 7            | 0,1%          |
| Rest of World and unassigned  | 4            | 0,1%          |
| <b>Home + Top 5 countries (outside home country)</b>                  | <b>7 000</b> | <b>100,0%</b> |
| <b>Total Direct equity exposure (without real estate corporation)</b> | <b>7 003</b> | <b>100,0%</b> |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis



### 3 Index-linked and unit-linked investments

#### 3.1 Scope

Based upon the comparative view below, we note a minor difference with respect to the Assets held for index-linked and unit-linked investments reported in the Solvency II Exposure List (S.06.02) and Solvency II Balance Sheet (S.02.01).

**Table 12 - Solvency II balance sheet (S.02.01) and Solvency II exposure list (S.06.02) comparison**

| in number   | Exposure list PL |               | Solvency II balance sheet PL |               | Difference |
|---|------------------|---------------|------------------------------|---------------|------------|
|   | #                | %             | #                            | %             | #          |
| Life undertakings   | 26               | 43,3%         | 26                           | 43,3%         | 0          |
| Non-Life undertakings   | 34               | 56,7%         | 34                           | 56,7%         | 0          |
| Reinsurance undertakings  | 0                | 0,0%          | 0                            | 0,0%          | 0          |
| Undertakings pursuing both life and non-life insurance activity | 0                | 0,0%          | 0                            | 0,0%          | 0          |
| <b>Total</b>  | <b>60</b>        | <b>100,0%</b> | <b>60</b>                    | <b>100,0%</b> | <b>0</b>   |

| in Mio EUR   | Exposure list PL |        | Solvency II balance sheet PL |        | Difference |
|--|------------------|--------|------------------------------|--------|------------|
|  | Amount           | %      | Amount                       | %      | %          |
| Assets held for index-linked and unit-linked contracts | 13 294           | 100,0% | 13 343                       | 100,0% | -0,4%      |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

#### 3.2 Asset exposure

Table 13 depicts a more detailed view of the Assets held for index-linked and unit-linked contracts, based upon the Solvency II exposure list (S.06.02).

**Table 13 - Asset exposure based upon Solvency II exposure list (S.06.02)**

| in Mio EUR  | PL            |           |               | EU            |               |               |               |              |
|---|---------------|-----------|---------------|---------------|---------------|---------------|---------------|--------------|
|   | Amount        | Rank      | %             | %             | Avg           | Min           | Max           | StD          |
| <b>Equity</b>   | <b>371</b>    | <b>11</b> | <b>2,8%</b>   | <b>19,3%</b>  | <b>4,5%</b>   | <b>0,0%</b>   | <b>30,1%</b>  | <b>7,1%</b>  |
| Common equity   | 358           | 11        | 2,7%          | 18,0%         | 3,9%          | 0,0%          | 28,8%         | 6,3%         |
| Equity of real estate related corporation                     | 13            | 11        | 0,1%          | 0,8%          | 0,3%          | 0,0%          | 1,5%          | 0,5%         |
| Other equity  | 0             | -         | 0,0%          | 0,4%          | 0,3%          | 0,0%          | 4,1%          | 0,9%         |
| <b>Collective Investment Undertakings</b>                     | <b>10 445</b> | <b>13</b> | <b>78,6%</b>  | <b>63,2%</b>  | <b>73,1%</b>  | <b>30,1%</b>  | <b>97,5%</b>  | <b>16,3%</b> |
| Equity funds  | 3 911         | 14        | 29,4%         | 26,5%         | 29,2%         | 11,2%         | 57,5%         | 10,5%        |
| Private equity funds  | 0             | -         | 0,0%          | 0,1%          | 0,2%          | 0,0%          | 2,9%          | 0,6%         |
| Debt funds  | 4 182         | 11        | 31,5%         | 12,1%         | 19,0%         | 4,8%          | 47,5%         | 11,4%        |
| Money market funds  | 689           | 7         | 5,2%          | 2,2%          | 1,7%          | 0,0%          | 7,5%          | 1,8%         |
| Asset allocation funds  | 1 258         | 13        | 9,5%          | 14,8%         | 13,1%         | 0,4%          | 30,5%         | 7,7%         |
| Real estate funds   | 4             | 18        | 0,0%          | 1,4%          | 0,6%          | 0,0%          | 6,2%          | 1,2%         |
| Alternative funds   | 30            | 17        | 0,2%          | 1,6%          | 2,4%          | 0,0%          | 16,3%         | 3,8%         |
| Infrastructure funds  | 0             | -         | 0,0%          | 0,0%          | 0,1%          | 0,0%          | 2,4%          | 0,5%         |
| Other   | 372           | 14        | 2,8%          | 4,6%          | 6,9%          | 0,0%          | 44,3%         | 10,0%        |
| <b>Government bonds</b>                                       | <b>1 015</b>  | <b>9</b>  | <b>7,6%</b>   | <b>6,4%</b>   | <b>6,9%</b>   | <b>0,0%</b>   | <b>31,4%</b>  | <b>8,4%</b>  |
| <b>Corporate bonds</b>  | <b>149</b>    | <b>18</b> | <b>1,1%</b>   | <b>3,9%</b>   | <b>6,0%</b>   | <b>0,0%</b>   | <b>22,7%</b>  | <b>6,9%</b>  |
| <b>Structured notes</b>                                       | <b>568</b>    | <b>9</b>  | <b>4,3%</b>   | <b>1,6%</b>   | <b>4,1%</b>   | <b>0,0%</b>   | <b>18,9%</b>  | <b>4,9%</b>  |
| <b>Collateralised securities</b>                              | <b>0</b>      | <b>-</b>  | <b>0,0%</b>   | <b>0,1%</b>   | <b>0,1%</b>   | <b>0,0%</b>   | <b>0,9%</b>   | <b>0,2%</b>  |
| <b>Mortgages and loans</b>                                    | <b>14</b>     | <b>9</b>  | <b>0,1%</b>   | <b>0,2%</b>   | <b>0,2%</b>   | <b>-3,7%</b>  | <b>2,5%</b>   | <b>1,0%</b>  |
| <b>Property</b>   | <b>0</b>      | <b>-</b>  | <b>0,0%</b>   | <b>1,3%</b>   | <b>0,6%</b>   | <b>0,0%</b>   | <b>7,6%</b>   | <b>1,5%</b>  |
| <b>Deposits</b>   | <b>667</b>    | <b>10</b> | <b>5,0%</b>   | <b>1,2%</b>   | <b>2,0%</b>   | <b>-0,3%</b>  | <b>14,5%</b>  | <b>3,3%</b>  |
| <b>Cash and cash equivalents</b>                              | <b>65</b>     | <b>17</b> | <b>0,5%</b>   | <b>1,2%</b>   | <b>2,2%</b>   | <b>0,0%</b>   | <b>8,5%</b>   | <b>2,5%</b>  |
| <b>Other investments</b>                                      | <b>0</b>      | <b>-</b>  | <b>0,0%</b>   | <b>0,4%</b>   | <b>0,3%</b>   | <b>0,0%</b>   | <b>8,1%</b>   | <b>1,5%</b>  |
| <b>Not reported</b>   | <b>0</b>      | <b>-</b>  | <b>0,0%</b>   | <b>1,2%</b>   | <b>0,1%</b>   | <b>0,0%</b>   | <b>2,3%</b>   | <b>0,4%</b>  |
| <b>Total Investments, deposits, cash and cash equivalents</b> | <b>13 294</b> | <b>14</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>0,0%</b>  |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

The Collective Investment Undertakings (78,4%) and the Government bonds (7,6%) represent the most important asset classes of the index-linked and unit-linked investments. Overall, we note a significantly different asset exposure allocation in comparison to the

asset exposure for non-index-linked and unit-linked investments. Hereby we refer to section 2 for further details.

Relatively to the EU average, we observe a significant difference between the portion of index-linked and unit-linked related assets that were invested in Debt funds, 31,5% in Poland compared to 19,0% in the EU.

### 3.3 Equity exposure

The Solvency II balance sheet (S.02.01) does not include a further split in different asset classes for the Assets held for index-linked and unit-linked contracts. Hence the rescaling exercise as presented in section 2 cannot be performed here.

**Table 14 - Equity exposure based upon Solvency II exposure list (S.06.02)**

| in Mio EUR   | PL           |           |              | EU           |              |              |              |              |
|--|--------------|-----------|--------------|--------------|--------------|--------------|--------------|--------------|
|  | Amount       | Rank      | %            | %            | Avg          | Min          | Max          | StD          |
| <b>Equity</b>  | <b>371</b>   | <b>11</b> | <b>2,8%</b>  | <b>19,3%</b> | <b>4,5%</b>  | <b>0,0%</b>  | <b>30,1%</b> | <b>7,1%</b>  |
| Common equity  | 358          | 11        | 2,7%         | 18,0%        | 3,9%         | 0,0%         | 28,8%        | 6,3%         |
| Equity of real estate related corporation                                | 13           | 11        | 0,1%         | 0,8%         | 0,3%         | 0,0%         | 1,5%         | 0,5%         |
| Other equity   | 0            | -         | 0,0%         | 0,4%         | 0,3%         | 0,0%         | 4,1%         | 0,9%         |
| <b>Collective Investment Undertakings - Equity funds</b>                 | <b>3 911</b> | <b>14</b> | <b>29,4%</b> | <b>26,5%</b> | <b>29,3%</b> | <b>11,2%</b> | <b>57,5%</b> | <b>10,4%</b> |
| Equity funds   | 3 911        | 14        | 29,4%        | 26,5%        | 29,2%        | 11,2%        | 57,5%        | 10,5%        |
| Private equity funds   | 0            | -         | 0,0%         | 0,1%         | 0,2%         | 0,0%         | 2,9%         | 0,6%         |
| <b>Structured notes - Equity risk</b>                                    | <b>341</b>   | <b>10</b> | <b>2,6%</b>  | <b>1,2%</b>  | <b>2,7%</b>  | <b>0,0%</b>  | <b>15,0%</b> | <b>3,5%</b>  |
| <b>Total Equity exposure</b>   | <b>4 622</b> | <b>14</b> | <b>34,8%</b> | <b>47,1%</b> | <b>36,5%</b> | <b>11,7%</b> | <b>58,6%</b> | <b>10,9%</b> |
| <b>Equity without Equity of real estate related corporation</b>          | <b>358</b>   | <b>11</b> | <b>2,7%</b>  | <b>16,0%</b> | <b>4,2%</b>  | <b>0,0%</b>  | <b>29,2%</b> | <b>6,8%</b>  |
| <b>Equity exposure without Equity of real estate related corporation</b> | <b>4 609</b> | <b>14</b> | <b>34,7%</b> | <b>40,0%</b> | <b>36,2%</b> | <b>11,7%</b> | <b>58,6%</b> | <b>10,8%</b> |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In Poland, we note that total equity exposures related to index-linked and unit-linked contracts (34,8%) are significantly higher in comparison to non index-linked and unit-linked contracts (24,5%). Equity funds are the main contributors to the total equity exposures.

#### 3.3.1 Direct and indirect equity exposure

**Table 15 - Direct and indirect equity exposure based upon Solvency II exposure list (S.06.02)**

| in Mio EUR  | PL           |           |               | EU            |               |               |               |              |
|---|--------------|-----------|---------------|---------------|---------------|---------------|---------------|--------------|
|   | Amount       | Rank      | %             | %             | Avg           | Min           | Max           | StD          |
| <b>Direct equity</b>                              | <b>371</b>   | <b>11</b> | <b>8,0%</b>   | <b>38,3%</b>  | <b>11,1%</b>  | <b>0,0%</b>   | <b>54,2%</b>  | <b>15,2%</b> |
| Common equity                                     | 358          | 11        | 7,7%          | 35,4%         | 9,6%          | 0,0%          | 51,8%         | 13,2%        |
| Equity of real estate related corporation         | 13           | 11        | 0,3%          | 1,7%          | 0,7%          | 0,0%          | 4,0%          | 1,1%         |
| Other equity                                      | 0            | -         | 0,0%          | 1,3%          | 0,8%          | 0,0%          | 9,7%          | 2,2%         |
| <b>Indirect equity</b>                            | <b>4 251</b> | <b>14</b> | <b>92,0%</b>  | <b>61,7%</b>  | <b>88,9%</b>  | <b>45,8%</b>  | <b>100,0%</b> | <b>15,2%</b> |
| Collective Investment Undertakings - Equity funds | 3 911        | 14        | 84,6%         | 59,1%         | 81,5%         | 45,7%         | 100,0%        | 15,5%        |
| Equity funds                                      | 3 911        | 14        | 84,6%         | 58,6%         | 81,0%         | 44,9%         | 100,0%        | 16,0%        |
| Private equity funds                              | 0            | -         | 0,0%          | 0,5%          | 0,5%          | 0,0%          | 6,9%          | 1,4%         |
| Structured notes - Equity risk                    | 341          | 10        | 7,4%          | 2,6%          | 7,4%          | 0,0%          | 35,8%         | 9,6%         |
| <b>Total Equity exposure</b>                      | <b>4 622</b> | <b>14</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>100,0%</b> | <b>0,0%</b>  |

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In 2017 Q4, Polish insurers invested almost all of their Assets held for index and unit-linked contracts in Indirect equity (92,0% of Total equity); with Direct equity accounting for the remaining 8,0% of Total equity.



In terms of direct equity exposure, Poland ranked number 11 and number 11 in the EU, with regards respectively to the exposure amount to Common equity and Equity of real estate related corporation.

Within the Indirect equity category, Equity funds constituted the bulk of investments, amounting to 84,6% of Total equity whereas allocation to Private equity funds were inexistent.

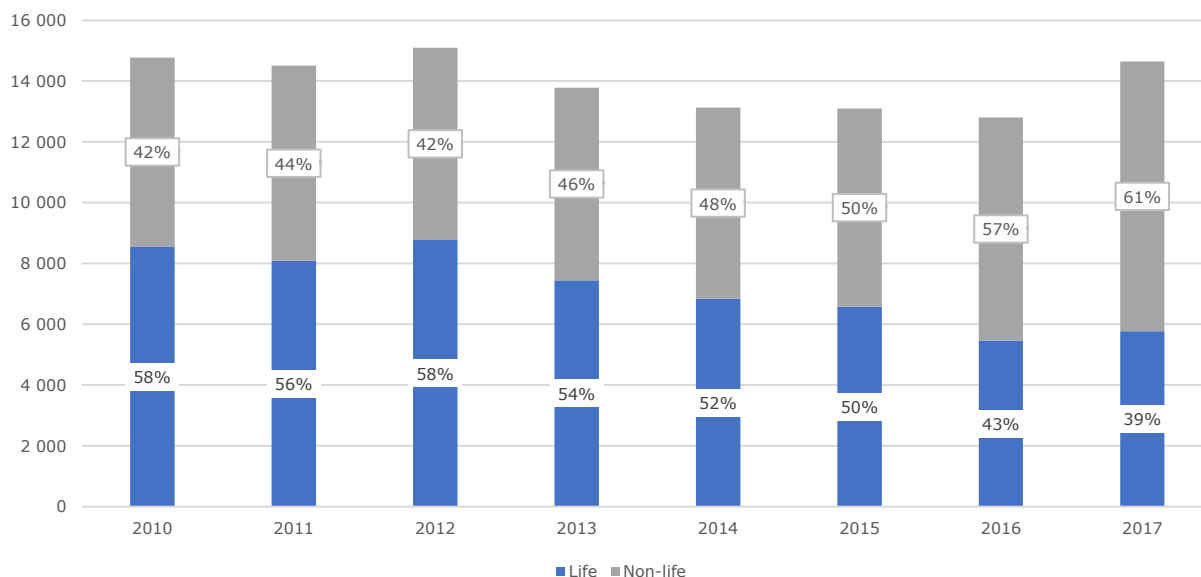
## 4 Insurance products

### 4.1 Overview

This section covers the most important insurance products offered in Poland and the volume of the market. Data reported in this section obtained from the Polish Financial Supervision Authority (KNF) and the Polish Insurance Association (PUI).<sup>3</sup>

Since 2012, when gross written premiums of the Polish insurance market reached a high of 15 104 million EUR, they have been declining at an average yearly rate of 4% and touched a low of 12 807 million EUR at the end of 2016. However, during 2017 the market picked up momentum and grew by 14,4% to 14,647 million EUR, mainly due to non-life insurance activity which recorded a 21% to 8 877 million EUR. This is part of a change in the structure of the market over the last years resulted to a shift from life insurance business towards non-life business.

**Graph 1 - Gross written premiums (in Mio EUR)**



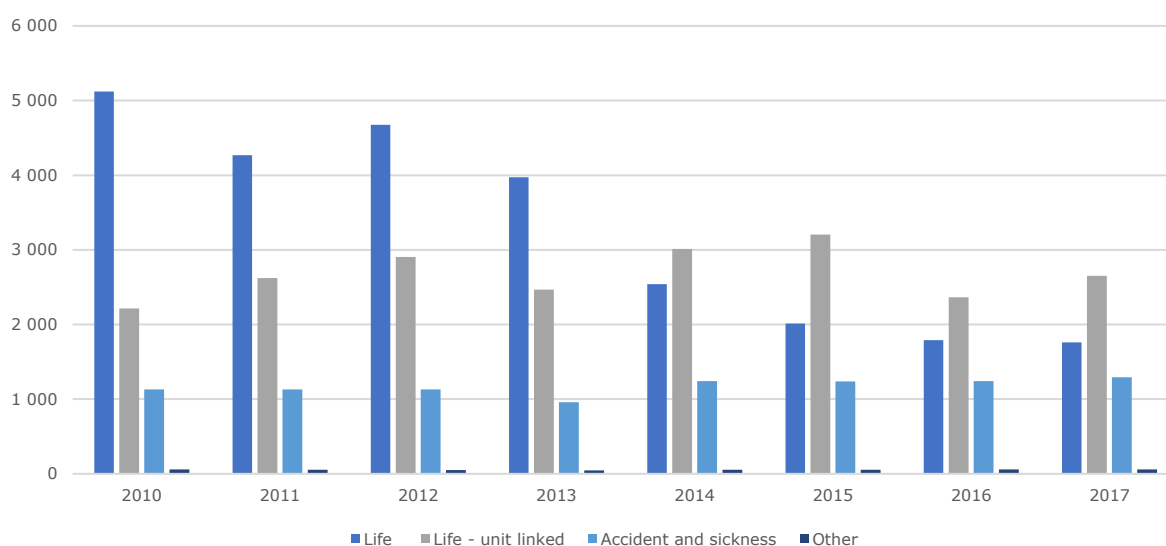
Source: KNF and PUI

<sup>3</sup> Available at [https://www.knf.gov.pl/publikacje\\_i\\_opracowania](https://www.knf.gov.pl/publikacje_i_opracowania) and <https://piu.org.pl/en/annual-piu-report/>.

## 4.2 Life insurance products

After reaching 8 762 million EUR in 2012, gross written premiums dropped by 37,7% to 5 459 million EUR in 2016. Last year, in 2017, the market increased by 5,6% and reached 5 764 million EUR. Looking at the structure of the life insurance segment, the market is mainly dominated by simple and unit-linked products, which collectively account for approximately 80% of gross written premiums. However, there is a shift over the years from non-unit-linked products towards unit-linked. In particular, unit-linked premiums which in 2011 accounted for 32,4% (2 620 million EUR) of all premiums, at the end of 2017 represented 43,3%. Contrary, the share of non-unit-linked products fell from 52,9% to 30,6%, over the same period.

**Graph 2 - Gross written premiums for life insurance products (in Mio EUR)**



*Note: Other includes marriage and birth assurance, as well as annuity insurance.*

Source: KNF and PUI



### **4.3 Non-Life insurance products**

The non-life segment continued its upward trend in 2017 and recorded a growth rate of 21,3% totalling 8 410 million EUR. However, going deeper into this analysis, there are very different behaviours among the main products offered.

#### **4.3.1 Motor**

In 2017 most premiums were written in motor insurance: 41,4% of those were the premiums from third-party liability policies (an increase of 2,7% against 2016) and 21,4% premiums from motor insurance policies. Both of them increased significantly since 2016: motor liability by 30,2% to 3 479 million EUR, and motor insurance by 19,4% to 1 798 million EUR.

#### **4.3.2 Fire and other damage to property**

Property insurance ranked second and totalled 1 461 million EUR, accounting 17,4% of the non-life premiums. This is equally distributed between fire and natural forces (8,9%) and other damage and loss property (8,5%).

#### **4.3.3 Accident and sickness insurance**

Accident and sickness insurance products premium was up by 8,2% to 512 million EUR as of end-2017m and accounted for 6,1% of the total non-life premium income.

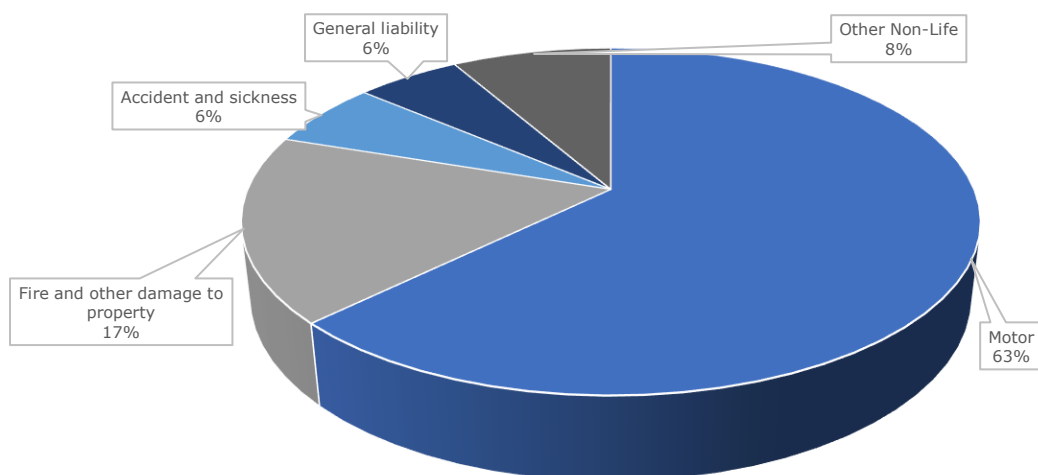
#### **4.3.4 General liability insurance**

Following a drop by 7,2% in 2016, general liability gross written premium income grew by 4,8% to 458 million EUR in 2017.

#### **4.3.5 Other non-life**

Other classes of non-life business, such as credit and suretyship, financial loss, legal protection and assistance, accounted for 631 million EUR (7,5%) in written premium in 2017. This was 17,8% higher than a year ago.

**Graph 3 - Allocation of gross written premiums for non-life insurance products (in %)**



*Note: Motor includes motor insurance and third party liability. Other non-life insurance includes credit and suretyship, financial loss, legal protection, assistance, as well as marine, aviation and transport.*

Source: KNF

#### 4.4 Average duration

In 2016, EIOPA published their Insurance Stress Test Report<sup>4</sup>, which resulted in the following conclusions for Poland:

- The approximate effective duration for the TP life for all lines of business reported by the EIOPA 2016 stress test participants is 7,08;
- The Macaulay duration for the TP life for all lines of business reported by the EIOPA 2016 stress test participants is 10,67.

In comparison, the approximate effective duration and Macaulay duration for the TP life for all lines of business for the EU/EEA are 8,23 and 13,97, respectively.

<sup>4</sup> EIOPA, 2016, 2016 EIOPA Insurance Stress Test Report. <https://eiopa.europa.eu/publications/surveys/eiopa-bos-16-302%20insurance%20stress%20test%202016%20report.pdf>





## 5 Accounting & Tax framework

### 5.1 Accounting framework

The EU has introduced rules, as laid down in Directive 2013/34/EU, to promote the convergence of accounting standards at global level and to ensure consistent and comparable financial reporting across the EU. Regulation 1606/2002/EC requires all listed companies to prepare their consolidated financial statements in accordance with a single set of international standards, the so-called IFRS.<sup>5</sup>

1. Applicable GAAP at consolidated level: IFRS required for all listed companies and permitted for non-listed companies. However, IFRS is required for non-listed companies that have filed for admission for public trading or subsidiaries of a company preparing consolidated financial statements in conformity with IFRS<sup>6</sup>;
2. Applicable GAAP at statutory level: IFRS permitted for all listed companies and required for non-listed companies that have filed for admission for public trading or subsidiaries of a company preparing consolidated financial statements in conformity with IFRS<sup>6</sup>;
3. Prudential regulatory framework: Solvency II for the calculation of the Solvency Capital Requirement.

### 5.2 Tax framework

#### 5.2.1 Capital gains on shares

Capital gains on the disposal of shares are added to the taxpayer's total ordinary income and are subject to tax at the ordinary corporate income tax rate of 19%.

#### 5.2.2 Capital losses on shares

Capital losses are deductible from ordinary business income

#### 5.2.3 Taxation of dividends

A 100% exemption applies on dividends received by resident corporate shareholders if the following conditions are met:

1. A holding requirement: minimum participation of 10%;
2. A holding period requirement: participation should be held uninterruptedly for at least two years;
3. A taxation requirement: the parent company may not be exempt from an income tax and the subsidiary should be subject to corporate income tax in Poland;
4. A deductibility requirement: the dividends may not have been tax deductible at the level of the distributing entity.
5. A nationality requirement: the distributing entity should be resident of Poland, Switzerland or another EU/EEA-state.

If one or more of the above conditions is not met, the dividend is taxed at the ordinary tax rate.

<sup>5</sup> [https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/financial-reporting\\_en](https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/financial-reporting_en)

<sup>6</sup> <https://www.ifrs.org/-/media/feature/around-the-world/jurisdiction-profiles/poland-ifrs-profile.pdf>



Foreign-source dividends (non-EU/Swiss) derived by resident companies are included in their corporate income tax base and are subject to tax at the general corporate income tax rate.

Polish source dividends are subject to 19% withholding tax (WHT), unless a tax treaty provides for a lower rate or the EU parent-subsidiary directive applies. Additional condition for the exemption under the parent-subsidiary directive to apply is that the (set of) transaction(s) may not be undertaken to benefit from a tax exemption while not reflecting economic reality.

Foreign tax paid may be credit against Polish tax on the same profits, but the credit is limited to the amount of Polish tax payable on the foreign income.

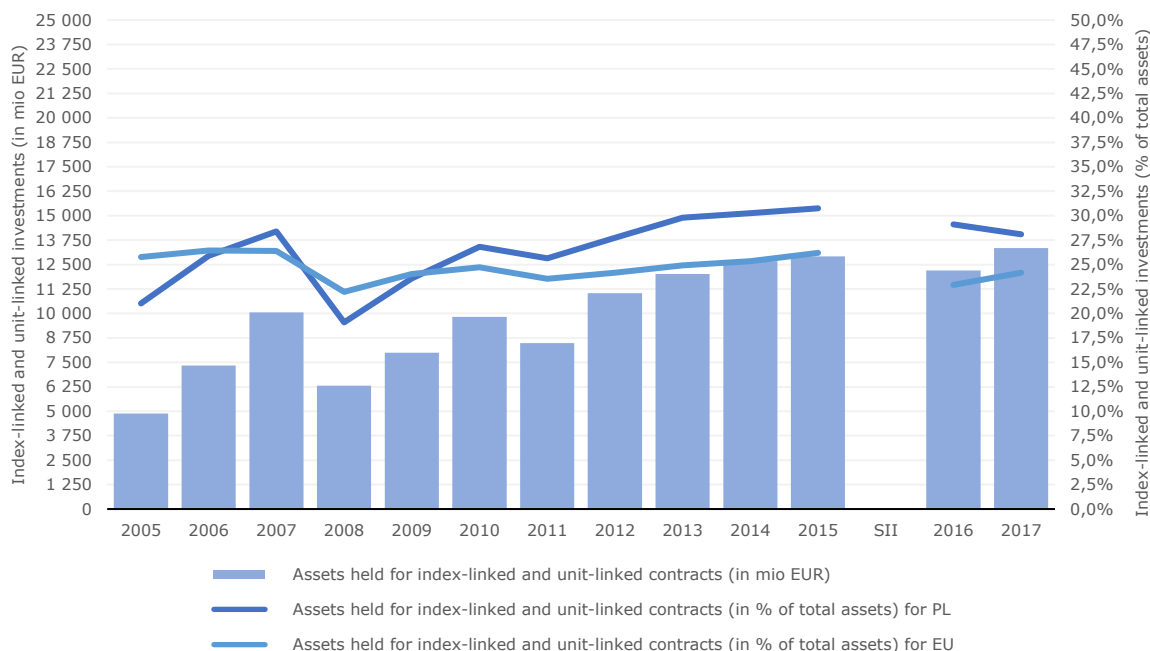
## 6 Historical data

The following section contains historical overviews of Solvency I, Solvency II and ECB data in order to provide insights on possible short and long-term trends.

### 6.1 Index-linked and unit-linked investments in comparison to total assets

Based upon the Solvency I and Solvency II (S.02.01) historical information, the evolution of the index-linked and unit-linked investments in comparison to total assets of Poland is compared to the EU. The break in Graph 4 shows the transition from the Solvency I to the Solvency II regulatory framework. Under Solvency II assets are presented based upon their market value.

**Graph 4 - Evolution index-linked and unit-linked investments based upon Solvency I and Solvency II**



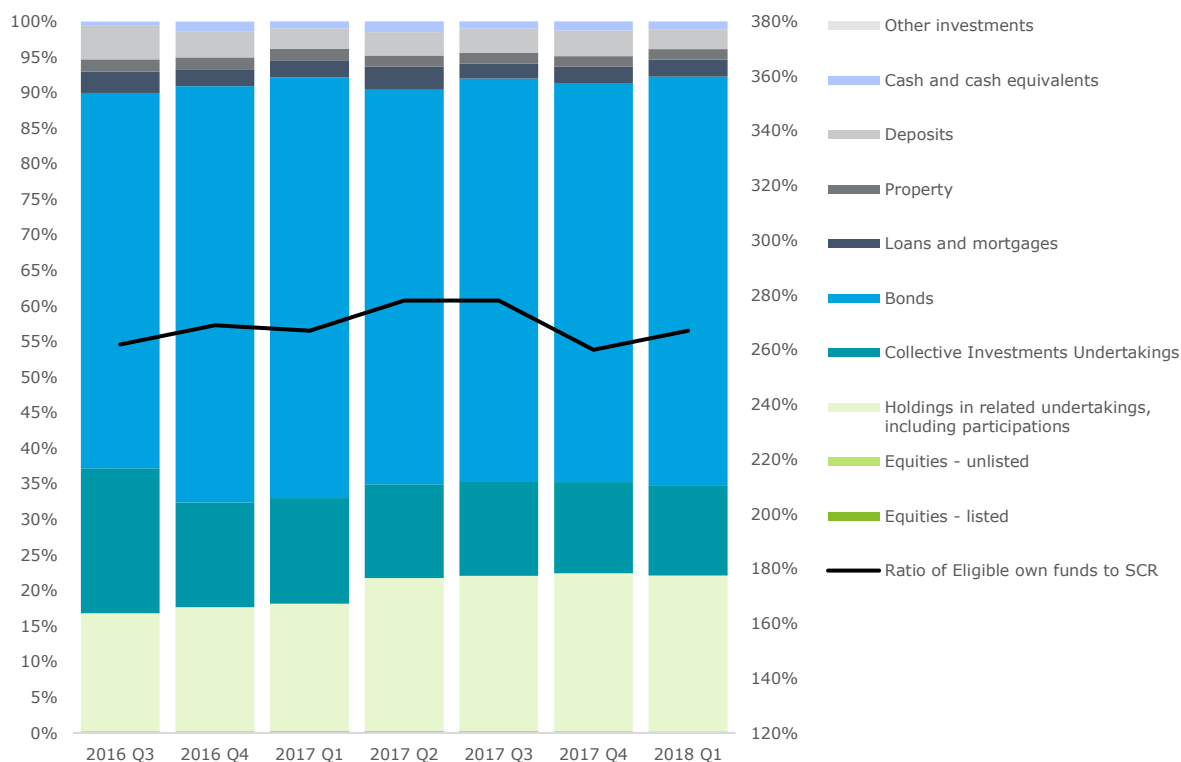
Source: EIOPA Solvency I and Solvency II statistics and Deloitte-CEPS analysis

As shown in Graph 4, the share of index-linked and unit-linked investments in comparison to total assets in Poland increases as from 2008. Note that the graph for the EU shows a relatively stable behaviour over the observation period, with a slightly increasing trend as from 2011.

## 6.2 Solvency II – excluding index-linked and unit-linked investments

Based upon the Solvency II (S.02.01) quarterly data from 2016 Q3 until 2018 Q1, the evolution of the different asset categories is depicted in Graph 5. Furthermore, the evolution of the SCR ratio is shown over the seven quarters.

**Graph 5 - Evolution Solvency II balance sheet (S.02.01) items (Total Investments, deposits, cash and cash equivalents) and SCR ratio**



Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

The composition of the Polish insurers' balance sheet has remained relatively stable over the quarters since the introduction of Solvency II on 1 January 2016<sup>7</sup>. This seems to be confirmed by the fact that the most dominant asset classes such as Bonds, Collective Investment Undertakings and Holdings in related undertakings (including participations) do not suggest a clear trend whether it be downwards or upwards.

Bonds have constituted the major part of the Polish insurers' balance sheet since the introduction of Solvency II.

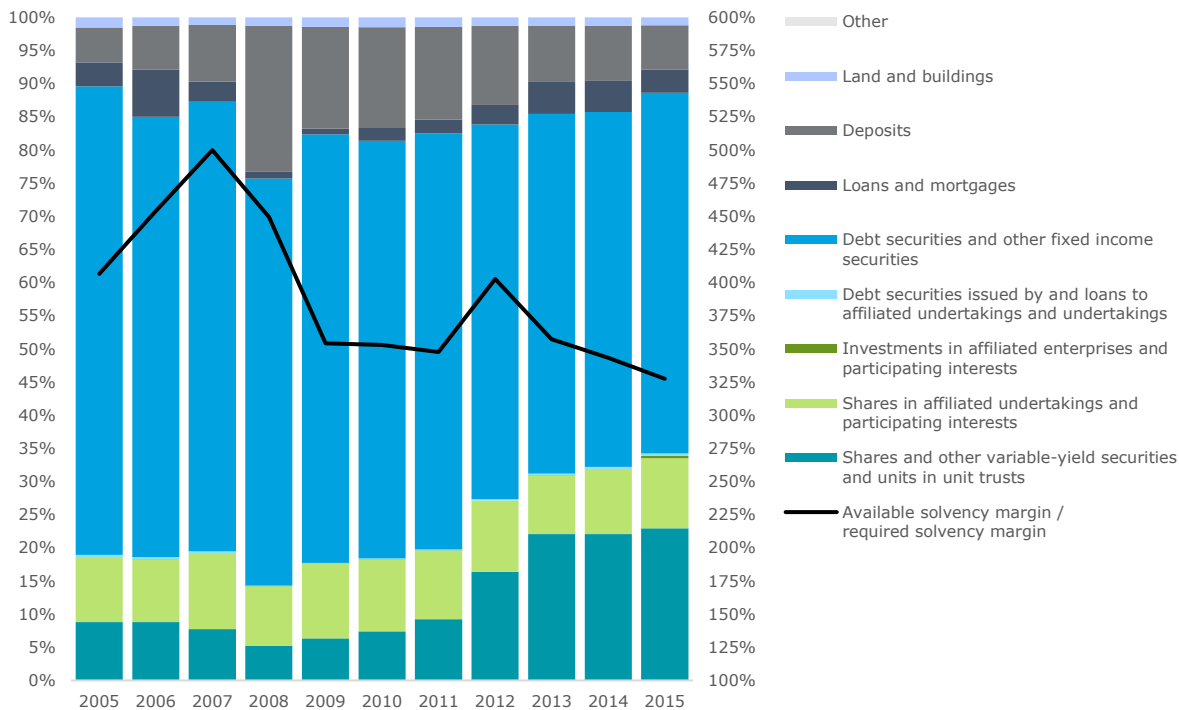
For Poland, the SCR ratio shows a stable trend over the observation period. Overall, this trend has not resulted into significant changes in the asset allocation of the overall Polish insurance market.

<sup>7</sup> Day one reporting, 2016 Q1 and Q2 are not publicly available

### 6.3 Solvency I – excluding index-linked and unit-linked assets

Based upon the Solvency I yearly data from 2005 until 2015, the evolution of the different investment asset categories is depicted in Graph 6. Furthermore, the evolution of the solvency ratio is shown over the history.

**Graph 6 - Evolution Solvency I balance sheet items (Total Investments, deposits, cash and cash equivalents)**

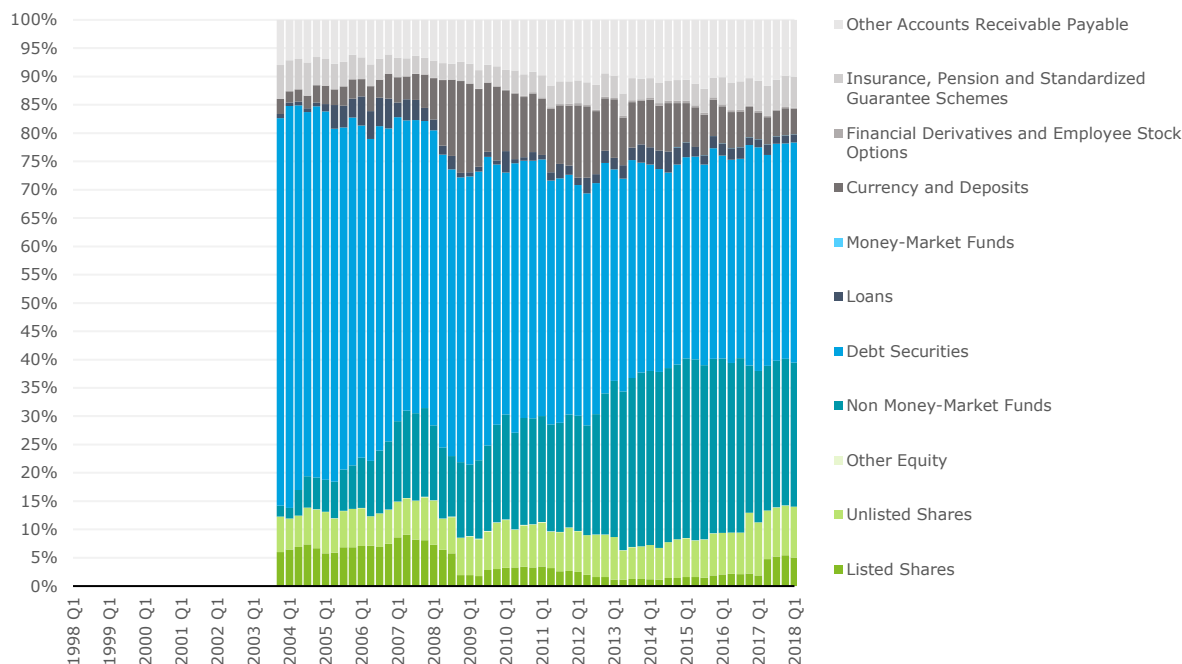


Source: EIOPA Solvency I statistics and Deloitte-CEPS analysis

Graph 6, which relates to Solvency I figures suggests the following observations. The dominance of Bonds that we observed under the rules of Solvency II has been a characteristic of the Polish insurers' balance sheet for more than a decade. Furthermore, the category Shares and other variable-yield securities and units in unit trusts has gained importance over the years. The solvency ratio showed a decreasing trend as from 2007.

## 6.4 European Central Bank – including index-linked and unit-linked assets

Graph 7 - Evolution ECB balance sheet items (asset categories)



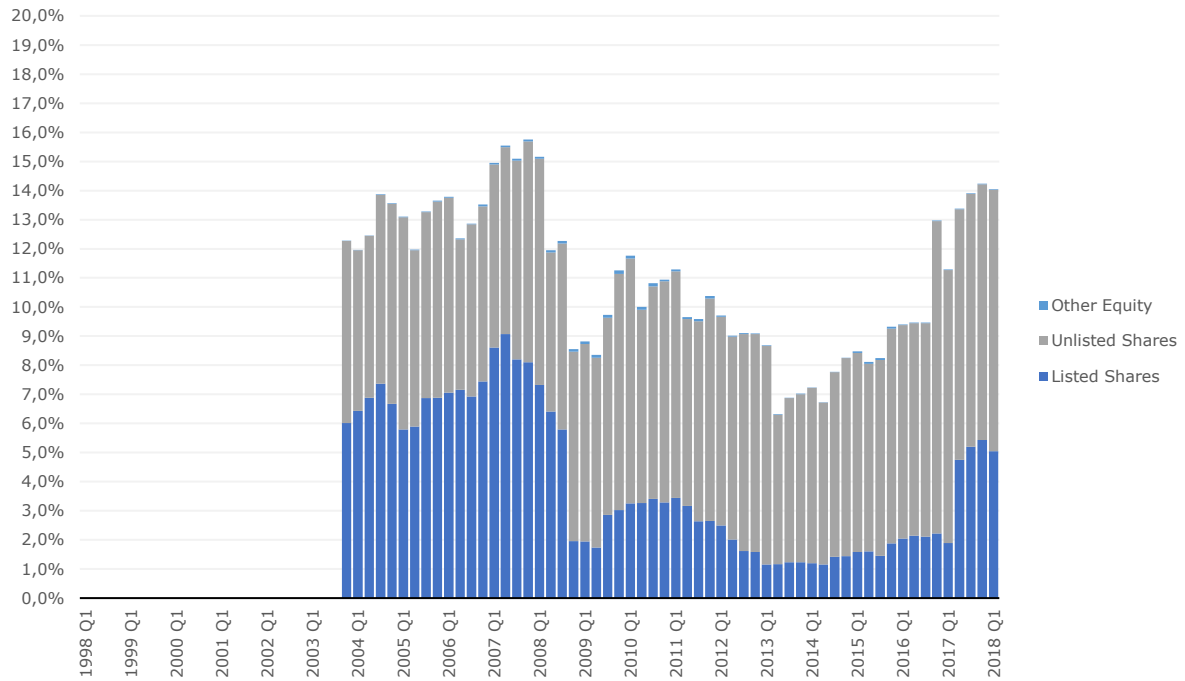
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

Graph 7 relates to figures of investments by Polish Insurers since 2003 Q4 as reported by the ECB. It can be observed that the dominance of bonds in the investments, which is observed in Solvency I, and II (see graphs above) is confirmed as a long-standing characteristic of Polish insurers. However, over the last years, there is a decreasing importance of Debt securities in favour of the Non Money-Market Funds.

On the next page, the Equity asset classes are presented in a more detailed view. Furthermore, the evolution of the listed shares (normalised to a start value of 100) of Slovakia is plotted against the aggregated EU data.

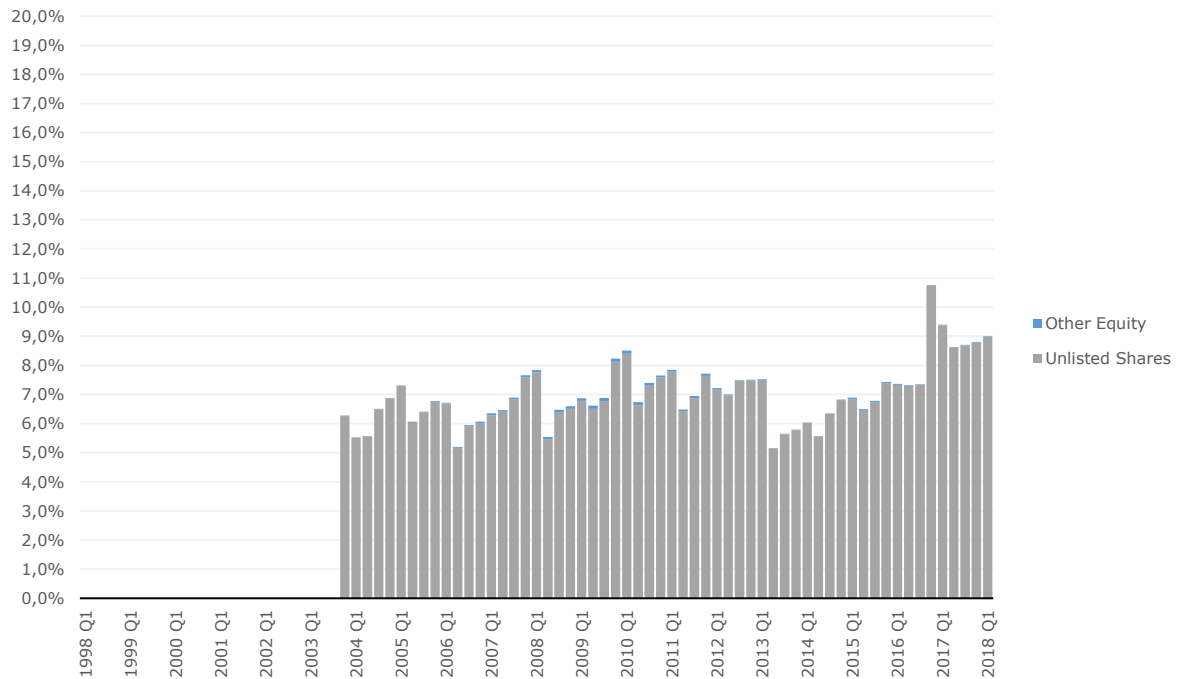
We remark that these graphs include index-linked and unit-linked assets, which cannot be individualised from the figures published by the ECB.

**Graph 8 - Evolution ECB balance sheet items (equity categories)**



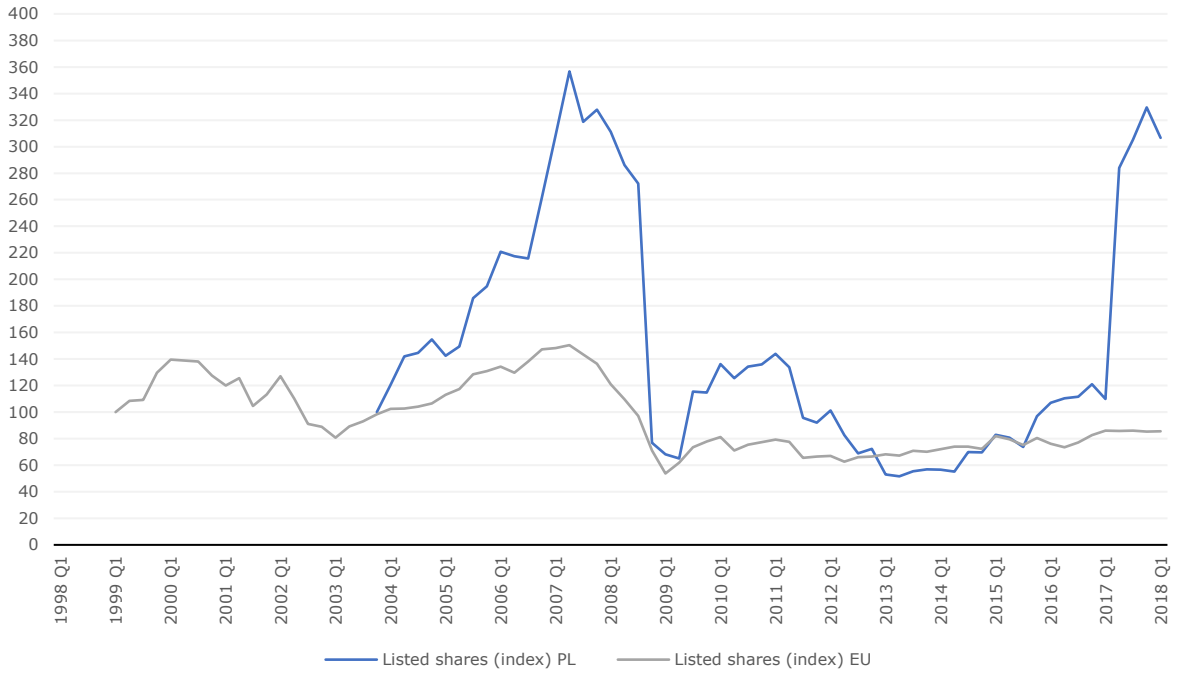
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

**Graph 9 - Evolution ECB balance sheet items (Unlisted Shares and Other Equity)**



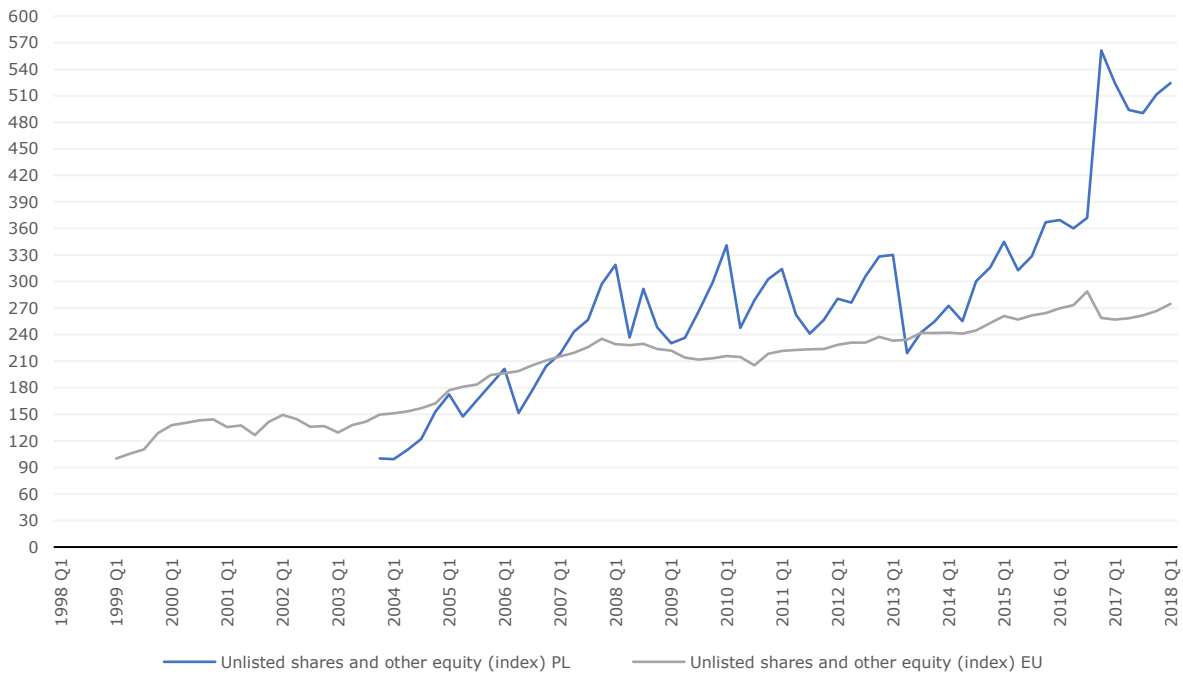
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

**Graph 10 - Evolution ECB listed shares PL and EU (as index)**



Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

**Graph 11 - Evolution ECB unlisted shares and other equity PL and EU (as index)**



Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis



## 6.5 Trends in Equity Investments

This section provides a trend analysis of the equity investments of insurers in Poland using the balance sheet data of the insurance sector from the ECB Statistical Data Warehouse. Given the availability of the equity split in the ECB database, the analysis focuses on investments in listed shares and investments in unlisted shares and other equity.

### 6.5.1 Listed Shares

In the analysis below, the listed shares of insurance corporations are plotted against the total assets in the industry both in amounts and in indexed values. The aim of this comparative analysis is to understand the evolution of listed shares in the overall insurance market. Similarity of the growth patterns in the listed shares and total assets can be considered as an indication of the extent to which the equity investments are driven by a good (or bad) economic environment in the industry at a certain point in time. A presentation of the variables only in amounts might dilute the magnitude of the growths for countries with large assets because in such a representation, the listed shares will be overstated. Therefore, we also plot each series as indexed to the initial point in their available history.

In the next step, we focus on the relationship with the listed shares and stock market indices. The ECB QSA balance sheet items are valued at market prices at the end of each quarter. Therefore, it is plausible to assume that the changes in the stock prices are reflected on the amounts held in listed shares. In order to remove this "price effect" from the observed amounts of listed shares and approximate the "real" amounts held in shares, we consider adjusting the observed amounts in listed shares. Even though we observe high correlations with listed shares and several stock indices, since the exact destinations of the portfolio invested in listed shares at each period is not observable, we build a "Weighted Equity Index" similar to the EIOPA Equity Dampener.

Amounts invested in listed shares and the total amount of assets of the insurance sector are plotted in Graph 12 while the indexed values of the series are presented in Graph 13. Investments in listed shares experience an increase during the period 2003 Q3 – 2007 Q2 and reach an amount of 3 006 million EUR in the second quarter of 2007. However, the investments drop by 78,04% in 2008 during the Global Financial Crisis. Investments return to the pre-crisis level only in the second quarter of 2017 with an increase of 158,64%.

On the indexed values of total assets and investments in listed shares, differences in the growth pattern of these two series can be better observed. Over the period of 2003 Q4 – 2018 Q1, indexed value of total assets increases by 265%, while indexed value of listed shares decrease by 207% of their initial starting values.

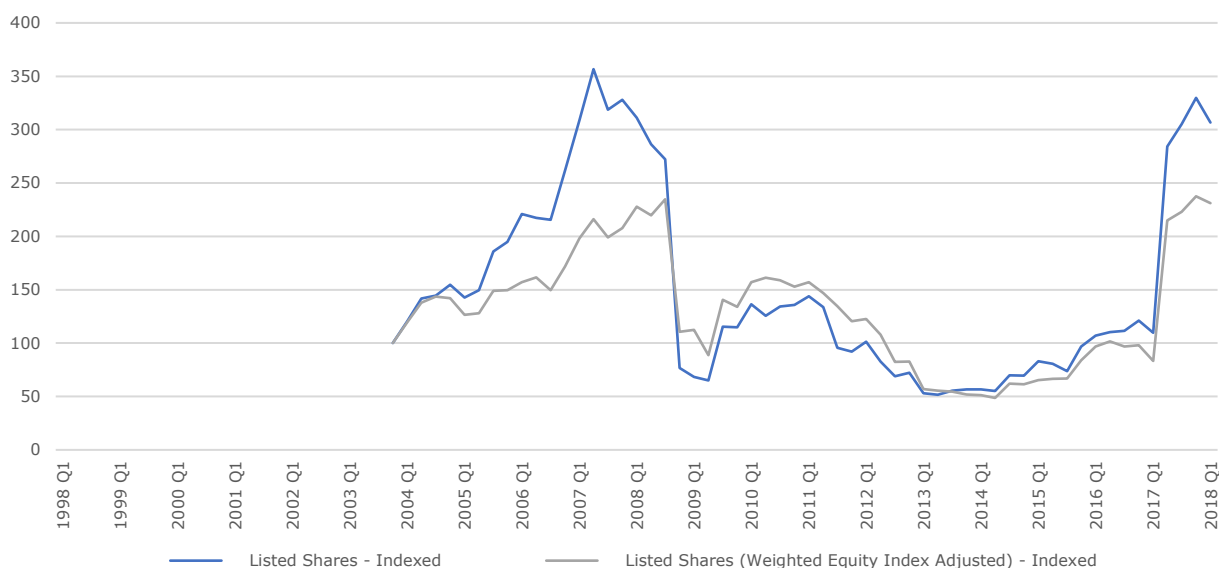
**Graph 12 - Evolution of Listed Shares and Total Assets (in Mio EUR)**

Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

**Graph 13 - Evolution of Listed Shares and Total Assets (indexed values)**

Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

Graph 14 presents the indexed values of the amounts invested in listed shares against its Weighted Equity Index adjusted counterpart. Overall, adjusted and unadjusted listed shares follow a similar pattern meaning that the market price effect is, in general not apparent for Polish insurers. However, we do observe some periods of deviation, where indexed values of listed shares are larger than the adjusted values. This is the case for the period between 2005 Q3 and 2008 Q3 and for the period after 2017 Q1. This in turn points to a market price effect being present during these particular periods.

**Graph 14 - Evolution of Listed Shares – Indexed (Weighted Equity Index Adjusted)**

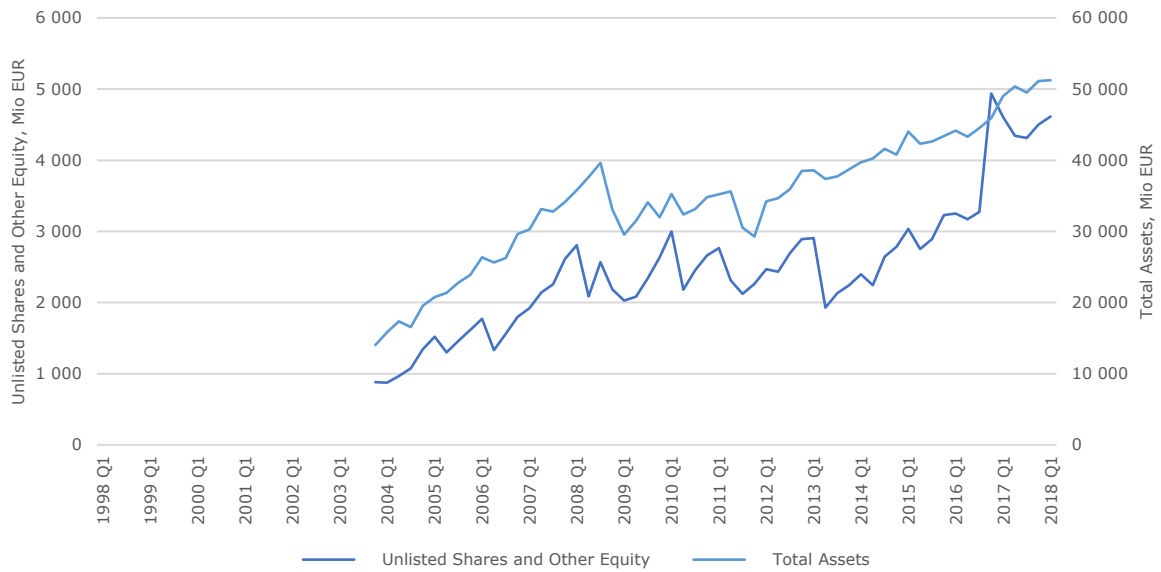
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

### 6.5.2 Unlisted Shares

Graph 15 depicts the amounts invested in unlisted shares and other equity plotted against the total assets in the insurance markets of while Graph 16 presents the indexed values of the series for an easier comparison of the movements in these two series. Investments in unlisted shares and other equity show a similar increasing trend as total assets. For the period of 2003 Q4 – 2018 Q1, investments experience an increase from 880 million EUR to 4 614 million EUR, which translates to a growth of 425%. Investments in this category of equities exhibit a large increase of 50,83% during the last quarter of 2016.

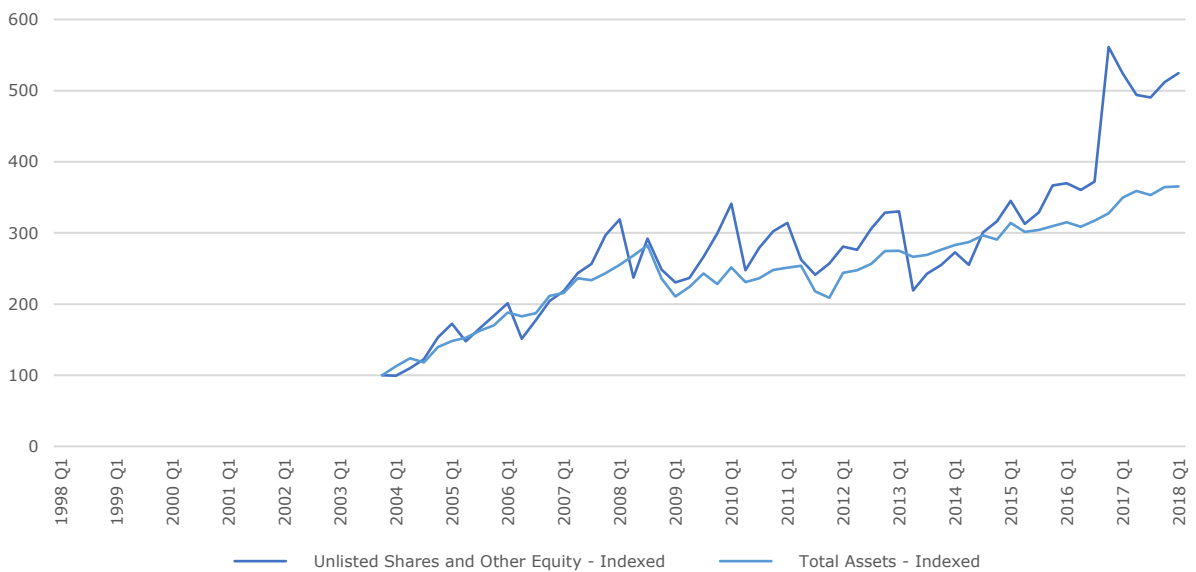
The growth patterns of total assets and unlisted shares and other equity can be compared on the indexed amounts. Total assets exhibit an increasing trend, closely followed by unlisted shares and other equity. However, starting from the last quarter of 2015, growth in the investments gets stronger than the growth in total assets. Over the period of 2003 Q4 – 2018 Q1, indexed value of total assets increases to 365 while indexed value of unlisted shares and other equity reaches 524.

**Graph 15 - Evolution of Total Unlisted Shares and Other Equity and Total Assets (in Mio EUR)**



Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

**Graph 16 - Evolution of Unlisted Shares and Other Equity (indexed values)**



Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis