ESTONIA
Key characteristics of the insurance market

1 Introduction

1.1 General

At the end of 2017 (2017 Q4), 10 insurance companies[1] in Estonia submitted their Solvency II related reporting package to the Estonian National Supervisory Authority (NSA). These companies accounted for 0,016% of Total assets of insurance undertakings operating within the European Union (EU).

Table 1 depicts the number of Solvency II reporting submissions in Estonia 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	1
Non-Life undertakings	7
Reinsurance undertakings	0
Composite undertakings	2
Total	**10**
Total assets EE / Total assets EU %	**0,016%**
Ranking EE based on Total assets EU	**26**

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

1.2 Balance sheet

At the end of 2017 (2017 Q4), Estonia was the number 26 country in the EU insurance market in terms of assets held with an amount of 1 783 million EUR reported under Solvency II rules.

Concerning the Assets held for index-linked and unit-linked contracts, Estonia ranked number 24 in terms of absolute amount with 527 million EUR invested in this category. However, with 29,6% of Total assets of this category, Estonia was significantly above the EU average, i.e. 24,3% in terms of Total assets.

In terms of technical provisions, 15,1% of the total balance sheet relates to the life business (i.e. non index-linked and unit-linked business), while 17,5% represented non-life obligations.

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

in Mio EUR	EE			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Investments, deposits, cash and cash equivalents	1 182	26	66,3%	67,8%	67,3%	22,6%	90,1%	17,2%
Assets held for index-linked and unit-linked contracts	527	24	29,6%	24,2%	24,3%	2,5%	59,3%	16,2%
Other assets	73	27	4,1%	8,1%	8,4%	2,1%	19,5%	4,9%
Total assets	**1 783**	**26**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**0,0%**
Technical provisions - life	269	26	15,1%	46,3%	32,2%	3,0%	64,2%	17,9%
Technical provisions - non-life	312	26	17,5%	6,6%	12,9%	2,4%	38,5%	9,1%
Technical provisions - index-linked and unit-linked	473	24	26,5%	25,1%	23,4%	2,4%	58,4%	16,0%
Other liabilities	98	26	5,5%	8,9%	9,0%	4,0%	21,3%	3,9%
Total liabilities	**1 152**	**26**	**64,6%**	**86,9%**	**77,6%**	**49,1%**	**92,7%**	**11,1%**
Excess of assets over liabilities	631	26	35,4%	13,1%	22,4%	7,3%	50,9%	11,1%
Total liabilities + Excess of assets over liabilities	**1 783**	**26**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**0,0%**

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

[1] In the report, the term 'insurance companies' indicates both direct insurance and reinsurance companies. The insurance market covered in this factsheet therefore refers to insurers and reinsurers.

The balance sheet item Investments, deposits, cash and cash equivalents will be further detailed in section 3, while section 2 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 Estonian insurance market as a whole had available own funds that were slightly less than the double of the Solvency Capital Requirement (SCR) levels required by the European Solvency II Directive. The reported SCR ratio amounted to 195% without the use of long-term guarantee (LTG) and transitional measures and is lower than of the EU, which amounted to 237% at year-end 2017[2]. Out of the 28 EU Member States, Estonia is ranked at the 19th position in terms of the reported SCR ratios.

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

in Mio EUR	EE		EU				
	Amount	Rank	%	Avg	Min	Max	StD
Total available own funds to meet the SCR	594	26	-	-	-	-	-
SCR	304	26	-	-	-	-	-
Surplus available own funds	**290**	**26**	**-**	**-**	**-**	**-**	**-**
Ratio of Eligible own funds to SCR	**195%**	**19**	**237%**	**225%**	**135%**	**361%**	**52%**
Ratio of Eligible own funds to SCR (10th percentile)	136%	13	136%	138%	110%	193%	19%
Ratio of Eligible own funds to SCR (25th percentile)	170%	9	162%	164%	128%	214%	24%
Ratio of Eligible own funds to SCR (50th percentile)	190%	19	215%	208%	144%	300%	37%
Ratio of Eligible own funds to SCR (75th percentile)	237%	21	306%	280%	164%	445%	59%
Ratio of Eligible own funds to SCR (90th percentile)	410%	11	457%	396%	173%	643%	99%
Ratio of Eligible own funds to MCR	**560%**	**17**	**640%**	**613%**	**282%**	**933%**	**170%**

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 Estonia since the undertakings do not apply any of the measures.[3]

[2] It has to be noted that no Estonian insurer is making use of the transitional and LTG measures, while the EU average might reflect the impact of these measures.
[3] 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 Estonian 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 EE		Solvency II balance sheet EE		Difference
	#	%	#	%	#
Life undertakings	1	10,0%	1	10,0%	0
Non-Life undertakings	7	70,0%	7	70,0%	0
Reinsurance undertakings	0	0,0%	0	0,0%	0
Undertakings pursuing both life and non-life insurance activity	2	20,0%	2	20,0%	0
Total	**10**	**100,0%**	**10**	**100,0%**	**0**

in Mio EUR	Exposure list EE		Solvency II balance sheet EE		Difference
	Amount	%	Amount	%	%
Holdings in related undertakings, incl. participations and equities	13	1,1%	13	1,1%	0,0%
Holdings in related undertakings, including participations	n/a	n/a	11	0,9%	n/a
Equities	n/a	n/a	2	0,2%	n/a
Equities - listed	n/a	n/a	2	0,1%	n/a
Equities - unlisted	n/a	n/a	0	0,0%	n/a
Collective Investments Undertakings	85	7,2%	85	7,2%	0,0%
Bonds	901	76,2%	901	76,2%	0,0%
Loans and mortgages	6	0,5%	6	0,5%	0,0%
Property	9	0,8%	9	0,8%	0,0%
Deposits	45	3,8%	45	3,8%	0,0%
Cash and cash equivalents	123	10,4%	123	10,4%	0,0%
Other investments	0	0,0%	0	0,0%	0,0%
Total	**1 182**	**100,0%**	**1 182**	**100,0%**	**0,0%**

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 compares the listed and unlisted equity, whereby Holdings in related undertakings (including participations) are excluded.

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

in Mio EUR	EE			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equities - listed	2	27	90,2%	83,7%	75,0%	12,8%	99,6%	21,1%
Equities - unlisted	0	-	9,8%	16,3%	25,0%	0,4%	87,0%	21,1%
Total equities	**2**	**28**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**0,0%**

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

Based upon the quarterly reporting as of Q4 2017, Estonian insurers invested 90,2% of their directly-held equity positions in listed equity in comparison to an average of 75,0% in the EU. With an amount of 2 million EUR, Estonia ranked number 27 in the EU.

With an invested amount of 0,2 million EUR, unlisted equity constituted a small portion of the equity investment category of the directly-held equity investments, i.e. 9,8%.

2.2 Asset exposure

From an asset exposure perspective, the insurance market in Estonia was mainly invested in Government bonds and Corporate bonds (in total 75,7% of Total Investments, deposits, cash and cash equivalents) and Collective Investment Undertakings (7,2%).

Within the bond categories, the insurance market was significantly less exposed to government securities (28,4%) than corporate debt (47,3%), categories for which Estonia ranked number 26 and number 21 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 Estonian insurance market in terms of asset exposures. Within this category, the industry was mainly exposed to Debt funds and Equity funds for which Estonia ranked respectively number 26 and number 25 in the EU.

Equity was the fourth category to which the Estonian insurers had the most exposure.

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

in Mio EUR	EE			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	**13**	**26**	**1,1%**	**12,0%**	**9,5%**	**1,1%**	**28,1%**	**6,5%**
Common equity	12	26	1,0%	10,4%	7,8%	1,0%	22,5%	6,0%
Equity of real estate related corporation	0	-	0,0%	1,0%	1,1%	0,0%	4,0%	1,2%
Other equity	1	25	0,0%	0,6%	0,6%	0,0%	2,0%	0,7%
Collective Investment Undertakings	**85**	**26**	**7,2%**	**19,2%**	**12,8%**	**1,5%**	**41,6%**	**9,3%**
Equity funds	17	25	1,4%	3,2%	2,7%	0,4%	10,9%	2,4%
Private equity funds	3	20	0,2%	0,5%	0,5%	0,0%	6,9%	1,3%
Debt funds	56	26	4,7%	7,8%	5,6%	0,8%	18,0%	4,9%
Money market funds	3	22	0,2%	2,3%	1,1%	0,0%	6,3%	1,6%
Asset allocation funds	4	24	0,3%	1,1%	0,8%	0,0%	3,9%	1,0%
Real estate funds	3	24	0,3%	1,6%	0,8%	0,0%	3,3%	0,9%
Alternative funds	0	-	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	0	-	0,0%	2,0%	0,9%	0,0%	7,2%	1,7%
Government bonds	**336**	**26**	**28,4%**	**28,7%**	**39,7%**	**10,0%**	**77,0%**	**18,9%**
Corporate bonds	**559**	**21**	**47,3%**	**26,9%**	**21,6%**	**1,8%**	**47,3%**	**11,2%**
Structured notes	**5**	**24**	**0,4%**	**1,3%**	**0,5%**	**0,0%**	**2,5%**	**0,6%**
Collateralised securities	**0**	**-**	**0,0%**	**0,6%**	**0,6%**	**0,0%**	**9,3%**	**1,8%**
Mortgages and loans	**6**	**27**	**0,5%**	**4,8%**	**3,8%**	**0,3%**	**26,3%**	**5,2%**
Property	**9**	**28**	**0,8%**	**2,0%**	**3,5%**	**0,8%**	**11,6%**	**2,6%**
Deposits	**0**	**-**	**0,0%**	**2,8%**	**0,0%**	**16,6%**	**3,7%**	**0,0%**
Cash and cash equivalents	**11**	**26**	**0,9%**	**1,4%**	**0,0%**	**16,6%**	**3,5%**	**0,0%**
Other investments	**0**	**-**	**0,0%**	**0,1%**	**0,1%**	**0,0%**	**0,9%**	**0,3%**
Not reported	**0**	**-**	**0,0%**	**0,0%**	**0,0%**	**0,0%**	**0,3%**	**0,1%**
Total Investments, deposits, cash and cash equivalents	**1 182**	**26**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**0,0%**

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

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

For Estonia, the undertaking type is not published. In accordance with Article 70(2) of the EIOPA Regulation, EIOPA may only divulge information and data - in summary or in aggregated form – so that individual financial institutions cannot be identified.

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 as to 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 7 - Equity exposure based upon Solvency II balance sheet (S.02.01) and Solvency II exposure list (S.06.02)

in Mio EUR	EE			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	**13**	**26**	**1,1%**	**12,0%**	**9,5%**	**1,1%**	**28,1%**	**6,5%**
Common equity	12	26	1,0%	10,4%	7,8%	1,0%	22,5%	6,0%
Equity of real estate related corporation	0	-	0,0%	1,0%	1,1%	0,0%	4,0%	1,2%
Other equity	1	25	0,0%	0,6%	0,6%	0,0%	2,0%	0,7%
Collective Investment Undertakings - Equity funds	**19**	**26**	**1,6%**	**3,8%**	**3,2%**	**0,4%**	**14,7%**	**3,5%**
Equity funds	17	25	1,4%	3,2%	2,7%	0,4%	10,9%	2,4%
Private equity funds	3	20	0,2%	0,5%	0,5%	0,0%	6,9%	1,3%
Structured notes - Equity risk	**0**	**-**	**0,0%**	**0,2%**	**0,1%**	**0,0%**	**0,6%**	**0,1%**
Total Equity exposure	**32**	**26**	**2,7%**	**16,0%**	**12,7%**	**2,5%**	**37,4%**	**8,4%**
Equity without Equity of real estate related corporation	**13**	**26**	**1,1%**	**11,0%**	**8,4%**	**1,1%**	**24,1%**	**6,1%**
Equity exposure without Equity of real estate related corporation	**32**	**26**	**2,7%**	**15,0%**	**11,7%**	**2,4%**	**33,3%**	**7,9%**
Equities market value balance sheet (rescaled to CIC scope)	**2**	**28**	**0,2%**	**3,6%**	**3,2%**	**0,1%**	**20,6%**	**4,0%**
Equities - listed (rescaled to CIC scope)	2	27	0,1%	3,0%	2,6%	0,0%	15,4%	3,2%
Equities - unlisted (rescaled to CIC scope)	0	27	0,0%	0,6%	0,6%	0,0%	5,2%	1,0%
Equity exposure based upon (Un)Listed equities (rescaled)	**22**	**26**	**1,8%**	**7,6%**	**6,5%**	**1,2%**	**29,8%**	**6,7%**

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 Estonia, we note that equity exposures coming from Collective Investment Undertakings amount to 1,6% and are higher than the listed and unlisted equity exposures which in total amount to 0,2%. Hereby the listed and unlisted equities in Estonia are very similar to the asset allocation at EU level.

2.3.1 Direct and indirect equity exposure

Table 8 - Direct and indirect equity exposure based upon Solvency II exposure list (S.06.02)

in Mio EUR	EE			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Direct equity	**13**	**26**	**39,2%**	**75,2%**	**73,4%**	**39,2%**	**94,5%**	**15,9%**
Common equity	12	26	37,4%	64,8%	59,4%	28,6%	93,3%	19,0%
Equity of real estate related corporation	0	-	0,1%	6,4%	8,4%	0,0%	39,1%	9,6%
Other equity	1	25	1,7%	3,9%	5,7%	0,0%	35,3%	8,8%
Indirect equity	**20**	**25**	**60,8%**	**24,8%**	**26,6%**	**5,5%**	**60,8%**	**15,9%**
Collective Investment Undertakings - Equity funds	19	25	59,6%	23,6%	25,9%	4,6%	60,6%	15,7%
Equity funds	17	25	51,7%	20,2%	22,8%	4,6%	52,9%	13,4%
Private equity funds	3	20	7,9%	3,3%	3,1%	0,0%	28,4%	5,7%
Structured notes - Equity risk	0	-	1,2%	1,3%	0,7%	0,0%	4,0%	1,0%
Total Equity exposure	**32**	**26**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**0,0%**

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In 2017 Q4, the insurance market in Estonia was invested significantly less in Direct equity (39,2% of Total equity) than in Indirect equity (60,8% of Total equity).

In terms of direct equity exposure, Estonia ranked number 26 in the EU, with regards to the exposure amount to Common equity.

Within the Indirect equity category, Equity funds constituted the bulk of investments with 51,7% of Total equity, more than 6 times the amount invested in Private equity funds.

2.3.2 Equity by location

Table 9 - Equity exposure by location based upon Solvency II exposure list (S.06.02)

in Mio EUR	EE			
	EU home	EU other	outside EU (1)	Total
Equity	**5**	**5**	**2**	**13**
Common equity	5	5	2	12
Equity of real estate related corporation	0	0	0	0
Other	1	0	0	1
Collective Investment Undertakings - Equity funds	**5**	**14**	**0**	**19**
Equity funds	5	12	0	17
Private equity funds	0	3	0	3
Structured notes - Equity risk	**0**	**0**	**0**	**0**
Total Equity exposure	**10**	**20**	**2**	**32**

in %	EE			
	EU home	EU other	outside EU (1)	Total
Equity	**42,2%**	**42,4%**	**15,4%**	**100,0%**
Common equity	39,9%	44,0%	16,1%	100,0%
Equity of real estate related corporation	100,0%	0,0%	0,0%	100,0%
Other	92,1%	7,9%	0,0%	100,0%
Collective Investment Undertakings - Equity funds	**26,4%**	**73,6%**	**0,0%**	**100,0%**
Equity funds	30,4%	69,5%	0,0%	100,0%
Private equity funds	0,0%	100,0%	0,0%	100,0%
Structured notes - Equity risk	**0,0%**	**100,0%**	**0,0%**	**100,0%**
Total Equity exposure	**32,3%**	**61,7%**	**6,0%**	**100,0%**

(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 Estonia favoured EU investments to a large extent, dedicating to these 42,4% of their direct equity investments, and 73,6% of their indirect investments.

Table 9 also showed that besides the home market, Estonia insurers invested significantly more in equity of other EU Member States than that of non-EU Member States. Lithuania, the Rest of World and unassigned and Finland were the preferred destinations.

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

in Mio EUR	**EE**	
	Amount	**%**
Home country	**5**	**42,2%**
EE	5	42,2%
Top 5 countries (outside home country)	**7**	**52,3%**
LT	4	33,6%
Rest of World and unassigned	2	13,7%
FI	0	2,0%
DE	0	1,8%
LU	0	1,2%
Home + Top 5 countries (outside home country)	**12**	**94,5%**
Total Direct equity exposure (with real estate corporation)	**13**	**100,0%**

in Mio EUR	**EE**	
	Amount	**%**
Home country	**5**	**42,1%**
EE	5	42,1%
Top 5 countries (outside home country)	**7**	**52,4%**
LT	4	33,7%
Rest of World and unassigned	2	13,7%
FI	0	2,0%
DE	0	1,8%
LU	0	1,2%
Home + Top 5 countries (outside home country)	**12**	**94,5%**
Total Direct equity exposure (without real estate corporation)	**13**	**100,0%**

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 no difference with respect to the Assets held for index-linked and unit-linked contracts reported in the Solvency II Exposure List (S.06.02) and Solvency II Balance Sheet (S.02.01).

Table 11 - Solvency II balance sheet (S.02.01) and Solvency II exposure list (S.06.02) comparison

in number	Exposure list EE		Solvency II balance sheet EE		Difference
	#	%	#	%	#
Life undertakings	1	10,0%	1	10,0%	0
Non-Life undertakings	7	70,0%	7	70,0%	0
Reinsurance undertakings	0	0,0%	0	0,0%	0
Undertakings pursuing both life and non-life insurance activity	2	20,0%	2	20,0%	0
Total	**10**	**100,0%**	**10**	**100,0%**	**0**

in Mio EUR	Exposure list EE		Solvency II balance sheet EE		Difference
	Amount	%	Amount	%	%
Assets held for index-linked and unit-linked contracts	527	100,0%	527	100,0%	0,0%

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

3.2 Asset exposure

Table 12 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 12 - Asset exposure based upon Solvency II exposure list (S.06.02)

in Mio EUR	EE			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	**4**	**23**	**0,7%**	**19,3%**	**4,5%**	**0,0%**	**30,1%**	**7,1%**
Common equity	4	23	0,7%	18,0%	3,9%	0,0%	28,8%	6,3%
Equity of real estate related corporation	0	-	0,0%	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%
Collective Investment Undertakings	**507**	**24**	**96,2%**	**63,2%**	**73,1%**	**30,1%**	**97,5%**	**16,3%**
Equity funds	258	23	48,9%	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	162	23	30,8%	12,1%	19,0%	4,8%	47,5%	11,4%
Money market funds	6	23	1,2%	2,2%	1,7%	0,0%	7,5%	1,8%
Asset allocation funds	68	22	13,0%	14,8%	13,1%	0,4%	30,5%	7,7%
Real estate funds	0	-	0,0%	1,4%	0,6%	0,0%	6,2%	1,2%
Alternative funds	11	21	2,0%	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	1	26	0,3%	4,6%	6,9%	0,0%	44,3%	10,0%
Government bonds	**4**	**24**	**0,8%**	**6,4%**	**6,9%**	**0,0%**	**31,4%**	**8,4%**
Corporate bonds	**1**	**25**	**0,2%**	**3,9%**	**6,0%**	**0,0%**	**22,7%**	**6,9%**
Structured notes	**0**	**-**	**0,0%**	**1,6%**	**4,1%**	**0,0%**	**18,9%**	**4,9%**
Collateralised securities	**0**	**-**	**0,0%**	**0,1%**	**0,1%**	**0,0%**	**0,9%**	**0,2%**
Mortgages and loans	**0**	**-**	**0,0%**	**0,2%**	**0,2%**	**-3,7%**	**2,5%**	**1,0%**
Property	**0**	**-**	**0,0%**	**1,3%**	**0,6%**	**0,0%**	**7,6%**	**1,5%**
Deposits	**0**	**-**	**0,0%**	**1,2%**	**2,0%**	**-0,3%**	**14,5%**	**3,3%**
Cash and cash equivalents	**11**	**21**	**2,1%**	**1,2%**	**2,2%**	**0,0%**	**8,5%**	**2,5%**
Other investments	**0**	**-**	**0,0%**	**0,4%**	**0,3%**	**0,0%**	**8,1%**	**1,5%**
Not reported	**0**	**-**	**0,0%**	**1,2%**	**0,1%**	**0,0%**	**2,3%**	**0,4%**
Total Investments, deposits, cash and cash equivalents	**527**	**24**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**0,0%**

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

The Collective Investment Undertakings (96,2%) 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 Collective Investment Undertakings, 96,2% in Estonia compared to 73,1% 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 13 - Equity exposure based upon Solvency II exposure list (S.06.02)

in Mio EUR	EE			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	**4**	**23**	**0,7%**	**17,9%**	**4,5%**	**0,0%**	**30,1%**	**7,1%**
Common equity	4	23	0,7%	16,5%	3,9%	0,0%	28,8%	6,3%
Equity of real estate related corporation	0	-	0,0%	0,8%	0,3%	0,0%	1,5%	0,5%
Other equity	0	-	0,0%	0,6%	0,3%	0,0%	4,1%	0,9%
Collective Investment Undertakings - Equity funds	**258**	**23**	**48,9%**	**27,6%**	**29,3%**	**11,2%**	**57,5%**	**10,4%**
Equity funds	258	23	48,9%	27,3%	29,2%	11,2%	57,5%	10,5%
Private equity funds	0	-	0,0%	0,2%	0,2%	0,0%	2,9%	0,6%
Structured notes - Equity risk	**0**	**-**	**0,0%**	**1,2%**	**2,7%**	**0,0%**	**15,0%**	**3,5%**
Total Equity exposure	**262**	**23**	**49,6%**	**46,7%**	**36,5%**	**11,7%**	**58,6%**	**10,9%**
Equity without Equity of real estate related corporation	**4**	**26**	**0,7%**	**17,1%**	**4,2%**	**0,0%**	**29,2%**	**6,8%**
Equity exposure without Equity of real estate related corporation	**262**	**23**	**49,6%**	**45,9%**	**36,2%**	**11,7%**	**58,6%**	**10,8%**

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In Estonia, we note that total equity exposures related to index-linked and unit-linked contracts (49,6%) are significantly higher in comparison to non index-linked and unit-linked contracts (7,2%). Equity funds are the main contributors to the total equity exposures.

3.3.1 Direct and indirect equity exposure

Table 14 - Direct and indirect equity exposure based upon Solvency II exposure list (S.06.02)

	EE			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Direct equity	**4**	**23**	**1,4%**	**38,3%**	**11,1%**	**0,0%**	**54,2%**	**15,2%**
Common equity	4	23	1,4%	35,4%	9,6%	0,0%	51,8%	13,2%
Equity of real estate related corporation	0	-	0,0%	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%
Indirect equity	**258**	**23**	**98,6%**	**61,7%**	**88,9%**	**45,8%**	**100,0%**	**15,2%**
Collective Investment Undertakings - Equity funds	258	23	98,6%	59,1%	81,5%	45,7%	100,0%	15,5%
Equity funds	258	23	98,6%	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	**0**	**-**	**0,0%**	**2,6%**	**7,4%**	**0,0%**	**35,8%**	**9,6%**
Total Equity exposure	**262**	**23**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**100,0%**	**0,0%**

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In 2017 Q4, Estonian insurers invested almost all of their Assets held for index-linked and unit-linked contracts in Indirect equity (98,6%) of Total equity). Direct equity constituting 1,4% of Total equity.

In terms of direct equity exposure, Estonia ranked number 23 in the EU, with regards to the exposure amount to Common equity.

Within the Indirect equity category, Equity funds constituted the bulk of investments, amounting to 98,6% of Total equity whereas allocation to Private equity funds were inexistent.

4 Insurance products

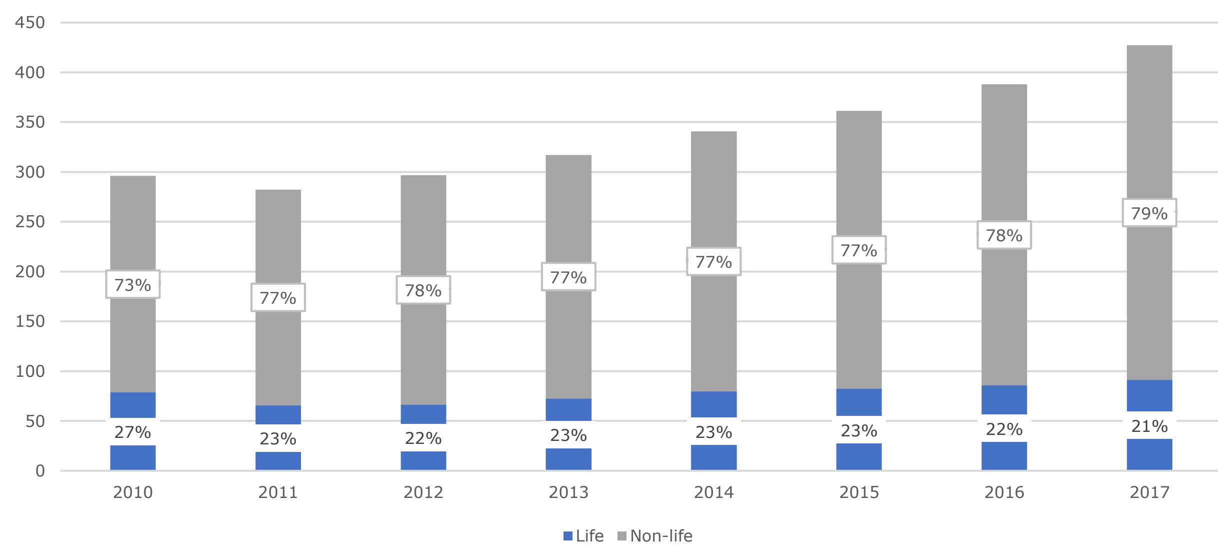
4.1 Overview

This section covers the most important insurance products offered in Estonia and the volume of the market. Data reported in this section is obtained from the Statistics Estonia (ES) and the Estonian Financial Supervisory Authority.[4]

The Estonian insurance market at the end of 2017 consisted of 10 insurance companies were licensed in Estonia. There were 8 branches of foreign undertakings (all EU), and 6 companies out of 10 have branches both in Latvia and Lithuania. Seven out of the ten domestically operated companies were exclusively engaged in non-life insurance business, one in life insurance and two in both segments of the insurance market. The two composite companies are new in the market and they are life insurers that have the right to offer two lines of non-life contracts as separate business.

The development of the Estonian insurance market, in terms of gross written premiums, over the last seven years is significant. In 2010 the premiums decreased with 4,6% to 282 million EUR, since then premium income rose at an average annual rate of 7,2%. In 2017 premiums increased by 10,1% to 427 million EUR. This is mainly attributed to non-life insurance business, which represents more than 70% of the total income.

Graph 1 - Gross written premiums (in Mio EUR)



Source: ES

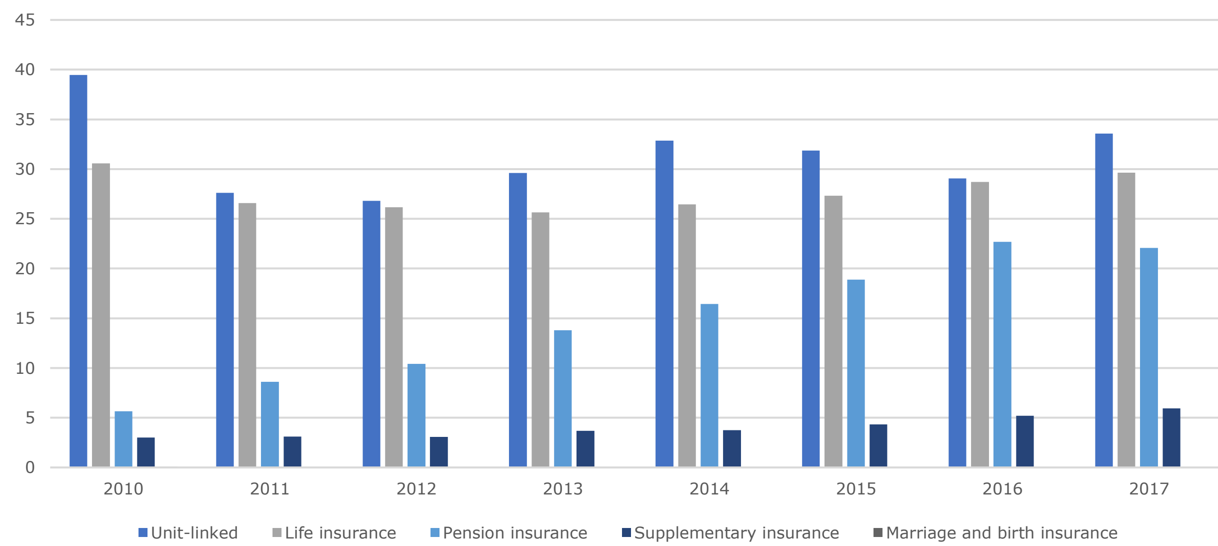
[4] Available at https://www.stat.ee/en and https://www.fi.ee/.

4.2 Life insurance products

In 2017 life insurance business grew by 6,5% to 91 million EUR and represented 21% of the insurance market. While in the past the sector was mainly dominated by unit-linked and life insurance products (i.e. endowment insurance, term and whole life insurance), which collectively represented more than 80% of the business, over the last year pension insurance has become popular. In particular, by the end of 2017, unit-linked products accounted for 37% (33 million EUR), life insurance for 32% (30 million EUR) and pension insurance for 24% (22 million EUR). Marriage and birth, as well as other supplementary insurance products account for a small part of the life insurance business.

As noted by the Estonian NSA, pension insurance has been increasing because in 2009, the first mandatory funded pension (II pillar) contracts reached their pay-out phase and now these contracts are the reason for increasing pension (annuity) insurance.

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



Source: ES

4.3 Non-Life insurance products

The non-life segment, as the main driving force behind the expansion of the insurance market in Estonia, grew by 55,3% over the last six years. Gross written premiums at the end of 2017 amounted to 336 million EUR (up by 11,1% to 2016).

4.3.1 Motor

In 2017, motor related insurance products represented 60,4% of the non-life premium income. The segment increased by 12,1% to 2016 at 203 million EUR. Of this, 54,1% is related to land vehicle insurance, while the remaining 45,9% is due to motor third party liability insurance.

4.3.2 Fire and other damage to property

Fire and other damage to property represents the second most important insurance class of the non-life segment. In 2017, premiums increased by 7,7% to 86 million EUR.

4.3.3 Accident and sickness

Accident and sickness insurance, the third largest non-life business line, account for 6,1% of non-life premiums. Gross premiums written amounted in 2017 to 20 million EUR, 16,4% up compared to a year ago.

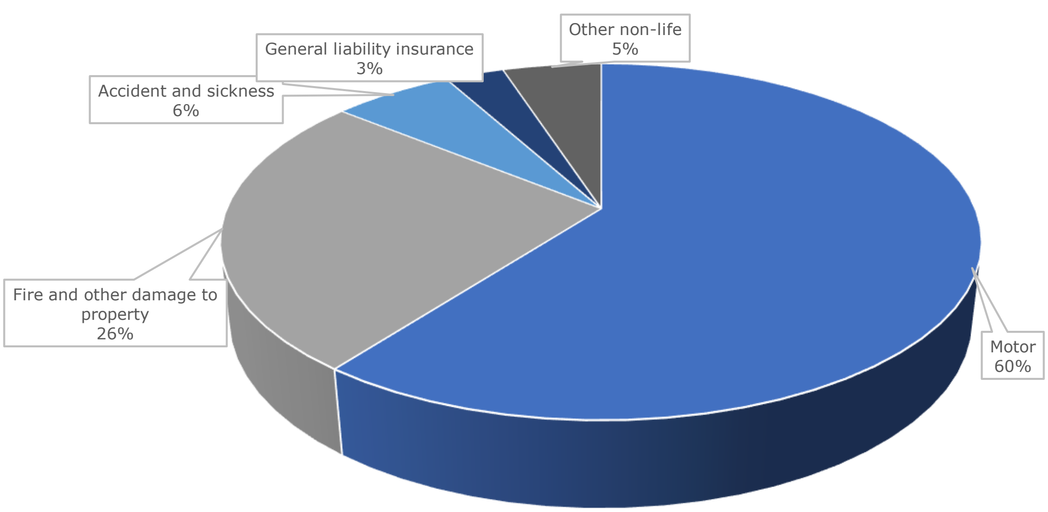
4.3.4 General Liability

Total gross premiums written in general liability insurance business amounted to 10 million EUR, exhibiting a growth rate of 8,7% to 2016. Liability premiums accounted for 3.0% of total non-life premiums written during 2017.

4.3.5 Other non-life

Premiums for other non-life insurance business, such as credit and suretyship, legal protection, financial loss, assistance, as well as marine, aviation and transport, rose by 12,7% in 2017 to 17 million EUR.

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



Note: Motor includes motor TPL insurance, land vehicles insurance and vehicles liability. Accident and sickness includes travel insurance. Other non-life insurance includes credit and suretyship, legal protection, financial loss, assistance, as well as marine, aviation and transport.

Source: ES

4.4 Average duration

In 2016, EIOPA published their Insurance Stress Test Report[5], which resulted in the following conclusions for Estonia:

- The approximate effective duration for the TP life for all lines of business reported by the EIOPA 2016 stress test participants is 2,85;
- The Macaulay duration for the TP life for all lines of business reported by the EIOPA 2016 stress test participants is 11,36.

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.

[5] 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.[6]

- Applicable GAAP at consolidated level: IFRS required for all listed companies[7] and unlisted companies;
- Applicable GAAP at statutory level: IFRS required for all listed companies, IFRS or Estonian GAAP for all non-listed companies[7];
- 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 derived by resident corporate shareholders remain exempt from tax until a distribution is made. If they are distributed, the gains will be taxed at the ordinary distribution tax rate: 25% of the net amount of the profit distribution.

5.2.2 Capital losses on shares

As there is no tax on retained earnings, losses have no significance for tax purposes. Profit distributions are subject to distribution tax even if the company has an accounting loss. Losses, however, reduce the accounting profit from which the taxable distributions are made.

5.2.3 Taxation of dividends

A 100% exemption applies on the re-distribution of dividends if the following conditions are met:

- The underlying dividends are received from a subsidiary that is tax resident in an EU/EEA-member state or Switzerland and the participation constitutes at least 10% of the shares or votes in the subsidiary;
- The same exemption applies to dividends received from other countries if the Estonian holds at least 10% of the shares or votes and income tax has been paid on the underlying profit share or profit, or income tax on the dividends has been withheld in a foreign jurisdiction.

If the dividend does not qualify for an exemption, it is taxed at the ordinary tax rate (25% of the net distributed profit/20% of the gross amount) at the moment of distribution at the level of the payer, with reductions available as of 2019.

Estonian source dividends are not subject to withholding tax.

Foreign tax credit is available for all types of foreign-source income, unless the Estonian participation exemption applies.

[6] https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/financial-reporting_en

[7] https://www.ifrs.org/-/media/feature/around-the-world/jurisdiction-profiles/estonia-ifrs-profile.pdf

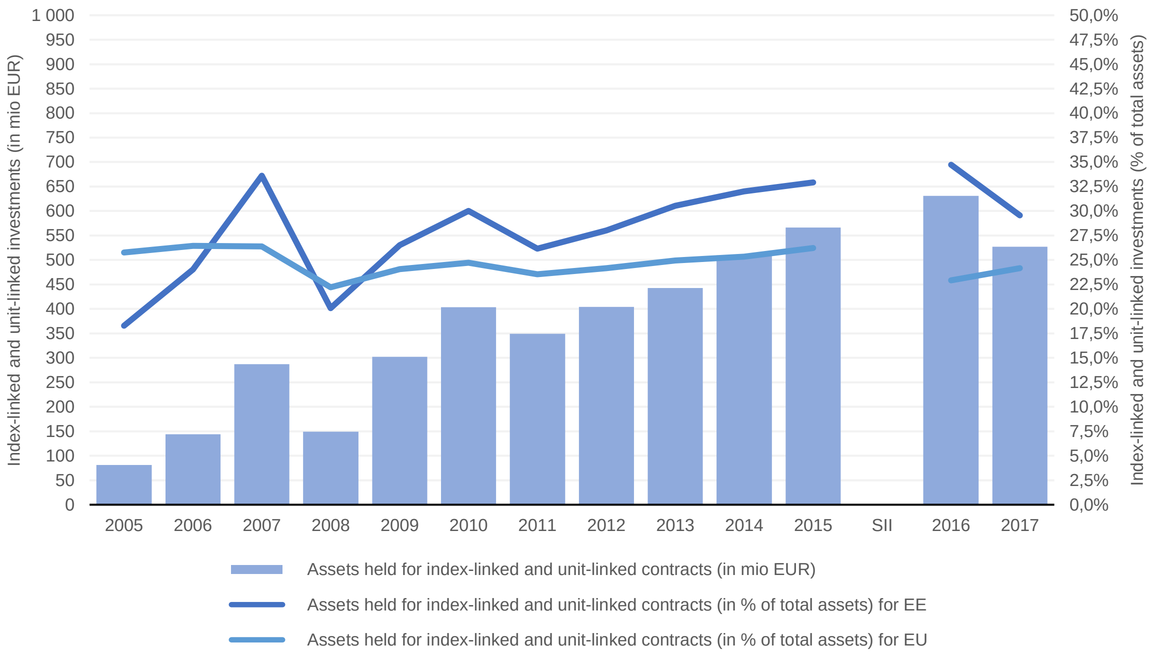
6 Historical data

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 Estonia 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 of index-linked and unit-linked investments based upon Solvency I and Solvency II



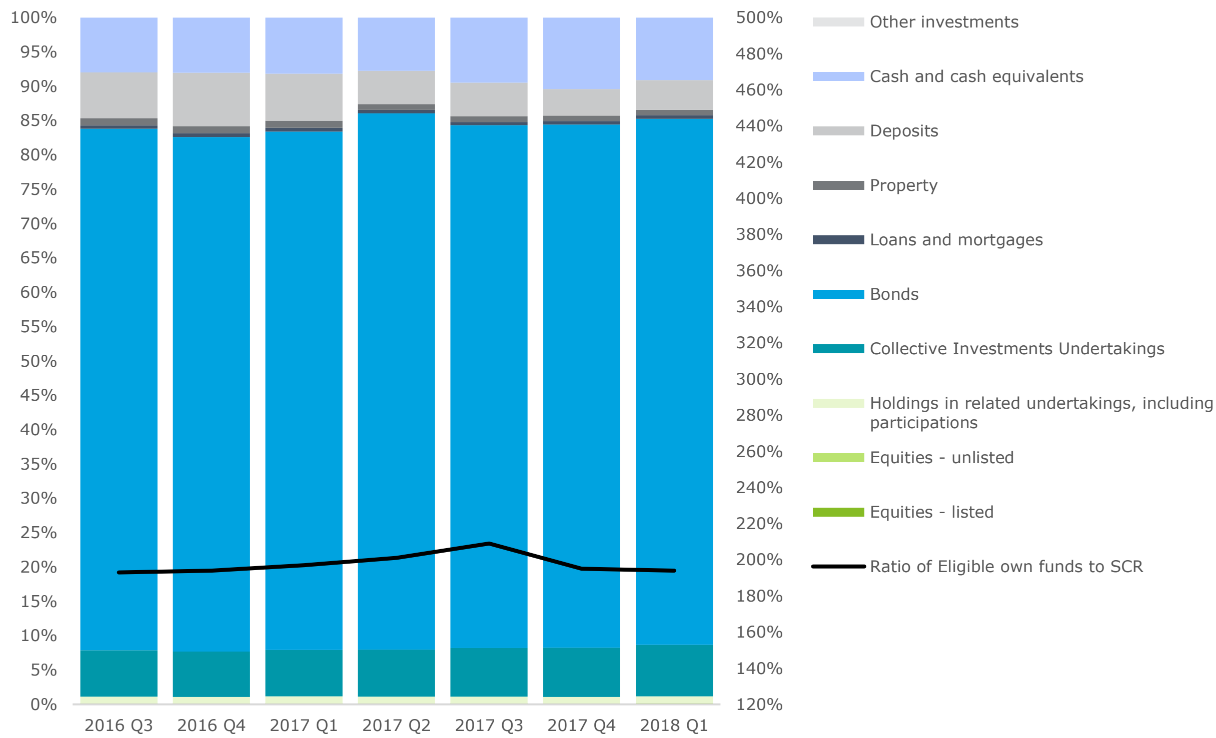
Source: EIOPA Solvency I and Solvency II statistics and Deloitte-CEPS analysis

As shown in Graph 4, the share of index-linked and unit-linked investments in comparison to total assets has been increasing since 2011. Note that the graph for the EU shows a relatively stable behaviour over the observation period, with a slightly increasing trend as from 2011. According to the Estonian NSA, in addition to the changes in the financial markets, mergers and acquisitions have an effect on the numbers we observe. For example, in 2007, there were two mergers in the life sector: two Nordic groups merged their Baltic subsidiaries and in both cases headquarter was established in Estonia. One of these companies was concentrating in unit-linked business. In 2017, the same life undertaking concentrated in unit-linked business was merged with Finnish parent company and turned into a branch. Additionally, there were other 5 mergers that influenced the share of unit-linked business.

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 eight 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 Estonian insurers' balance sheet has remained relatively stable over the quarters since the introduction of Solvency II on 1 January 2016[8]. This seems to be confirmed by the fact that the most dominant assets classes such as Bonds, Collective Investment Undertakings and Cash and cash equivalents do not suggest a clear trend whether it be downwards or upwards.

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

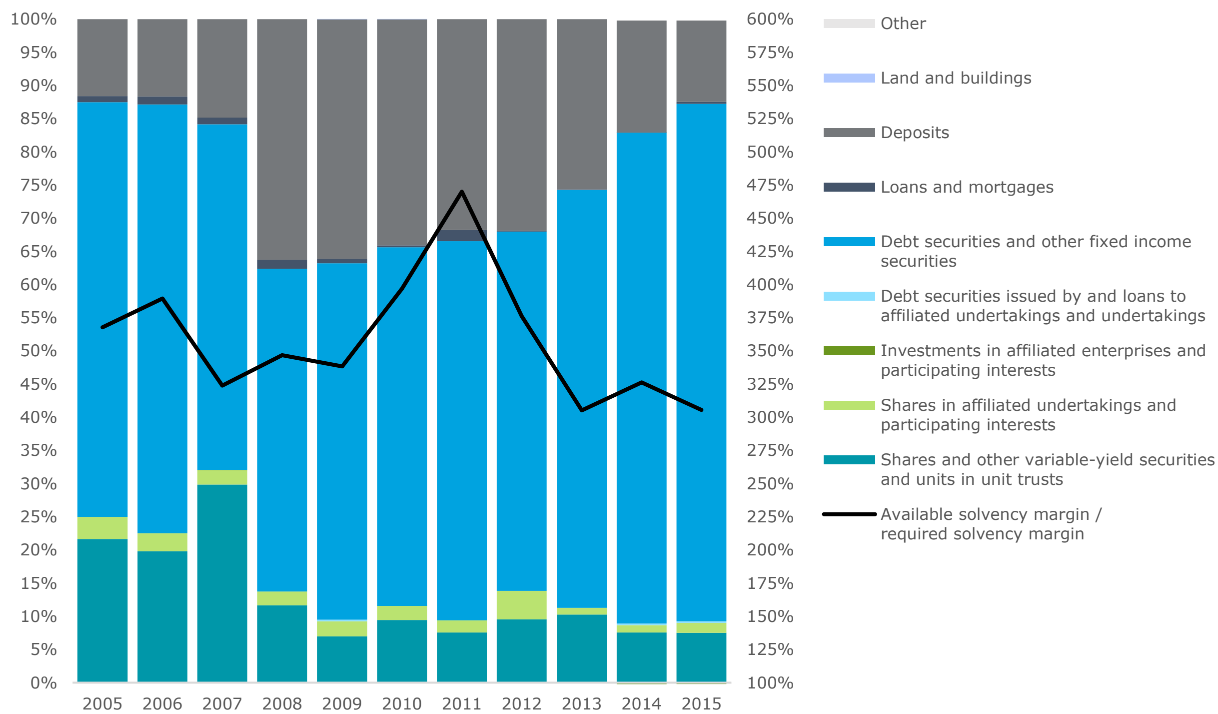
For Estonia, the SCR ratio shows a relatively stable behaviour over the period 2016 Q3 until 2018 Q1. Overall, this trend has not resulted into significant changes in the asset allocation of the overall Estonian insurance market.

[8] 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)



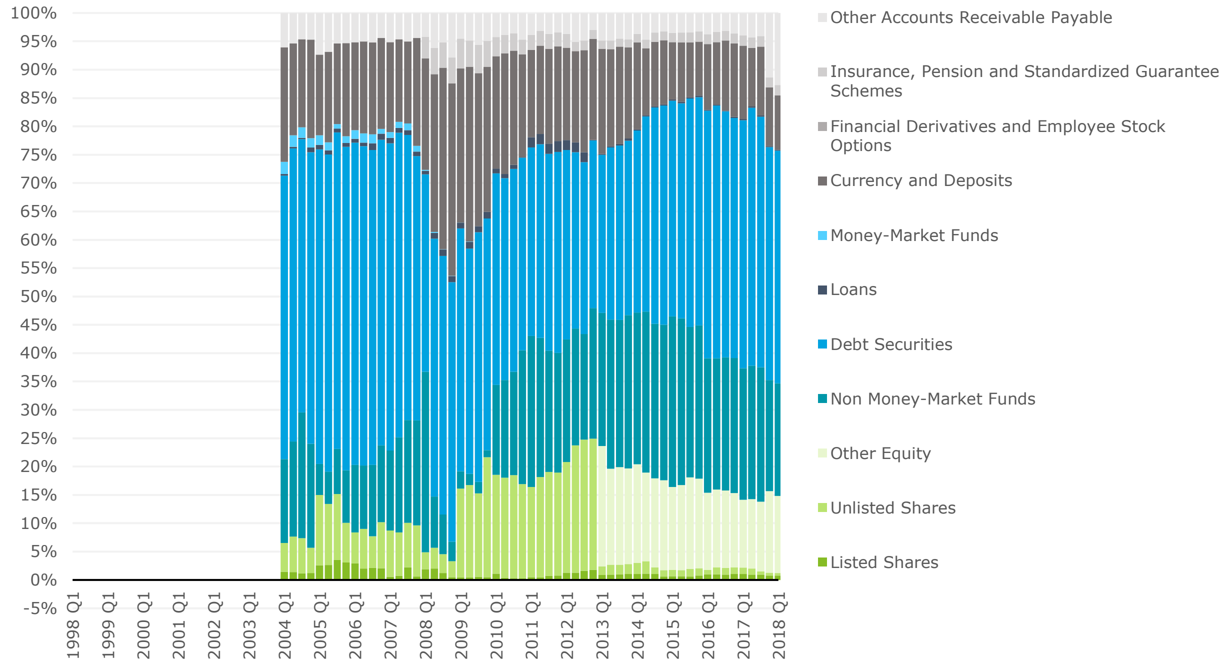
Source: EIOPA Solvency I statistics and Deloitte-CEPS analysis

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 Estonian insurer's balance sheet for more than a decade. However, in 2008, the amount of Debt securities and other fixed income securities, and Shares and other variable-yield securities and units in unit trusts, decreased significantly, while Deposits showed a significant increase.

Shares and other variable-yield securities and units in unit trusts never recovered to its original before-crisis percentage. Bonds on the other hand, recovered to the pre-crisis level and increased due to the lower share of Shares and other variable-yield securities and units in unit trusts. Furthermore, note that the solvency ratio showed a significant increase from 2009-2011, to decrease again significantly in the following two years. As noted by the Estonian NSA, the main reason for significant increase in available solvency margin/required solvency margin was profitable business in 2010 and 2011 while the decrease in 2012 and 2013 was mainly caused by dividend payments.

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

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



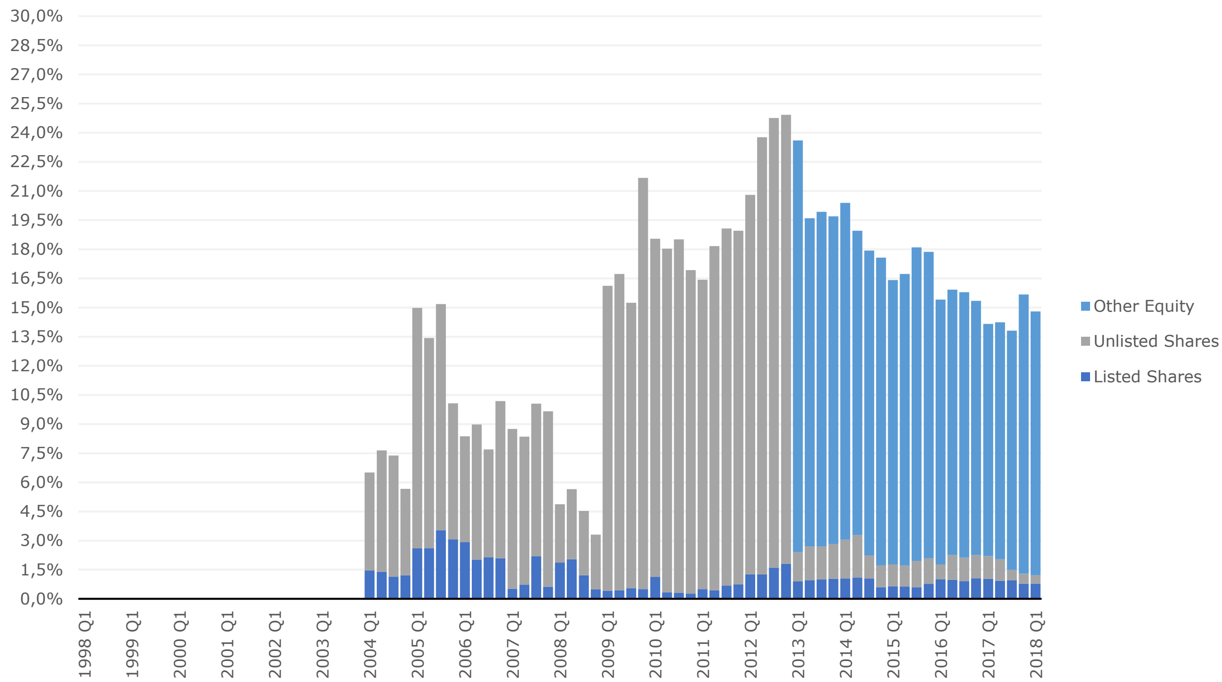
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

Graph 7 relates to figures of investments by Estonian Insurers since 2004 Q1 as reported by the ECB. No data is available for Estonia pre-2004, as Estonia was not yet part of the European Union. It can be observed that Debt Securities dominated the Estonian balance sheets during the observation period. A decrease in the importance of Currency and Deposits, with the exception of 2007 and 2008, is also observable. Additionally, there is sharp decrease in Non Money-Market funds 2008 Q2 and sharp increase in 2010 Q1.

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 Estonia is plotted against the aggregated EU data.

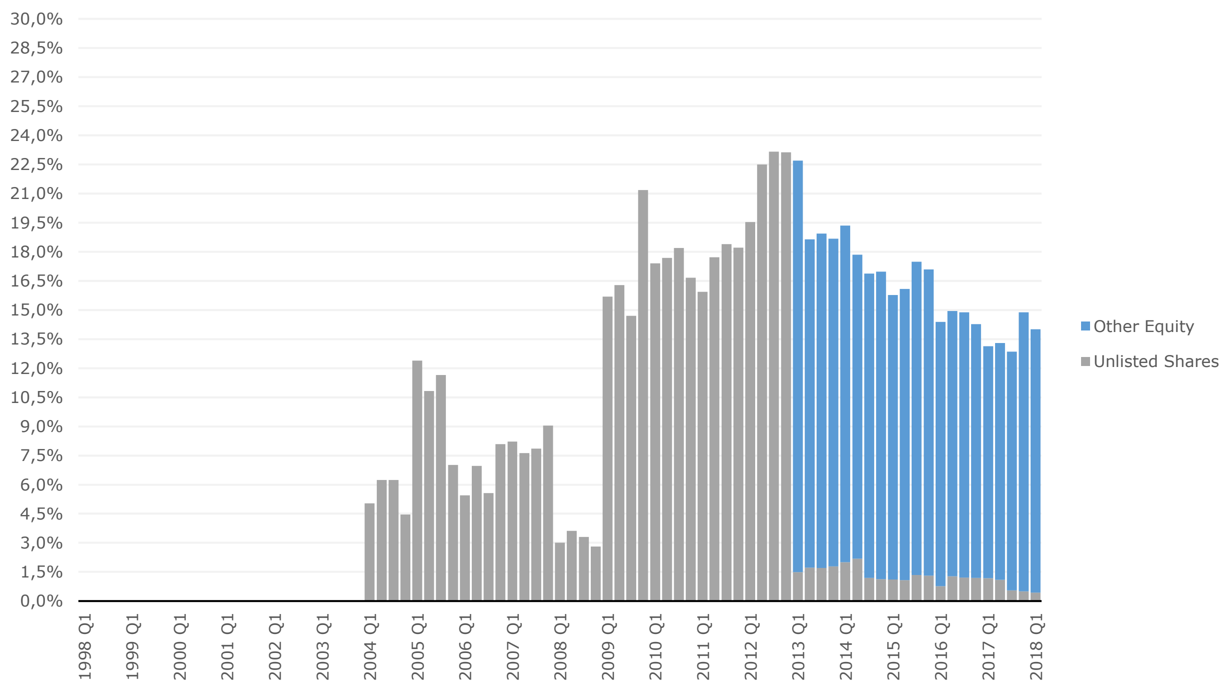
We remark that these graphs include index-linked and unit-linked assets which cannot be individualised from the figures published by the ECB.

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



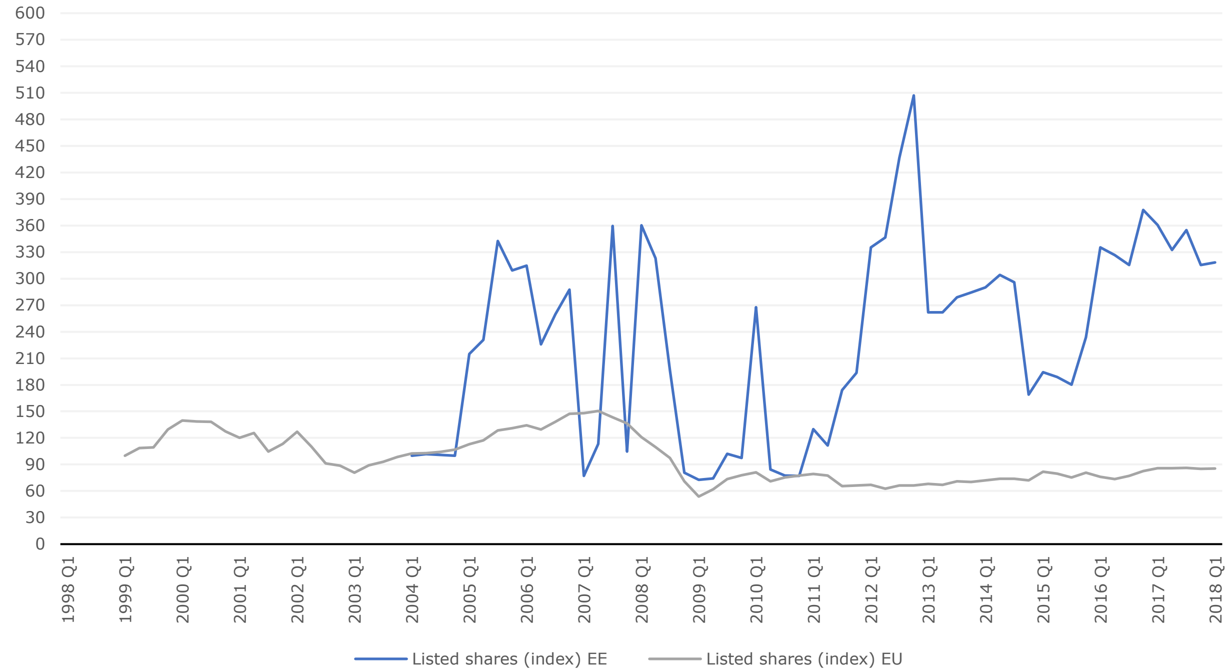
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

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



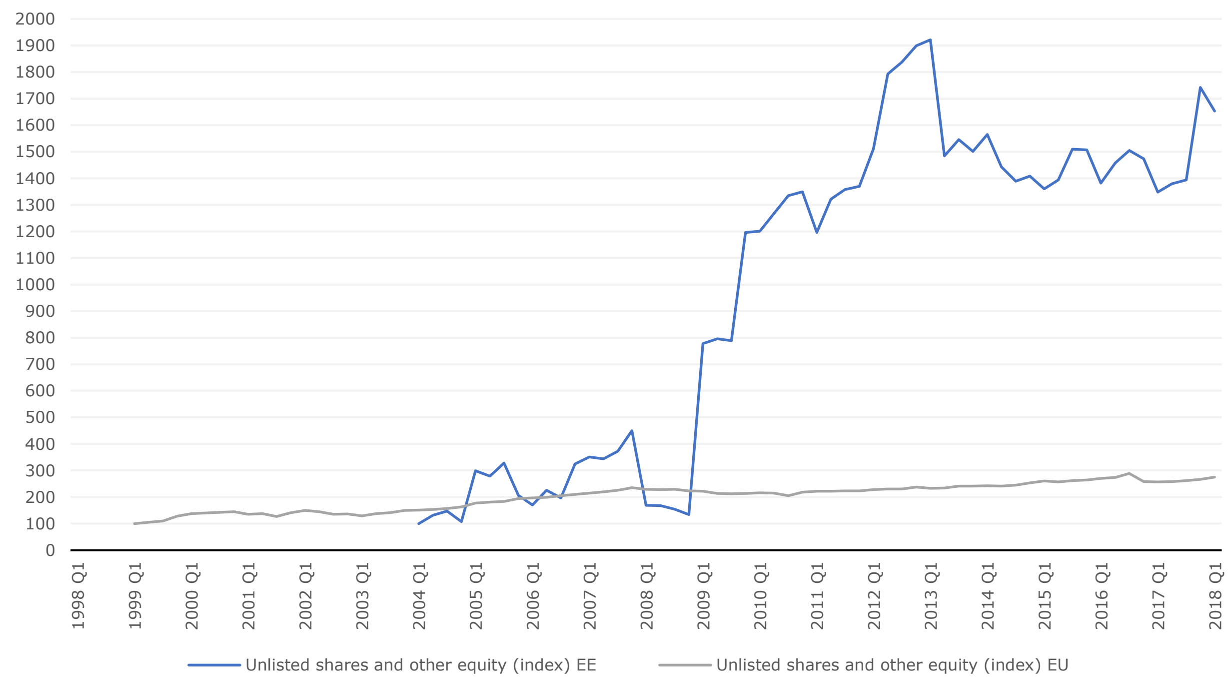
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

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



Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

Graph 11 - Evolution ECB unlisted shares EE 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 Estonia 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

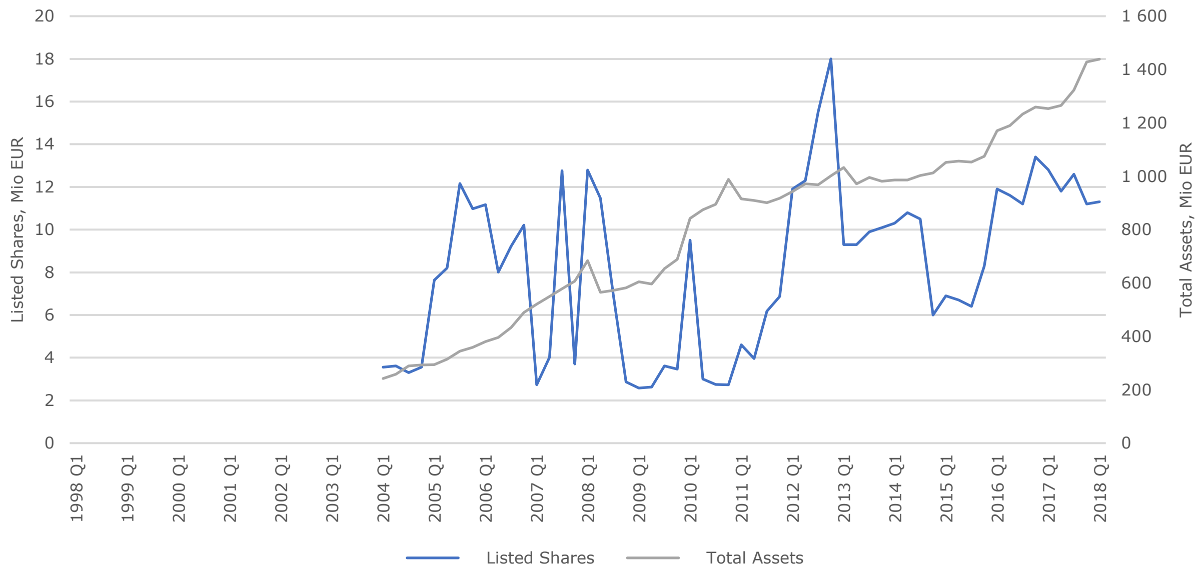
In the analysis below, the listed shares of insurance corporations are plotted against the total assets in the industry both in amounts and in indexed values. The aim of this comparative analysis is to understand the evolution of listed shares in the overall insurance market. Similarity of the growth 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 depict a volatile pattern. Listed shares have an average quarterly change of 13,93% with a standard deviation of 58,80% while, on the other hand, total assets had an average quarterly change of 3,38% with a standard deviation of 5,59%. Over the observation period, listed shares reported an average amount of 8 million EUR, experiencing its highest peak of 18 million EUR in 2012 Q4.

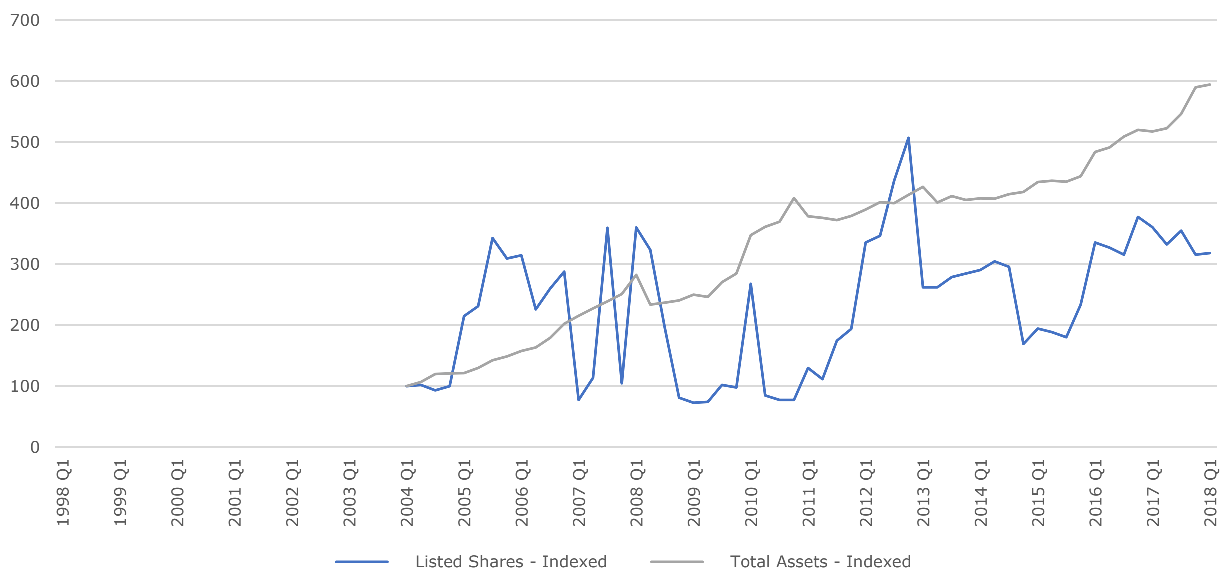
On the indexed values of total assets and investments in listed shares, differences in the growth pattern of these two series can be better observed. Over the period of 2004 – 2018, indexed value of total assets increases by 494%, while indexed value of listed shares decrease by 218% of their initial values.

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



Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

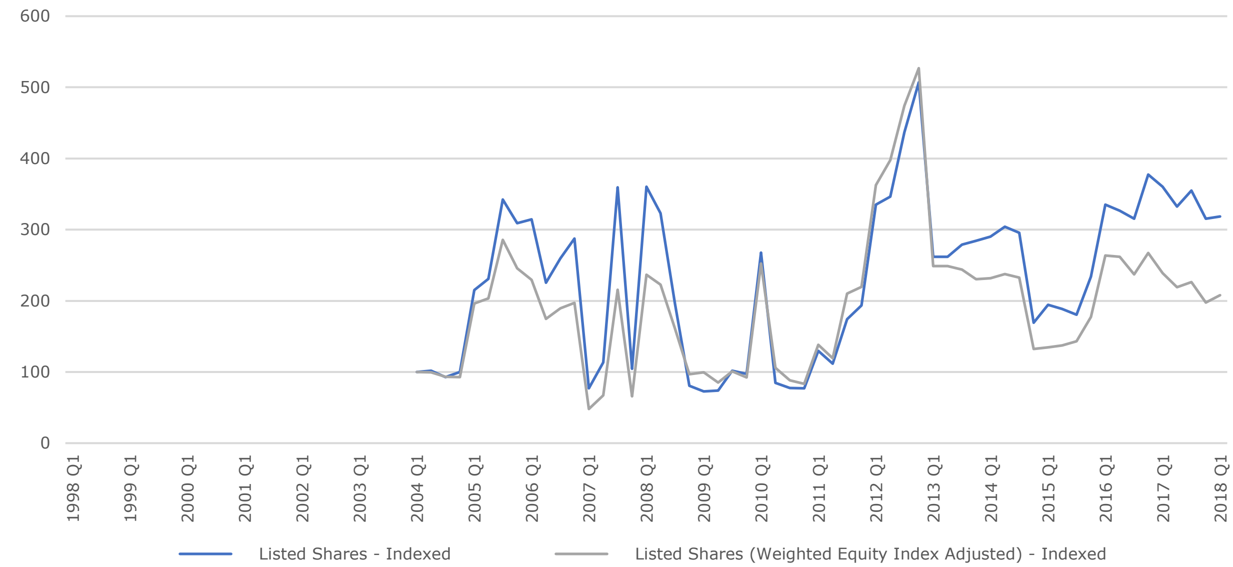
Graph 13 - Evolution of Listed Shares and Total Assets (indexed values)



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. Starting from 2005, adjusted series start to diverge from the unadjusted series and show higher values. As from 2009 Q1, both series start again behaving similar. From 2013 onward, the series again start to diverge again. Overall, as it can be seen on the graph, the price adjustment does not make a drastic change in the pattern of the investments.

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



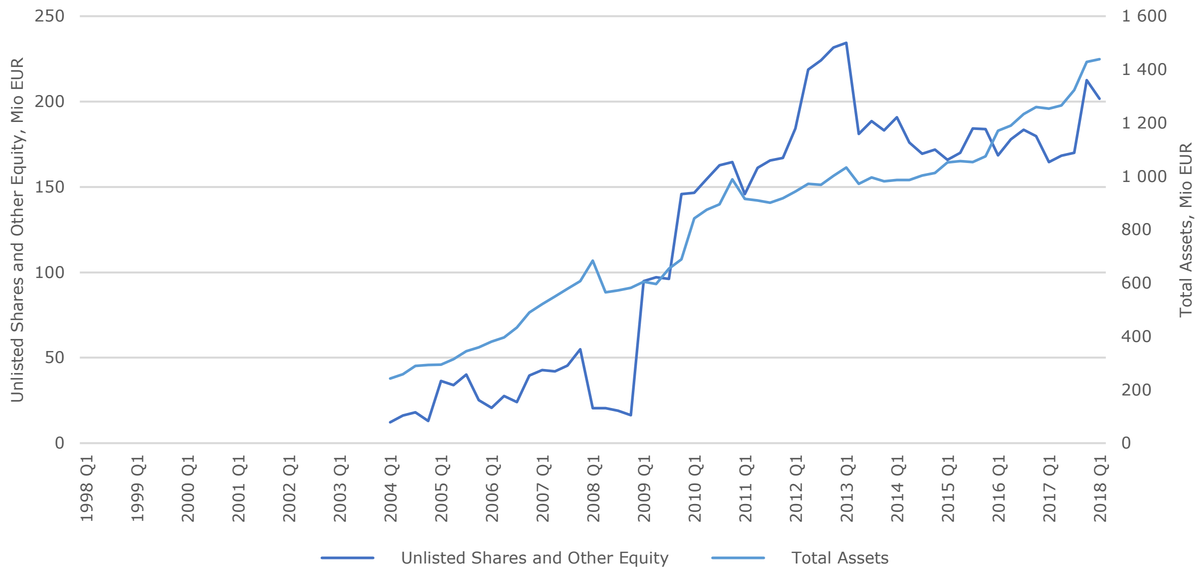
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

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 an increasing but volatile behaviour. In 2007 Q4, unlisted shares and other equity amount to 55 million EUR, before dropping 64,54% in 2008 Q1, to a value of 21 million EUR. However, investments in this category of experience a jump of 480% in the first quarter of 2009, reaching a value of 95 million. In the first quarter of 2013, Unlisted Shares and Other Equity amounted to a value of 234 million EUR. After this date, we observe a further upward trend in the investments.

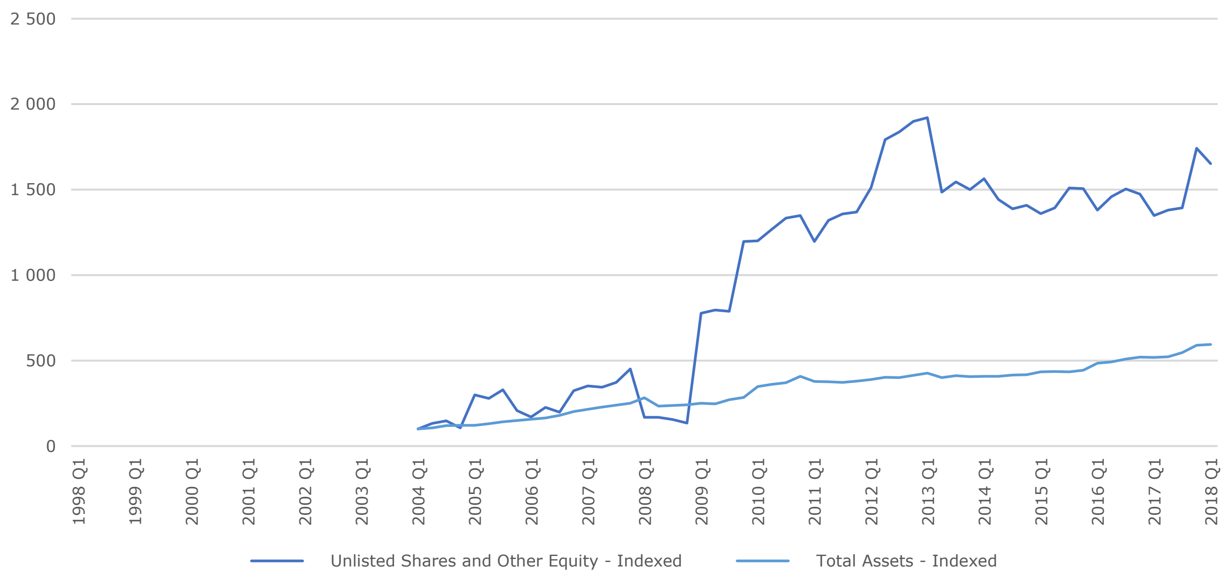
The growth patterns of total assets and unlisted shares and other equity can be compared on the indexed amounts. Over the period 2004 – 2018, indexed value of total assets increases to 594 while indexed value of unlisted shares and other equity reaches 1 652.

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