

HUNGARY

Key characteristics of the insurance market



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1 Introduction

1.1 General

At the end of 2017 (2017 Q4), 25 insurance companies¹ in Hungary submitted their Solvency II related reporting package to the Hungarian National Supervisory Authority (NSA). These companies accounted for 0,079% of Total assets of insurance undertakings operating within the European Union (EU).

Table 1 depicts the number of Solvency II reporting submissions in Hungary 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	5
Non-Life undertakings	9
Reinsurance undertakings	0
Composite undertakings	11
Total	25
Total assets HU / Total assets EU %	0,079%
Ranking HU based on Total assets EU	19

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

1.2 Balance sheet

At the end of 2017 (2017 Q4), Hungary was the number 19 country in the EU insurance market in terms of assets held with an amount of 8 931 million EUR reported under Solvency II rules.

With regards to the Assets held for index-linked and unit-linked contracts, Hungary ranked number 16 in terms of absolute amount with 3 863 million EUR invested in this category. However, with 43,3% of total assets of this category, Hungary was significantly above the EU average, i.e. 24,3% in terms of total assets.

In terms of technical provisions, 23,5% of the total balance sheet relates to the life business (i.e. non index-linked and unit-linked business), while 9,2% represented non-life obligations.

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.

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

in Mio EUR	HU			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Investments, deposits, cash and cash equivalents	4 717	22	52,8%	67,8%	67,3%	22,6%	90,1%	17,2%
Assets held for index-linked and unit-linked contracts	3 863	16	43,3%	24,2%	24,3%	2,5%	59,3%	16,2%
Other assets	350	24	3,9%	8,1%	8,4%	2,1%	19,5%	4,9%
Total assets	8 931	19	100,0%	100,0%	100,0%	100,0%	100,0%	0,0%
Technical provisions - life	2 099	21	23,5%	46,3%	32,2%	3,0%	64,2%	17,9%
Technical provisions - non-life	826	24	9,2%	6,6%	12,9%	2,4%	38,5%	9,1%
Technical provisions - index-linked and unit-linked	3 610	16	40,4%	25,1%	23,4%	2,4%	58,4%	16,0%
Other liabilities	553	22	6,2%	8,9%	9,0%	4,0%	21,3%	3,9%
Total liabilities	7 087	18	79,4%	86,9%	77,6%	49,1%	92,7%	11,1%
Excess of assets over liabilities	1 844	20	20,6%	13,1%	22,4%	7,3%	50,9%	11,1%
Total liabilities + Excess of assets over liabilities	8 931	19	100,0%	100,0%	100,0%	100,0%	100,0%	0,0%

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

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 Hungarian 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 226% with long-term guarantee (LTG) and transitional measures, and is lower than that of the EU, which amounted to 237% at year-end 2017. Out of the 28 EU Member States, Hungary is ranked at the 13th 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	HU		EU				
	Amount	Rank	%	Avg	Min	Max	StD
Total available own funds to meet the SCR	1 707	20	-	-	-	-	-
SCR	756	20	-	-	-	-	-
Surplus available own funds	951	20	-	-	-	-	-
Ratio of Eligible own funds to SCR	226%	13	237%	225%	135%	361%	52%
Ratio of Eligible own funds to SCR (10th percentile)	168%	3	136%	138%	110%	193%	19%
Ratio of Eligible own funds to SCR (25th percentile)	184%	6	162%	164%	128%	214%	24%
Ratio of Eligible own funds to SCR (50th percentile)	232%	7	215%	208%	144%	300%	37%
Ratio of Eligible own funds to SCR (75th percentile)	311%	7	306%	280%	164%	445%	59%
Ratio of Eligible own funds to SCR (90th percentile)	542%	2	457%	396%	173%	643%	99%
Ratio of Eligible own funds to MCR	589%	15	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. According to that report, at year-end 2017, Hungarian participants reported an SCR ratio of 225% including the application of LTGs and transitionals. Removing the measures caused no impact on the SCR ratio.²

² 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 Hungarian 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 HU		Solvency II balance sheet HU		Difference
	#	%	#	%	#
Life undertakings	5	20,0%	5	20,0%	0
Non-Life undertakings	9	36,0%	9	36,0%	0
Reinsurance undertakings	0	0,0%	0	0,0%	0
Undertakings pursuing both life and non-life insurance activity	11	44,0%	11	44,0%	0
Total	25	100,0%	25	100,0%	0

in Mio EUR	Exposure list HU		Solvency II balance sheet HU		Difference
	Amount	%	Amount	%	%
Holdings in related undertakings, incl. participations and equities	212	4,5%	212	4,5%	0,0%
Holdings in related undertakings, including participations	n/a	n/a	172	3,7%	n/a
Equities	n/a	n/a	39	0,8%	n/a
Equities - listed	n/a	n/a	20	0,4%	n/a
Equities - unlisted	n/a	n/a	19	0,4%	n/a
Collective Investments Undertakings	371	7,9%	371	7,9%	0,0%
Bonds	3 803	80,6%	3 805	80,7%	0,0%
Loans and mortgages	13	0,3%	13	0,3%	0,0%
Property	80	1,7%	80	1,7%	0,0%
Deposits	32	0,7%	32	0,7%	0,0%
Cash and cash equivalents	204	4,3%	204	4,3%	0,0%
Other investments	0	0,0%	0	0,0%	0,0%
Total	4 717	100,0%	4 717	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	HU			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equities - listed	20	22	51,2%	83,7%	75,0%	12,8%	99,6%	21,1%
Equities - unlisted	19	19	48,8%	16,3%	25,0%	0,4%	87,0%	21,1%
Total equities	39	22	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, Hungarian insurers invested 51,2% of their directly-held equity positions in listed equity in comparison to an average of 75,0% in the EU. With an amount of 20 million EUR, Hungary ranked number 22 in the EU.

With an invested amount of 19 million EUR, unlisted equity constituted a significant portion of the equity investment category of the directly-held equity investments, i.e. 48,8%. This placed Hungary as the number 19 in the EU.



2.2 Asset exposure

From an asset exposure perspective, the insurance market in Hungary was mainly invested in Government bonds and Corporate bonds (in total 80,5% of Total Investments, deposits, cash and cash equivalents), Collective Investment Undertakings (7,9%) and Equity (4,5%). Within the bond categories, the insurance market was significantly more exposed to government securities (77%) than to corporate debt (3,5%), categories for which Hungary ranked number 17 and number 24 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 second most important for the Hungarian insurance market in terms of asset exposures. Within this category, the industry was mainly exposed to Debt funds and Equity funds for which Hungary ranked respectively number 19 and number 20 in the EU.

Equity was the third category to which the Hungarian insurers had the most exposure. Equity of real estate related corporation constitutes 1,4% within the 4,5% of the total equity exposure.

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

in Mio EUR	HU			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	212	23	4,5%	12,0%	9,5%	1,1%	28,1%	6,5%
Common equity	105	25	2,2%	10,4%	7,8%	1,0%	22,5%	6,0%
Equity of real estate related corporation	66	16	1,4%	1,0%	1,1%	0,0%	4,0%	1,2%
Other equity	41	16	0,9%	0,6%	0,6%	0,0%	2,0%	0,7%
Collective Investment Undertakings	371	20	7,9%	19,2%	12,8%	1,5%	41,6%	9,3%
Equity funds	109	20	2,3%	3,2%	2,7%	0,4%	10,9%	2,4%
Private equity funds	3	18	0,1%	0,5%	0,5%	0,0%	6,9%	1,3%
Debt funds	181	19	3,8%	7,8%	5,6%	0,8%	18,0%	4,9%
Money market funds	8	21	0,2%	2,3%	1,1%	0,0%	6,3%	1,6%
Asset allocation funds	19	21	0,4%	1,1%	0,8%	0,0%	3,9%	1,0%
Real estate funds	30	16	0,6%	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	21	17	0,4%	2,0%	0,9%	0,0%	7,2%	1,7%
Government bonds	3 631	17	77,0%	28,7%	39,7%	10,0%	77,0%	18,9%
Corporate bonds	164	24	3,5%	26,9%	21,6%	1,8%	47,3%	11,2%
Structured notes	8	19	0,2%	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	13	25	0,3%	4,8%	3,8%	0,3%	26,3%	5,2%
Property	80	25	1,7%	2,0%	3,5%	0,8%	11,6%	2,6%
Deposits	32	26	0,7%	2,8%	3,6%	0,2%	16,6%	3,6%
Cash and cash equivalents	204	19	4,3%	1,4%	4,3%	0,5%	16,6%	3,5%
Other investments	0	-	0,0%	0,1%	0,1%	0,0%	0,9%	0,3%
Not reported	2	12	0,0%	0,0%	0,0%	0,0%	0,3%	0,1%
Total Investments, deposits, cash and cash equivalents	4 717	22	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

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 in Hungary.

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

in %	HU			EU		
	Life	Non-life	Composite and reinsurance	Life	Non-life	Composite and reinsurance
Equity	0,1%	3,7%	6,0%	6,6%	18,3%	16,5%
Common equity	0,1%	2,2%	2,9%	5,0%	16,2%	14,9%
Equity of real estate related corporation	0,0%	1,5%	1,8%	1,0%	0,8%	1,2%
Other equity	0,0%	0,1%	1,2%	0,6%	1,3%	0,4%
Collective Investment Undertakings	13,3%	2,6%	6,6%	22,4%	22,3%	13,8%
Equity funds	4,7%	0,6%	1,7%	3,7%	2,9%	2,7%
Private equity funds	0,0%	0,0%	0,1%	0,5%	0,5%	0,5%
Debt funds	5,3%	1,6%	3,6%	9,7%	9,7%	4,7%
Money market funds	0,0%	0,4%	0,2%	2,8%	1,4%	2,0%
Asset allocation funds	1,1%	0,0%	0,2%	1,3%	1,2%	0,9%
Real estate funds	2,2%	0,0%	0,2%	1,6%	1,8%	1,4%
Alternative funds	0,0%	0,0%	0,0%	0,3%	0,3%	0,5%
Infrastructure funds	0,0%	0,0%	0,0%	0,2%	0,2%	0,3%
Other	0,0%	0,0%	0,6%	2,3%	4,3%	0,8%
Government bonds	79,2%	74,6%	76,5%	28,1%	19,1%	33,4%
Corporate bonds	5,8%	5,0%	2,6%	29,2%	29,3%	22,9%
Structured notes	0,0%	0,0%	0,2%	1,4%	0,6%	1,5%
Collateralised securities	0,0%	0,0%	0,0%	0,8%	0,6%	0,5%
Mortgages and loans	0,1%	0,0%	0,4%	7,4%	3,2%	2,3%
Property	0,3%	0,8%	2,2%	2,0%	2,5%	1,7%
Deposits	0,0%	0,0%	1,0%	0,8%	1,6%	5,8%
Cash and cash equivalents	1,3%	12,6%	4,6%	1,0%	2,5%	1,4%
Other investments	0,0%	0,0%	0,0%	0,2%	0,0%	0,1%
Not reported	0,0%	0,6%	0,0%	0,0%	0,0%	0,0%
Total Investments, deposits, cash and cash equivalents	100,0%	100,0%	100,0%	100,0%	100,0%	100,0%

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 Hungary the same conclusion can be drawn, and we note that Non-Life insurers invested more of their assets into this category than their life counterparts did. 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 Hungarian Life insurers and their counterpart at EU level with regard to the government bonds: Hungarian Life insurers reported 79,2% of their investments in this category, in sharp contrast to the EU level which amounted to 28,1%.

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

in Mio EUR	HU			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	212	23	4,5%	12,0%	9,5%	1,1%	28,1%	6,5%
Common equity	105	25	2,2%	10,4%	7,8%	1,0%	22,5%	6,0%
Equity of real estate related corporation	66	16	1,4%	1,0%	1,1%	0,0%	4,0%	1,2%
Other equity	41	16	0,9%	0,6%	0,6%	0,0%	2,0%	0,7%
Collective Investment Undertakings - Equity funds	112	20	2,4%	3,8%	3,2%	0,4%	14,7%	3,5%
Equity funds	109	20	2,3%	3,2%	2,7%	0,4%	10,9%	2,4%
Private equity funds	3	18	0,1%	0,5%	0,5%	0,0%	6,9%	1,3%
Structured notes - Equity risk	2	18	0,0%	0,2%	0,1%	0,0%	0,6%	0,1%
Total Equity exposure	326	23	6,9%	16,0%	12,7%	2,5%	37,4%	8,4%
Equity without Equity of real estate related corporation	146	25	3,1%	11,0%	8,4%	1,1%	24,1%	6,1%
Equity exposure without Equity of real estate related corporation	259	24	5,5%	15,0%	11,7%	2,4%	33,3%	7,9%
Equities market value balance sheet (rescaled to CIC scope)	39	22	0,8%	3,6%	3,2%	0,1%	20,6%	4,0%
Equities - listed (rescaled to CIC scope)	20	22	0,4%	3,0%	2,6%	0,0%	15,4%	3,2%
Equities - unlisted (rescaled to CIC scope)	19	19	0,4%	0,6%	0,6%	0,0%	5,2%	1,0%
Equity exposure based upon (Un)Listed equities (rescaled)	153	21	3,2%	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 Hungary, we note that equity exposures coming from Collective Investment Undertakings amount to 2,4% and are higher than the listed and unlisted equity exposures which in total amount to 0,8%. Hereby the listed and unlisted equities in Hungary are very 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	HU			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Direct equity	212	23	65,0%	75,2%	73,4%	39,2%	94,5%	15,9%
Common equity	105	25	32,2%	64,8%	59,4%	28,6%	93,3%	19,0%
Equity of real estate related corporation	66	16	20,3%	6,4%	8,4%	0,0%	39,1%	9,6%
Other equity	41	16	12,5%	3,9%	5,7%	0,0%	35,3%	8,8%
Indirect equity	114	20	35,0%	24,8%	26,6%	5,5%	60,8%	15,9%
Collective Investment Undertakings - Equity funds	112	20	34,4%	23,6%	25,9%	4,6%	60,6%	15,7%
Equity funds	109	20	33,4%	20,2%	22,8%	4,6%	52,9%	13,4%
Private equity funds	3	18	1,0%	3,3%	3,1%	0,0%	28,4%	5,7%
Structured notes - Equity risk	2	18	0,6%	1,3%	0,7%	0,0%	4,0%	1,0%
Total Equity exposure	326	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, the insurance market in Hungary was invested nearly twice as much in Direct equity (65% of Total equity) than in Indirect equity (35% of Total equity).

In terms of direct equity exposure, Hungary ranked number 25 and number 16 in the EU, with regards respectively to the exposure amount to Common equity EU and Equity of real estate related corporation.

Within the Indirect equity category, Equity funds constituted the bulk of investments with 33,4% 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	HU			
	EU home	EU other	outside EU (1)	Total
Equity	190	17	4	212
Common equity	104	1	0	105
Equity of real estate related corporation	46	16	4	66
Other	40	0	0	41
Collective Investment Undertakings - Equity funds	49	52	11	112
Equity funds	45	52	11	109
Private equity funds	3	0	0	3
Structured notes - Equity risk	1	0	0	2
Total Equity exposure	240	70	16	326

in %	HU			
	EU home	EU other	outside EU (1)	Total
Equity	89,9%	8,0%	2,1%	100,0%
Common equity	98,7%	1,3%	0,0%	100,0%
Equity of real estate related corporation	70,0%	23,5%	6,5%	100,0%
Other	99,5%	0,0%	0,5%	100,0%
Collective Investment Undertakings - Equity funds	43,5%	46,6%	9,9%	100,0%
Equity funds	41,7%	48,0%	10,2%	100,0%
Private equity funds	100,0%	0,0%	0,0%	100,0%
Structured notes - Equity risk	71,6%	24,1%	4,3%	100,0%
Total Equity exposure	73,8%	21,4%	4,8%	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 Hungary favoured domestic investments, dedicating to these 89,9% of their direct equity investments, and 46,6% of their indirect investments.

Table 10 also showed that besides the home market, Hungary insurers invested significantly more in equity of other EU Member States than that of non-EU Member States. Czech Republic, the Rest of World and unassigned 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	HU	
	Amount	%
Home country	190	89,9%
HU	190	89,9%
Top 5 countries (outside home country)	21	10,1%
CZ	16	7,3%
Rest of World and unassigned	4	2,1%
NL	1	0,5%
DE	0	0,1%
UK	0	0,0%
Home + Top 5 countries (outside home country)	212	100,0%
Total Direct equity exposure (with real estate corporation)	212	100,0%

in Mio EUR	HU	
	Amount	%
Home country	144	98,9%
HU	144	98,9%
Top 5 countries (outside home country)	2	1,1%
NL	1	0,8%
Rest of World and unassigned	0	0,1%
DE	0	0,1%
UK	0	0,1%
AU	0	0,0%
Home + Top 5 countries (outside home country)	146	100,0%
Total Direct equity exposure (without real estate corporation)	146	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 a slight 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 12 - Solvency II balance sheet (S.02.01) and Solvency II exposure list (S.06.02) comparison

in number	Exposure list HU		Solvency II balance sheet HU		Difference
	#	%	#	%	#
Life undertakings	5	20,0%	5	20,0%	0
Non-Life undertakings	9	36,0%	9	36,0%	0
Reinsurance undertakings	0	0,0%	0	0,0%	0
Undertakings pursuing both life and non-life insurance activity	11	44,0%	11	44,0%	0
Total	25	100,0%	25	100,0%	0

in Mio EUR	Exposure list HU		Solvency II balance sheet HU		Difference
	Amount	%	Amount	%	%
Assets held for index-linked and unit-linked contracts	3 864	100,0%	3 863	100,0%	0,0%

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	HU			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	132	14	3,4%	19,3%	4,5%	0,0%	30,1%	7,1%
Common equity	131	13	3,4%	18,0%	3,9%	0,0%	28,8%	6,3%
Equity of real estate related corporation	1	16	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	2 606	16	67,4%	63,2%	73,1%	30,1%	97,5%	16,3%
Equity funds	1 280	16	33,1%	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	694	16	18,0%	12,1%	19,0%	4,8%	47,5%	11,4%
Money market funds	136	15	3,5%	2,2%	1,7%	0,0%	7,5%	1,8%
Asset allocation funds	94	20	2,4%	14,8%	13,1%	0,4%	30,5%	7,7%
Real estate funds	78	10	2,0%	1,4%	0,6%	0,0%	6,2%	1,2%
Alternative funds	20	19	0,5%	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	304	15	7,9%	4,6%	6,9%	0,0%	44,3%	10,0%
Government bonds	555	10	14,4%	6,4%	6,9%	0,0%	31,4%	8,4%
Corporate bonds	129	20	3,4%	3,9%	6,0%	0,0%	22,7%	6,9%
Structured notes	305	11	7,9%	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	45	13	1,2%	1,2%	2,0%	-0,3%	14,5%	3,3%
Cash and cash equivalents	92	14	2,4%	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	3 864	16	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 (67,4%) and the Government bonds (14,9%) 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 large difference between the portion of index-linked and unit-linked related assets that were invested in Government bonds, 14,4% in Hungary compared to 6,9% 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	HU			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	132	14	3,4%	19,3%	4,5%	0,0%	30,1%	7,1%
Common equity	131	13	3,4%	18,0%	3,9%	0,0%	28,8%	6,3%
Equity of real estate related corporation	1	16	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 - Equity funds	1 280	16	33,1%	26,5%	29,3%	11,2%	57,5%	10,4%
Equity funds	1 280	16	33,1%	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%
Structured notes - Equity risk	60	15	1,5%	1,2%	2,7%	0,0%	15,0%	3,5%
Total Equity exposure	1 472	15	38,1%	47,1%	36,5%	11,7%	58,6%	10,9%
Equity without Equity of real estate related corporation	131	25	3,4%	16,0%	4,2%	0,0%	29,2%	6,8%
Equity exposure without Equity of real estate related corporation	1 471	15	38,1%	40,0%	36,2%	11,7%	58,6%	10,8%

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In Hungary, we note that total equity exposures related to index-linked and unit-linked contracts (38,1%) are significantly higher in comparison to non index-linked and unit-linked contracts (6,9%). 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	HU			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Direct equity	132	14	9,0%	38,3%	11,1%	0,0%	54,2%	15,2%
Common equity	131	13	8,9%	35,4%	9,6%	0,0%	51,8%	13,2%
Equity of real estate related corporation	1	16	0,1%	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	1 340	16	91,0%	61,7%	88,9%	45,8%	100,0%	15,2%
Collective Investment Undertakings - Equity funds	1 280	16	87,0%	59,1%	81,5%	45,7%	100,0%	15,5%
Equity funds	1 280	16	87,0%	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	60	15	4,0%	2,6%	7,4%	0,0%	35,8%	9,6%
Total Equity exposure	1 472	15	100,0%	100,0%	100,0%	100,0%	100,0%	0,0%

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In 2017 Q4, Hungarian insurers invested almost all of their Assets held for index-linked and unit-linked contracts in Indirect equity (91% of Total equity). Direct equity constituting 9% of Total equity.



In terms of direct equity exposure, Hungary ranked number 13 and number 16 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 87% of Total equity whereas allocation to Private equity funds were inexistent.

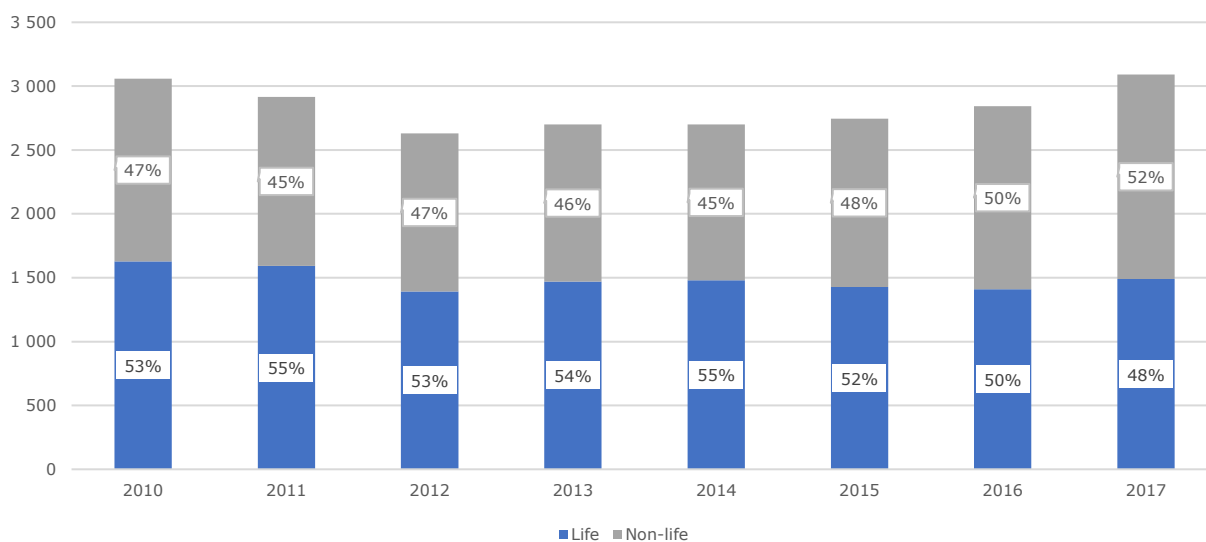
4 Insurance products

4.1 Overview

This section covers the most important insurance products offered in Hungary and the volume of the market. Data reported in this section obtained from the Hungarian National Bank (MNB) .

From 2010 to 2012 gross premium income dropped by 14,1% to 2 269 million EUR. Since then, income has steadily increased at an average annual growth rate of 3,3%, reaching 3 091 EUR million at the end of 2017. As for the composition of the market, this is equally balanced between life and non-life insurance business. However, there is a small shift over the years from life insurance towards non-life insurance business.

Graph 1 - Gross written premiums (in Mio EUR)

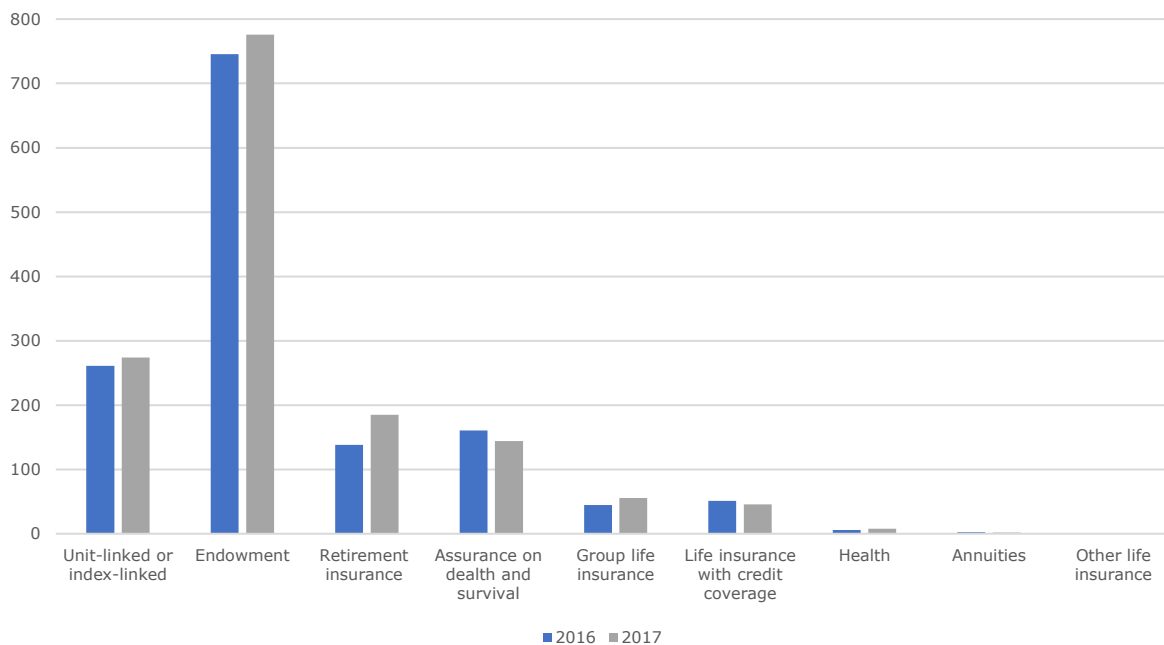


Source: MNB

4.2 Life insurance products

The life insurance business in Hungary, on average, represents 52,5% of the total insurance market. Over 2017, gross written premiums grew by 5,7% to 1 490 million EUR. The majority of that is due to endowments, which contribute more than 52% (or 776 million EUR) towards the life income. Unit-linked or index-linked products and retirement insurance account for 18,4% and 12,4%, respectively, of the premium income. Other life segments, such as assurance on death and survival, group life insurance and life insurance with credit coverage, represent collectively around 16% or 245 million EUR of the market.

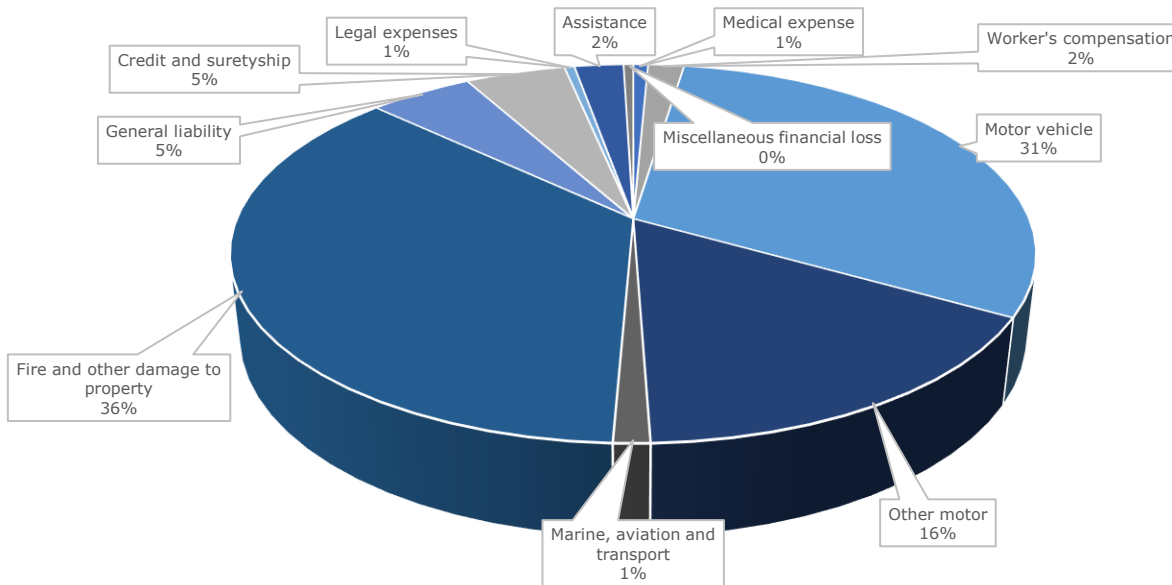
Graph 2 - Gross written premiums for life insurance products (in Mio EUR)



Source: MNB

4.3 Non-Life insurance products

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



Source: MNB

The non-life segment of the Hungarian insurance market declined by more than 14% from 2010 to 2014. However, since then premiums rose by 31,2% and totalled 1 601 million EUR in 2017.

4.3.1 Medical expense insurance

In Hungary, the medical expense insurance accounted for about 0,7% or 11 million EUR of the non-life insurance products (up by 17,5% to 2016).

4.3.2 Workers' compensation insurance

In Hungary, the workers' compensation insurance accounted for about 1,7% or 28 million EUR of the non-life insurance products premiums.

4.3.3 Motor vehicle insurance

Motor Vehicle insurance is the second common non-life insurance product in Hungary. In 2017 accounted for 30,8% or 493 million EUR of the non-life premiums.

4.3.4 Other motor insurance

In Hungary, the other motor insurance accounts for 16,2% of the non-life business. In 2017 stood at 260 million EUR, 12,6% up compared to a year earlier.

4.3.5 Marine, aviation and transport insurance

The marine, aviation and transport insurance represent 1,3% of the non-life premium income. The segment increased by 7,9% to 19,9 million in 2017.



4.3.6 Fire and other damage to property insurance

Fire and other damage to property insurance is the most common non-life insurance product sold in Hungary. It accounts for 36,3% or 581 million EUR of the non-life insurance premiums.

4.3.7 General liability insurance

In Hungary, the general liability insurance accounted for about 4,9% or 79 million EUR of the non-life insurance products premiums.

4.3.8 Credit and suretyship insurance

Total gross premiums written in credit and suretyship insurance amounted to 77 million EUR, exhibiting a growth rate of 9,5% to 2016. Liability premiums accounted for 4,7% of total non-life premiums written during 2017.

4.3.9 Legal expenses insurance

Premiums for legal expenses insurance business increased by 8,5% in 2017 to 8 million EUR.

4.3.10 Assistance

Premiums for assistance insurance amounted to 37,6 million EUR, exhibiting a growth rate of 8,6% to 2016.

4.3.11 Miscellaneous financial loss

In 2017, the miscellaneous financial loss insurance accounted for about 0,5% or 7,5 million EUR of the non-life insurance products premiums.

4.4 Average duration

In 2016, EIOPA published their Insurance Stress Test Report³, which resulted in the following conclusions for Hungary:

- The approximate effective duration for the TP life for all lines of business reported by the EIOPA 2016 stress test participants is 2,39;
- The Macaulay duration for the TP life for all lines of business reported by the EIOPA 2016 stress test participants is 8,38.
-

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.

³ 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 IFRS⁴.

1. Applicable GAAP at consolidated level: IFRS required for all listed companies and permitted for all non-listed companies⁵;
2. Applicable GAAP at statutory level: Hungarian statutory standards required for all companies⁵;
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 derived from the disposal of shares may be exempt from corporate income tax if the capital gains are derived from the sale of an investment, the holding is held for at least one year and the acquisition is reported to the Hungarian tax authorities within 75 days of the acquisition of the investment.

If one or more of the conditions is not complied with, the taxation will be as follows:

- Capital gains are fully taxable at the standard corporate income tax rate: 9%

5.2.2 Capital losses on shares

Capital losses incurred on the sale of business assets are deductible in the same manner as ordinary losses.

5.2.3 Taxation of dividends

Dividends paid to a company, whether resident or non-resident, by another resident company are exempt from dividend withholding tax (WHT) and corporate income tax in the hands of the shareholder, regardless of the size of the holding.

If the dividend does not qualify for an exemption, it is taxed at the ordinary tax rate.

Hungary does not levy WHT on outbound dividends to legal entities. Dividends paid to an individual may be subject to personal income tax at a rate of 15%, unless this is reduced under a tax treaty.

Hungary's tax treaties usually provide for an exemption for active income and a credit for passive income. In the absence of a tax treaty, domestic law provides a credit for foreign taxes paid.

⁴ https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/financial-reporting_en
⁵ <https://www.ifrs.org/-/media/feature/around-the-world/jurisdiction-profiles/hungary-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 Hungary 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



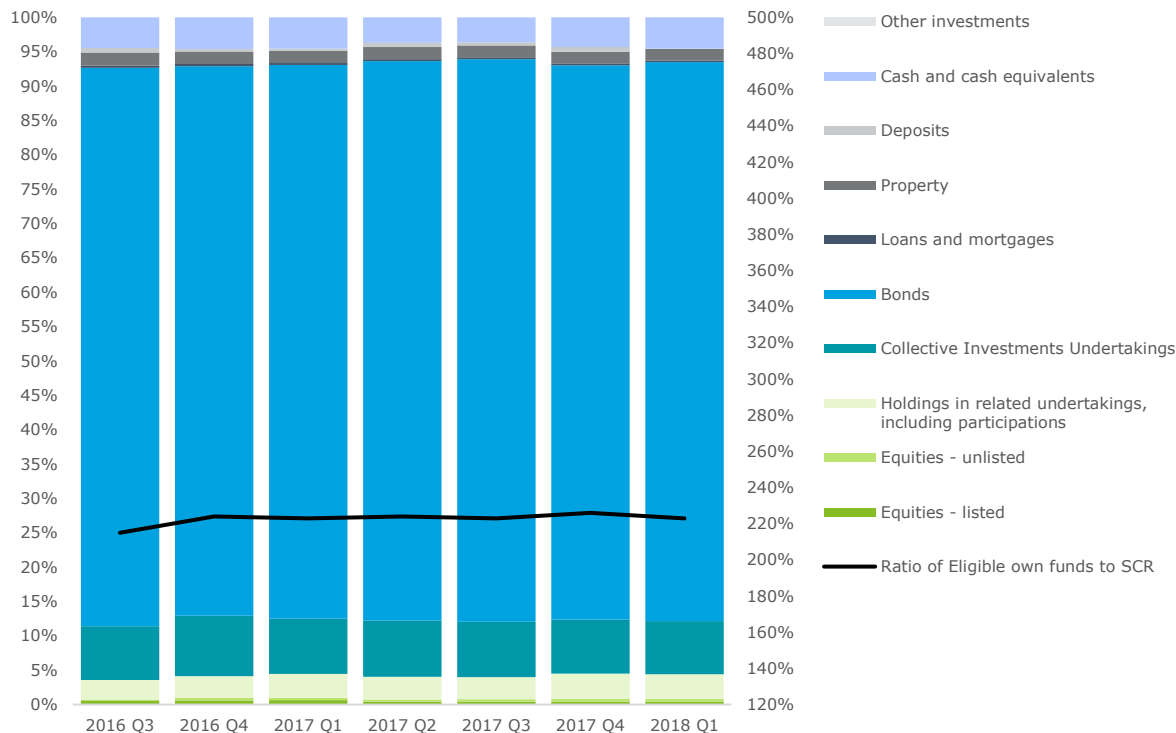
Source: EIOPA Solvency I and Solvency II statistics and Deloitte-CEPS analysis

As shown in Graph 4, the share of index-linked and unit-linked investments in comparison to total assets in Hungary has been increasing since 2005. 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 Hungarian insurers' balance sheet has remained relatively stable over the quarters since the introduction of Solvency II on 1 January 2016⁶. This seems to be confirmed by the fact that the most dominant assets classes, Bonds and Collective Investment Undertakings, do not suggest a clear trend whether it be downwards or upwards.

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

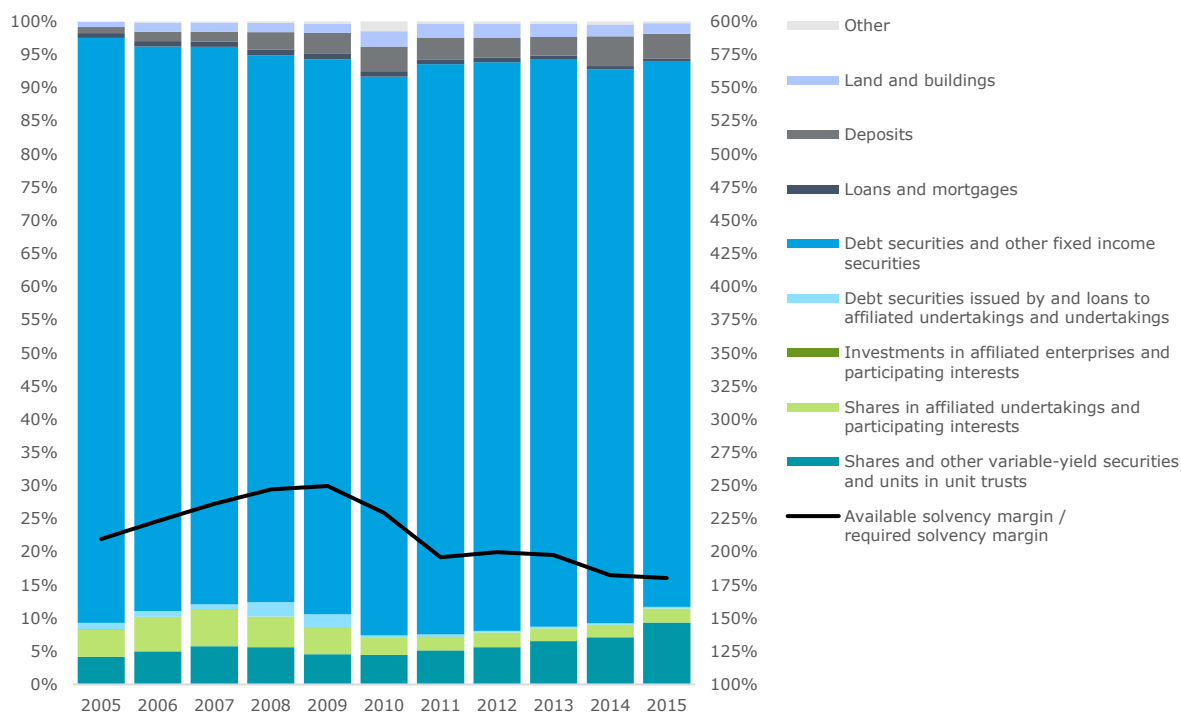
For Hungary, the SCR ratio shows stable behaviour over the period 2016 Q3 until 2018 Q1. Overall, this has not resulted into significant changes in the asset allocation of the overall Hungarian insurance market.

⁶ 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)

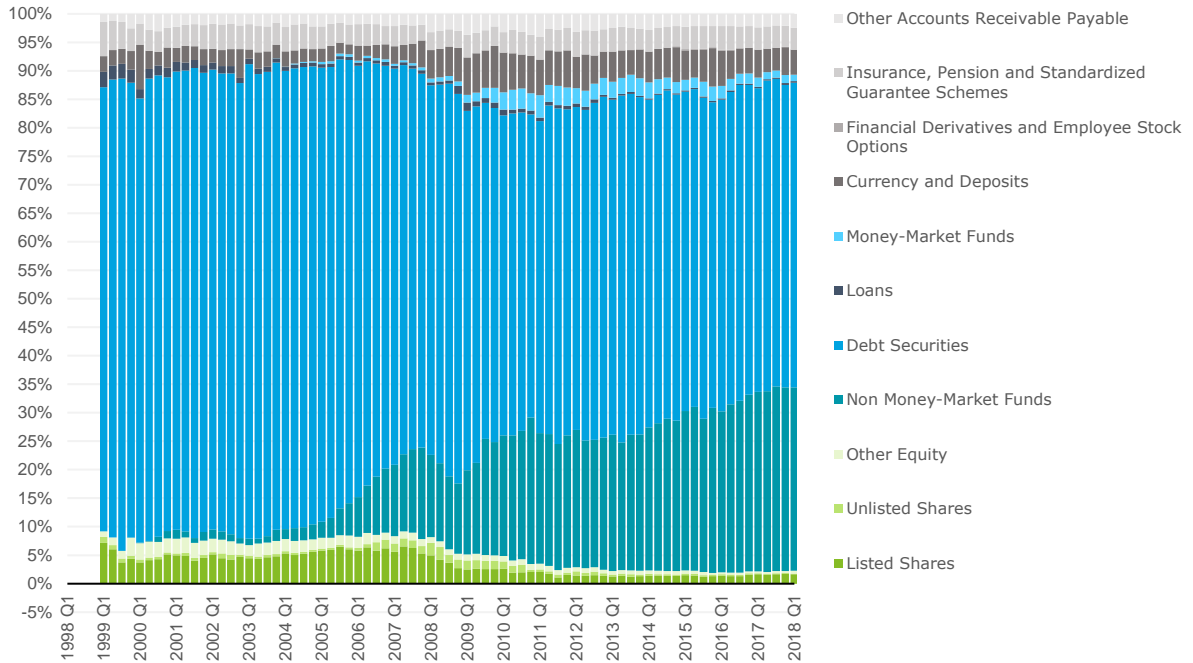


Source: EIOPA Solvency I statistics and Deloitte-CEPS analysis

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 Hungarian insurers' balance sheet for more than a decade. Shares and other variable-yield securities and units in unit trusts increased slightly over the observation period. Furthermore, the solvency ratio has shown a downward trend from 2009 to 2011.

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

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



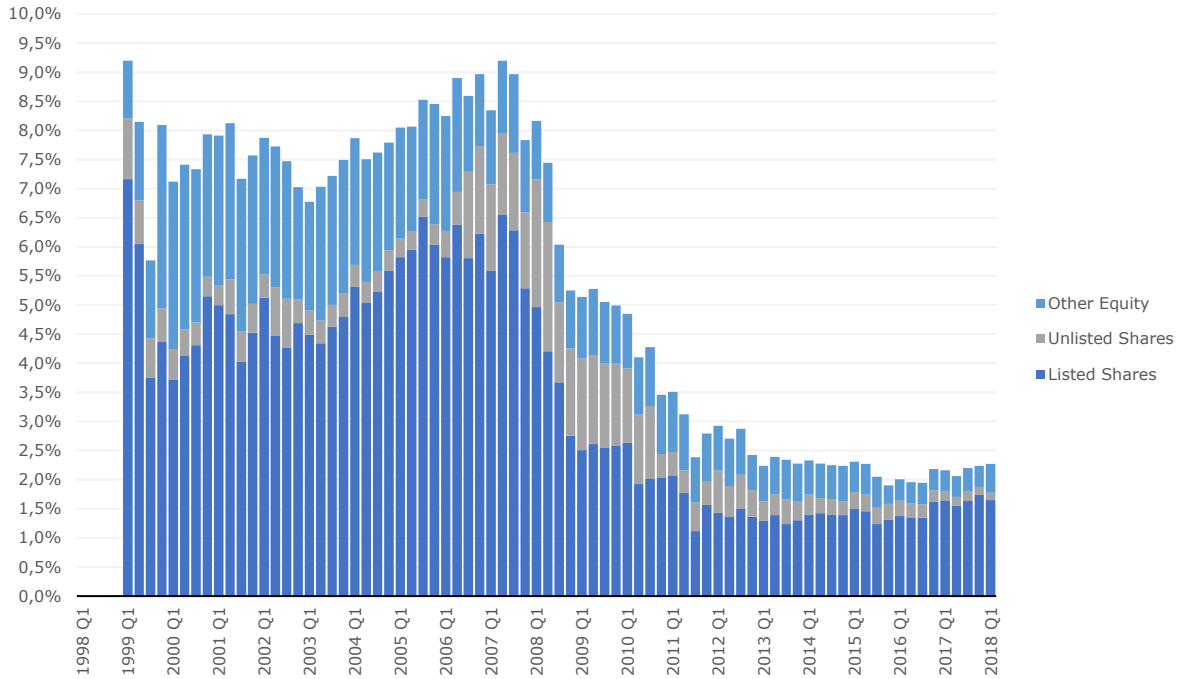
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

Graph 7 relates to figures of investments by Hungarian Insurers since 1999 Q1 as reported by the ECB. It can be observed that Debt Securities dominated the Hungarian balance sheets during the observation period. Also, a decrease in the importance of Listed Shares is observable. Additionally, there is a steady increase in Non Money-Market Funds starting from 2005 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 Hungary is plotted against the aggregated EU data.

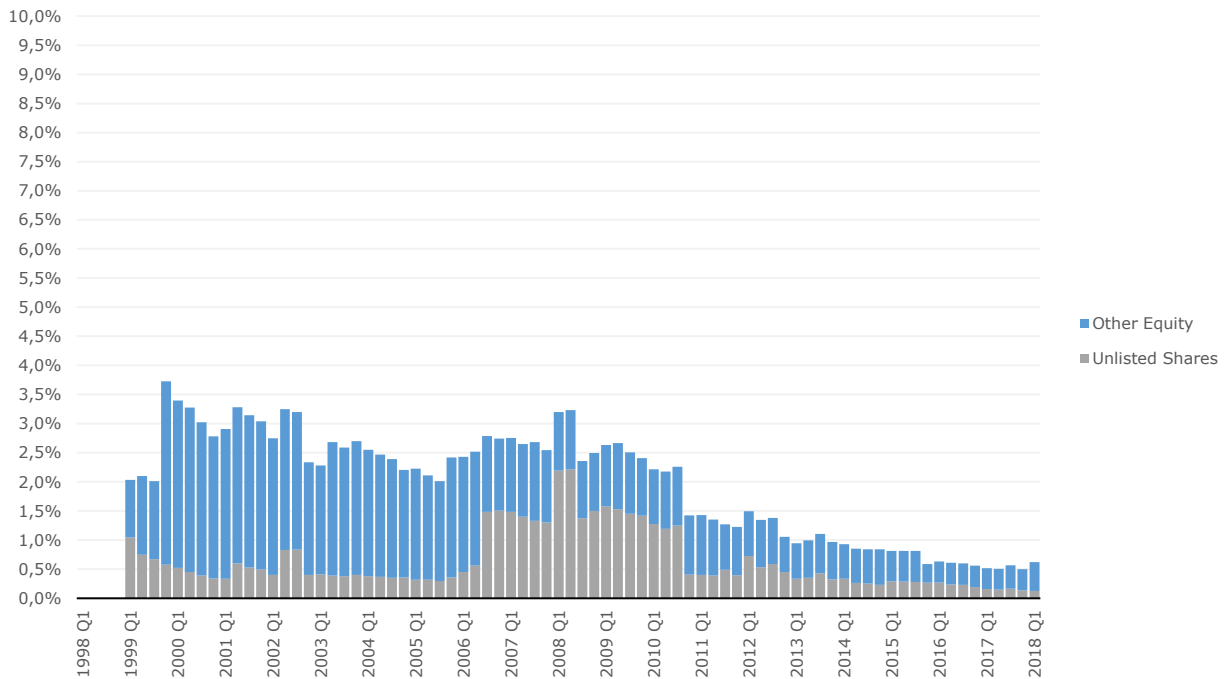
We remark that these graphs include index-linked and unit-linked assets which cannot be individualised from the figures published by the ECB.

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



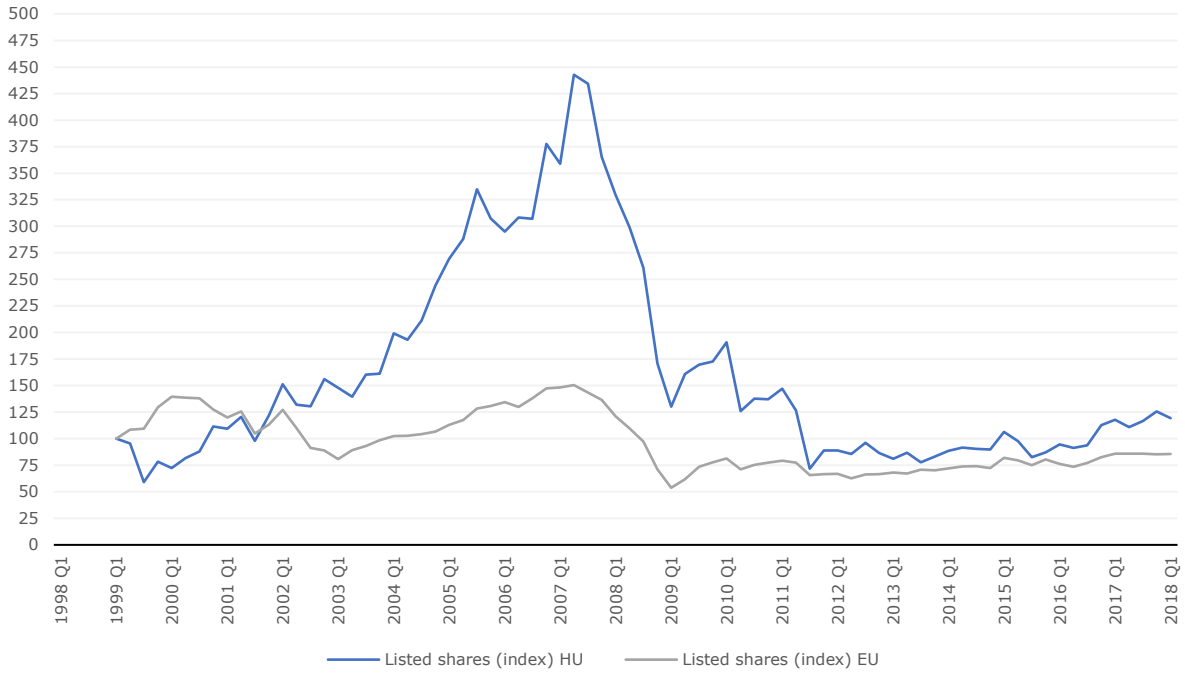
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

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



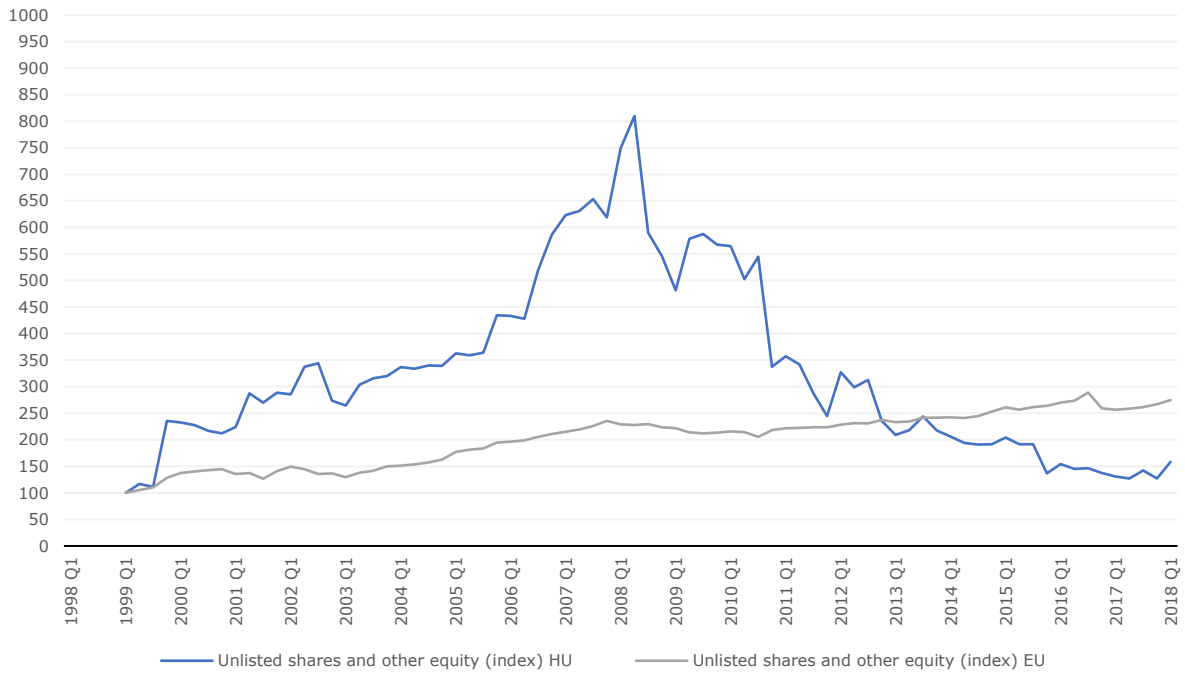
Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

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



Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

Graph 11 - Evolution ECB unlisted shares HU 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 Hungary 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 display a similar increasing trend compared to the total assets until 2007. In 2007 Q2, listed shares reach a peak value of 570 million EUR, then exhibit a downward trend the following four years (i.e. 2007 Q2 – 2011 Q3), declining to a value of 92 million EUR in 2011 Q3. In the following five years, investments in listed shares recover slowly, accumulating to 154 million EUR in the first quarter of 2018.

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 1999 – 2018, indexed value of total assets increases by 419%, while indexed value of listed shares decrease by 19% compared to their initial starting value.

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 Hungarian 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 and 2008. This in turn points to a market price effect being present during this particular period.

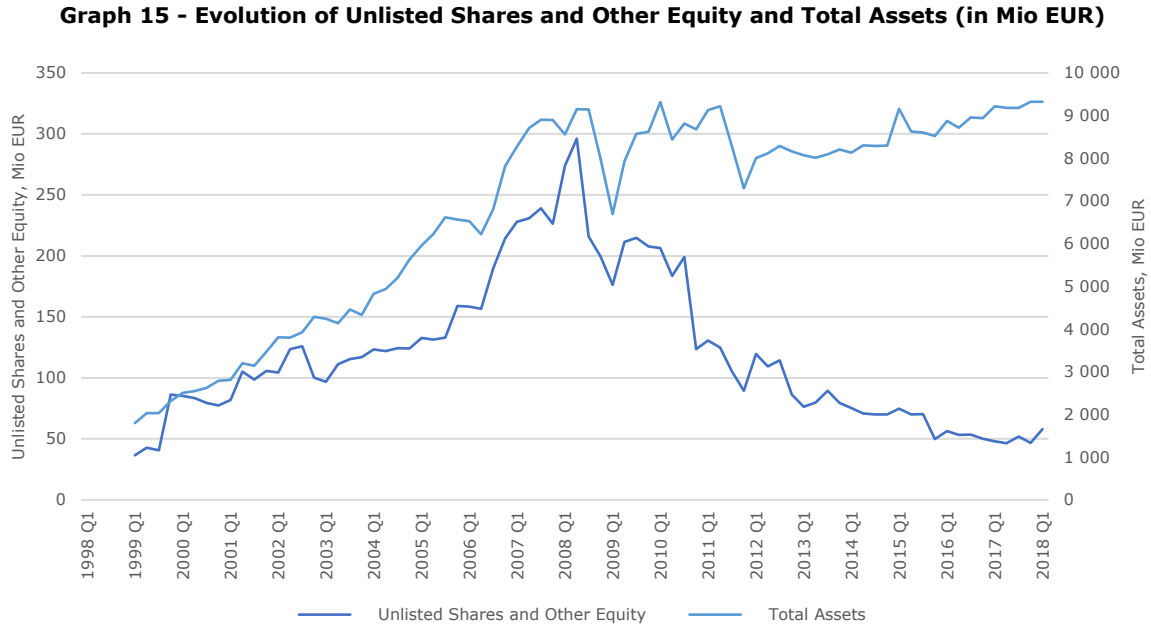
Graph 14 - Evolution of Listed Shares - Indexed (Weighted Equity Index Adjusted)

Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis

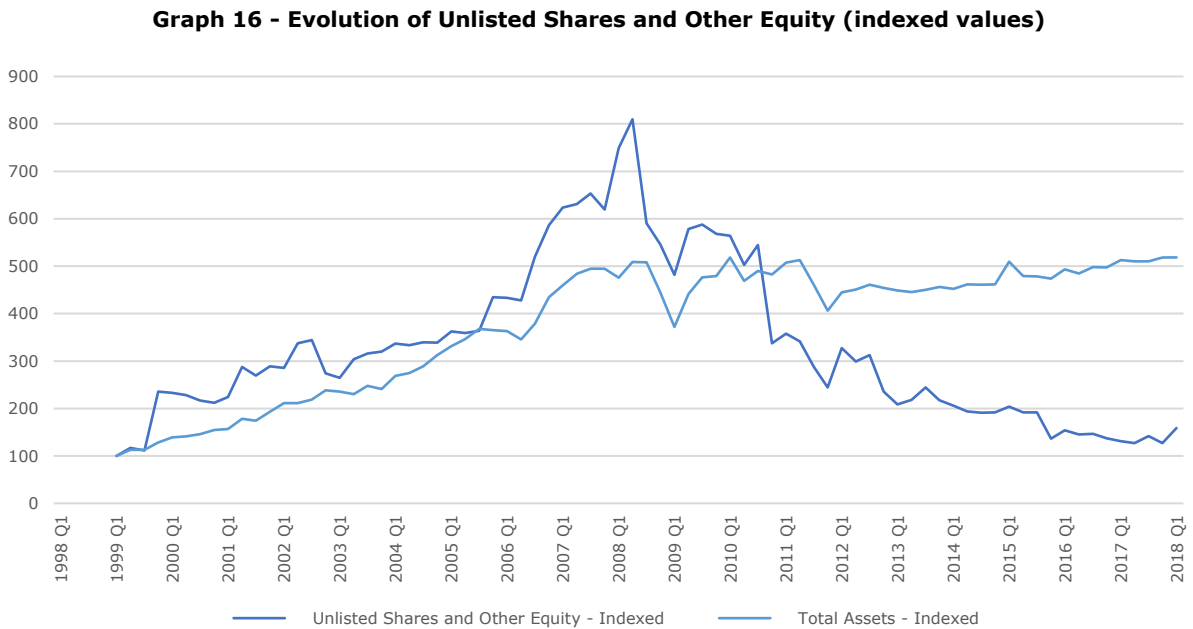
6.5.2 Unlisted Shares

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 trend as total assets over the period 1999 - 2008. Over the period 1999-2008 Q2 unlisted shares and other equity increases from 37 million EUR to a peak value of 296 million EUR, resulting in a growth of 710%. However, afterwards, investments in this category of equities drop to a level of 58 million EUR in 2018 Q1.

The growth patterns of total assets and unlisted shares and other equity can be compared on the indexed amounts. Over the period 1999 - 2018, indexed value of total assets reach 519 while indexed value of unlisted shares and other equity increases to 158.



Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis



Source: ECB Statistical Data Warehouse and Deloitte-CEPS analysis