

CZECH REPUBLIC

Key characteristics of the insurance market



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1 Introduction

1.1 General

At the end of 2017 (2017 Q4), 27 insurance companies¹ in Czech Republic submitted their Solvency II related reporting package to the Czech the National Supervisory Authority (NSA). These companies accounted for 0,164% of Total assets of insurance undertakings operating within the European Union (EU).

Table 1 depicts the number of Solvency II reporting submissions in Czech Republic 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	11
Reinsurance undertakings	1
Composite undertakings	14
Total	27
Total assets CZ / Total assets EU %	0,164%
Ranking CZ based on Total assets EU	16

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

1.2 Balance sheet

At the end of 2017 (2017 Q4), Czech Republic was the number 16 country in the EU insurance market in terms of assets held with an amount of 18 508 million EUR reported under Solvency II rules.

With regards to the Assets held for index-linked and unit-linked contracts, Czech Republic ranked number 17 in terms of absolute amount with 2 934 million EUR invested in this category. However, with 15,9% of Total assets of this category, Czech Republic was significantly below the EU average, i.e. 24,3% in terms of Total assets.

In terms of technical provisions, 28,4% of the total balance sheet relates to the life business (i.e. non index-linked and unit-linked business), while 14,1% 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	CZ			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Investments, deposits, cash and cash equivalents	13 699	16	74,0%	67,8%	67,3%	22,6%	90,1%	17,2%
Assets held for index-linked and unit-linked contracts	2 934	17	15,9%	24,2%	24,3%	2,5%	59,3%	16,2%
Other assets	1 875	15	10,1%	8,1%	8,4%	2,1%	19,5%	4,9%
Total assets	18 508	16	100,0%	100,0%	100,0%	100,0%	100,0%	0,0%
Technical provisions - life	5 248	17	28,4%	46,3%	32,2%	3,0%	64,2%	17,9%
Technical provisions - non-life	2 616	17	14,1%	6,6%	12,9%	2,4%	38,5%	9,1%
Technical provisions - index-linked and unit-linked	2 333	18	12,6%	25,1%	23,4%	2,4%	58,4%	16,0%
Other liabilities	3 419	15	18,5%	8,9%	9,0%	4,0%	21,3%	3,9%
Total liabilities	13 617	16	73,6%	86,9%	77,6%	49,1%	92,7%	11,1%
Excess of assets over liabilities	4 891	17	26,4%	13,1%	22,4%	7,3%	50,9%	11,1%
Total liabilities + Excess of assets over liabilities	18 508	16	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 Czech 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 224% 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, Czech Republic is ranked at the 14th 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	CZ		EU				
	Amount	Rank	%	Avg	Min	Max	StD
Total available own funds to meet the SCR	4 535	17	-	-	-	-	-
SCR	2 026	16	-	-	-	-	-
Surplus available own funds	2 509	17	-	-	-	-	-
Ratio of Eligible own funds to SCR	224%	14	237%	225%	135%	361%	52%
Ratio of Eligible own funds to SCR (10th percentile)	116%	26	136%	138%	110%	193%	19%
Ratio of Eligible own funds to SCR (25th percentile)	162%	13	162%	164%	128%	214%	24%
Ratio of Eligible own funds to SCR (50th percentile)	219%	10	215%	208%	144%	300%	37%
Ratio of Eligible own funds to SCR (75th percentile)	288%	12	306%	280%	164%	445%	59%
Ratio of Eligible own funds to SCR (90th percentile)	519%	4	457%	396%	173%	643%	99%
Ratio of Eligible own funds to MCR	657%	11	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, Czech participants reported an SCR ratio of 229% including the application of LTGs and transitionals. Removing the measures caused a negligible decrease of the SCR ratio to 227%.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 Czech 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 differ³.

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

in number	Exposure list CZ		Solvency II balance sheet CZ		Difference
	#	%	#	%	#
Life undertakings	1	3,7%	1	3,7%	0
Non-Life undertakings	11	40,7%	11	40,7%	0
Reinsurance undertakings	1	3,7%	1	3,7%	0
Undertakings pursuing both life and non-life insurance activity	14	51,9%	14	51,9%	0
Total	27	100,0%	27	100,0%	0

in Mio EUR	Exposure list CZ		Solvency II balance sheet CZ		Difference
	Amount	%	Amount	%	%
Holdings in related undertakings, incl. participations and equities	1 004	7,3%	1 004	7,3%	0,0%
Holdings in related undertakings, including participations	n/a	n/a	917	6,7%	n/a
Equities	n/a	n/a	87	0,6%	n/a
Equities - listed	n/a	n/a	77	0,6%	n/a
Equities - unlisted	n/a	n/a	10	0,1%	n/a
Collective Investments Undertakings	877	6,4%	877	6,4%	0,0%
Bonds	10 641	77,7%	10 641	77,7%	0,0%
Loans and mortgages	105	0,8%	105	0,8%	0,0%
Property	183	1,3%	183	1,3%	0,0%
Deposits	384	2,8%	384	2,8%	0,0%
Cash and cash equivalents	499	3,6%	499	3,6%	0,0%
Other investments	7	0,0%	7	0,0%	0,0%
Total	13 699	100,0%	13 699	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	CZ			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equities - listed	77	19	88,3%	83,7%	75,0%	12,8%	99,6%	21,1%
Equities - unlisted	10	22	11,7%	16,3%	25,0%	0,4%	87,0%	21,1%
Total equities	87	20	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, Czech insurers invested 88,3% of their directly-held equity positions in listed equity in comparison to an average of 75,0% in the EU. With an amount of 77 million EUR, Czech Republic ranked number 19 in the EU.

³ Some companies reporting under Solvency II are exempted from reporting the Solvency II Exposure List. The decision to exempt certain companies from particular reporting obligations lies with individual National Competent Authorities.



With an invested amount of 10 million EUR, unlisted equity constituted a significant portion of the equity investment category of the directly-held equity investments, i.e. 11,7%. This placed Czech Republic as the number 22 in the EU.

2.2 Asset exposure

From an asset exposure perspective, the insurance market in Czech Republic was mainly invested in Government bonds and Corporate bonds (in total 77,3% of Total Investments, deposits, cash and cash equivalents), Collective Investment Undertakings (6,4%), and Equity (7,3%).

Within the bond categories, the insurance market was significantly more exposed to government securities (49,5%) and corporate debt (27,8%), categories for which Czech Republic ranked number 16 and number 15 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 fourth most important for the Czech insurance market in terms of asset exposures. Within this category, the industry was mainly exposed to Debt funds and Equity funds for which Czech Republic ranked respectively number 18 and number 15 in the EU.

Equity was the third category to which the Czech insurers had the most exposure. Equity of real estate related corporation constitutes 3% within the 7,3% of the total equity exposure.

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

in Mio EUR	CZ			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	1 004	16	7,3%	12,0%	9,5%	1,1%	28,1%	6,5%
Common equity	583	17	4,3%	10,4%	7,8%	1,0%	22,5%	6,0%
Equity of real estate related corporation	413	11	3,0%	1,0%	1,1%	0,0%	4,0%	1,2%
Other equity	8	21	0,1%	0,6%	0,6%	0,0%	2,0%	0,7%
Collective Investment Undertakings	877	18	6,4%	19,2%	12,8%	1,5%	41,6%	9,3%
Equity funds	476	15	3,5%	3,2%	2,7%	0,4%	10,9%	2,4%
Private equity funds	3	19	0,0%	0,5%	0,5%	0,0%	6,9%	1,3%
Debt funds	257	18	1,9%	7,8%	5,6%	0,8%	18,0%	4,9%
Money market funds	2	24	0,0%	2,3%	1,1%	0,0%	6,3%	1,6%
Asset allocation funds	109	12	0,8%	1,1%	0,8%	0,0%	3,9%	1,0%
Real estate funds	20	17	0,1%	1,6%	0,8%	0,0%	3,3%	0,9%
Alternative funds	3	18	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	7	19	0,0%	2,0%	0,9%	0,0%	7,2%	1,7%
Government bonds	6 786	16	49,5%	28,7%	39,7%	10,0%	77,0%	18,9%
Corporate bonds	3 811	15	27,8%	26,9%	21,6%	1,8%	47,3%	11,2%
Structured notes	35	14	0,3%	1,3%	0,5%	0,0%	2,5%	0,6%
Collateralised securities	9	16	0,1%	0,6%	0,6%	0,0%	9,3%	1,8%
Mortgages and loans	105	18	0,8%	4,8%	3,8%	0,3%	26,3%	5,2%
Property	183	21	1,3%	2,0%	3,5%	0,8%	11,6%	2,6%
Deposits	384	16	2,8%	2,8%	3,6%	0,2%	16,6%	3,6%
Cash and cash equivalents	499	15	3,6%	1,4%	4,3%	0,5%	16,6%	3,5%
Other investments	7	9	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	13 699	16	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 the Czech Republic, 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	CZ			EU				
	Amount	Rank	%	%	Avg	Min	Max	STD
Equity	1 004	16	7,3%	12,0%	9,5%	1,1%	28,1%	6,5%
Common equity	583	17	4,3%	10,4%	7,8%	1,0%	22,5%	6,0%
Equity of real estate related corporation	413	11	3,0%	1,0%	1,1%	0,0%	4,0%	1,2%
Other equity	8	21	0,1%	0,6%	0,6%	0,0%	2,0%	0,7%
Collective Investment Undertakings - Equity funds	479	18	3,5%	3,8%	3,2%	0,4%	14,7%	3,5%
Equity funds	476	15	3,5%	3,2%	2,7%	0,4%	10,9%	2,4%
Private equity funds	3	19	0,0%	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	1 483	16	10,8%	16,0%	12,7%	2,5%	37,4%	8,4%
Equity without Equity of real estate related corporation	591	17	4,3%	11,0%	8,4%	1,1%	24,1%	6,1%
Equity exposure without Equity of real estate related corporation	1 070	16	7,8%	15,0%	11,7%	2,4%	33,3%	7,9%
Equities market value balance sheet (rescaled to CIC scope)	87	20	0,6%	3,6%	3,2%	0,1%	20,6%	4,0%
Equities - listed (rescaled to CIC scope)	77	19	0,6%	3,0%	2,6%	0,0%	15,4%	3,2%
Equities - unlisted (rescaled to CIC scope)	10	22	0,1%	0,6%	0,6%	0,0%	5,2%	1,0%
Equity exposure based upon (Un)Listed equities (rescaled)	566	17	4,1%	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 Czech Republic, equity exposures coming from Collective Investment Undertakings amount to 3,5% and are higher than the listed and unlisted equity exposures which in total amount to 0,6%. Hereby the listed and unlisted equities in Czech Republic 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	CZ			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Direct equity	1.004	16	67,7%	75,2%	73,4%	39,2%	94,5%	15,9%
Common equity	583	17	39,3%	64,8%	59,4%	28,6%	93,3%	19,0%
Equity of real estate related corporation	413	11	27,9%	6,4%	8,4%	0,0%	39,1%	9,6%
Other equity	8	21	0,5%	3,9%	5,7%	0,0%	35,3%	8,8%
Indirect equity	479	15	32,3%	24,8%	26,6%	5,5%	60,8%	15,9%
Collective Investment Undertakings - Equity funds	479	15	32,3%	23,6%	25,9%	4,6%	60,6%	15,7%
Equity funds	476	15	32,1%	20,2%	22,8%	4,6%	52,9%	13,4%
Private equity funds	3	19	0,2%	3,3%	3,1%	0,0%	28,4%	5,7%
Structured notes - Equity risk	0	-	0,0%	1,3%	0,7%	0,0%	4,0%	1,0%
Total Equity exposure	1.483	16	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 Czech Republic was invested twice as much in Direct equity (67,7% of Total equity) than in Indirect equity (32,3% of Total equity).

In terms of direct equity exposure, Czech Republic ranked number 17 and number 11 in the EU, with regards respectively to the exposure amount to Common equity and Equity of real estate related corporation.

Within the Indirect equity category, Equity funds constituted the bulk of investments with 32,1% of Total equity, significantly more than 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	CZ			Total
	EU home	EU other	outside EU (1)	
Equity	765	232	8	1 004
Common equity	388	192	3	583
Equity of real estate related corporation	370	39	4	413
Other	7	1	0	8
Collective Investment Undertakings - Equity funds	89	277	113	479
Equity funds	86	277	113	476
Private equity funds	3	0	0	3
Structured notes - Equity risk	0	0	0	0
Total Equity exposure	854	509	121	1 483
in %	CZ			
	EU home	EU other	outside EU (1)	Total
Equity	76,2%	23,1%	0,8%	100,0%
Common equity	66,5%	32,9%	0,5%	100,0%
Equity of real estate related corporation	89,5%	9,4%	1,1%	100,0%
Other	92,6%	7,4%	0,0%	100,0%
Collective Investment Undertakings - Equity funds	18,5%	57,9%	23,6%	100,0%
Equity funds	18,0%	58,3%	23,7%	100,0%
Private equity funds	100,0%	0,0%	0,0%	100,0%
Structured notes - Equity risk	100,0%	0,0%	0,0%	100,0%
Total Equity exposure	57,5%	34,3%	8,1%	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 Czech Republic favoured domestic investments for direct equity, dedicating to these 76,2% of their direct equity investments, and favoured EU investments for indirect equity, dedicating to these 57,9% of their indirect investments.

Table 9 also showed that besides the home market, Czech insurers invested significantly more in equity of other EU Member States than that of non-EU Member States. The Netherlands, Romania and Slovakia were the preferred destinations.

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

in Mio EUR	CZ	
	Amount	%
Home country	765	76,2%
CZ	765	76,2%
Top 5 countries (outside home country)	226	22,5%
NL	112	11,2%
SK	58	5,8%
RO	27	2,6%
AT	18	1,8%
PL	11	1,1%
Home + Top 5 countries (outside home country)	990	98,7%
Total Direct equity exposure (with real estate corporation)	1 004	100,0%

in Mio EUR	CZ	
	Amount	%
Home country	395	66,9%
CZ	395	66,9%
Top 5 countries (outside home country)	187	31,6%
NL	112	19,0%
RO	27	4,5%
SK	26	4,5%
PL	11	1,9%
AT	11	1,8%
Home + Top 5 countries (outside home country)	582	98,5%
Total Direct equity exposure (without real estate corporation)	591	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 11 - Solvency II balance sheet (S.02.01) and Solvency II exposure list (S.06.02) comparison

in number	Exposure list CZ		Solvency II balance sheet CZ		Difference
	#	%	#	%	#
Life undertakings	1	3,7%	1	3,7%	0
Non-Life undertakings	11	40,7%	11	40,7%	0
Reinsurance undertakings	1	3,7%	1	3,7%	0
Undertakings pursuing both life and non-life insurance activity	14	51,9%	14	51,9%	0
Total	27	100,0%	27	100,0%	0

in Mio EUR	Exposure list CZ		Solvency II balance sheet CZ		Difference
	Amount	%	Amount	%	%
Assets held for index-linked and unit-linked contracts	2 941	100,0%	2 934	100,0%	0,2%

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	CZ			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	78	15	2,7%	19,3%	4,5%	0,0%	30,1%	7,1%
Common equity	74	15	2,5%	18,0%	3,9%	0,0%	28,8%	6,3%
Equity of real estate related corporation	4	15	0,1%	0,8%	0,3%	0,0%	1,5%	0,5%
Other equity	0	-	0,0%	0,4%	0,3%	0,0%	4,1%	0,9%
Collective Investment Undertakings	1 652	17	56,2%	63,2%	73,1%	30,1%	97,5%	16,3%
Equity funds	713	17	24,2%	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	296	20	10,1%	12,1%	19,0%	4,8%	47,5%	11,4%
Money market funds	19	20	0,6%	2,2%	1,7%	0,0%	7,5%	1,8%
Asset allocation funds	533	15	18,1%	14,8%	13,1%	0,4%	30,5%	7,7%
Real estate funds	7	17	0,2%	1,4%	0,6%	0,0%	6,2%	1,2%
Alternative funds	7	23	0,3%	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	77	18	2,6%	4,6%	6,9%	0,0%	44,3%	10,0%
Government bonds	79	18	2,7%	6,4%	6,9%	0,0%	31,4%	8,4%
Corporate bonds	564	13	19,2%	3,9%	6,0%	0,0%	22,7%	6,9%
Structured notes	556	10	18,9%	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	6	16	0,2%	1,2%	2,0%	-0,3%	14,5%	3,3%
Cash and cash equivalents	6	22	0,2%	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	2 941	17	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 (56,2%), the Corporate bonds (19,2%) and the Structured notes (18,9%) 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.

Relative 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, 56,2% in Czech Republic 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	CZ			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Equity	78	15	2,7%	19,3%	4,5%	0,0%	30,1%	7,1%
Common equity	74	15	2,5%	18,0%	3,9%	0,0%	28,8%	6,3%
Equity of real estate related corporation	4	15	0,1%	0,8%	0,3%	0,0%	1,5%	0,5%
Other equity	0	-	0,0%	0,4%	0,3%	0,0%	4,1%	0,9%
Collective Investment Undertakings - Equity funds	713	17	24,2%	26,5%	29,3%	11,2%	57,5%	10,4%
Equity funds	713	17	24,2%	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	440	9	15,0%	1,2%	2,7%	0,0%	15,0%	3,5%
Total Equity exposure	1 231	17	41,9%	47,1%	36,5%	11,7%	58,6%	10,9%
Equity without Equity of real estate related corporation	74	17	2,5%	16,0%	4,2%	0,0%	29,2%	6,8%
Equity exposure without Equity of real estate related corporation	1 227	17	41,7%	40,0%	36,2%	11,7%	58,6%	10,8%

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In the Czech Republic, total equity exposures related to index-linked and unit-linked contracts (41,9%) are significantly higher in comparison to non index-linked and unit-linked contracts (10,8%). 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)

in Mio EUR	CZ			EU				
	Amount	Rank	%	%	Avg	Min	Max	StD
Direct equity	78	15	6,3%	38,3%	11,1%	0,0%	54,2%	15,2%
Common equity	74	15	6,0%	35,4%	9,6%	0,0%	51,8%	13,2%
Equity of real estate related corporation	4	15	0,3%	1,7%	0,7%	0,0%	4,0%	1,1%
Other equity	0	-	0,0%	1,3%	0,8%	0,0%	9,7%	2,2%
Indirect equity	1 153	17	93,7%	61,7%	88,9%	45,8%	100,0%	15,2%
Collective Investment Undertakings - Equity funds	713	17	57,9%	59,1%	81,5%	45,7%	100,0%	15,5%
Equity funds	713	17	57,9%	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	440	9	35,8%	2,6%	7,4%	0,0%	35,8%	9,6%
Total Equity exposure	1 231	17	100,0%	100,0%	100,0%	100,0%	100,0%	0,0%

Source: EIOPA Solvency II statistics and Deloitte-CEPS analysis

In 2017 Q4, Czech insurers invested almost all of their Assets held for index-linked and unit-linked contracts in Indirect equity (93,7% of Total equity). Direct equity constituting 6,3% of Total equity.



In terms of direct equity exposure, Czech Republic ranked number 15 and number 15 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 57,9% of Total equity whereas allocation to Private equity funds were inexistent.

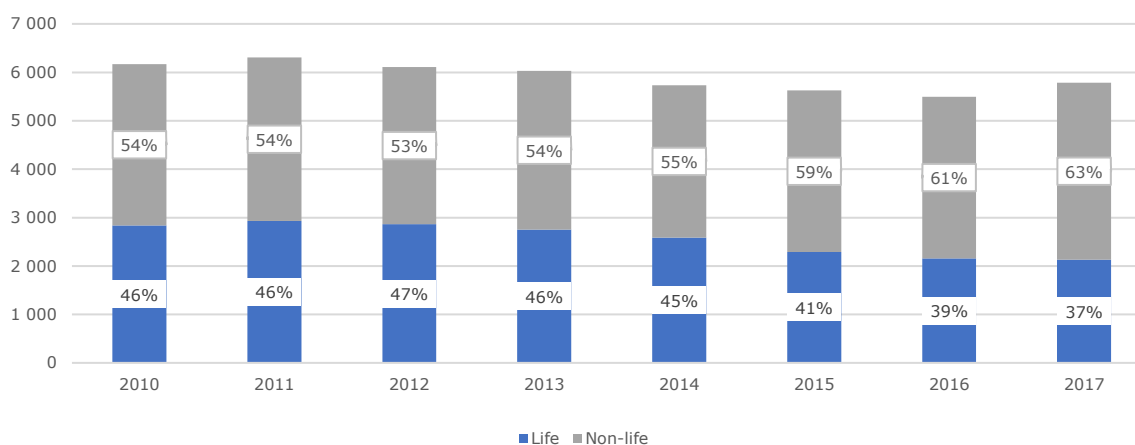
4 Insurance products

4.1 Overview

This section covers the most important insurance products offered in Czech Republic and the volume of the market. Data reported in this section is obtained from the Czech National Bank (CNB).⁴

Gross premiums written amounted to 5 786 million EUR in 2017, up by 5,2% compared to 2016. This was the first time in the last five years in which the market recorded a positive growth rate⁵. The main reason for that is an increase of 9.4% in premiums written in non-life insurance to 3 657 million EUR, while premiums written in life insurance totalled 2 129 million EUR in 2017, down by 1,2% on a year earlier. While the composition of the market in 2012 was nearly equally balanced between life and non-life business, lately there is a shift towards non-life insurance products.

Graph 1 - Gross written premiums (in Mio EUR)



Notes:

- The breakdown by insurance category only includes categories with more than three insurers, so their sum may not add up to the total.
- According to the Czech Republic NSA, the gross written premiums figures include not only domestic insurance companies but also branches of foreign insurance undertakings excluding reinsurance companies.

Source: CNB

4.2 Life insurance products

After reaching 2 865 million EUR in 2012, gross written premiums dropped by 25,7% to 2 129 million EUR in 2017⁶. As a result, life insurance business represented 36,8% of the total income at the end of 2017, compared to 47% five years ago. Looking at the

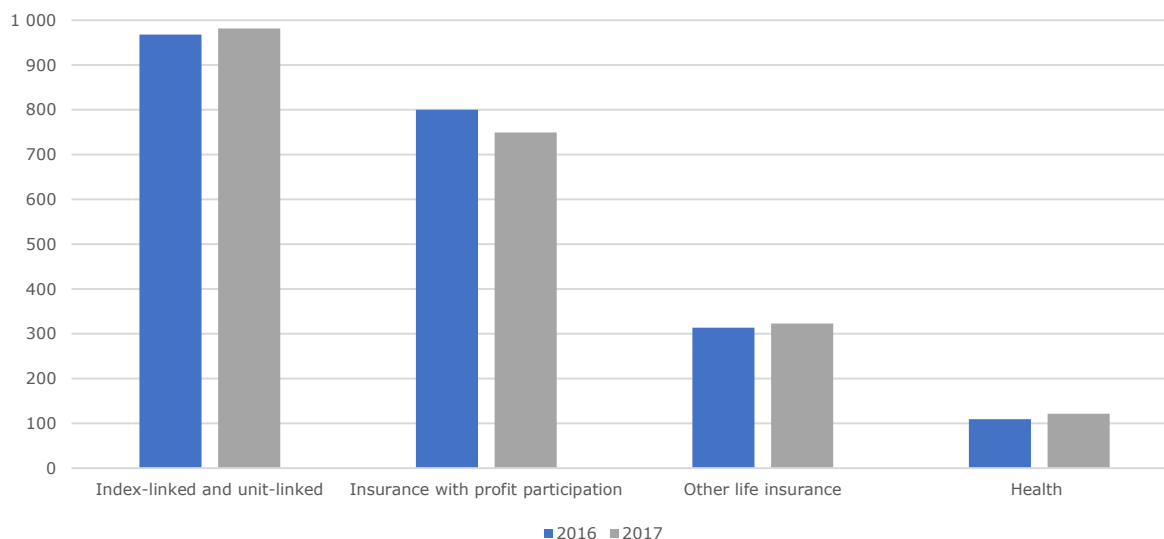
⁴ Available at http://www.cnb.cz/docs/ARADY/HTML/index_en.htm.

⁵ As pointed out by the Czech Republic NSA, we observe a smaller growth rate in the premiums after the adjustment for the change in the foreign exchange. In domestic currency, the gross written premiums grew by 2,4% in 2017 compared to 2016 while non-life premiums written increased by 6,3 % and life premiums written decreased by 3,3 %.

⁶ According to the Czech Republic NSA, the decrease of gross written premiums in life insurance was mainly due to the drop of the single paid premiums products.

importance of the individual insurance classes, it becomes evident that under Solvency II methodology, index-linked and unit-linked insurance had the biggest share in life insurance (45,1% or 981 million), followed by insurance with profit participation (34,4% or 749 million EUR). EUR

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



Note: The breakdown by insurance category only includes categories with more than three insurers, so their sum may not add up to the total. Data before 2016 were monitored in a different structure of life insurance categories, thus not directly comparable in data after 2016.

Source: CNB

4.3 Non-Life insurance products

The non-life segment, even though remained stable until 2016, over the last year recorded a growth rate of 9,41% totalling 3 657 million EUR. Moreover, the share non-life insurance in total gross premiums written continued its gradual upward trend, and since 2012 (53,1%) it now stands at 63,2%.

4.3.1 Motor

Insurance related to motor recorded an increase of 8.9% to 1 539 million EUR, in terms of gross written premium. In particular, motor vehicle liability represented 25,6% (or 845 million EUR) of total non-life premiums, while other motor insurance 21% (or 695 million EUR).

4.3.2 Fire and other property damage

At the end of 2017, Czech insurers were focused on insurance against fire and other damage to property (27.9%). The premium income increased by 8,1% to 920 million EUR.

4.3.3 General liability

General liability insurance premium was up by 9,6% to 319 million EUR as of end-2017, and accounted for 9,7% of the total non-life premium income.

4.3.4 Income protection

Income protection insurance in 2017 remained at the same level as of 2016, totalling 113 million EUR and representing 3,4% of the non-life sector income.

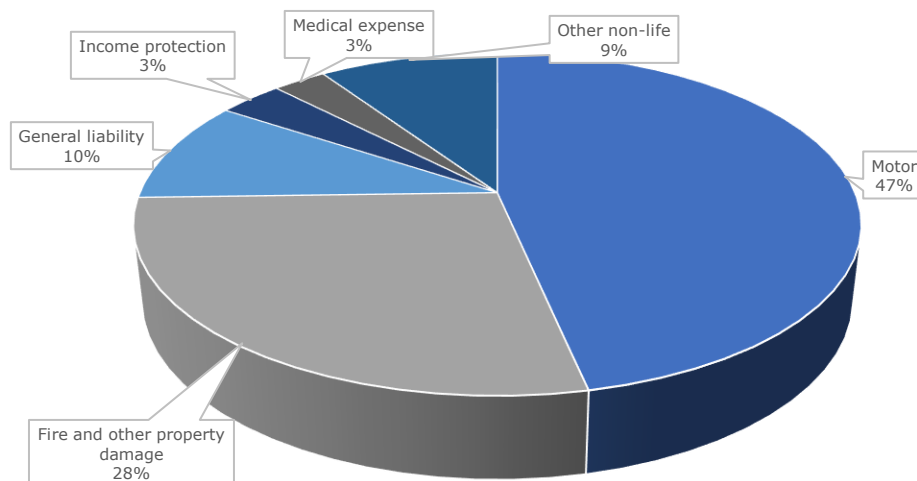
4.3.5 Medical expense

In 2017, medical expense gross written premium income grew by 20,3% to 94 million EUR in 2017.

4.3.6 Other non-life insurance

Other forms of non-life insurance, which include credit and suretyship, financial loss, legal protection and assistance, had a total share of 9,5% or 313 million EUR (up by 13,9% to 2016).

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



Notes:

- The breakdown by insurance category only includes categories with more than three insurers, so their sum may not add up to the total. Motor includes motor third party liability and other motor insurance. Other non-life insurance includes credit and suretyship, financial loss, legal protection, assistance, as well as marine, aviation and transport.
- According to the Czech Republic NSA, this breakdown does not include workers' compensation insurance. The gross premium written in workers' compensation insurance was approximately 240 million EUR in 2017.

Source: CNB



4.4 Average duration

In 2016, EIOPA published their Insurance Stress Test Report⁷, which resulted in the following conclusions for Czech Republic:

- The approximate effective duration for the TP life for all lines of business reported by the EIOPA 2016 stress test participants is 5,01;
- The Macaulay duration for the TP life for all lines of business reported by the EIOPA 2016 stress test participants is 9,46.

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.

⁷ 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.⁸

1. Applicable GAAP at consolidated level: IFRS required for all listed companies and permitted for all non-listed companies⁹;
2. Applicable GAAP at statutory level: IFRS required for all listed companies and permitted for all non-listed companies (if it is a subsidiary of a parent company using IFRS for its consolidated statements)⁹;
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 under the same conditions as dividends (*see below*).

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

1. Capital gains are fully taxable at the standard corporate income tax rate: 19%

5.2.2 Capital losses on shares

Capital losses are generally not deductible.

Capital losses arising from the sale of securities (except for shares representing controlling or significant influence) may be deducted from the taxable base.

5.2.3 Taxation of dividends

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

1. A holding requirement: minimum participation of 10%;
2. A holding period requirement: participation should be held uninterruptedly for at least one year;
3. A form requirement: the parent company and the subsidiary should have the form of a limited liability company, a joint stock company, a qualifying family foundation or a cooperative under Czech commercial law;
4. A deductibility requirement: the dividends may not have been tax deductible at the level of the distributing entity.

⁸ https://ec.europa.eu/info/business-economy-euro/company-reporting-and-auditing/company-reporting/financial-reporting_en

⁹ <https://www.ifrs.org/-/media/feature/around-the-world/jurisdiction-profiles/czech-republic-ifrs-profile.pdf>



5. A nationality requirement: the distributing entity should be resident of the Czech Republic, an EU Member State, an EEA Member State or a country with whom the Czech Republic has concluded a tax treaty.

If these conditions are not fulfilled, the dividends received constitute a separate taxable base taxed at 15%.

Czech source dividends are subject to 15% withholding tax, unless a tax treaty provides for a lower rate or the EU parent-subsidiary directive applies. The rate is 35% if paid to a resident of a listed tax haven (*i.e.* a jurisdiction that has not concluded a tax treaty or an agreement for the exchange of information on tax issues with the Czech Republic).

Foreign tax relief (credit or exemption) is available under tax treaties. If relief is available under a treaty, income tax paid abroad may be deducted as an expense in the following year, provided it is imposed on income included in Czech taxable income.

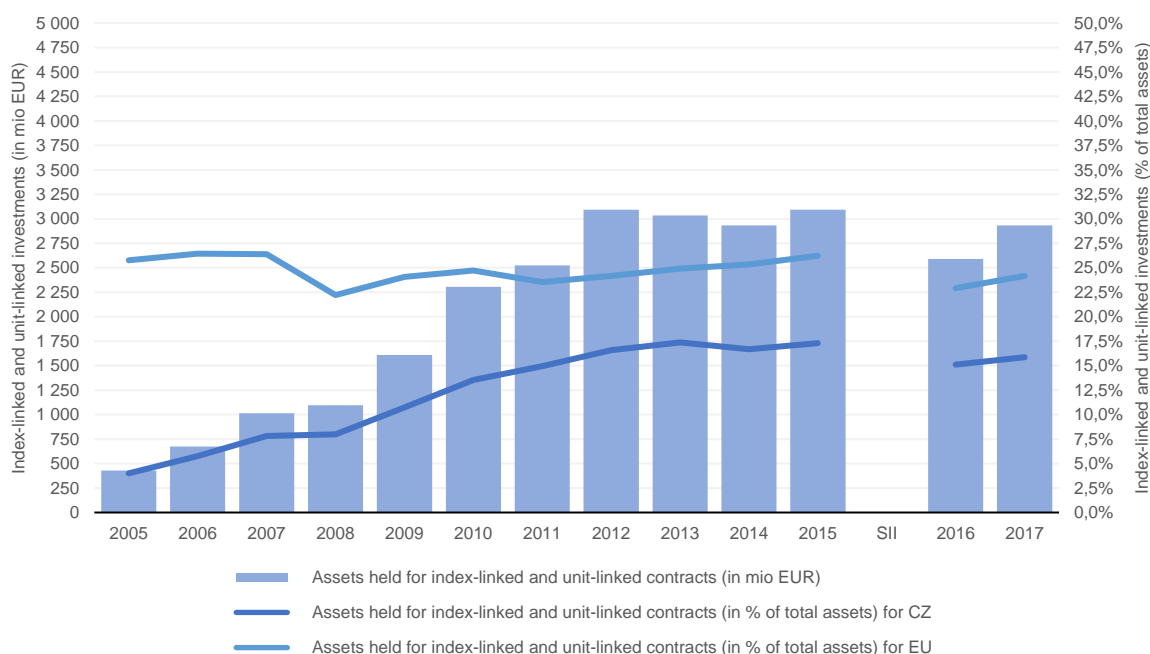
6 Historical data

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

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

Based upon the Solvency I and Solvency II (S.02.01) historical information, the evolution of the index-linked and unit-linked investments in comparison to total assets of Czech Republic 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



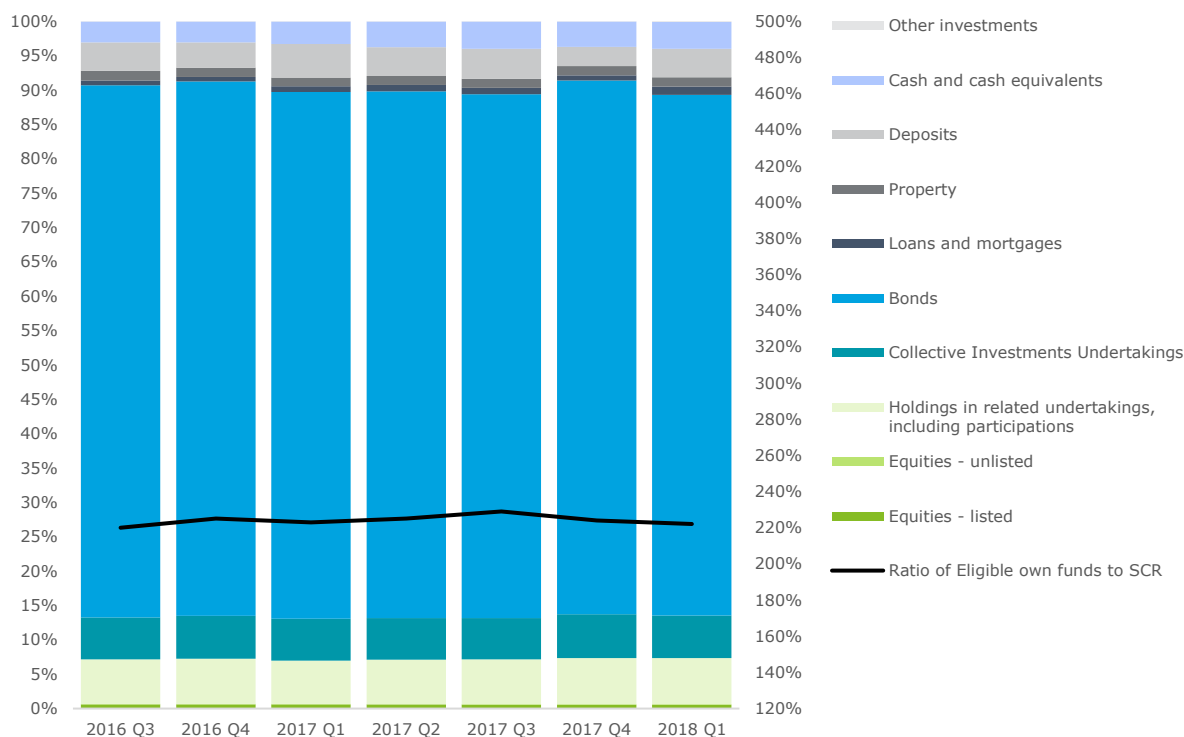
Source: EIOPA Solvency I and Solvency II statistics and Deloitte-CEPS analysis

As shown in Graph 4, the share of index-linked and unit-linked investments in comparison to total assets has been increasing since 2005. 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 Czech insurers' balance sheet has remained relatively stable over the quarters since the introduction of Solvency II on 1 January 2016¹⁰. This seems to be confirmed by the fact that the most dominant assets classes such as Bonds, Collective Investment Undertakings and Holdings in related undertakings (including participations) do not suggest a clear trend whether it be downwards or upwards.

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

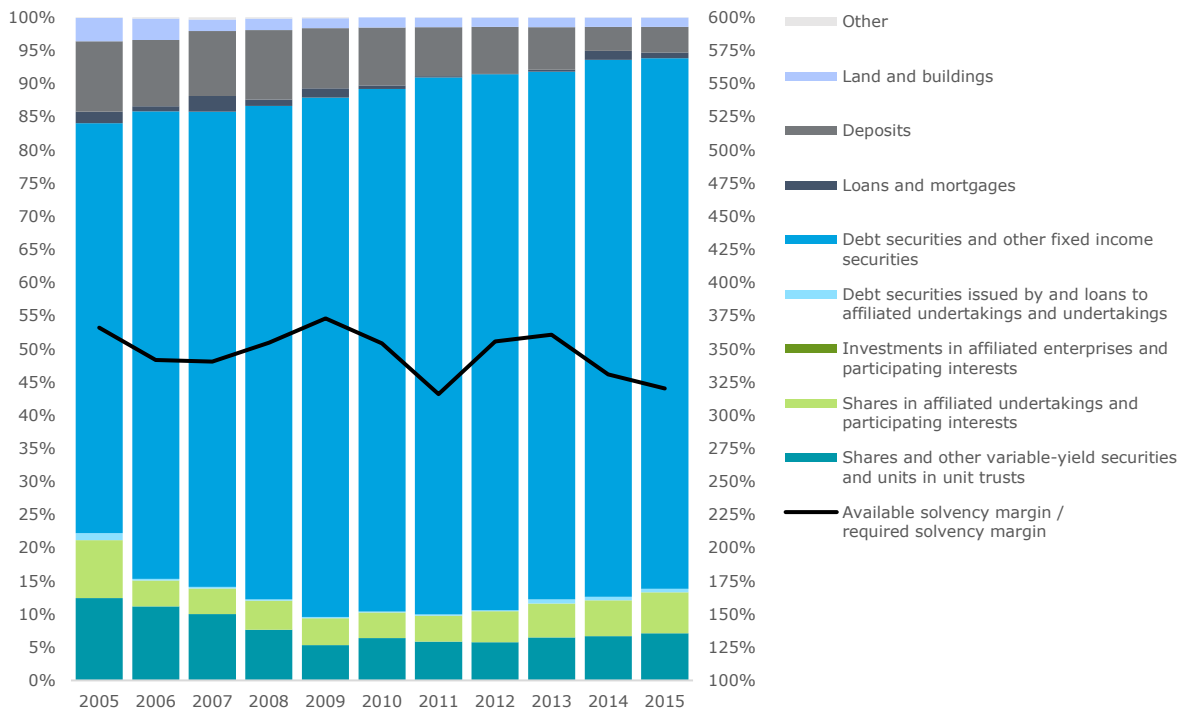
For the Czech Republic, the SCR ratio shows a relatively stable behaviour over the period 2016 Q3 until 2018 Q1. Overall, this trend has not resulted into significant changes in the asset allocation of the overall Czech insurance market.

¹⁰ 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)

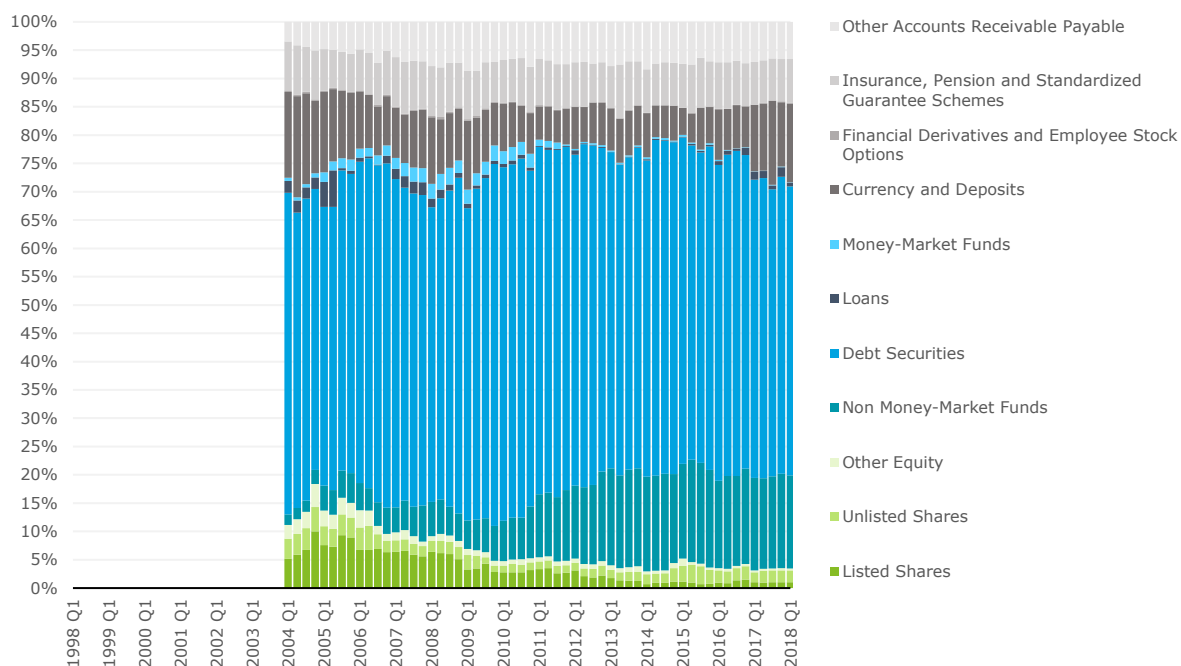


Source: EIOPA Solvency I statistics and Deloitte-CEPS analysis

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 Czech insurers' balance sheet for more than a decade. It steadily increased over the Solvency I period with Deposits, Shares in affiliated undertakings and participating interests, and Shares and other variable-yield securities and units in unit trusts significantly decreasing over time. Furthermore, the solvency ratio showed a decline from 2009 until 2011, but remained relatively stable over the Solvency I period.

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

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

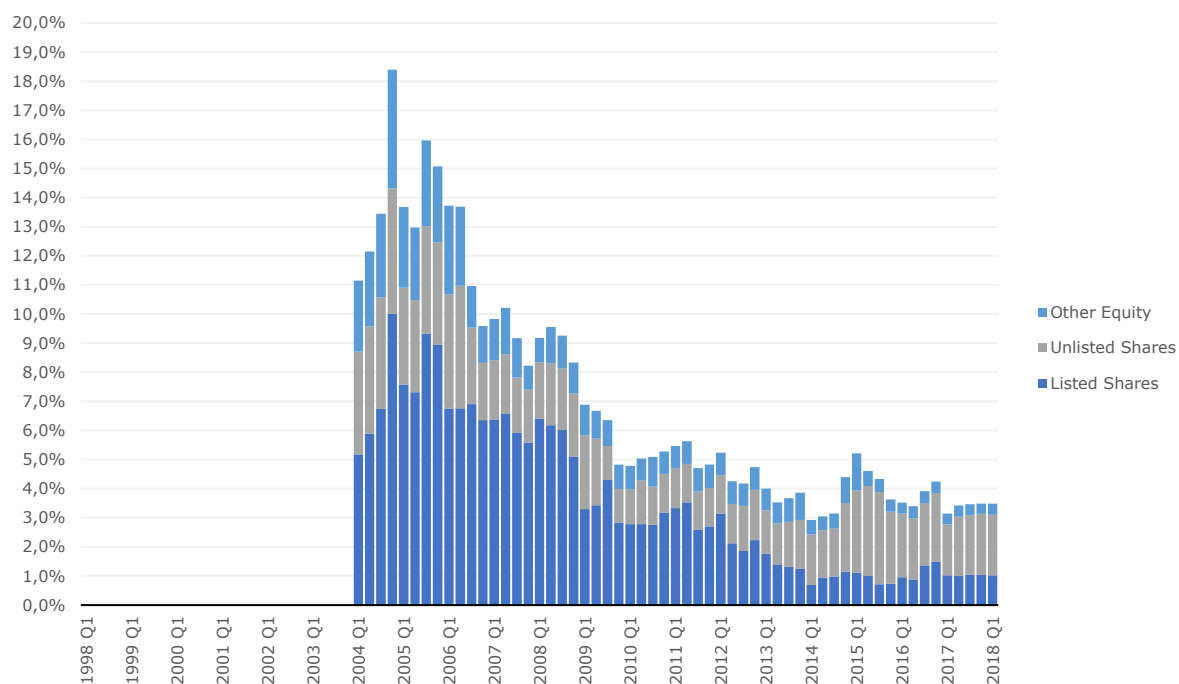


Source: ECB statistics and Deloitte-CEPS analysis

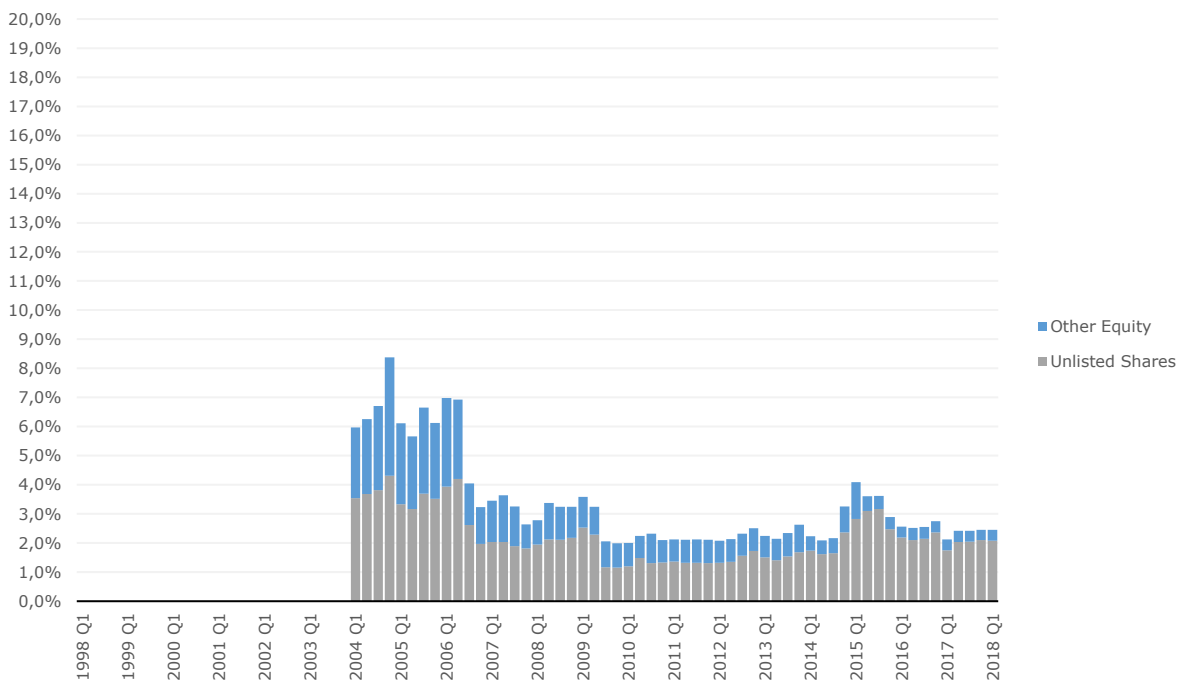
Graph 7 relates to figures of investments by Czech Insurers since 2004 Q1 as reported by the ECB, no data is available before 2004 Q1, as the Czech Republic was not a member of the European Union. It can be observed that Debt Securities dominated the Czech balance sheets during the observation period. A decrease in the importance of Listed Shares is also observable. Additionally, there is a steady increase in Non Money-Market Funds starting from 2009 Q2. According to the Czech Republic, the steady increase in non money market funds can be attributed to the continuous decrease of interest rates during this period.

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 The Czech Republic 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. However, according to the Czech NSA, as the share of direct equity exposure in the index-linked and unit-linked investments is not significant, index- and unit-linked investments do not have an important impact on the observed trends in listed shares, unlisted shares and other equity.

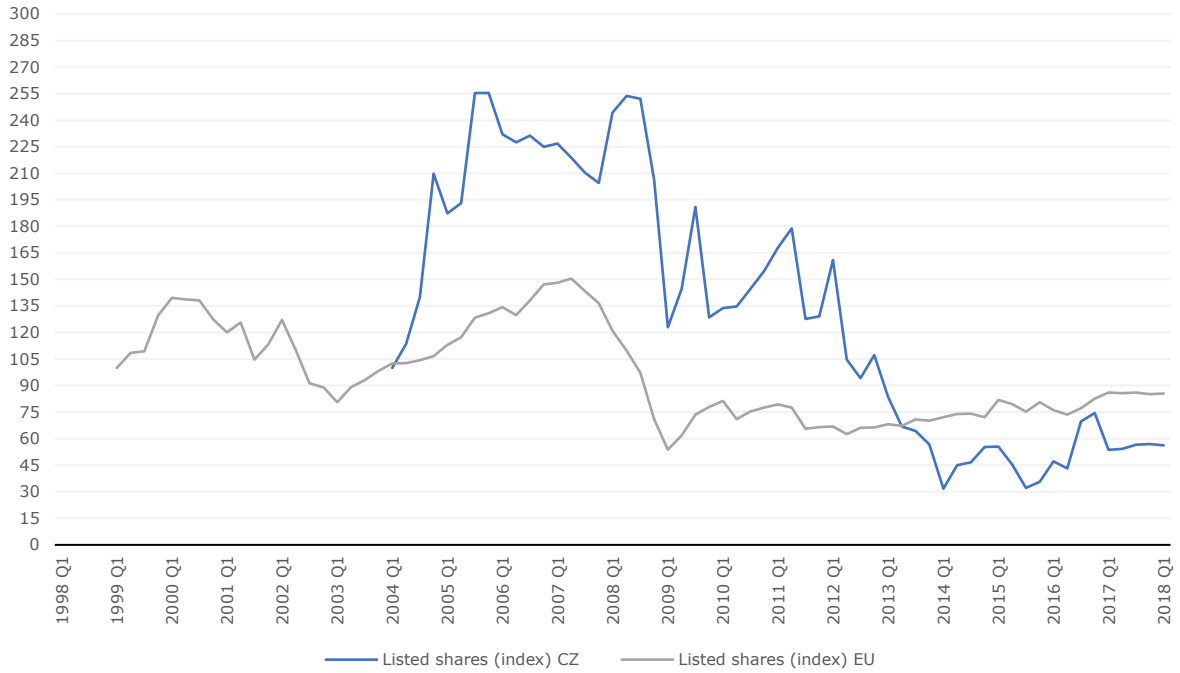
Graph 8 - Evolution ECB balance sheet items (equity categories)

Source: ECB Statistical Data warehouse and Deloitte-CEPS analysis

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

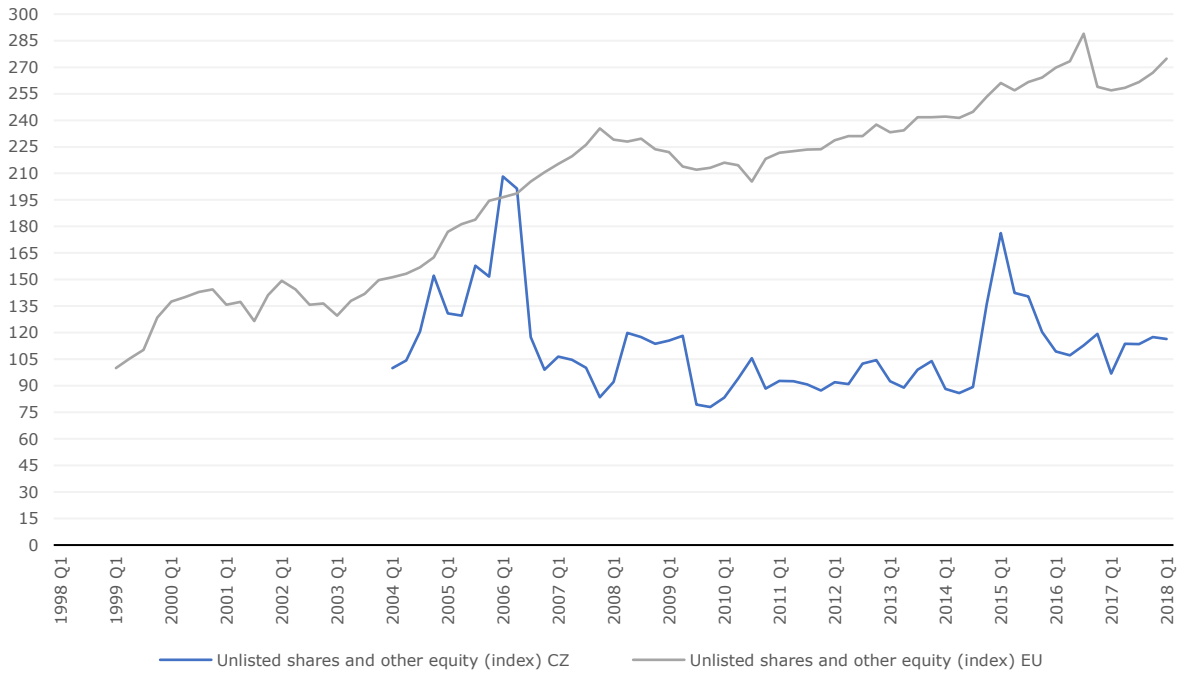
Source: ECB Statistical Data warehouse and Deloitte-CEPS analysis

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



Source: ECB Statistical Data warehouse and Deloitte-CEPS analysis

Graph 11 - Evolution ECB unlisted shares CZ 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 Greece 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. As it can be observed on the first graph, the listed equity display a more volatile behaviour than the total assets. Listed equity reaches a value of 954 million EUR in 2008 Q2. In 2009 Q1, it drops by 40,4% to a value of 462 million EUR. During 2009-2012, investments in listed equity fluctuate around 523 million EUR. In the first quarter of 2018 investments in this equity type amount is 212 million EUR.

On the indexed values, we observe a divergence of the series starting from 2008 Q2, which implies a drop in the listed shares as a percentage of total assets. Over the period 2014 – 2018, total assets Indexed increases by 183%, while indexed values of listed shares decrease by 44% compared to their initial starting values.

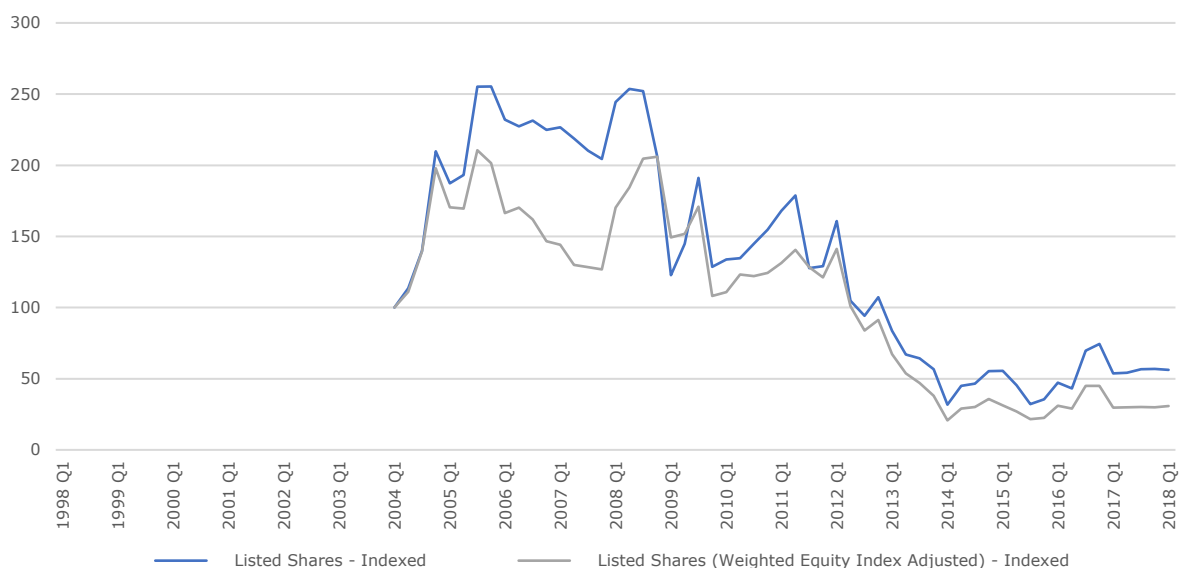
Graph 12 - Evolution of Listed Shares and Total Assets (in Mio EUR)

Source: ECB Statistical Data warehouse and Deloitte-CEPS analysis

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

Source: ECB Statistical Data warehouse and Deloitte-CEPS analysis

Graph 15 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 Greek 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 16 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.

The total assets increase 7 271 million EUR in 2014 Q1 to 20 606 million EUR in 2018 Q1, finishing the period at 183% of the initial value. The unlisted shares show a volatile behaviour, reaching a peak value of 904 million EUR in 2006 Q1 while dropping 41,69% in 2006 Q3. During the following period (i.e. 2007-2014), the unlisted shares and other equity fluctuate around 426 million EUR. According to the Czech Republic NSA, the increase in 'Unlisted Shares' as a share of total assets after 2013 corresponds to an increase of shares in affiliated undertakings and participating interests which are mostly unlisted.

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