

Euler Hermes SA

Solvency and Financial Condition Report
(SFCR)

Fiscal Year 2018

Contents

Contents	2
Summary	6
Business and performance (A)	6
System of governance (B)	7
Risk profile (C)	7
Valuation for solvency purposes (D)	8
Capital management (E)	8
A. Business and performance	9
A.1. Business	9
A.1.1. Legal entity, auditor and supervisor	9
A.1.2. Group structure and qualified holdings	9
A.1.3. Material lines of business and geographical areas	10
A.1.4. Significant events	11
A.2. Underwriting Performance	12
A.2.1. Aggregated underwriting performance	12
A.2.2. Underwriting performance by material line of business	14
A.2.3. Underwriting performance by material geographical area	14
A.3. Investment Performance	17
A.3.1. Income and expenses arising from investments	17
A.3.2. Gains and losses recognized directly in equity	18
A.3.3. Investments in securitization	18
A.4. Performance of other activities	19
A.5. Any other information	19
B. System of governance	20
B.1. General information on the system of governance	20
B.1.1. Structure of the system of governance	20
B.1.2. Remuneration policy	23
B.2. Fit and Proper requirements	24
B.2.1. Description of requirements for Fit & Proper	24
B.2.2. Description of processes and procedures in place	26
B.3. Risk management system including the Own Risk and Solvency Assessment	28
B.3.1. Description of risk management system	28
B.3.2. Risk Management function	30
B.3.3. Governance of the Internal Model	31
B.3.4. Description of ORSA process	34
B.4. Internal control system	36
B.4.1. Description of the internal control system	36
B.4.2. Implementation of Compliance Function	38
B.5. Internal Audit Function	40
B.5.1. Internal audit activities and processes	40
B.5.2. Independence and objectivity of the Internal Audit Function	41
B.6. Actuarial Function	41

B.6.1.	Role of the Actuarial Function _____	41
B.6.2.	Status of the Actuarial Function _____	42
B.7.	Outsourcing _____	42
B.7.1.	Description of the outsourcing policy _____	42
B.7.2.	Identification by the Company of any significant or critical activity, function, operational task _____	45
B.8.	Any other information _____	45
C.	Risk profile _____	46
C.1.	Underwriting Risk _____	46
C.1.1.	Description of the measures used _____	46
C.1.2.	Description of the risk exposure _____	46
C.1.3.	Risk concentration _____	46
C.1.4.	Risk mitigation _____	46
C.2.	Market Risk _____	47
C.2.1.	Description of the measures used _____	47
C.2.2.	Description of the risk exposure _____	47
C.2.3.	Description of assets invested _____	48
C.2.4.	Risk concentration _____	49
C.2.5.	Risk mitigation _____	49
C.3.	Credit Risk _____	50
C.3.1.	Description of the measures used _____	50
C.3.2.	Description of the risk exposure _____	50
C.3.3.	Risk concentration _____	51
C.3.4.	Risk mitigation _____	51
C.4.	Stress tests and scenario analysis _____	51
C.4.1.	Standard financial stress scenarios _____	52
C.4.2.	Scenario analysis _____	52
C.5.	Liquidity Risk _____	52
C.5.1.	Description of the measures used _____	52
C.5.2.	Description of the risk exposure _____	53
C.5.3.	Risk concentration _____	53
C.5.4.	Risk mitigation _____	53
C.5.5.	Expected Profits Included in Future Premiums _____	54
C.5.6.	Stress tests and scenario analysis _____	54
C.6.	Operational Risk _____	54
C.6.1.	Description of the measures used _____	54
C.6.2.	Description of the risk exposure _____	56
C.6.3.	Risk concentration _____	56
C.6.4.	Risk mitigation _____	56
C.7.	Other material risks _____	57
C.8.	Any other information _____	57
D.	Valuation for solvency purposes _____	58
D.1.	Assets _____	58
D.1.1.	Valuation of assets _____	58
D.1.2.	Changes to the recognition and valuation bases used or to estimations _____	62
D.1.3.	Assumptions and judgments on the future and other major sources of estimation uncertain _____	62

D.1.4.	Material financial assets	62
D.1.5.	Financial and operating leases	63
D.1.6.	Material deferred tax assets	64
D.2.	Technical Provisions	64
D.2.1.	Valuation of Technical Provisions for solvency purposes	64
D.2.2.	Level of uncertainty	68
D.2.3.	Material changes in calculation assumptions for Technical Provisions	69
D.2.4.	Differences with Technical Provisions in financial statements	69
D.2.5.	Volatility Adjustment	70
D.2.6.	Transitional risk-free interest rate-term structure	71
D.2.7.	Transitional deduction	71
D.2.8.	Recoverable from mitigation techniques	71
D.3.	Other liabilities	71
D.3.1.	Valuation of other liabilities	71
D.3.2.	Financial liabilities	74
D.3.3.	Leasing arrangements	74
D.3.4.	Deferred Tax Liabilities	74
D.3.5.	Economic benefits	74
D.3.6.	Employee benefits	75
D.3.7.	Contingent liabilities	77
D.4.	Any other information	77
E.	Capital Management	78
E.1.	Own funds	78
E.1.1.	Information on the own funds	78
E.1.2.	Additional ratios	80
E.1.3.	Loss absorbency mechanism	80
E.1.4.	Reconciliation reserve	81
E.2.	Solvency Capital Requirement and Minimum Capital Requirement	81
E.2.1.	Evolution of SCR and MCR ratios	81
E.2.2.	Standard formula and Undertaking Specific Parameters	82
E.2.3.	Inputs to calculate the MCR	82
E.2.4.	Material changes to SCR and MCR	83
E.3.	Use of the duration-based Equity Risk sub-module in the calculation of the Solvency Capital Requirement	83
E.4.	Differences between the standard formula and any Internal Model used	83
E.4.1.	Description of the Internal Model	83
E.4.2.	Methodologies	85
E.4.3.	Data quality	91
E.4.4.	Risks not covered by standard formula but covered by Internal Model	92
E.5.	Non-compliance with the Minimum Capital Requirement and/or with the Solvency Capital Requirement	92
E.5.1.	Non-compliance with the Minimum Capital Requirement	92
E.5.2.	Non-compliance with the Solvency Capital Requirement	92
E.6.	Any other information	92
Appendix 1: Key terms and abbreviations		93

Appendix 2: Publically disclosed QRTs _____ **95**
Appendix 3: Disclaimer _____ **96**

Summary

The Solvency and Financial Condition Report (SFCR) is a reporting requirement implemented as part of Solvency II (SII) regime.

The scope of this report covers the following topics in relation to Euler Hermes Société Anonyme (EH SA) business: business and performance, system of governance, risk profile, valuation for solvency purposes and capital management.

Business and performance (A)

EH SA is an insurance company based in Brussels, Belgium that is 100% owned by Euler Hermes Group (EH Group). EH SA's main SII line of business (LoB) is credit and suretyship insurance, which represents over 90% of earned premium in 2018.

EH SA operates 20 branches and has 45 subsidiaries worldwide. The material geographical regions are the DACH region (Germany (DE), Austria and Switzerland), the France region, the Northern region, the Mediterranean countries, Middle East and Africa region (MMEA) and the Asia and Pacific region (APAC).

Several significant events occurred in 2018 for EH SA:

- **Euler Hermes now fully part of the Allianz Group:** This operation is an important step in Allianz Group's strategy to deploy capital in strategic businesses such as Euler Hermes, which delivers a solid operating performance. The objective is to strengthen its positions in core home markets and in property and casualty in particular. This buy-out transaction marks a key and historic milestone for Euler Hermes, which now fully becomes part of the Allianz family;
- **A New Digital & Transformation Team:** a new digital and transformation team has been set up in order to activate the Group's transformation and materialize its ambition of becoming the most innovative B2B insurance company.
- **Brexit:** the key areas of impact of Brexit on Euler Hermes are as follows:
 - Regulatory: the pass-porting rights currently available through the EU that EH SA uses for its UK branch cease on the day the UK departs the EU.
 - Cross-border policies:
 - EH UK's portfolio of clients includes a number of policies with a joint-insured based in another EU country. While awaiting the post Brexit outcome, EH has mitigation plans in place to ensure the continuity of services to its customers post Brexit. This includes : dedicated action plan designed in which EH UK will be using EH's Irish branch, Euler Hermes Ireland, to underwrite EEA risks on the freedom of services basis. Any related claim will be paid by the Irish branch (or another relevant EH EEA branch where appropriate).
 - Regarding business underwritten from EH SA branches located into the European Economic Area into UK and given the application to the local regulator submitted in March 2019, EH automatically qualifies for temporary permissions in the UK. This will also enable these branches to continue to provide products and services to UK customers post Brexit under temporary regime, as confirmed by the UK regulator. In case of a change of the current regulation and loss of ability for foreign carriers to write in the UK, the

impacted policies will be transferred to the EH UK third country branch of EH SA.

- Economic Impacts: Action plans have been implemented for the different stages of the Brexit process so far and are fully developed for the different outcome scenarios.

In 2018 EH SA's turnover amounted to 1,730M€, up by 5.1% compared to 2017, driven by an improved commercial performance and an increase in policyholders turnover.

Claims costs were at 719M€, down by 11% compared to last year. This evolution is the combination of a higher cost of claims on current attachment year, offset by higher net releases from previous attachment years.

Consequently, technical result doubled compared to 2017, amounting to 90.7M€ in 2018.

The investment strategy was marked in 2018 by a decrease of the current income from equity explained by both lower dividend received and lower at 'equity income', a decrease of the exchange rates (FX) results explained by the appreciation of the USD against the EUR and the volatility of the Rouble, a decrease of Long-Term Incentives (LTI) expenses explained by the delisting of EH and a decrease of realized gains linked to asset management arbitrage. As a result, the total investment income stood at 42M€ in 2018 compared to 125M€ previous year.

System of governance (B)

EH SA management structure is organized around the Board of Directors (BoD) and the Management Committee (MC). The BoD set up two specialized advisory committees, namely the Audit, Risk and Compliance Committee and the Nomination and Remuneration Committee. Similarly, the MC has established various operational committees to assist it in its tasks.

EH SA has also implemented four independent Key Functions (Internal Audit, Compliance, Risk Management and Actuarial), constituting the 2nd and 3rd of its "three lines of defence" organization.

To ensure the well-functioning of these functions, EH SA has set up the Risk Policy Framework (RPF) which is a set of policies, standards and guidelines overarching the risk management system of EH SA. It includes but is not limited to high Fit and Proper standard for its BoD, MC and Key Function holders, as well as a set of other policies that oversee principles and governance of Key Functions.

The Risk Management function measures and assesses EH SA's risk through processes among which the Own Risk and Solvency Assessment (ORSA) and the Top Risk Assessment (TRA). The latter covers strategic risks which cannot be modelled. Board members are defined as owners, responsible for the assessment as well as the definition and set up of appropriate risk mitigation plans.

Risk profile (C)

EH SA considers the main following risks in its risk profile: Underwriting, Market, Credit, Operational, Liquidity and Reputational.

Underwriting, Market, Credit and Operational Risks are monitored through the Required Capital (or Risk Capital) calculated within its Internal Model (IM). No material data quality deficiencies were identified in the data used for the IM.

EH SA also keeps under control its Underwriting, Market and Credit Risks through the use of quantitative limits. In addition, EH SA uses different diversification approaches: across investment styles and asset managers, as well as through a Strategic Asset Allocation (SAA) for Market Risk; by geography and industry for Credit Risk. Moreover, the reinsurance is the primary risk mitigation tool utilized.

Stress tests are performed using standard financial scenarios as well as several internally developed scenarios: 2008 financial crisis, Diesel gate, US-China Trade War and Nuclear scenario.

Valuation for solvency purposes (D)

EH SA's assets and liabilities are presented and reconciled in Market Value Balance Sheet (MVBS) and local Belgian Generally Accepted Accounting Principles (BeGAAP).

There have not been any significant changes to the recognition and valuation methodologies of material classes of assets and liabilities during the reporting period.

Total assets at the end of 2018 amounted to 3,738M€ on an MVBS basis. Assets have been invested in alignment with the prudent person principle.

Total liabilities at the end of 2018 amounted to 2,518M€ on a MVBS basis, of which 1,440M€ of Technical Provisions (TP). The Volatility Adjustment (VA) impact is negligible with only -0.38% deviation between the discounted reserves with VA and without VA.

Capital management (E)

EH SA own funds are exclusively composed of basic own funds. The SII own funds are composed by 97.3% of Tier 1 unrestricted. The rest of the own funds is classified as Tier 3.

EH SA complies with National Bank of Belgium (NBB) regulatory requirements and is in line with its capital management strategy in terms of solvency.

The Minimum Capital Requirement (MCR) ratio is at 680% and the Solvency Capital Requirement (SCR) ratio is at 210%.

A. Business and performance

A.1. Business

A.1.1. Legal entity, auditor and supervisor

A.1.1.1. Name and legal form

Name and legal form	Euler Hermes SA
Address	Avenue des arts 56, 1000 Brussels, Belgium
Website	www.eulerhermes.com

Euler Hermes SA is referred to as EH SA throughout this document. EH SA's legal company form is a limited company (société anonyme) with the registration number BE 0403.248.596.

A.1.1.2. Supervisor

Name	National Bank of Belgium
Address	Boulevard de Berlaimont 14, 1000 Brussels, Belgium

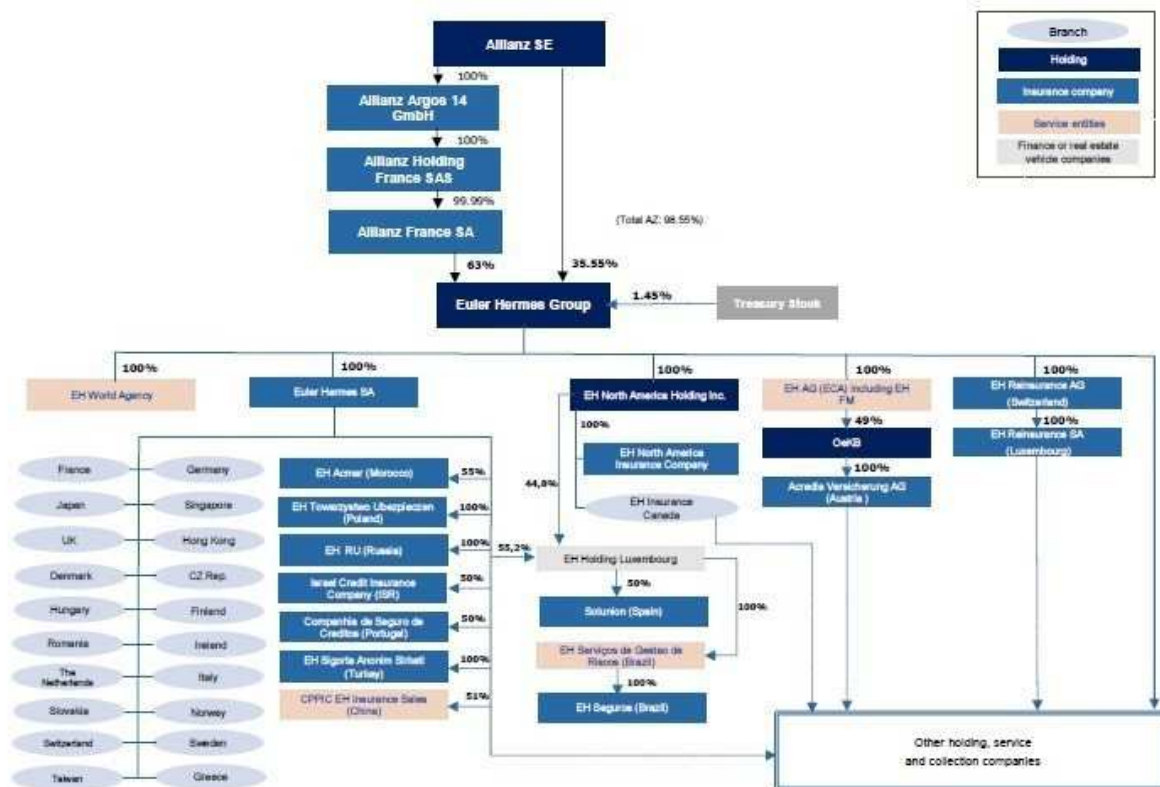
A.1.1.3. Auditor

Name	PwC
Address	Brussels National Airport 1K, 1930 Zaventem

A.1.2. Group structure and qualified holdings

EH SA, located in Belgium, is a part of EH group, located in France. Below is a simplified group structure chart for EH SA as of 31.12.2018, which also details the percentage ownership and legal links to its parent entities and its material related undertakings.

Figure 1: EH Group simplified group structure as of 31.12.2018



At the end of 2018, EH SA number of shares is 2,925,155 of which 78,340 own shares. Remaining shares are hold by EH Group.

A.1.3. Material lines of business and geographical areas

A.1.3.1. Geographical areas

EH SA operates 20 branches located in France, Germany, Japan, Singapore, UK, Hong Kong, Denmark, Czech Republic, Hungary, Finland, Romania, Ireland, Netherlands, Italy, Slovakia, Norway, Switzerland, Sweden, Taiwan and Greece.

EH SA additionally has 45 subsidiaries worldwide including numerous different service companies as well as seven insurance legal entities (among which EH Poland which do their own reporting).

A.1.3.2. Lines of Business

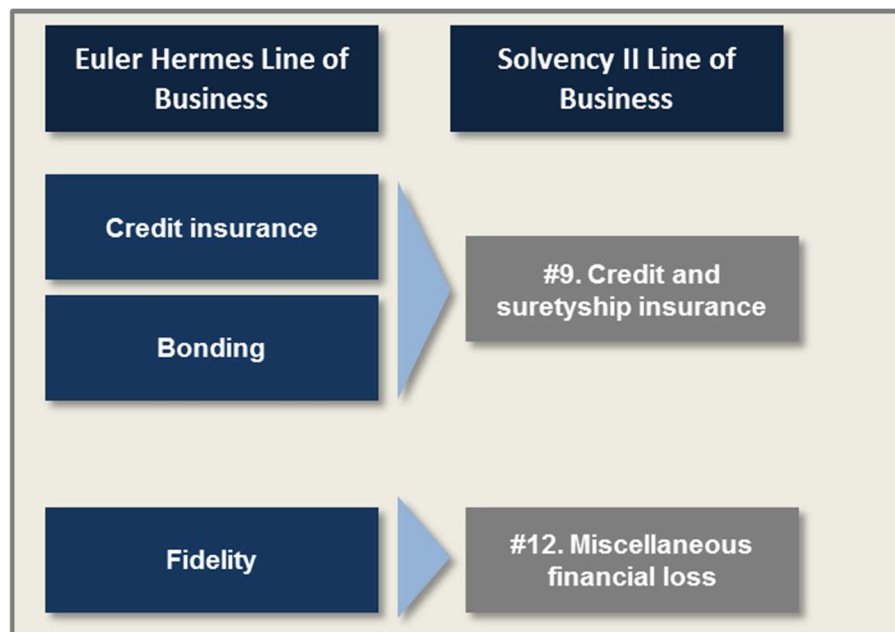
EH SA has three main LoBs: Credit Insurance, Surety and guarantee business and Fidelity.

For the purposes of SII reporting, the chart below describes the mapping of each of the EH SA’s LoBs into the SII LoBs:

- #9. Credit and suretyship insurance
- #12. Miscellaneous financial loss

The credit and suretyship insurance LoB is considered to be the only material LoB as it generates over 90% of EH SA net earned premium.

Figure 2: LoBs within EH SA



N.B. : Bonding was renamed Surety and guarantee

A.1.4. Significant events

During year 2018, the following events relating to EH SA occurred:

- Euler Hermes now fully part of the Allianz Group:** following the completion of the simplified tender offer which closed on April 20th 2018, Allianz reached 94.91 percent of the share capital and theoretical voting rights of Euler Hermes. The legal conditions were met and Allianz has implemented a squeeze-out on the remaining shares of Euler Hermes it did not hold yet, followed by the delisting from Euronext Paris on April 27th. This operation is an important step in Allianz Group’s strategy to deploy capital in strategic businesses such as Euler Hermes, which delivers a solid operating performance. In total, Allianz has invested 1.85 billion euros in this transaction. The objective is to strengthen its positions in core home markets and in property and casualty in particular. This buy-out transaction marks a key and historic milestone for Euler Hermes, which now fully becomes part of the Allianz family. This is above all a strong recognition of the robustness of the business model and renowned expertise of the world’s leading trade credit insurer. It is the start of new chapter for Euler Hermes: with digital transformation on top of its agenda, a plan to grow Information Technology (IT) capabilities, define new growth engines, and embrace new opportunities and ways of working is in motion in order to amplify global intelligence and predictive protection.
- A New Digital & Transformation Team:** with the digital revolution progressively impacting all industries, mainstream online commerce becomes more and more driven by B2B platforms, and artificial intelligence increasingly powerful, thanks to the gigantic increase in the amount of data available. In 2015, Euler Hermes marked a milestone by creating the Digital Agency, a dedicated structure aiming to reinvent trade finance, allowing corporates, Small and Medium Enterprises, freelancers, Business-to-Business marketplaces, supply chain finance businesses and alternative lenders to manage their credit risk in the best possible way. Following the appointment of Virginie Fauvel as Chief Transformation Officer, member of the MC, on

January, 15th, 2018, a new digital and transformation team has been set up in order to activate the Group's transformation and materialize its ambition of becoming the most innovative B2B insurance company.

- **Brexit:** the key areas of impact of Brexit on Euler Hermes are as follows:
 - Regulatory: the pass-porting rights currently available through the EU that EH SA uses for its UK branch cease on the day the UK departs the EU.
 - Cross-border policies:
 - EH UK's portfolio of clients includes a number of policies with a joint-insured based in another EU country. While awaiting the post Brexit outcome, EH has mitigation plans in place to ensure the continuity of services to its customers post Brexit. This includes : dedicated action plan designed in which EH UK will be using EH's Irish branch, Euler Hermes Ireland, to underwrite EEA risks on the freedom of services basis. Any related claim will be paid by the Irish branch (or another relevant EH EEA branch where appropriate).
 - Regarding business underwritten from EH SA branches located into the European Economic Area into UK and given the application to the local regulator submitted in March 2019, EH automatically qualifies for temporary permissions in the UK. This will also enable these branches to continue to provide products and services to UK customers post Brexit under temporary regime, as confirmed by the UK regulator. In case of a change of the current regulation and loss of ability for foreign carriers to write in the UK, the impacted policies will be transferred to the EH UK third country branch of EH SA.
 - Economic Impacts: Action plans have been implemented for the different stages of the Brexit process so far and are fully developed for the different outcome scenarios.

A.2. Underwriting Performance

As part of EH Group, EH SA performs analyses and discloses its reports and publications on an International Financial Reporting Standards (IFRS) basis.

A.2.1. Aggregated underwriting performance

The **turnover** consists of earned premiums generated by direct insurance and assumed business, and service revenues provided to policyholders or to third parties.

Credit insurance policies are designed to cover the risk of non-payment by the policyholder's customers.

Premiums are based mainly on policyholders' sales or their outstanding customer risk, which also depends on their sales.

Service revenues consist mainly of two types of service fees:

- **Information fees:** these consist in billings for research and analysis carried out to provide policyholders with the required credit insurance cover, and of amounts billed for monitoring the solvency of their customers ;

- **Collection fees:** these correspond to amounts billed for debt collection services provided to policyholders and to companies that are not policyholders.

The following table summarizes EH SA's underwriting performance at an aggregated level:

Figure 3: EH SA aggregated underwriting performance (IFRS)

In K€	2018	2017	Δ	%
Turnover	1,730,086	1,646,118	83,968	5.1%
Claims costs	-719,004	-807,886	88,882	-11.0%
Gross operating expenses	-580,971	-574,339	-6,632	1.2%
Gross technical result	430,111	263,894	166,218	63.0%
Outward result	-339,431	-218,463	-120,968	55.4%
Technical result	90,680	45,431	45,249	99.6%

A.2.1.1. Turnover

In 2018, turnover amounted to 1,730M€, increasing by 5.1% compared to 2017.

Gross earned premiums amounted to 1,695M€ in 2018, increasing by 5.2% compared to last year.

At constant FX rates, services revenues are increasing mainly due to good performance in France, Northern Europe on collection fees as well as on information fees in Germany and Mediterranean countries.

A.2.1.2. Claims costs

Claims costs were at 719M€, down by 11% compared to last year. This evolution is the combination of a higher cost of claims on current attachment year, offset by higher net releases from previous attachment years.

Gross claims costs for the Current Year were at 1,034M€, up 3.7% compared to last year due to a higher claims frequency, in particular in the UK, Italy, Poland and France. This negative impact has been offset by positive run-offs over the previous years.

Gross run-offs were still positive and amounted to 315M€, compared to 189M€ last year.

A.2.1.3. Outward result

Net earned premiums remained stable in 2018 compared to 2017 due to an increasing cession rate.

The negative impact on outward result is mostly explained by the combination of a higher volume of premiums ceded to reinsurers and a lower volume of claims ceded to the reinsurer.

A.2.1.4. Gross operating expenses

Gross operating expenses increased by 1.2% compared to previous year. The increase in costs was lower than the top line growth, driven by investments in digital, process transformation and robotization that have been made. These investments have slightly contributed to revenue of this

year.

HR expenses were up at constant FX rates, impacted by conventional salary increases and partly offset by last year's accelerated vesting of EH LTI incurred by Allianz simplified cash tender offer.

Brokerage costs increased in line with premiums growth and also included the fact that growth in specialty lines and new products has come with a higher cost than traditional business.

IT costs decreased due to a decrease in intragroup charge-back because investments in new applications are centralized by EH Group and not by its entities.

Other operating expenses were significantly down due to Alchemy costs (Northern Europe restructuring plan) that were recognized in 2017, as described in section A.4.

A.2.2. Underwriting performance by material line of business

Per section A.1.3 of this report, the only SII LoB considered material at EH SA is credit and suretyship insurance. The following table summarizes EH SA's underwriting performance for this LoB.

Figure 4: Credit and suretyship insurance underwriting performance (IFRS)

In K€	2018	2017	Δ	%
Turnover	1,613,109	1,537,602	75,508	4.9%
Claims costs	-656,487	-755,863	99,375	-13.1%
Gross operating expenses	-542,658	-524,717	-17,940	3.4%
Gross technical result	413,964	257,022	156,943	61.1%
Outward result	-332,510	-201,910	-130,600	64.7%
Technical result	81,454	55,111	26,343	47.8%

As seen in the section above, the technical result at aggregated level is up by 99.6% compared to last year while the technical result of EH SA's credit and suretyship insurance is up by 47.8%. This is explained by a positive impact of outward result on Fidelity business as well as a significant decrease of gross operating expenses on other LoBs.

A.2.3. Underwriting performance by material geographical area

A.2.3.1. DACH region

This region includes the direct insurance and assumed reinsurance business carried out by the entities operating in Germany, Austria (Joint Venture) and Switzerland.

Figure 5: DACH region underwriting performance (IFRS)

In K€	2018	2017	Δ	%
Turnover	581,790	573,376	8,414	1.5%
Claims costs	-211,154	-248,088	36,934	-14.9%
Gross operating expenses	-179,345	-178,776	-569	0.3%
Gross technical result	191,291	146,512	44,779	30.6%
Outward result	-118,920	-92,464	-26,456	28.6%
Technical result	72,372	54,048	18,324	33.9%

In 2018, turnover increased by 1.5% compared to 2017. Gross earned premiums increased with benefits from Fidelity business. The increase of turnover is partly offset by the decrease of services revenues from Surety and guarantee business.

Claims costs decreased by 14.9% between 2017 and 2018 and reached 211M€ at the end of 2018. The region still benefitted in 2018 from low claims frequency. Moreover, 2017 claims costs were overturned by an extra reserving in December to compensate for a large case reserve.

Outward result amounted to -119M€, compared to -92M€ last year. The above-mentioned extra-reserving for a large case reserve was ceded in high proportion, resulting in a positive impact in the total net outwards reinsurance result. This was also explained by the increase in premiums cession rates partly offset by an increase in claims cession rates.

A.2.3.2. France region

Figure 6: France region underwriting performance (IFRS)

In K€	2018	2017	Δ	%
Turnover	352,168	331,537	20,631	6.2%
Claims costs	-155,384	-180,223	24,839	-13.8%
Gross operating expenses	-100,377	-104,161	3,784	-3.6%
Gross technical result	96,407	47,153	49,254	104.5%
Outward result	-62,580	-29,335	-33,245	113.3%
Technical result	33,827	17,818	16,010	89.9%

France posted a 6.2% growth in turnover compared to last year, driven by a significant growth of Surety and guarantee business as well as a growth of its policyholders turnover. In addition, services revenues increased with an increase in collection fees that is explained by a greater volume of claims and an increase of tariff.

Claims costs stood at 155M€, down by 13.8% compared to last year. Just as the DACH region, France still benefitted in 2018 from low claims frequency and 2017 was overturned by an extra reserving in December to compensate for a large case reserve.

Outward result amounted to -62.6M€, above last year level following both premiums and claims trends. Furthermore, the 2017 extra-reserving for a large case reserve was ceded in high proportion, resulting in a positive impact in the total net outwards reinsurance result of 2017.

A.2.3.3. Northern region

This region includes the direct insurance and assumed reinsurance business in Northern European countries (Belgium, Netherlands, UK, Ireland, Finland, Sweden, Denmark and Norway) and in Eastern Europe (Hungary, Poland, Czech Republic, Romania, Slovakia, Bulgaria and Russia).

Figure 7: Northern region underwriting performance (IFRS)

In K€	2018	2017	Δ	%
Turnover	421,184	400,579	20,604	5.1%
Claims costs	-171,619	-161,408	-10,211	6.3%
Gross operating expenses	-151,938	-147,269	-4,669	3.2%
Gross technical result	97,627	91,902	5,725	6.2%
Outward result	-93,539	-66,773	-26,766	40.1%
Technical result	4,088	25,129	-21,041	-83.7%

Turnover was up compared to last year, driven by :

- An improved commercial performance as well as an increase in policyholders turnover on Credit Insurance business; and
- An improved commercial performance on Surety and guarantee business.

As a result, turnover was up by 5.1% compared to last year and amounted to 421M€.

Claims costs reached 172M€, up 6.3% compared to last year mainly explained by an increase in claims frequency, in particular in the UK and Poland. This increase was partly offset by both the lack of significant claims and an increase of run-offs.

Outward result amounted to -94M€ compared to -67M€ in 2017, consequence of the higher premiums and the increase of run-offs which were ceded in higher proportion than last year.

A.2.3.4. Mediterranean countries, Middle East and Africa region (MMEA)

This region includes the direct insurance and assumed reinsurance business in Italy, Greece, Morocco, Tunisia, Turkey and Gulf and South Africa countries.

Figure 8: MMEA region underwriting performance (IFRS)

In K€	2018	2017	Δ	%
Turnover	256,088	231,639	24,449	10.6%
Claims costs	-121,404	-110,783	-10,620	9.6%
Gross operating expenses	-90,181	-88,471	-1,710	1.9%
Gross technical result	44,503	32,384	12,119	37.4%
Outward result	-45,404	-51,271	5,867	-11.4%
Technical result	-901	-18,887	17,986	-95.2%

Turnover was at 231M€, up 10.6% compared to 2017. This increase was mainly driven by an improved commercial performance, high retention and an increase in policyholders turnover on Credit Insurance

business. Surety and guarantee business also benefitted from a growth in premiums. Finally, services revenues increased due to increasing requests for limits and monitoring.

Claims costs reached 121M€, up compared to 2017 (9.6%), mainly due to high claims frequency, in particular in Italy.

The Outward result was -45M€ compared to -51M€ last year. Despite the increase of premiums, the region benefited from profitable cession rates on claims and profitable reinsurance commissions rates.

A.2.3.5. Asia and Pacific region

This region includes all the direct insurance and assumed reinsurance activities carried out by branches based in Asia (India, Japan, South Korea, China, Hong Kong, Taiwan and Singapore) and in Oceania (Australia and New Zealand).

Figure 9: APAC region underwriting performance (IFRS)

In K€	2018	2017	Δ	%
Turnover	120,748	111,134	9,614	8.7%
Claims costs	-59,443	-107,383	47,940	44.6%
Gross operating expenses	-61,018	-57,809	-3,209	-5.6%
Gross technical result	287	-54,058	54,345	100.5%
Outward result	-18,988	21,381	-40,369	-188.8%
Technical result	-18,701	-32,677	13,976	42.8%

Turnover was at 121M€, up 8.7% compared to last year. This increase was mainly driven by an improved commercial performance on Credit Insurance business. Surety and guarantee business also benefitted from a growth.

Claims costs amounted to 59M€, significantly down by 44.6% compared to last year due to an improvement in claims on both current and past periods.

Outward result turned negative and reached -19M€ compared to last year where it was positive at 21M€. This is explained by the improvement of claims on both current and past periods.

A.3. Investment Performance

A.3.1. Income and expenses arising from investments

Figure 10: EH SA investment performance (IFRS)

In K€	2018	2017	Δ	%
Current income from Equity	30,808	100,970	-70,163	-69.5%
Current income from Bond	21,013	19,583	1,430	7.3%
current income Real Estate 3rd party	363	363	0	0.0%
Current income from Cash and Other	249	60	189	316.9%
Current investment income	52,432	120,976	-68,544	-56.7%
FX result (net)	-6,073	8,684	-14,756	-169.9%
Investment Expenses	-2,596	-2,313	-284	-12.3%
Interest Expenses	-3,618	-2,858	-760	-26.6%
Trading - non operating (include LTI)	-26	-2,087	2,061	98.7%
Real. G/L, imp. (net) equities	-360	-32	-329	-1033.0%
Real. G/L, imp. (net) fixed inc.	2,204	2,909	-705	-24.2%
Real. G/L, imp. (net) inv. Prop.	-	8	8	0.0%
Realized gains/losses	1,843	2,885	-1,042	-36.1%
Total investment income (incl interest expenses)	41,962	125,287	-83,325	-66.5%

The decrease of the current income from equity comes from :

- Lower dividends received, mainly related to EH Crédit France (0M€ in 2018 vs 65M€ in 2017) and EH Recouvrement France (3.5M€ vs 7M€);
- Lower “at equity income” from COSEC (4.3M€ vs 5.8M€) which had an impact of -1.5M€.

The net change in foreign currency in 2018 is explained mainly by the appreciation of the US dollar against the euro and the volatility of the Rouble.

The decrease of LTI expense is explained by the delisting of EH. The level of LTI expense in 2017 was linked to an anticipation of the delisting end of 2017 and the accelerated provisioning of related future payments.

The decrease of realized gains is linked to asset management arbitrage.

A.3.2. Gains and losses recognized directly in equity

In 2018, IFRS shareholder equity was at 1,144.8M€, decreasing by 8.2M€ compared to 2017 where it amounted to 1,153.0M€. The evolution of the IFRS shareholder equity over the reporting period is mainly explained by:

- 2018 net income: +79.6M€;
- 2018 dividend payment: -80M€;
- Currency translation adjustment: +2.3M€;
- Variation of unrealized gains and losses: -11.2M€;
- Changes in the measurement of pension plans: +1.1M€.

A.3.3. Investments in securitization

The following table summarizes the details of EH SA’s investments in securitization (MVBS) including a comparison of the exposure in those investments between Q4 2017 and Q4 2018.

Figure 11: Details of investments in securitization (MVBS)

	In K€	Exposure	Exposure as % of total financial assets
As of 31.12.2017	Asset-Backed Securities	1,807	0.1%
	Collateralized	65,638	3.3%
	Covered	422,286	21.2%
	31.12.2017 Securitization	489,731	24.6%
As of 31.12.2018	Asset-Backed Securities	5,251	0.3%
	Collateralized	73,406	3.7%
	Covered	377,829	19.0%
	31.12.2018 Securitization	456,487	22.9%

The rationale behind those investments is disclosed below:

- Asset-Backed Securities has a good return on risk profile. Sourcing is complicated resulting in a low exposition for the moment;
- Collateralized exposure has been increased to take benefit from very good risk/return profile. EH SA will continue to diversify collateralized portfolio in the future;
- Covered bonds exposure has decreased due to the difficulty to source covered bond with positive yields in line with the target duration strategy.

A.4. Performance of other activities

EH SA has identified two sources of material (using a threshold of 1M€ in order to determine materiality) income and expenses in 2018 outside of those from underwriting and investments, which are detailed hereafter:

- **Restructuring expenses:** in 2018, restructuring expenses are recognized for an amount of 3.2M€ (IFRS and BeGAAP). In 2017 the amount recognized for restructuring expenses was 14M€. In the continuity of the initiatives implemented last year in Germany and France, EH Group has launched additional plans in Northern Europe and across the Group. The Alchemy project is the most significant program. It consists in further developing Competence Centers throughout EH Northern Europe in several areas (Policy Administration, Risk and Information, Claims and Collection and Finance). As a result, EH Northern Europe intends to reallocate part of the workforce in the Region towards its existing Competence Centers. Provisions have also been booked for the OneFinance project. Its aim is to further centralize the accounting and treasury functions.
- **Interests and similar expenses:** in 2018, the EH SA French branch incurred a 3M€ (IFRS and BeGAAP) expense related to its share in the expenses of EH SFAC Direct (which is an Economic Interest Grouping between EH French entities which pools all expenses and income between its members).

A.5. Any other information

There is no other material information regarding EH SA's business and performance to be disclosed.

B. System of governance

B.1. General information on the system of governance

B.1.1. Structure of the system of governance

EH SA management structure is organized around the BoD and the MC. In order to enhance the effectiveness of the oversight of EH SA activities, functioning and risk profile, the BoD has set up two specialized advisory committees, namely the Audit, Risk and Compliance Committee and the Nomination and Remuneration Committee.

The rules governing the responsibilities, composition and functioning of the BoD, the MC and the specialized committees are set out in the following sections.

There have not been any material changes in the system of governance over the reporting period.

B.1.1.1. Board of Directors

In general, the BoD has the final responsibility and the power to perform all acts necessary or useful for achieving EH SA corporate purpose, with the exception of those reserved to EH SA General Meeting of Shareholders by law or the articles of association of EH SA.

In accordance with SII regulation, the BoD has delegated all of its management powers to the MC, with the exception of determining overall policy and of acts reserved to the BoD by the Belgian Companies Code, the SII regulation and the overarching circular on the system of governance. Accordingly, the Board is tasked in particular with:

- Defining EH SA overall strategy and objectives as well as the risk policy, including the general exposure limits, as well as the integrity rules; and
- Carrying out effective oversight of EH SA activities.

EH SA is duly bound by special representatives, appointed at the initiative of the MC, within the limits of their mandates.

B.1.1.2. Management Committee

The MC is therefore in charge of the effective management and direction of EH SA activities (including the day-to-day management), within the framework of the strategy defined by the BoD.

The MC is accountable to the BoD and reports to it on the performance of its functions. In addition, the MC represents EH SA in its relations with staff, customers, insurance companies in Belgium and abroad and the authorities.

To assist it in its tasks, the MC has established various operational committees. These operational committees are advisory committees to the MC and they act on the delegated authority of the latter.

- The **Reinsurance Committee** analyses reinsurance structures and conditions;

- The **Finance Committee (FiCo)** analyses EH SA and group's investments in light of the risk management policy;
- The **Risk Underwriting Committee** is responsible for establishing procedures, structures and systems for managing Credit Risk exposure within EH SA;
- The **Risk Committee (RiCo)** oversees the rules, procedures and actions taken to identify, evaluate and control current and future risk within EH SA to ensure Compliance with the Risk Strategy and Risk Appetite set by the MC;
- The **Loss Reserve Committee (LRC)** determines, in accordance with IFRS, the amount of claims reserves, recoveries and costs related to the management of claims;
- The **Marketing & Commercial Committee** is a platform for the exchange of best practices in sales, marketing and distribution across the group's regions and branches;
- The **Project Investment Committee** decides on EH SA investments in any project, IT-related or otherwise, with a value of more than 100K€ or that involves more than 100 working days;
- The **Product Committee** evaluates each new product and approves its launch;
- The **Security Committee** monitors and controls all security and Business Continuity Management issues;
- The **Management Audit Committee** proceeds to a detailed review of the Internal Audits report and makes recommendations in respect of implementation decision and follow-up;
- The **Governance & Control Committee** purpose is to discuss and decide on questions in regard to EH SA overall governance and control framework;

B.1.1.3. Audit, Risk and Compliance Committee

The BoD decided to create one committee to take on the duties assigned to the RiCo and the Management Audit Committee as provided for by the said Law, namely the Audit, Risk and Compliance Committee. The tasks of the Audit, Risk and Compliance Committee are as follows:

- Audit duties:
 - Monitoring the financial reporting process and, more specifically, the process of preparing financial statements (both statutory and consolidated);
 - Monitoring the financial policy;
 - Monitoring the effectiveness of EH SA internal control and risk management systems;
 - Monitoring Internal Audit, its activities and its effectiveness;
 - Monitoring the statutory audit of the statutory and consolidated annual financial statements, including following up the statutory auditor's questions and recommendations;
 - Monitoring the appointment process for statutory auditors and, where appropriate, renewing the auditor's term of office, making reasoned recommendations to that effect to the BoD;
 - Examining and monitoring the independence of the statutory auditor.
- Tasks related to risk management:
 - Monitoring the Risk Strategy;
 - Monitoring the functioning of the Risk Management function;

- Monitoring the process of appointing independent valuers and the performance of their duties.
- Tasks related to compliance:
 - Performing compliance risk assessment;
 - Monitoring legal changes.

At least once a year, the Audit, Risk and Compliance Committee reports to the BoD on the performance of its duties and, as a minimum, when it is drawing up the statutory and consolidated financial statements and, if applicable, the summary financial statements intended for publication. The Committee presents at least one report on each of these subjects to the BoD each year.

B.1.1.4. Nomination and Remuneration Committee

The BoD decided to set up a single committee, the Nomination and Remuneration Committee, responsible for both the nomination of candidates and remuneration of members, given the complementary nature of those tasks. The Nomination and Remuneration Committee's duties are as follows:

- In the area of nomination, the Committee:
 - Makes reasoned recommendations and proposals to the BoD regarding the appointment of members of the BoD, the MC and the specialized committees;
 - Gives an opinion on nominations made by shareholders;
 - Verifies the integrity, competence, experience and independence of each candidate;
 - Considers the desirability of renewing appointments and draws up a succession plan for corporate officers;
 - Defines the independence criteria for members of the BoD, organizes a procedure for selecting the Board's future independent members and performs its own assessment of the potential candidates before approaching them in any way; ensures that the independent members of the BoD meet the independence criteria throughout their term of office;
 - Obtains drafts of agreements which results or could in a conflict of interest for members of the BoD and the MC and, where appropriate, gives its opinion to the BoD or the MC;
 - Analyses all external functions performed by the corporate officers and ensures that they do not hold an unlawful combination of offices.
- In the area of remuneration, the Committee:
 - Issues an opinion on EH SA remuneration policy;
 - Prepares discussions on remuneration, particularly remuneration that has an impact on EH SA risk and risk management and on which the BoD is called upon to decide;
 - Provides direct oversight of the remuneration allocated to the Heads of independent key control functions.

The Nomination and Remuneration Committee submits an annual remuneration report to the BoD and reviews the information provided to shareholders in the annual report relating to corporate officers'

remuneration and to the principles and methods applied for determining managers' remuneration, and for the allocation and exercise of share purchase or subscription options.

B.1.1.5. Key functions

EH SA has the following independent control functions:

- Risk Management;
- Actuarial;
- Compliance; and
- Internal Audit.

Regarding SII regulation, these key functions operate within the risk management framework, which is composed of three lines of defence. A chart in section B.3.1.4 of this report discloses further details on the objectives of the three lines of defence governance.

Thanks to the implementation of the risk management framework, policies, processes in place, the Key Functions, are deemed as well-defined and appropriate in having the necessary authority, resources and operational independence to carry out their tasks. Detailed information on activities, processes, implementation and independence of the four independent Key Functions mentioned above is disclosed in the following sections.

B.1.2. Remuneration policy

EH SA has put in place a remuneration policy aligned with the business strategy, risk profiles, targets and risk management practices, including the interest and long-term results of EH SA.

The remuneration policy promotes sound and efficient risk management and does not encourage the taking of risk beyond the risk tolerance of EH SA.

B.1.2.1.1. Remuneration of directors

The remuneration of directors includes the following components:

- Fixed compensation:
 - The non-executive directors and the chairman of the BoD are entitled to an annual compensation paid in the form of an attendance fee per meeting;
 - The executive directors are compensated on an overall basis by EH Group for all their mandates related to the group and receive no specific additional remuneration for their mandates as directors within EH SA.
- Variable compensation: no variable compensation (whether in cash or in the form of stock options, shares, etc.) is allocated to the directors for their mandates;
- In addition, the independent directors who are members of the BoD's committees (Audit, Risk and Compliance Committee and Nomination and Remuneration Committee) receive an annual remuneration for their mandate within these committees. An additional remuneration is also allocated to the Chairman of the Audit, Risk and Compliance Committee and the Chairman of Nomination and Remuneration Committee, respectively.

B.1.2.1.2. Remuneration of the Management Committee members

The members of the MC are compensated on an overall basis by EH Group SAS, the group's holding company, for all their mandates related to the group. They receive no specific additional remuneration for their mandates as members of the MC within EH SA.

B.1.2.1.3. Remuneration of Key Functions

The remuneration of Key Functions is composed of two elements:

- An annual fixed part, representing the main part of the total remuneration; and
- A variable part representing the rest of the total remuneration.

B.1.2.2. Assessment of Performance

The performance of Risk Takers is subject to an assessment based on 50% of financial targets and on 50% of individual targets. Heads of independent control functions are not subject to any financial or business targets, in order to allow them to exercise their functions independently from the financial performance of EH SA. Any payout can be reduced partially or in full in the case of a breach of the code of conduct, risk limits, compliance requirements or comparable criteria deemed relevant.

B.1.2.2.1. Pension plan

Heads of independent control functions and Risk Takers are not eligible for a supplementary pension plan (top hat scheme or "retraite chapeau"). They are eligible for a supplementary defined-contribution pension plan subject to the country's local pension system.

B.2. Fit and Proper requirements

B.2.1. Description of requirements for Fit & Proper

The application of the SII regulation requires a high Fit and Proper standard for Senior Management and Key Function holders across EH SA. For these positions, a policy establishes the core principles (general principles, fitness and propriety) and processes necessary to ensure sufficient knowledge, experience and professional qualifications as well as the necessary integrity and soundness of judgment.

B.2.1.1. Roles requiring regulatory Fit & Proper assessment

Fit & Proper assessment must be carried out for individuals appointed within EH SA's (Belgian entity) scope. This includes the following people:

- **Senior Management** is defined as the persons effectively running the Company;
- Further to the Senior Management, the scope of the Fit & Proper is as follows:
 - Member of the BoD;
 - Members of the MC (whether a board member or not) and their direct reports;

- Heads of independent control functions: Actuarial, Compliance, Internal Audit and Risk Management, including staff working within these functions;
- Heads of regions, direct reports and regional holders of independent control functions;
- Heads (or “Country Managers”) of the branches of EH SA, and their direct reports as well as the local holders of the independent control functions
- **Key Function holders** are the persons responsible for carrying out the independent the following key control functions:
 - Compliance;
 - Risk Management;
 - Actuarial;
 - Internal Audit;

They are the heads of the respective departments with a direct access to the MC. For each Key Function there is one Key Function holder. The Key Function staff comprises further persons working within Key Functions, including those with a direct reporting line to the Key Function holders and, in addition, experts with independent decision rights.

B.2.1.2. Details on Fit & Proper requirements

B.2.1.2.1. Details on Fitness requirements

A person is considered **Fit** if his/her professional qualifications, knowledge and experience are adequate to enable sound and prudent fulfillment of his/her role. This includes leadership experience and management skills, as well as the relevant qualifications, knowledge and experience for the specific role. The qualifications, knowledge and experience required depend on the position.

The members of the BoD collectively possess qualification, knowledge and expertise about:

- The business, economic and market environment in which EH SA operates;
- The business strategy and business model of EH SA;
- EH SA’s system of governance;
- Financial and actuarial analysis; and
- Regulatory framework and requirements.

Appropriate diversity of qualifications, knowledge and experience within the MC are ensured and the collective Fitness is maintained at all times when changes occur within the MC.

While each individual member of the MC is not expected to possess expert knowledge, competence and experience within all areas of EH SA, he/she must possess the qualification, experience and knowledge which are necessary for carrying out the specific responsibilities within the MC assigned to him/her.

Members of the Senior Management other than members of the MC must possess the qualification, experience and knowledge as outlined with regard to the MC to the extent they are relevant for their responsibility. This depends on the degree of autonomy within the overall organization of EH SA which the branch, organizational unit or regional business division has for the business.

Each Key Function holder must possess the Fitness required to fulfil the tasks assigned to him/her by the policy of the respective Key Function, if any, and applicable law. In cases where a Key Function is outsourced according to the EH SA outsourcing policy, the Fitness requirements for the person are identical to those applying to the respective Key Function holder himself/herself.

B.2.1.2.2. Details on Propriety requirements

A person is considered **Proper**: if he/she is of good repute and integrity, considering his/her character, personal behavior and business conduct, including criminal, financial and supervisory aspects. Propriety includes honesty and financial soundness required for him/her to fulfill his/her position in a sound and prudent manner.

The propriety assessment consist in the consideration of any hint, which may cast a doubt on a person's propriety. Such hints are:

- Any occupational prohibitions referred to in Article 41 of the SII regulation;
- Any conviction of a criminal offence, breaches of companies, insolvency and consumer protection laws;
- Any conviction of a relevant disciplinary or administrative offence;
- Any administrative sanctions for non-compliance with any financial services legislation and any current investigation or enforcement action by any regulatory or professional body;
- Any relevant inconsistency with regard to a candidate's education or professional experience; and
- Any further circumstance resulting in the risk of financial crime, non-Compliance with law or the jeopardizing of the sound and prudent management of EH SA business.

B.2.2. Description of processes and procedures in place

The Fit & Proper assessment checklist has been reviewed and distributed to all Heads of HR. It gives a definition of the controls that are carried out at each employee level and for each situation (appointment, transfer, departure, ad hoc, etc.)

The HR department adheres closely to these guidelines to ensure that each person who joins EH SA fulfils the professional experience and integrity requirements laid down in the Fit & Proper policy.

In addition, the process of the NBB's prior approval and regulatory reporting requirements is described in the EH SA policy application note. The managers with the support of HR, Legal and Compliance team collaborate together on this process.

B.2.2.1. Processes and procedures for ensuring Fitness and Propriety at recruitment

EH SA ensures that, during the recruiting process of any member of the Senior Management or of a Key Function holder, whether internal or external to the EH Group, their Fitness and Propriety are assessed. An employment or service contract may only be entered into after the successful completion of a recruiting process as described below:

- Job descriptions/Fitness requirements for the position;

- Curriculum vitae/background checks;
- Interviews;
- Assessment by NBB.

Members of the BoD are appointed and reappointed by the General Shareholders' Meeting, on the recommendation of the Nomination and Remuneration Committee. Reasoned proposals and recommendations from the Nomination and Remuneration Committee are transmitted to the General Shareholders' Meeting.

Members of the MC are appointed and reappointed by the BoD, on the recommendation of the Nomination and Remuneration Committee.

B.2.2.2. Processes for ensuring ongoing Fitness and Propriety

A person's Fitness and Propriety is assessed on a regular basis, to ensure ongoing Fitness and Propriety of the person for his position, for instance, as part of annual performance reviews or Career Development Conferences.

Ad-hoc reviews are required in certain extraordinary situations, which give rise to questions regarding a person's Fitness or Propriety, e.g. in case of:

- Relevant breach of the EH SA Code of Conduct;
- Failure to submit required self-disclosure statements;
- Investigation or any other procedure possibly leading to a conviction of a criminal, disciplinary or administrative offence or to administrative sanctions for non-compliance with any financial services legislation; and
- Substantiated complaint within EH SA (e.g. whistle-blowing) or from supervisors.

B.2.2.3. Other processes

In cases where a Key Function is outsourced according to the EH SA outsourcing policy, the Due Diligence of the Provider by the Business Owner comprises a description of the process used by the Provider to ensure the Fitness and Propriety of its staff to provide the service.

At the date of the writing of the narrative report, no Key Function is outsourced.

Based on the information gathered during recruiting, a regular or ad-hoc review or an outsourcing Due Diligence, each case must be assessed individually.

EH SA ensures that, on an on-going basis, relevant professional training is available to the Senior Management and Key Function holders.

B.3. Risk management system including the Own Risk and Solvency Assessment

B.3.1. Description of risk management system

For all material quantitative and qualitative risks, a comprehensive risk management framework is in place and incorporates risk identification, risk assessment, risk response and control activities, risk monitoring and risk reporting.

The framework is implemented and conducted within the confines of a clearly defined risk strategy and risk appetite and periodically assessed for adequacy.

B.3.1.1. Risk strategy and objectives

EH SA's BoD establishes and adheres to a risk strategy and associated risk appetite, which is derived from, and consistent with, EH SA's business strategy. The risk strategy reflects the general approach towards the management of all material risks arising from the conduct of business and the pursuit of business objectives. The risk appetite elaborates on the risk strategy through the establishment of the specific level of risk tolerance for all material quantified and non-quantified risks, and thereby the desired level of confidence, in relation to clearly defined risk and performance criteria, taking into account shareholders' expectations and requirements imposed by regulators and rating agencies. The risk strategy and appetite are reviewed at least once a year and monitored on a quarterly basis and, if deemed necessary, adjusted and communicated to all impacted parties.

B.3.1.2. Processes

Appropriate risk mitigation techniques are employed to address instances where identified risks exceed, or otherwise breach, the established risk appetite (e.g. limit breaches). Where such cases occur, clear courses of action designed to resolve the breach are initiated, such as the adjustment of the risk appetite following a business review, the purchase of (re-)insurance, the strengthening of the control environment, or a reduction in, or hedging against, the underlying asset or liability giving rise to the risk. Risk mitigation techniques are only considered in the RC calculation to the extent they lead to an economically and legally effective transfer of risks.

The risk strategy and corresponding risk appetite are transferred into standardised limit management processes covering all quantified risks throughout the Group and taking into account the effects of risk diversification and risk concentration. A clearly defined and strict limit breach reporting and escalation process ensures that risk tolerance limits and target ratings for top risks (including for non-quantified risks) are adhered to and that, as appropriate, remediation activities are taken immediately if limits are exceeded.

Early warning systems such as the monitoring of limits for high risks, the consideration of emerging risks during performance of the TRA and new product approval processes are established to identify new and emerging risks, including complex risk structures. Risks identified through early warning systems are subject to continuous monitoring and regular reviews and, where appropriate, pre-emptive risk mitigation techniques.

To meet SII requirements in an efficient manner, EH SA has set in place target capitalization ratios and limits. In accordance with the standards and guidelines coming from EH Group, EH SA updated its

capital management policy for the year 2018. The current capital management strategy, dividend policy and limits are defined as follows:

- EH SA targets to stay within the capital management range of the “Action Barrier” and the “Upper Bound” in the normal course of business;
- The bounds of the capital management range are defined in line with the capital management ratio as defined in the group Risk Appetite;
- In case of a breach of the capital management range in any of the two dimensions, the MC will evaluate the situation in their next regular Board meeting and evaluate any potential countermeasures to get back within the capital management range. In particular, any capital held in excess of the target management ratio is deemed excess capital. This excess capital is made available to EH Group as early as possible over the plan horizon;
- If EH SA drops below the alert barrier, the MC is expected to establish a contingency plan in line with the Group to conserve its solvency within due time;
- If EH SA falls below the action barrier during the course of the year but stays above the minimum capital ratio, it is still expected to pay out the planned dividend while any adjustments will be considered to the planned dividends over the remaining plan horizon;
- If EH SA falls below the minimum capital ratio the MC will take measures to re-establish the minimum capital ratios in due time.

B.3.1.3. Risk Policy Framework

The RPF is a set of policies, standards and guidelines overarching the Risk Management System of EH SA. It defines all the risk-related principles to embed in the different processes and describes the core elements of the Enterprise Risk Management framework as minimum requirements to apply.

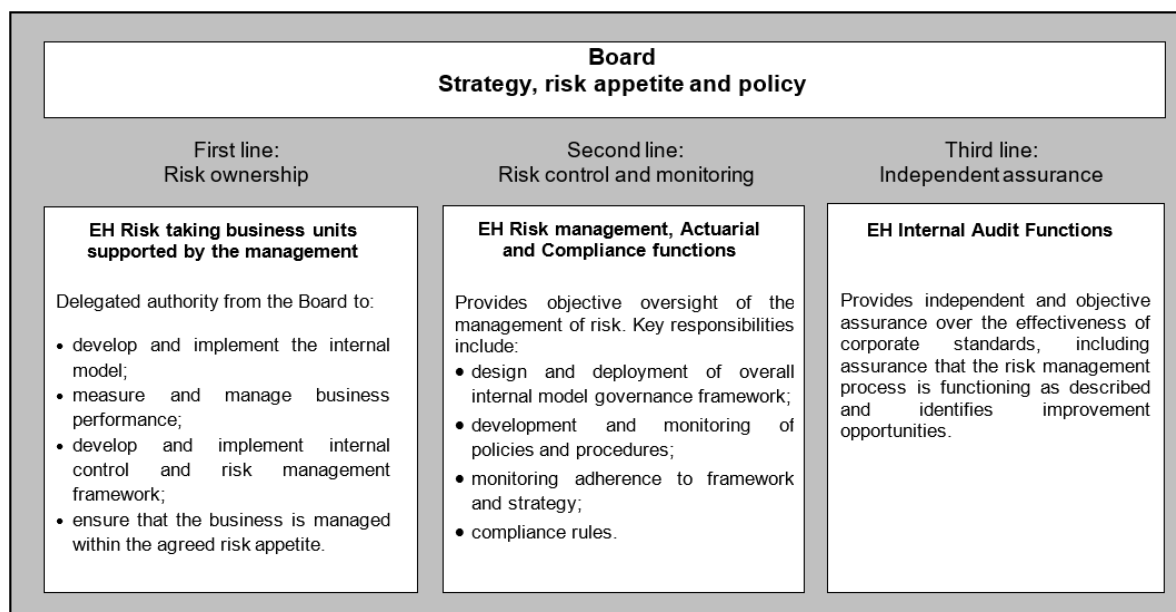
The capacity of having this framework being applied and respected within EH SA represents a risk foundation. Hence, it is properly monitored by the Risk Management team.

The objective is to ensure an ongoing update and validation of the RPF by performing an annual review of the implementation of the policies, standards and guidelines of the framework.

B.3.1.4. Three Lines of Defence

EH SA adopted the “three lines of defence” model for risk governance, with clear responsibilities between the different organisational functions. It defines as first line of defence Operating Business, as second line control functions, e.g., Actuarial, Compliance, Legal and Risk Management, and as third line internal and external audit. This model is described hereafter:

Figure 12: “Three lines of defence” model



B.3.2. Risk Management function

B.3.2.1. Duties of the Risk Management function

The Risk Management Function has the following duties:

- Providing a consistent framework for all risk-related activities in EH SA (Risk policies, standardized risk methods and models, EH SA risk strategy, limit systems, risk diagnostic reviews);
- Protecting the capital base of EH SA (New risks, RC situation, early warning for solvency and rating capital, comprehensive risk analyses/evaluations, concentration risk, risk mitigating measures, recommendations for vetoing line management decisions);
- Supporting the value creation in EH SA (Risk perspective for risk/return optimization, Risk and capital information for management dialogue, transaction or product analyses and reviews);
- External reporting on risk and capital issues;
- Monitoring of regulatory requirements for RC and solvency, like Solvency II, as well as requirements under financial conglomerates supervision;
- Ensuring the IM and its components are adequate to EH and managed in compliance with the model governance framework.

EH SA’s Risk Management Function generates internal risk reports at both predefined regular intervals and on an ad hoc basis that contain relevant risk-related information in a clear and concise form. Internal risk reporting is supplemented by duties of disclosure concerning emerging risks relevant to external stakeholders or constituents (e.g. regulators, rating agencies, shareholders, society). Information comprising risk reports are primarily sourced by management information systems, which operate within internal control environments designed to ensure adequate data quality, in order to support complete, consistent and timely risk reporting and risk communication to all relevant levels of management.

Ad hoc reporting covers events, which are - besides regular reporting – unexpected in terms of size and impact and either contain significant changes to known risk issues or completely new or emerging risk issues that could lead to significant impacts. Impacts in this context include material quantitative impacts to profit & loss or market capitalisation business continuity (operations) or non-compliance with laws and regulations as well as material qualitative impacts.

B.3.2.2. Independence

As required by Solvency II, EH SA Risk Management function is an integral part of the “Three Lines of Defence” concept.

The Risk Management Function is under the competence field of the Chief Executive Officer (CEO).

The Chief Risk Officer (CRO) is the key function holder operationally responsible for the Risk Management function. He reports hierarchally to the CEO and has a functional reporting line to the Chief Financial Officer (CFO). The CRO possesses the qualification, experience and knowledge required to manage the risks relative to the responsibilities of its role in alignment with the fit and proper standard.

The Risk Management Function has a standing within the EH SA’s organisational structure that ensures to maintain the necessary independence from first line of defence functions. Necessary independence means that no undue influence is exercised over the Risk Management Function, for instance in terms of reporting, objectives, target setting, and compensation or by any other means.

The Risk Management Function has the right to communicate with any employee and obtain access to any information, records or data necessary to carry out its responsibilities, to the extent legally permitted. Notwithstanding, information access can be restricted to dedicated risk personnel contingent upon prior agreement with the CRO.

The Risk Management Function has intense interfaces and a close cooperation with other functions in order to implement effectively the Risk Management framework.

In order to ensure their independent judgement, any bonus received by Risk Management function representatives is based exclusively on achieving qualitative individual targets rather than on the financial and business results of EH SA.

B.3.3. Governance of the Internal Model

B.3.3.1. Responsibilities

The **MC** is responsible for approving the application and use of the IM for calculating the SCR. In addition, the MC is responsible for confirming the ongoing appropriateness of the IM at least annually by signing off the Annual Validation Report.

The **EH SA CRO** is responsible for ensuring compliance with the EH Group standards on model governance aligned with Allianz at the local level. Responsibilities of the EH SA CRO include:

- Ensuring model validation is performed and documented in accordance with the EH Group standards on model governance aligned with Allianz, i.e. adequate independence and skills of model reviewers;

- Ensuring that the persons providing expert judgment possess adequate skills and experience;
- Ensure that the risk function has the necessary resources to endorse its responsibilities;
- Ensuring that all relevant documentation in the model inventory and the IM Approval Process documentation repository is kept complete and up-to-date in particular after a model change and that the documentation standards are fulfilled.

The following roles, consisting of either an individual or group of individuals, are established in order to facilitate adherence with the requirements of EH SA's standards:

- **Model Approvers** are responsible for:
 - Initial approval of the models they are responsible for;
 - Deciding on a remediation plan if the validation results for models they are responsible for indicate findings that have to be addressed.
- **Model Owners** are responsible for:
 - Ensuring the existence of adequate model documentation;
 - Developing model in accordance with the established design requirements;
 - Overseeing the implementation of model controls;
 - Carrying through activities to assess the appropriateness of the results produced by the model;
 - Assessing the data quality and define appropriate data update cycles;
 - Signing-off of expert judgment.
- **Independent Reviewers** may be independent internal or external parties and are responsible for independent validation of models and reporting of the results according to the specifications in the guideline for model validation.
- The EH SA **Model Governance Coordinator** supports the EH SA CRO by:
 - Gaining approval of the validation plan by the local RiCo;
 - Coordinating the Annual Model Validation plan within the relevant legal entity;
 - Collecting suitability assessment results from Model Owners and documenting these in the relevant template for EH SA;
 - Gathering independent validation results of local model components and documenting these in the local Annual Validation Report for EH SA;
 - Following-up the status of the local remediation plans and disclose a status of open and closed findings in the local Annual Validation Report;
 - Regularly communicating the status of local validation plan to the model governance coordinator at Group level;
 - Coordinating the execution of the Annual Model Validation Report.
- The **Actuarial Function** is involved in risk modelling topics affecting their area of expertise, including dependencies with other risks.

B.3.3.2. Governance of Trade Credit Insurance & Surety Model

As EH SA core business is trade credit insurance & surety and that a specific IM has been developed

dedicated to this risk, the following refers to the governance of this model.

EH SA CRO is responsible for ensuring and supporting an adequate Trade Credit Insurance & Surety RC process from the data collection to the reporting and review of results. It covers:

- Accurate, complete and timely delivery of data inputs;
- High process quality standard as per internal requirements;
- Evidence of controls of data delivery and sign off;
- An audit track document covering the data preparation, storage of data and analysis of impact is an important component of the data input;
- The organization of a Parameters & Assumptions Approval Committee (PAAC) to approve the model calibration;
- Robust and complete justification and documentation of expert judgments;
- EH SA CRO ensures that a proper validation process is in place in the Business Unit (BU);
- The release of a statement of accountability to EH SA Risk Management.

If the requested scope of data requirements or data quality standards is not fulfilled in a certain delivery, EH SA CRO is in charge of initiating issue fixing and tracking.

A PAAC is organized every quarter with the Risk underwriting and finance teams in order to reinforce the expert judgment and validate the parameters.

The name of participants and the minutes of the committee must be addressed to EH Risk Management with the data input. These minutes must include a presentation of the parameters and the expert judgment used to define them so they can be used for the EH Group PAAC to justify the entity position.

B.3.3.3. Material changes to the Internal Model governance

There has been no material change to the model governance in 2018.

B.3.3.4. Description of the validation process

B.3.3.4.1. Validation plan

The validation plan ensures that the IM components are reviewed on a regular basis in compliance with their expected validation cycle, taking into account their materiality and known limitations. The Validation Coordinator together with the Model Owners will define a validation plan as per EH Group standards on model governance and aligned with Allianz requirements.

B.3.3.4.2. Validation results

Model validation results are summarized in technical model validation reports which contain findings and proposed recommendations to address model limitations. The reports are ultimately reviewed by the Model and Assumptions Approval Committee (MAAC) and signed-off by the MC.

The report details the findings identified during the model review taking into account the materiality and/or the potential impact on capital misstatement.

B.3.3.4.3. Validation recommendations follow-up

Planned remediation activities are monitored using a central inventory tool and a progress status report is presented to MAAC on a quarterly basis.

The effective resolution of validation findings are reported both in the respective validation reports and updated in the central inventory tool.

Ultimately, a status update is provided in the annual validation report for MC approval with potential impact on both RC requirements as well as on model uses.

B.3.3.4.4. Escalation Procedure

The escalation procedure is necessary in case of disagreement on the validation outcome.

The escalation procedure starts with a notice of escalation submitted by the Model Owners to the Validation with which there is a disagreement, along with the necessary documents and the Group CRO as well as the Validation Coordinator are copied. The notice of escalation includes a concise summary of the concern/issue. The notice must be communicated as promptly as possible and substantiated with the necessary evidences against the validation outcome.

B.3.4. Description of ORSA process

The Own Risk and Solvency Assessment (ORSA) is a comprehensive assessment of all risks inherent to the business in order to determine whether current and future capital will be sufficient to ensure ongoing solvency against these risks. It goes beyond the determination of capital needs provided solely through application of risk capital models by additionally considering stress scenarios, model limitations and other non-modelled risks and how these risks translate into capital needs or are otherwise mitigated.

The ORSA draws upon the whole risk management system in order to conclude on the risk profile adequacy to the Risk Appetite and ensures consideration of risk capital needs from an integral part of the business decision-making process of the company.

Performance of the ORSA is realized by a regular comprehensive annual assessment of overall solvency needs and preparation of a corresponding report, as well as a non-regular (i.e. ad-hoc) assessment following significant changes in the risk profile.

This report includes the decisions of the MC and then is validated by the BoD of EH SA.

EH SA's ORSA report is reviewed once a year.

B.3.4.1. Macro process ORSA

Figure 13: ORSA Macro process



The ORSA Process is driven through five main steps:

- Update and alignment of the Risk Appetite and risk limits with the business strategy and check of the alignment with EH Group's requirements;
- Identification of all risks and controls to be considered by performing several approaches;
- Assessment of all risks based on the IM and additional risk assessment methods for risks not covered by the IM. In addition, projections of own funds, risk capital and solvency ratio under base case and stress scenarios;
- Steering of the risks in quantitative terms with a qualitative description of all material risks. Then, demonstration of the compliance of future business with the Risk Strategy;
- Reporting of the performed results and analysis by filling the ORSA report and diffusing it to all relevant stakeholders. The report has then to be validated by the MC before any official communication. Appropriate results are shared with relevant other reporting/analysis processes.

Even if no system could capture all risks, existing processes and measures at EH SA allow identifying main risks and handling them efficiently, allowing the BoD to make appropriate decisions.

B.3.4.2. ORSA governance

- The **BoD** is responsible for signing-off the final report;
- The **MC** is actively:
 - Ensuring proper implementation of its standard;
 - Challenging the outcome of the ORSA and doing a pre-approval signing of the report;
 - Instructing on any follow-up actions to be taken.
- The **RiCo** is responsible for:
 - Overseeing the ORSA process;
 - Reviewing and pre-approving the ORSA results prior to submission to the MC;
 - Monitoring quarterly all the ORSA components and the execution of any follow-up actions;

- Requesting performance of a non-regular ORSA after any events that could substantially alter the overall conclusion of the most recent (regular annual) ORSA.
- The **CRO** is responsible for:
 - Coordinating the ORSA process and preparing the ORSA Report for both regular and non-regular ORSA;
 - Annually assessing the compliance of the ORSA report/process with regulatory requirements;
 - Reporting on the results of the ORSA to the RiCo and distributing them to all key stakeholders related to business strategy, Risk Strategy and risk and capital Management;
 - Advising the MC regarding the ORSA results;
 - Communicating with supervisory authorities.

B.4. Internal control system

B.4.1. Description of the internal control system

B.4.1.1. Internal control framework

The internal control framework is laid out in EH SA'S governance and controls policy, as approved by the MC.

In 2017, EH SA has set up a Governance and Control Committee in order to discuss and decide on questions in regard to the EH SA and Group's overall governance and control framework. It aims in particular at reinforcing the interaction and collaboration between Key Control Functions in relation to governance and control related topics.

The EH SA internal control system has the following objectives:

- To safeguard EH SA ability to operate as a going concern and the continuity of its business;
- To create a solid control environment, by ensuring that every member of personnel is aware of the importance of internal control and the role that they must play in the internal control system;
- To perform control procedures that are commensurate with the risk carried by EH SA's activities and processes;
- To provide relevant information to the management bodies as part of their decision-making processes;
- To ensure compliance with the applicable laws and regulations.

With respect to the areas of control, activities and reporting aspects, the controls are performed within EH SA in accordance with requirements regarding independence. They are incorporated into EH SA operational and organizational configuration and subject to continual review. When needed, internationally recognized control frameworks such as the COSO framework (the Committee of Sponsoring Organizations of the Treadway Commission's internal control - Integrated Framework) and the COBIT framework (Control Objectives for Information and Related Technologies) may be used.

The EH SA Internal Control function is part of the Risk Management function. In particular, it identifies any material errors in the Company's consolidated financial statements and management reports. Alongside these controls, reports are submitted to management.

B.4.1.2. General and specific control elements

The following key principles govern the processes and the manner in which governance and controls are organized at EH SA:

- Central, regional and local roles and responsibilities must be strictly defined;
- It is important to safeguard the separation of tasks to avoid excessive risk-taking and potential conflicts of interest;
- Important decisions must be taken by at least two representatives of the operational entity under review, even if, under local regulations, EH SA may be represented by a single person (four-eyes principle);
- In the interests of sound commercial judgement, the decision-making processes must be applied at all management levels that hold relevant information, notably through impartial access to necessary information;
- To facilitate communication throughout EH SA, English is the common language used at EH SA;
- Steps must be taken to ensure that all members of personnel are aware of the importance of internal controls through the clear definition and communication of roles and responsibilities and the provision of suitable training;
- It is important to maintain structured, documented processes for which key controls are in place and function effectively;
- The COSO framework and part of the COBIT model apply to the financial reporting process.

According to the COSO description, there are five components of internal control:

- Control environment (awareness among personnel of the need for internal control);
- Risk assessment (factors that may have a bearing on the achievement of objectives);
- Control activities (notably the application of standards and procedures);
- Information and communication of data required to manage and control activity;
- Monitoring of control systems.

EH SA applies the three-lines-of-defence internal control model as described in section B.3.1.4.

The "Governance & Control" policy clearly states what is expected of each line of defence and each control function. It also determines how controls are organized across the central, regional and local functions.

Each corporate rule must be approved as part of a documented procedure.

The internal control system encompasses different control concepts. In addition to general aspects related to control activities, following specific controls are also performed:

- IT Controls;

- Controls over the Solvency Capital Requirement;
- Controls over the underwriting of insurance risks;
- Controls over investments.

B.4.2. Implementation of Compliance Function

B.4.2.1. Principles of the Compliance Function

B.4.2.1.1. Responsibilities

Compliance at EH SA is basically structured around the following three pillars:

- **Management:** tangible and genuine involvement of managers and executives (tone at the top);
- **Compliance Function itself:** based on the assessment of compliance risks, it structures, evaluates and reports on the effectiveness of the compliance control environment for all subjects as required under the SII regime;
- **Compliance Function contacts** inside the business lines and support functions: these representatives act as go-betweens, providing feedback on operations and helping to disseminate compliance-related messages.

Compliance is a key control function within the internal control System of EH SA as outlined in its governance and control policy. The role of Compliance includes the following responsibilities:

- Supporting corporate values;
- Advising the Board and senior management on new regulatory developments and standards;
- Educating staff about compliance matters (e.g. anti-corruption and anti-fraud laws, anti-bribery, conflicts of interest);
- Acting as internal contact point for compliance queries or breaches (internal whistleblowing);
- Providing assistance for implementation of compliance manuals, internal codes of conduct, and best practices; and
- Ensuring the compliance or explain principle is adhered to, so that whenever a decision or recommendation of the Compliance function is not observed, an explanation is given.

The main activities of the Compliance Function are:

- Identifying and assessing Compliance risk, and drawing up a plan of action accordingly;
- Analyzing risks annually so as to define the scope and priorities of the Compliance Function;
- Monitoring of compliance with external laws and regulations and expected changes (laws, systems, markets): advisory, risk identification and assessment, monitoring, and early warning.

The MC receives regular reports on the work carried out by the Compliance Function. These reports cover the risk areas mentioned above as assigned to the Compliance function.

The following risk areas, although they are managed and implemented by other departments (e.g. Risk Management, HR, Purchasing, and Market Management, Commercial & Distribution), are also monitored by the Compliance function:

- Outsourcing;
- Incompatible offices, Fit & Proper process;
- Laws on market practices and consumer protection;
- Laws on insurance intermediation; and
- SII policies.

B.4.2.1.2. Independence

The independence of the Compliance Function is established as follows:

- The Compliance Function has a formal status within EH SA, which is described in a policy/charter;
- The designated Chief Compliance Officer reports hierarchically to the CEO and is given direct access to each member of the MC, the statutory auditor and, where applicable, the Chairman of the BoD;
- The Chief Compliance Officer and other Compliance Function employees are protected from any conflicts of interest between their Compliance responsibilities and any other responsibilities they may have at EH SA, particularly in relation to sales;
- The Chief Compliance Officer is independent and able to promote values and defend principles within EH SA at all times;
- Compliance Function employees have access to all the information and all the employees they need to perform their duties;
- Any bonus received by the Compliance Officer is based exclusively on achieving qualitative individual targets rather than on the financial and business results of EH SA.

B.4.2.2. Internal organization

EH SA always has a Chief Compliance Officer, Regional Compliance Function holders and, where appropriate, local Compliance Function holders for each branch and subsidiary.

These local Compliance Officers are therefore responsible for the Compliance Function's involvement at local level.

Compliance Function holders are chosen based on their skills set and experience. They attend regular training sessions that have been approved or organized by the insurance sector. They are also chosen based on their integrity, which is investigated by way of background checks.

Local Compliance Officers report to their regional Compliance Function Officer. Similarly, regional Compliance Function Officers report to the EH SA's Chief Compliance Officer. She acts as the primary liaison between the Euler Hermes Group and the compliance team at parent company Allianz SE. The EH SA's Chief Compliance Officer is also responsible for adapting compliance programs issued by Allianz group or drawing up compliance programs to be applied across the Euler Hermes Group.

B.5. Internal Audit Function

B.5.1. Internal audit activities and processes

The Internal audit team is responsible for examining and assessing the suitability and effectiveness of internal control, as well as the way in which designated tasks are carried out. In particular, they check:

- Compliance with processes and corresponding policies;
- Risk control;
- The reliability of financial information;
- The reliability of external reporting;
- The continuity and reliability of IT systems;
- The correct functioning of various services.

Audit work involves drawing up an audit plan, examining and evaluating the information available, reporting on the results, and following up on recommendations. The functioning of internal audit is detailed hereafter:

- Audit plan: the Internal Audit team draws up a five-year plan that factors in the level of risk inherent to the Company's activities.
- Examining and evaluating the information available: The Internal Audit team has access to all the Company's documents, files and information, as required for the fulfilment of its task.
- Audit planning memo: Each audit is planned in advance. Its objectives and the work required to achieve them are described in a document known as the audit-planning memo.
- Work program: This document provides a detailed description (tests and questionnaires) of the works to be carried out by the auditors.
- Work documents: The work carried out during the audit is documented.
- Reports: A written report is published as quickly as possible for each audit, and the draft version is discussed with the audited entity.
- Following up on recommendations: At the request of the Internal Audit team, the MC has approved a procedure that ensures that the recommendations made have been implemented within the time frames agreed with the audited entities when the report was written.
- Management of the Internal Audit team: The Head of Internal Audit draws up the program of audits to be carried out and oversees the Audit Function Managers and the auditors responsible for monitoring the regions.
- Reporting: The Internal Audit team keeps the MC regularly apprised of the situation and of its objectives.

EH SA's Head of Internal Audit meets weekly with the four Audit functional managers.

B.5.2. Independence and objectivity of the Internal Audit Function

B.5.2.1. Independence of the Internal Audit Function

The Internal Audit Function is common to the EH Group. The Internal Audit team is responsible for all the Euler Hermes Group entities.

The Company's Internal Audit function is one of the independent key control functions.

It is an independent function because it reports directly to the EH CEO and the Audit, Risk and Compliance Committee, as well as to Allianz Group Audit. No auditor holds an operational position.

In order to ensure their independent judgement, any bonus received by Internal Audit function representatives is based exclusively on achieving qualitative individual targets rather than on the financial and business results of EH SA.

B.5.2.2. Status of the Internal Audit Function

The auditors are hierarchically and organisationally separated from the operating activity they are responsible for auditing. They are chosen based on their audit skill set and their ability to gather, examine, evaluate and communicate information.

Every year, the Head of Internal Audit drafts a declaration of independence to certify that he/she carries out his/her activities with complete independence and reports exclusively and directly to the Chairman of the Company's Management Committee, rather than to any operational function.

The audit results are validated by the audited entities and sent to the Chairman of the Management Committee, the Head of the audited entity, the Internal Audit Committee and the Audit, Risk and Compliance Committee, which meets four times a year.

The audit activity is governed by an audit charter which is reviewed at least once a year. This charter and all material changes are subject to the approval by the BoD. The purpose of the charter is to ensure that the Allianz Group Audit Policy and the Standard Audit Manual, the organization and work of EH Internal Audit adhere to a consistent set of minimum rules and operating procedures so that the effectiveness of the controls necessary to achieve the EH SA goals is ensured.

B.6. Actuarial Function

B.6.1. Role of the Actuarial Function

B.6.1.1. Duties

The Actuarial Function Holder performs independent assessment and oversight of EH SA by way of the tasks related to the technical provisions, expressing an opinion on the insurance company's general underwriting policy and reinsurance arrangements, contributing to the effective implementation of the risk management system and issuing an opinion on the profit-sharing and rebate policy.

In his/her reports, the Actuarial Function Holder issues a signed, independent opinion on the actuarial process and the resulting calculations. He is not eligible for bonuses linked to the performance of the Company.

B.6.1.2. Functioning

EH SA's Actuarial function is based around three pillars:

- The MC, which ensures that the Company's Actuarial function is properly organised. Some of its members take part in quarterly LRC meetings and take the function's findings into account when making their decisions;
- EH SA's Actuarial Function Holder is responsible for checking that the different regions and branches have properly implemented the various actuarial activities defined above. It is also responsible for communicating the results of its work at EH LRC meetings or in the various reports it is required to produce;
- The Chief Corporate Actuary of EH's regions or branches, who is responsible for implementing the various actuarial activities in line with the standards imposed by the Actuarial Function Holder of EH SA, EH Group and the Allianz group. He/she is also responsible for communicating the results of their work at regional LRC meetings or in the various regional reports he/she is required to produce.

B.6.2. Status of the Actuarial Function

The Actuarial Function Holder is an expert in actuarial science and financial mathematics adherent to the code of ethics as well as the policies and standards imposed by the EH Group and the Allianz group.

The Chief Corporate Actuary is required to give its reasoned opinion on product profitability, TP, reinsurance and profit sharing. He/she issues judgements on the technical actuarial methods the Company uses when it launches a new product or modifies an existing one, where the expected profitability of said product is likely to be affected.

The annual opinions issued by the Actuarial Function Holder in compliance with regulatory, contractual and bylaw measures and on the status of provisions are presented in the annual activity report of the function. This report is approved by the MC, the BoD, sent to all other Key Functions and filed with the NBB.

The Actuarial function is both operationally and independent from the EH SA's business and operational functions and any function likely to create a conflict of interest. Hierarchically the Actuarial Function Holder reports to the CEO.

B.7. Outsourcing

B.7.1. Description of the outsourcing policy

The EH SA Global Outsourcing Policy determines what is considered as outsourcing. The outsourcing contracts detected are then categorized into 3 types:

- Outsourcing of Key functions;
- Outsourcing of Critical or Important Functions or Services (CIFS);
- Simple outsourcing: all other Services that are essential to the operation and that do not directly impact the customer.

The requirements for each type of outsourcing are divided into 4 phases of their lifetime:

- The decision phase dedicated to write mainly a business plan and perform a risk assessment considering the feasibility of outsourcing a service or not;
- The implementation phase to assess and select the provider and arrange the outsourcing agreement;
- The operational phase to monitor and steer the outsourced service;
- The exit phase to manage the continuity of the services outsourced (reversibility and data security) and issues related to the cancellation of an outsourcing contract.

For each type of outsourcing, the requirements during the different phases are different. Basic requirements for simple outsourcing are the followings:

Requirements (Checklist)	<ul style="list-style-type: none"> ▪ Decision phase <ul style="list-style-type: none"> ✓ Define Business Owner ✓ Check for dependencies (IT security aspects, cloud service, other BUs impact, Data protection, ...) ✓ Check for Regulatory clearance ✓ Business Plan ✓ Risk assessment ✓ Group Outsourcing Policy Classification ▪ Implementation phase <ul style="list-style-type: none"> ✓ Involve needed functions (legal, tax, procurement, BCM, IT security, ...) ✓ Provider Selection (Non-disclosure agreement, Tender process) & Cost Benefit Analysis ✓ If budget > 250K€, Vendor Integrity Screening (VIS) ✓ Privacy Impact analysis and adequate Data Protection management ✓ Outsourcing Agreement Negotiation ✓ Due Diligence : IRP grading, economic dependency, is the provider EH customer, vendor capability check to provide the service ✓ Vendor Integrity Screening (since the first euro) ✓ If Sub-Outsourcing, OE approval is required ✓ Ensure needed approvals & communication ✓ IT security questionnaire (where relevant) ✓ Contract monitoring process set up ▪ Operational phase <ul style="list-style-type: none"> ✓ Monitoring activities to follow the provider's performance to be reached: Key Performance Indicators (KPIs), regular committees ✓ Documentation of the monitoring by the Business Owner: KPIs reports, minutes of committees, adverse events (missing quality, less financial stability of provider, non-compliance) ✓ Material/ Top risk adverse events, data concerns, or related to information security are communicated timely to Management ✓ Amend agreement if needed
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- ✓ Contingency Plan shall be launched in case of need (anticipated termination or other)
 - Exit phase
 - ✓ Ensure reversibility aligned with Euler Hermes Business Continuity Plan Rules
 - ✓ Return or Destruction of all the data provided to or generated by the provider, remove of provider's access to Outsourcing OE's systems
 - ✓ Ensure transition to in house or other vendor
-

For Outsourcing of CIFS, the requirements for the simple outsourcing need to be completed by the following:

-
- | | |
|---------------------------------|--|
| Requirements

(Checklist) | <ul style="list-style-type: none">▪ Prior approval of this Outsourcing by the <u>entire</u> OE BoM, including for sub-outsourcing by external provider▪ Set up a Business Continuity Plan (including exit strategy) prior to outsourcing, to ensure business disruption or possible losses are limited in case of provider failure▪ Stronger focus on the provider selection (for the whole duration of the agreement):<ul style="list-style-type: none">✓ Ensuring relevant aspects of the provider 's Risk Management and Internal control systems are adequate to ensure the Solvency II requirements✓ Verifying that all staff of the provider involved in the Service are sufficiently qualified✓ Ensuring the provider has adequate Business Continuity Plan in place, properly documented and periodically test back up facilities (once a year)▪ The Outsourcing agreement shall include:<ul style="list-style-type: none">✓ Provider capacity to adequately cover the operational risk and reimburse any damage✓ Right to carry out onsite inspections at the provider premises✓ Integration of the outsourced activity into his risk & internal control system✓ Compliance with EH guidelines & policies relating to the Outsourcing activity✓ Follow up of the same provisions of security & confidentiality of information than EH SA ones✓ Conflict of interest avoidance▪ For OE in the European Economic Area (EEA), OE shall notify in writing to Supervisory Authority any outsourcing of CIFS at least 6 weeks prior outsourcing, and for each further evolution▪ The MC receives, (at least) once a year, a report on the providers' performances |
|---------------------------------|--|
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For Key Functions outsourcing, the accumulated requirements for simple outsourcing and for outsourcing of CIFS need to be completed by the following :

Requirements (Checklist)	<ul style="list-style-type: none">▪ Outsourcing of Key Functions to Group external providers is not permissible:<ul style="list-style-type: none">✓ Exception requires prior written consent from corresponding EH Group Key Function holder✓ If the Key Function is outsourced to an external provider, the provider employee performance the outsourced Key Function has to be clearly identified▪ Business Owner has to be Fit and Proper▪ Adequate segregation of responsibilities to be ensured by the Business Owner who:<ul style="list-style-type: none">✓ Must not be employed by the provider;✓ May only be a member of the BoM; and✓ May only be designated for more than one Key Function if it can be demonstrated that this is proportionate in view of the OE’s risk profile▪ (Re)insurance OEs in the European Economic Area (EEA) need to notify the responsible supervisory the identity of the Business Owner
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B.7.2. Identification by the Company of any significant or critical activity, function, operational tasks

This is not applicable to the company as there is no significant outsourcing agreement with external providers.

B.8. Any other information

EH SA’s system of governance is considered adequate and there is no additional material information to disclose regarding its system of governance.

C. Risk profile

C.1. Underwriting Risk

C.1.1. Description of the measures used

EH SA's Risk Management team measures and assesses its risks using EH SA's IM. Further details on the methodologies used within the IM for Underwriting Risk can be found in section E.4.2.1.2.

The IM reflects the risk profile of EH SA and is used to measure the solvability through the RC. The model has to be used in both strategic and tactical decisions to ensure that a sufficient risk tolerance is respected. Based on that, the IM is appropriate for all the different decisions that can be taken within EH SA that have an impact on the risk profile.

C.1.2. Description of the risk exposure

Property & Casualty (P&C) Underwriting Risk is one of the component of EH SA's Underwriting Risk, which is composed by:

- **Premium Risk for Fidelity LoB:** the risk of loss because of an unexpected high loss volume resulting in an insufficient coverage of premiums. Premium Risk is subdivided in Catastrophe Risk (CAT Risk) and Non-Catastrophe Risk (Non-CAT Risk);
- **Reserve Risk:** the risk of loss resulting from deviations between payments for incurred losses that have not yet been definitively settled and the reserves set up to cover these payments, or the use of an insufficient basis for the calculation of reserves.

The standalone RC calculated for the P&C Underwriting Risk amounts to 148M€, remaining stable compared to 2017.

C.1.3. Risk concentration

Please refer to section C.3.3 of this report for a description of the material risk concentrations to which EH SA is exposed.

C.1.4. Risk mitigation

EH SA purchased reinsurance coverage, including both proportional and non-proportional treaties, and cedes a significant amount of premium from Credit Insurance within Quota Share / Excess of Loss reinsurance. Reinsurance is the only risk mitigation technique implemented by EH SA that is considered to be material. In particular, EH SA does not use any Special Purpose Vehicles (SPVs).

To form its opinion on the effectiveness of reinsurance arrangements, Actuarial Function Holder and Chief Corporate Actuary attend the quarterly Loss Reserve Meetings for Euler Hermes Reinsurance AG (EH Re AG), where the estimated cessions of EH Group to EH Re AG are monitored. Moreover, they both participate in the quarterly Loss Reserve meetings for EH Re AG, where the estimated cessions of EH entities to EH Re AG are monitored.

C.2. Market Risk

C.2.1. Description of the measures used

EH SA's risk management team measures and assesses its risks using EH SA's internal RC model. Further details on the methodologies used within the IM for Market Risk can be found in section E.4.2.1.1.

C.2.2. Description of the risk exposure

Within EH SA, Market Risk is composed of the following risks, as defined in the Group risk policy:

- **Interest Rate Risk:** the risk of loss which can arise due to changes in market interest rates e.g. If future interest income is above or below a fixed or guaranteed interest rate applicable to reserves;
- **Equity Risk:** the risk of loss based on market changes in the value of an equity or a participation portfolio;
- **Equity Volatility Risk:** it measures an adverse move in implied volatilities of equity options;
- **Property (Real Estate) Risk:** the risk of loss arising from changes in the market price for property investments;
- **Spread Risk:** the risk due to exposure to some spread. It often arises with a long-short position or with derivatives;
- **Foreign Exchange, Currency Risk:** the risk of loss arising from changes in foreign currency exchange rates;
- **Market Risk concentrations.**

The standalone Market RC amounts to 339M€, increasing by 17M€ (+5%) compared to 2017.

As required by the Directive, the calculations of market sub-risks, as defined in the IM for the RC calculation, are mainly based on the assets market values and market conditions.

The evolution of the sub-risk components has to be analysed by correlation with the underlying assets.

- **Interest Rate Risk:** the increase of the IR risk is mainly driven by the increase of interest rates which had two opposite effects on the portfolio: an important increase on the Best Estimate (BE) of life TP coming from the German pension fund (due to their high duration), offset by a decrease of the valuation of the fixed income portfolio;
- **Credit Spread Risk** remained stable during 2018;
- **Exchange Rate Risk:** the increase of the exchange rate RC is mainly driven by portfolio changes. In particular it is driven by a significant positive impact on USD currencies partly offset by negative impact on other currencies as SGD, CNY, GBP, HKD;
- **Inflation Risk:** the decrease of Inflation Risk is mainly explained by the MV's decrease of the DE pension fund;
- **Equity Risk:** the increase in equity is mainly explained by a reinforcement in equity positions and an increase in participations partly offset by part of an equity portfolio being sold out and hedge rate going from 35% to 50% on derivatives;

- **Real Estate Risk** remained stable during 2018.

C.2.3. Description of assets invested

EH SA actively manages its investment portfolio and is actively taking investment risks in a controlled and limited manner. This is based on the firm belief that by taking risks on the investment side additional value can be generated on a mid to long-term basis, i.e. that the additional return on investments overcompensates the additional cost of capital in the mid- to long-run.

This approach results in a mid to long-term focused investment policy with an emphasis on SAA and the goal of realizing the long-term risk premium of asset classes.

Tactical asset allocation is used on a limited basis as an enhancement to the SAA in order to profit from market opportunities. The investment activities follow the general principles of a congruent ALM with a sufficient duration and currency matching within prescribed limits. All technical reserves are supported by investments made by Investment and Treasury Group (ITG) in respect with local regulation.

EH SA's investment strategy aims for a positive global mid- to long-term (3-5 years) risk adjusted after tax investment return considering:

- Local as well as group-wide external and internal regulations, and policies;
- Risk-bearing capacity and risk tolerance of EH SA's and its shareholders;
- General principles of a congruent ALM;
- Return objectives, expectations, and risk tolerance of the shareholders; and
- Expectations of external parties (e.g. regulators, rating agencies, clients).

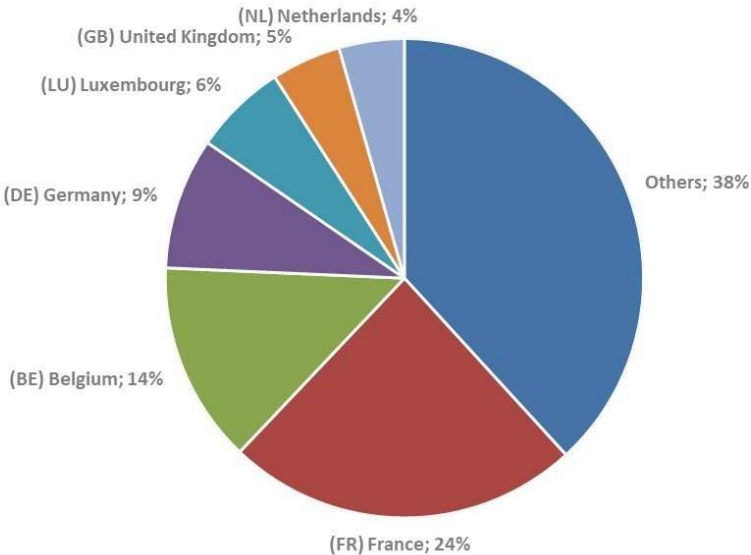
The following principles apply:

- Prudent person principle: EH SA only invests in assets and instruments whose risks can be properly measured, managed and controlled, taking into account the assessment of its overall solvency needs. In particular, assets held to cover the TP are also invested in a manner appropriate to the nature and duration of the insurance and reinsurance liabilities;
- Focus on liquid, high quality, low risk assets: The predominant portion of the portfolio is invested in cash and liquid, tradable, high quality securities, mainly developed market treasuries and government related bonds, covered bonds. Further diversification in credit investments (e.g. corporate bonds, asset backed securities /mortgage backed securities, emerging market bonds) are allowed within pre-defined risk limits. Main technical reserves are supported by investments in cash and fixed income securities. Parts of the reserves and the economic net asset value might be invested in equity and real estate within pre-defined risk limits;
- Asset Liability Management: The duration differences between assets and liabilities and the net foreign currency exposure are regularly monitored and appropriate actions and hedges are executed;
- Diversification: Diversification is a central part of the investment policy and is to be pursued with regards to the SAA, the geographical implementation, the number of counterparties;
- Avoiding investments that threaten EH SA's reputation.

C.2.4. Risk concentration

EH SA diversifies its risks across geographical areas and does not over rely on one specific country or economy.

Figure 14: Assets geographical allocation as of 31.12.2018



EH SA diversifies its portfolio across issuers and does not rely on one specific issuer whatever its credit quality. Thus, the most significant issuer represents 9% of the total assets, with the remaining part of the portfolio fully diversified.

Moreover, EH SA does not expect any foreseeable specific risk concentration over the business-planning period.

C.2.5. Risk mitigation

Market Risk mitigation is performed by applying investment strategies to mitigate high volatility assets as well as a regular monitoring of the investments. These strategies are applied through quantitative financial limits, which are one of the components of the Risk Appetite defined in the Risk Strategy. They include different kinds of limits.

The SAA is a target asset allocation set yearly by the FiCo in order to ensure a balance between the assets yields and the related RC. Quarterly, FiCo reviews the SAA so it reflects the Risk Appetite defined within EH SA. The FiCo also discusses every decision concerning investment strategy. This way EH SA can effectively monitor investment risks.

EH SA has also in place monthly monitoring by realizing monthly financial reporting and closing on investment performance.

The daily use of Bloomberg allows EH SA to perform a day-to-day monitoring of its assets.

As of 2018, no breach has been identified over the SAA.

C.3. Credit Risk

C.3.1. Description of the measures used

EH SA's Risk Management team measures and assesses its risks using EH SA's Internal RC Model. Further details on the methodologies used within the IM for Credit Risk can be found in section E.4.2.1.3.

C.3.2. Description of the risk exposure

Within EH SA, Credit Risk is composed of the following risks:

- **Counterparty Default Risk:** the risk of loss due to default of the counterparty within the context of transactions e.g. derivative, reinsurance, loans etc.;
- **Credit Risk attached to trade credit insurance & surety:** Credit Risk that can arise either from the risk of loss in the economic value of credit exposures because of deterioration in the credit quality of counterparties (migration risk) including their defaults, or non-performance of instruments. Default occurs as the result of the inability or unwillingness to fulfil contractual obligations;
- **Country Transfer Risk:** the risk of loss arising from cross-border transactions as a result of transfer and convertibility risks (e.g. the risk of a country not being able to make payments due, freeze on deposits or limitations on foreign currency transfers);
- **Issuer/Investment Credit Risk:** the risk of loss arising from an unexpected change in the creditworthiness (migration or default) or collateral of a debtor. Default occurs as the result of the inability or unwillingness to fulfil contractual obligations;
- **Settlement Risk:** the risk of loss arising from trading activities when there is a mutual undertaking to deliver on a progressive basis, for example when the trading centres fall within different time zones, and the counterparty does not fulfil its contractual obligations, despite the fact that the other party to the contract has already performed its duties.

The Credit Risk Portfolio is subdivided in 4 different risk categories: investment, reinsurance, insurance and German pension funds.

The total standalone Credit RC decreased by 77.2M€ between 2017 and 2018 and the insurance portfolio represents almost 90% of the global Credit RC.

a. Credit Risk on the reinsurance portfolio

The Reinsurance portfolio RC is calculated through the Moody's "KMV" tool.

The Credit Risk on the reinsurance portfolio remained stable over the period.

b. Credit Risk on the investment portfolio

The investment portfolio RC is calculated through the Moody's "KMV" tool.

The Credit Risk on the investment portfolio decreased compared to Q4 2017. This decrease is mainly due to a decrease of the exposure on guarantees and sovereign bonds.

c. Pension funds

The Pension funds stand for 1.0% of the global credit RC, therefore it is deemed non-material. Moreover, the RC on the Pension Funds was globally stable over the period.

d. Credit Risk on the insurance portfolio

The RC related to the insurance portfolio significantly decreased compared to Q4 2017. It is mainly due to:

- An increase of Credit Insurance Stop Loss reduction which is explained by a switch to a Group Stop Loss external contract in the context of the new 2019 reinsurance structure with a significant decrease of Credit Insurance RC. Such a treaty is protecting the loss rate of EH Group, instead of just the one of Euler Hermes Reinsurance (EH Re). In case of a call of the stop loss contract, part of the cession is retro-ceded to the local entities. This implies a significant reduction in risk capital for EH SA; as well as
- An increase of the scope of the modelled part that is due to the evolution of parameters as well as the use of specific parameters for EH World Agency business.

C.3.3. Risk concentration

Trade Credit Insurance is the core business of EH SA. Thus, several processes have been put in place to closely monitor the EH SA's portfolio quality and risk.

- **Large risks management process:** the methodology is to identify the largest and most sensitive buyers and ensure there is a granular review of each risk. A standard template has been defined which presents the key metrics and proprietary analysis maximising the expertise and local knowledge from each country.
- **Concentration risk management processes:** The evolution of the total exposure is monitored through three different dimensions to avoid concentration risk: the grade, the country and the trade sector. The portfolio is strongly diversified on each of these dimensions. EH SA has succeeded in allocating its exposure in a well-proportioned manner and thus limiting the risk that may arise from a trade sector dependency or from a certain category of buyers or countries. Both the most sensitive buyers and the most sensitive countries are closely monitored.

C.3.4. Risk mitigation

For Credit Risk, please refer to section C.1.4 of this report for information regarding relevant risk mitigation techniques.

C.4. Stress tests and scenario analysis

EH SA has designed and implemented a firm-wide program covering stress testing, reverse stress testing and scenario analysis.

For stress tests, EH SA usually follows standard shocks in line with European Insurance and Occupational Pensions Authority (EIOPA) recommendations. For scenario analysis and reverse stress tests, a dedicated process is run by the EH SA panel of experts which is made of risk, business and economic experts who meet on an annual basis to identify up to 5 most relevant stress scenarios for

the year to come. These scenarios are subsequently proposed to the EH SA RiCo for review and selection.

C.4.1. Standard financial stress scenarios

EH SA's solvency position is challenged on an annual basis against a set of different financial stress scenarios in line with the EIOPA recommendations. In 2018, the following scenario effects were analysed:

- Equity drop: -30% in market values of all equity investments;
- Interest rates up: +100 basis points (bps) in interest rate;
- Interest rates down: -100 bps in interest rate;
- Credit spread: +100 bps in credit spread on corporate and asset backed securities;
- Combined scenario: -30% in market values of all equity investments and -100 bps interest rate.

None of these scenarios causes a major decrease of SII ratios.

C.4.2. Scenario analysis

To complete the analysis about the resilience of its solvency positions, EH SA has developed additional scenario analysis.

EH SA panel of experts has identified and proposed to the EH SA RiCo a set of relevant 'business' scenarios for analysis:

- 2008/2009 financial crisis: the financial crisis is designed to be a recurrent scenario as it serves as a benchmark given its severity level;
- Nuclear scenario: this scenario is designed to capture the potential impact of a nuclear exposure in a nuclear plant in Asia;
- Trade war scenario: this scenario is designed considering an escalation in the trade war between US and China;
- Diesel gate scenario: this scenario is designed to capture the deteriorating impact of diesel gate on the automotive sector.

Under such scenarios, EH SA's solvency position at the end of 2018 would remain above regulatory requirements.

C.5. Liquidity Risk

C.5.1. Description of the measures used

The Liquidity Risk is the risk that EH SA would not be able to meet its short-term current or future payment obligations as and when they fall due. This comprises insufficient liquidity resources to meet payment obligations under current (base case scenario) as well as potential future conditions (stress scenarios).

Liquidity Risk management is a component of EH SA Risk Appetite and is a core part of the financial planning, taking into account the cash flow schedule as well as capital allocation process.

In accordance with the Liquidity Risk Management Standard, an analysis is performed on a quarterly basis to identify accurately the resources and needs of liquidity and to simulate the evolution of EH SA liquidity ratio on different time horizons and in different conditions.

In this approach, the liquidity ratio is considered as being the fraction of needs of liquidity over resources of liquidity.

- Liquidity resources mainly come from premiums, reinsurance receivables and investment inflow;
- Liquidity needs mainly include policyholder benefits and claims and related expenses, reinsurance payables, operating expenses, dividends and planned purchase or re-purchase of assets.

According to the Risk Appetite of EH SA, the liquidity ratio is managed through the following thresholds:

- Ratio > 100%: Red (action level);
- 100% > Ratio > 80%: Amber (alert level);
- Ratio < 80%: Green (validated in the EH SA Risk Appetite).

In case of breaching, EH SA must determine remediation actions.

C.5.2. Description of the risk exposure

The Liquidity Risk management framework is built on a regular Liquidity Risk assessment and supervision, made by regular monitoring of liquidity positions.

To this end, EH SA monitors quarterly the market values of its assets and their classification in terms of liquidity.

This monitoring especially aims at gauging the liquid assets that EH SA could sell in a short period in case the liquidity ratio raises over 100%. Such asset sales are part of the “countermeasures” considered in the quarterly liquidity analysis.

The projection of the liquidity resources and needs under current market conditions over the next 12 months shows that EH SA would always manage to have enough liquid inflows to cover its needs.

As in 2017, liquidity risk is not a material risk in 2018 but it is part of EH SA’s risk profile.

C.5.3. Risk concentration

EH SA is not exposed to any material risk concentration regarding Liquidity Risk.

C.5.4. Risk mitigation

EH SA does not enter into specific risk mitigation techniques for Liquidity Risk.

C.5.5. Expected Profits Included in Future Premiums

EH SA's Expected Profits Included in Future Premiums amounts to 227.8M€.

C.5.6. Stress tests and scenario analysis

Stressed conditions are applied with a calibration so as to reflect extreme circumstances, and include financial markets stress, large claims simulations, disruption in premium collection, etc. As for business stress scenarios, EH SA identified many liquidity stress scenarios and chose to perform the one, which appeared to be the most relevant for 2018.

The scenario selected for 2018 was a deterioration of the market conditions leading to an economic crisis, a recession event that implies an increase of the claim frequency for credit insurers. Thus, a combination of a market stress scenario and a recession scenario (Reserve Risk + Credit Risk) was simulated.

In this scenario, the liquidity ratio never goes up to more than the 80% threshold within 12 months as EH SA could succeed in keeping a level of liquidity sources far above the level of liquidity needs, thanks to the possible use of the different countermeasures identified.

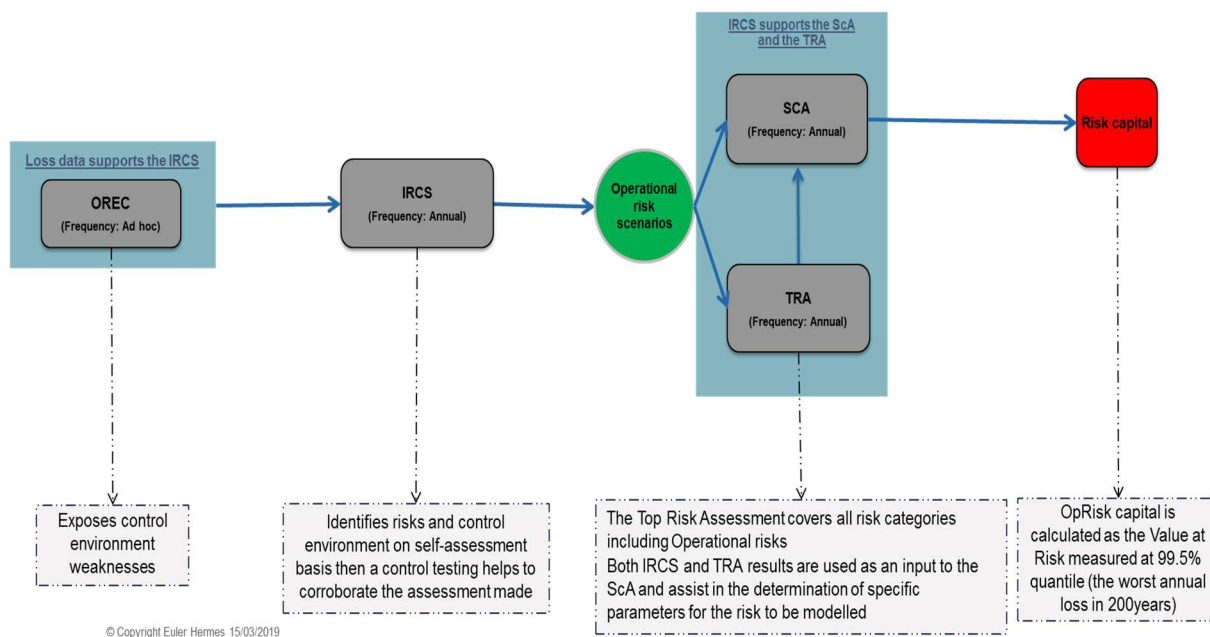
C.6. Operational Risk

C.6.1. Description of the measures used

The operational risk management framework establishes the core approach by which operational risks are managed. Specifically, the management framework aims to:

- Generate awareness of the operational risks;
- Learn from past operational errors and events that either did or could have resulted in an operational loss;
- Reduce operational losses and other indirect consequences, including reputational damage and missed opportunities, resulting from the occurrence of operational risk events and;
- Enable management to conclude on the effectiveness of the internal control system (i.e. the portion related to operational risk management).

Figure 15: Operational Risk management overview



In accordance with EH RPF, EH SA has implemented comprehensive Operational Risk Management processes, aiming at keeping the Operational Risks under control.

a. The Integrated Risk and Control System (IRCS)

The IRCS has been implemented within EH Group in 2017 under the global coordination of the Risk Management department, aiming at providing a harmonized internal control framework.

The IRCS is a risk management process by which EH SA ensures, through performance of a qualitative based analysis, that significant operational risks are identified, assessed and prioritized for improved management and ensured that the controls underlying their management are effective.

This “in-depth” assessment is performed on a yearly basis and reviewed on a quarterly basis.

b. The Operational Risk Event Capture (OREC)

Information regarding actual operational risk related losses, gains and near-misses that have occurred is recorded via the OREC process. This information is used to support and corroborate the identification and assessment of risks during the IRCS process, as well as the assessment of control effectiveness.

c. The Top Risk Assessment Process

This is a structured and systematic process implemented at EH SA level whose objective is to identify and remediate significant threats to financial results, reputation, operational viability and the delivery of key strategic objectives, regardless of whether they can be quantified or not.

The TRA process is based on a quarterly review and monitoring, with a full run exercise once per year.

Its scope covers all risk categories defined in the Group risk policy (i.e. Market, Credit, Underwriting, Business, Operational, Reputational, Liquidity and Strategic Risk) as well as concentration and

emerging risks. For each of the top risks, respective EH SA's MC members are defined as risk owners and define a target score.

For the top risks identified, the "probability" and "impact" are assessed and form an "actual score", compared to a "target score".

The "impact" is the highest score between the economic impact and the reputational impact, if any.

The "target scores" of all top risks are part of the overall Risk Appetite, which is formally approved by the BoD. If the actual risk score is higher than the target risk score, the risk owner is responsible for ensuring that a documented risk mitigation plan is in place.

d. Scenario Analysis (ScA)

Each year, "Scenario Analysis" workshops are organized with Euler Hermes SA experts in order to set the IM parameters to be used to calculate the Operational RC.

IRCS, OREC and TRA results are used as an input of the Risk Heatmaps and assist in the determination of specific parameters for the level 2 Risk Categories to be modelled.

C.6.2. Description of the risk exposure

EH SA's definition of Operational Risk, as well as several sub-categories of this risk:

- **Operational Risk:** the risk of loss resulting from inadequacies or failures in processes or controls due to technical resources, people, organization or external factors;
- **Legal Risk:** the risk of loss caused by non-compliance with existing or new legislation or supervisory regulations, disadvantageous changes to existing laws or supervisory regulations, as well as the risk of a loss resulting from material litigation or regulatory proceedings, in particular through disadvantageous interpretations of laws by courts. Furthermore, Legal Risk includes losses due to ambiguity of laws or unfavourable contract clauses. Legal Risk does not constitute a separate risk category, as it is captured within the Operational Risk;
- **Financial Misstatement Risk:** the risk of loss caused by issuing external financial reports, which are not fairly stated in all material respects. Financial misstatement risk is partially covered within the Operational Risk.

EH SA's standalone operational RC remained relatively stable over the reporting period with a few increase by 6% compared to Q4 2017 which bring its amount to 56M€.

C.6.3. Risk concentration

EH SA is not exposed to any material risk concentration regarding Operational Risk.

C.6.4. Risk mitigation

EH SA does not enter into specific risk mitigation techniques for Operational Risk.

C.7. Other material risks

EH SA identifies Cyber Risk as an additional risk included in its risk profile.

Cyber losses can arise from affirmative covers (standalone cyber products & endorsements) and non-affirmative exposure (classical products that have no complete exclusion clause).

Among the 4 main EH LoBs (TCI, Surety and guarantee business, Corporate Finance and Fidelity), only Fidelity business has affirmative coverage.

Fidelity might be concerned by Cyber Risk in the following way : the cover for losses due to Third Party Fraud is sometimes defined as a Cyber Risk in a broader sense as in some cases the fraud is connected with hacking the IT-System of the Insured or sending falsified information via E-Mail.

AZ has launched in 2017 a global analysis about the potential impacts of Cyber Risk under 3 special scenarios:

- Cyber blackout scenario;
- Cloud Outage scenario;
- Generic Cybercrime event.

The impact of Cyber Risk from Fidelity Product is limited by the terms set up in the General conditions. Indeed, an intrusion is recognized as such if it is directed against a defined number of the Electronic Data Processing (EDP) systems of the insured company.

C.8. Any other information

EH SA does not have any additional information to disclose regarding its risk profile.

D. Valuation for solvency purposes

D.1. Assets

D.1.1. Valuation of assets

The following table summarizes the amounts for EH SA assets, classified by asset classes as disclosed in the Quarterly Reporting Templates (QRT), for both MVBS valuation and BeGAAP valuation.

It is to be noted that the BeGAAP balance sheet disclosed in this report, including assets and liabilities, is not the balance sheet from Belgian statutory accounts but it is a mapping of the MVBS balance sheet.

Figure 16: Asset (MVBS vs BeGAAP) as of 31.12.2018

In K€	MVBS	BeGAAP
Goodwill	0	1,128
Deferred acquisition costs	0	137
Intangible assets	0	79,943
Deferred tax assets	27,979	-0
Pension benefit surplus	0	0
Property, plant & equipment held for own use	35,530	17,833
Investments (other than assets held for index-linked and unit-linked contracts)	2,026,138	1,847,043
Property (other than for own use)	4,660	405
Holdings in related undertakings, including participations	669,492	484,793
Equities	10,028	39,635
Equities - listed	1	34,650
Equities - unlisted	10,027	4,985
Bonds	1,196,568	1,189,584
Government Bonds	326,807	325,358
Corporate Bonds	864,511	864,226
Structured notes	0	0
Collateralised securities	5,250	0
Collective Investments Undertakings	85,658	79,077
Derivatives	3,405	3,111
Deposits other than cash equivalents	41,565	35,677
Other investments	14,762	14,762
Assets held for index-linked and unit-linked contracts	0	0
Loans and mortgages	124,030	125,225
Loans on policies	0	0
Loans and mortgages to individuals	954	0
Other loans and mortgages	123,076	125,225
Reinsurance recoverables from:	873,730	1,453,934
Non-life and health similar to non-life	873,730	1,453,934
Non-life excluding health	873,730	1,453,934
Health similar to non-life	0	0
Life and health similar to life, excluding health and index-linked and unit-linked	0	0
Health similar to life	0	0
Life excluding health and index-linked and unit-linked	0	0
Life index-linked and unit-linked	0	0
Deposits to cedants	2,552	2,552
Insurance and intermediaries receivables	400,439	649,859
Reinsurance receivables	7,521	-84,853
Receivables (trade, not insurance)	117,919	140,495
Own shares (held directly)	31,586	0
Amounts due in respect of own fund items or initial fund called up but not yet paid in	0	0
Cash and cash equivalents	88,825	88,834
Any other assets, not elsewhere shown	1,574	1,509
Total assets	3,737,822	4,323,639

Hereafter is an overview of valuation and recognition bases applied for assets positions recognized within EH SA.

Asset account	MVBS valuation	BeGAAP valuation	Differences
Goodwil	Goodwill is not recognized in MVBS	In BeGAAP, goodwill is recorded if the acquisition cost of an insurance portfolio is higher than the net value of the company. It is generally depreciated over five years.	In BeGAAP, the asset is higher by 1.1M€ compared to MVBS because goodwill are not recognized in MVBS.
Deferred Acquisition Costs (DAC)	In MVBS, acquisition costs are considered to be included in the calculation of the BE of the TP. Therefore, DAC are not recognized.	In BeGAAP, the brokerage part of DAC is recognized.	Thus in BeGAAP, the asset is higher by 137K€ compared to MVBS due to the recognition of DAC. Moreover in Belgian statutory accounts, DAC are recognized directly within the TP.
Intangible assets	In MVBS, intangible assets other than goodwill are valued at zero unless there is a value for the same or similar asset that has been derived from quoted market prices in active markets. If so they are recognized at their market value.	In BeGAAP, Intangible assets other than goodwill are recorded at: <ul style="list-style-type: none"> • Their acquisition value or contribution value; or • Production value (limit: prudent estimation of their value in use or their future profit contribution) Intangible assets are depreciated according to Belgian accounting standards	Under MVBS, intangible assets have been valued at zero because there is usually no active market for intangible assets, prices are not available to the public, or the intangible asset is unique. Thus in BeGAAP, the asset is higher by 79.9M€ compared to MVBS.
Deferred Tax Assets	The principles of IAS 12 are applied for deferred taxes under MVBS.	In BeGAAP, the following deferred taxes are recognized: <ul style="list-style-type: none"> • Deferred taxes on realized gains on intangible assets, tangible assets and securities issued by the Belgian public sector, whereas the taxation of such gains is deferred; and • Foreign deferred taxes of the same nature as those mentioned previously. 	In BeGAAP, no DTA is recognized thus the asset is lower by 28M€ compared to MVBS.
Property, plant & equipment held for own use	In MVBS, property plant and equipment are measured at fair value.	In BeGAAP, they are recorded at their historical value. Investment properties are depreciated each year while no depreciation charge is recorded on the lands. At EH SA, investment properties are depreciated over 33 years. Revaluation is permitted in certain cases.	In BeGAAP, the asset is lower by 17.7M€ compared to MVBS because of a revaluation at fair value in MVBS.
Property (other than for own use)	In MVBS, property (other than for own use) are measured at fair value.	In BeGAAP, property (other than for own use) recognition and valuation follows the same rules as property, plant and equipment held for own use.	In BeGAAP, the asset is lower by 4.3M€ compared to MVBS because of a revaluation at fair value in MVBS.
Holdings in related undertakings,	In MVBS, participations and related undertakings are valued	In BeGAAP, participations (also called investments in	In BeGAAP, the asset is lower by 184.7M€ compared to MVBS

including participations	at a quoted market price in an active market, if available. If there is no quoted market price, then they are valued using either the Adjusted Equity method or the adjusted IFRS equity method.	subsidiaries and affiliates) are recorded at their acquisition value. Impairment tests are performed at each closing dates.	because of the following adjustments: <ul style="list-style-type: none"> • MVBS is revaluated at fair value: -169.7M€; • Depreciation on many subsidiaries in BeGAAP: -15M€.
Equities	Both listed and unlisted equities are valued at fair value in MVBS. In exceptional cases, IAS 39 allows available-for-sale equities not to be measured at fair value but at cost.	In BeGAAP, investments (equities included) are recorded at their amortized cost. Impairments can be recorded	In BeGAAP, the asset is higher by 29.6M€ compared to MVBS because of the following adjustments: <ul style="list-style-type: none"> • In MVBS, own shares are recognized under the own shares asset line at an amount of 31.6M€ whereas in BeGAAP own shares are recognized under the equities asset line at an amount of 39.6M€. The amounts' difference is due to a recognition of the own shares at fair value in MVBS versus a recognition at acquisition cost in BeGAAP; • Equities are revaluated at fair value in MVBS: -5.0M€.
Bonds	All Bonds items are valued at fair value in MVBS.	In BeGAAP, investments (bonds included) are recorded at their amortized cost. Impairments can be recorded.	In BeGAAP, the asset is lower by 7M€ compared to MVBS because in MVBS bonds are revaluated at fair value.
Collective investments undertakings	The interests in collective investments undertakings are measured at fair value in MVBS.	In BeGAAP, collective investments undertakings follow the same rules as for bonds.	In BeGAAP, the asset is lower by 6.6M€ compared to MVBS because in MVBS collective investments undertakings are revaluated at fair value.
Derivatives	Derivatives are measured at fair value in MVBS.	In BeGAAP, Derivatives follow the same rules as for bonds.	In BeGAAP, the asset is lower by 0.3M€ compared to MVBS because in MVBS derivatives are revaluated at fair value.
Deposits other than cash equivalents	Due to the short-term nature of the deposits, BeGAAP value is considered to be a good proxy of the fair value of the deposits.	In BeGAAP, Deposits other than cash equivalents are recorded at their amortized cost.	In BeGAAP, the asset is lower by 5.9M€ due to a reclassification in BeGAAP.
Other investments	Other investments include investments not covered by positions of investments indicated above. They are measured at fair value in MVBS	In BeGAAP, other investments follow the same rules as for bonds.	As of 2018, those investments are mainly composed of a loan for which fair value is equal to amortized cost. Thus, there is no difference between MVBS and BeGAAP.
Loans and mortgages	In MVBS, EH recognizes Loans and mortgages at fair value.	In BeGAAP, Loans and mortgages follow the same rules as for bonds.	In BeGAAP, the asset is higher by 1.2M€ compared to MVBS because a loan within EH has been depreciated in BeGAAP.
Reinsurance recoverables from	The calculation of reinsurance recoverables leads either to the recognition of reinsurance	In BeGAAP, the reinsurance share of reserves is calculated based on the TP and the	In BeGAAP, the asset is higher by 580.2M€ compared to MVBS for

<p>Non-life excluding Health</p>	<p>recoverables calculated as a whole or the BE for the reinsurance recoverable. No Risk Margin (RM) is reported in the section of the reinsurance recoverable as the RM recognized within the TP is already net of reinsurance. However, a Counterparty Default Adjustment (CDA) is calculated.</p>	<p>applicable cession rates agreed in the reinsurance treaties: reinsurance share in Unearned Premium Reserve (UPR); claims provisions; provision for bonus and rebates.</p>	<p>the main reason that in BeGAAP there is no discounting.</p>
<p>Deposits to cedants</p>	<p>Deposits to cedants include deposits relating to reinsurance accepted. In MVBS, deposits to cedants are valued at market value but due to short-term nature of deposits, the nominal value is considered to be a good proxy of the market value of the deposits.</p>	<p>Under BeGAAP, deposits to cedants are recorded at their nominal value.</p>	<p>Thus, there is no difference between MVBS and BeGAAP</p>
<p>Insurance and intermediaries receivables</p>	<p>In MVBS, insurance and intermediaries receivables are recognized at fair value. Premiums written but not yet due are not shown as premium written and are not recognized as receivable but included in the TP. Additionally, valuation allowances have to be eliminated.</p>	<p>In BeGAAP, insurance receivables are recorded at their nominal value. Premiums written but not yet due are recognized as receivable.</p>	<p>In BeGAAP, the asset is higher by 249.4M€ compared to MVBS because :</p> <ul style="list-style-type: none"> • Premium written but not yet due are recognised as receivables in BeGAAP and as TP in MVBS; • EBNR ceded are presented as an asset in MVBS and deducted from TP in BeGAAP.
<p>Reinsurance receivables</p>	<p>In MVBS, reinsurance receivables are recognized at fair value. Additionally, valuation allowances have to be eliminated in the MVBS.</p>	<p>In BeGAAP, reinsurance receivables are recorded at their nominal value.</p>	<p>In BeGAAP, the asset is lower by 92.4M€ compared to MVBS because some assets are netted with liabilities in BeGAAP while in MVBS, assets have to be un-netted.</p>
<p>Receivables (trade, not insurance)</p>	<p>Due to the short term nature of the receivables amortized cost value is considered to be fair value. However, since valuation allowances have to be eliminated in the MVBS, the receivables might have to be adjusted.</p>	<p>In BeGAAP, other receivables are recorded at their nominal value.</p>	<p>In BeGAAP, the asset is higher by 22.6M€ compared to MVBS because of the following adjustments:</p> <ul style="list-style-type: none"> • In MVBS, depreciation of a receivable from EH SA subsidiary, amounting to its own funds, because they were negative: +32.9M€; • Some assets are netted with liabilities in BeGAAP while in MVBS, assets have to be un-netted. In MVBS there is also a regrouping difference: +1.7M€; • Recognition in BeGAAP of a receivable decrease linked to a pension liability transfer within EH: -8.6M€.

Own shares	In MVBS, own shares have to be reported on the asset side with their fair value.	In BeGAAP, own shares are recognized at their acquisition cost.	In BeGAAP, the asset is lower by 31.6M€ compared to MVBS because in MVBS, own shares are recognized under the own shares asset line at an amount of 31.6M€ whereas in BeGAAP own shares are recognized under the equities asset line at an amount of 34.7M€. The amounts' difference is due to a recognition of the own shares at fair value in MVBS versus a recognition at acquisition cost in BeGAAP.
Cash and cash equivalents	Bank accounts are not netted off, thus only positive accounts are recognized in MVBS. Bank overdrafts are to be shown within liabilities unless where both, legal right of offset and demonstrable intention to settle net exist. Cash and cash equivalents are measured at market value.	In BeGAAP, cash and cash equivalents are measured at nominal value. Negative bank balances have to be reclassified to the short term financial liabilities in the annual accounts (per financial institution).	There is no significant difference between MVBS and BeGAAP.
Any other assets, not elsewhere shown	Depending on the nature of the item, a revaluation at fair value could occur in MVBS.	The recognition basis depends on the nature of the item.	There is no significant difference between MVBS and BeGAAP.

D.1.2. Changes to the recognition and valuation bases used or to estimations

There have not been any changes to the recognition and valuation of material classes of assets during the reporting period.

D.1.3. Assumptions and judgments on the future and other major sources of estimation uncertainty

There are no specific assumptions or judgments about future and other major sources of estimation uncertainty.

D.1.4. Material financial assets

The default valuation method for assets and liabilities (other than TP) under SII is the use of quoted market prices in active markets for the same assets or liabilities.

The use of quoted market prices is based on the criteria for active markets as defined in IFRS. Where the criteria for active markets are not satisfied, EH SA uses alternative valuation methods.

When using alternative valuation methods, EH SA relies as little as possible on entity-specific inputs and makes maximum use of relevant market inputs. If relevant observable inputs are not available, EH SA uses unobservable inputs reflecting the assumptions that market participants would use when pricing the asset or liability, including assumptions about risk.

The valuation technique used is consistent with one or more of the following approaches:

- Market approach: this approach uses prices and other relevant information generated by market transactions involving identical or similar assets, liabilities or group of assets and liabilities;
- Income approach: this approach converts future amounts, such as cash flows or income or expenses, to a single current amount;
- Cost approach or current replacement: the cost approach reflects the amount that would be required currently to replace the service capacity of an asset.

For every class of assets, alternative valuation method is used if the asset class price is not quoted on active markets for the same assets. The following table summarizes the different valuation methods used classified by class of assets.

Figure 17: Valuation methods by assets class as of 31.12.2018

MVBS asset	Valuation method
Cash and cash equivalents	Quoted market price in active markets for the same assets
Cash and cash equivalents	Alternative valuation methods
Collective Investment Undertakings	Quoted market price in active markets for the same assets
Collective Investment Undertakings	Alternative valuation methods
Corporate Bonds	Quoted market price in active markets for the same assets
Corporate Bonds	Alternative valuation methods
Deposits to cedants	Alternative valuation methods
Collateralised securities	Quoted market price in active markets for the same assets
Deposits other than cash equivalent	Alternative valuation methods
Equities - unlisted	Alternative valuation methods
Government Bonds	Alternative valuation methods
Government Bonds	Quoted market price in active markets for the same assets
Loans and Mortgages	Alternative valuation methods
Other Investments	Alternative valuation methods
Participations and related undertakings	Adjusted equity methods (applicable for the valuation of participations)
Participations and related undertakings	IFRS equity methods (applicable for the valuation of participations)
Participations and related undertakings	Alternative valuation methods
Property (other than for own use)	Alternative valuation methods
Property, plant & equipment held for own use	Alternative valuation methods
Own shares	Alternative valuation methods
Derivatives	Alternative valuation methods

All related undertakings have been valued either with Adjusted Equity Methods or with IFRS equity methods.

D.1.5. Financial and operating leases

EH SA only agrees to lease operating leases from lessors. The only material asset class for leases is for real estate. The below table shows the current real estate lease contracts as well as the duration of these contracts in IFRS:

Figure 18: Operating leases (IFRS figures) as of 31.12.2018

In K€	UK	Northern Europe	Germany	France	Asia	Others
Less than 1 year	2,209	3,696	11,801	10,664	2,697	3,005
Between 1 and 5 years	2,628	4,578	32,200	49,204	2,438	6,220
More than 5 years	27	86	66,466	38,194	0	3,780
Total	4,865	8,360	113,466	98,062	5,136	13,005

Under an operating lease, the lessee does not recognize any lease asset or liability in the IFRS and in the SII balance sheet.

EH Group has a rental contract for its First Tower headquarter in La Défense. The rental contract has been renewed for a duration of 10.5 years from July 1st 2016, for an annual amount of 9,815 K€ net of rent reduction.

D.1.6. Material deferred tax assets

On 31 December 2018, the total DTA equalled 28M€ (MVBS value). They were recognized on MVBS adjustments of which DTA on the cancellation of intangible assets.

The following table discloses the applicable tax rates of the main countries within the scope of EH SA.

Figure 19: Applicable tax rates

	Q4 2018	Q4 2017
Belgium	29.58%	33.99%
France	32.02%	34.43%
Germany	31.00%	31.00%
Italy	24.00%	24.00%
United-Kingdom	19.00%	19.00%
Netherlands	25.00%	25.00%
Switzerland	12.00%	15.00%
Poland	19.00%	19.00%

D.2. Technical Provisions

D.2.1. Valuation of Technical Provisions for solvency purposes

The table below shows, at a detailed level, the amounts of Best Estimate Liabilities (BEL) and TP for Solvency 2 business lines.

Figure 20: Technical Provisions for Solvency II (in K€)

31/12/2018	Credit and suretyship insurance	Miscellaneous financial loss	Total
Premium Provision	105,083	2,387	107,471
Claims Provision	1,133,839	159,990	1,293,829
Risk Margin	34,879	3,374	38,253
Gross TP	1,273,801	165,752	1,439,553
Ceded TP	-757,893	-115,836	-873,730
Net TP	515,908	49,916	565,823

D.2.1.1. Basis

The value of the TP corresponds to the current amount required to transfer all insurance obligations immediately to another insurance entity. TP consist of the claims provision, premium provision and RM, claims provision and premium provision constitute the BEL.

BELs are defined as the weighted average of future cash flows, taking into account the time value of money (the present value of future cash flows), determined from the relevant risk-free interest rate curve published by EIOPA, with the application of the correction for volatility (risk free). Due to the time required to dispose of the curve published by EIOPA, the Allianz Group derives the discount interest rate curve, which may differ slightly from that published by EIOPA.

The BE is calculated gross, without deduction of claims arising from reinsurance contracts. Gross and Ceded amounts are calculated separately.

The projected cash flows used in the calculation of the BEL include all the cash inflows and outflows required to meet the insurance and reinsurance obligations in the existing portfolio (or run-off) whose projection horizon must cover the whole life.

The ceded Best-Estimate liabilities are estimated by netting the gross Best-Estimate liabilities. The ceded Best-Estimate liabilities are adjusted by the CDA.

D.2.1.2. Methods and assumptions

The calculation of the BEL is based on up-to-date and credible information, realistic assumptions and is performed using actuarial and statistical methods relevant to each LoB.

Each provision is calculated by LoB, gross and ceded. Regardless of LoB, the approach taken is the same, and the methods and assumptions used are based on the actual exposure and experience of that LoB.

BEs are based on IFRS GAAP reserves (Loss Reserves, Premium Reserves and Other Reserves), loss and expenses ratios.

D.2.1.3. Best estimate of the premium provision

In accordance with the Solvency II directive and internal policies, the BE of the premium provision is calculated as the expected present value of future cash inflows and outflows, including future claims, premiums and expenses related to existing contracts.

In order to determine these cash flows, the following are taken into consideration:

- IFRS UPR;
- Future premiums (FP);
- Future Combined Ratio (CR).

To calculate the premium provision, the IFRS UPR plus FP, adjusted to allow for future premium development arising from mid-term adjustments or cancellations, is used as an adjusted exposure measure.

FP is future premium that a policyholder is contractually bound to (incl. tacit renewals), however not yet paid/written. The method for calculating IFRS premium reserves is specified in the Reserving Guidelines, basically it is deterministic calculation, done policy by policy, weighting recorded premiums vis-à-vis the duration of the underlying risks and the type of insurance policy contract.

Future CRs are derived from the projections done during the Planning Dialogue exercise (budget or business plan).

Euler Hermes calculates the BE of premium provisions for each legal entity, at product level, gross and ceded, by multiplying future CR assumptions, derived separately for each line of business, are applied to the adjusted exposure to obtain an estimate of future claims.

For illustrative purposes, find below simplified formulas for the premium provision.

$$\text{Premium Provision}_{\text{gross}} = (\text{UPR}_{\text{gross}} + \text{FP}_{\text{gross}}) * \text{CR}_{\text{gross}} - \text{DAC}_{\text{gross}} - \text{FP}_{\text{gross}} + \text{IME}$$

$$\text{Premium Provision}_{\text{ceded}} = (\text{UPR}_{\text{ceded}} + \text{FP}_{\text{ceded}}) * \text{CR}_{\text{ceded}} - \text{DAC}_{\text{ceded}} - \text{FP}_{\text{ceded}}$$

A payment pattern is applied to each element of the premium provision to obtain future cash flows, which are discounted by taking the risk-free curve into consideration at the valuation date increased by VA.

Referring to contract boundaries, it is to note that EH can, depending on the contract wording, unilaterally terminate or amend credit lines related to the risks covered in some of its contracts at any time.

Following a strict interpretation of article 18 of the SII Delegated Acts EH must consider the scenario of cancelling all limits (where applicable, i.e. If policy wording allows for limit cancelling and if premium depends from limit/covered amount) when calculating the future premium (as part of premium provisions).

D.2.1.4. Best estimate of the claims provision

In accordance with the Solvency II Directive and with the actuarial policy of the Euler Hermes and Allianz group, the BE of the claims reserve is calculated as the expected present value of future cash flows relating to claims that have occurred but not yet fully paid, including settlement costs direct and indirect.

The claims provision is based on the IFRS claims provision, with the addition of an allowance for future claims handling and investment management expenses. A payment pattern derived from historical data for each LoB is applied to each element of the claims provisions to obtain future cash flows, which are discounted to reflect the time value of money in line with Solvency II requirements.

In particular, the BE of the non-discounted claims provision is obtained through the adoption of statistical-actuarial methodologies and coincides with the amount of the loss reserves on the financial statements prepared in accordance with IFRS standards. In order to determine the present value of the future cash flows, appropriate paying patterns are taken into consideration and the risk-free curve at the valuation date increased by the VA.

IFRS claims provisions are estimated using actuarial methods (e.g. Expected Loss Ratio, Chain-Ladder, and Bornhuetter & Ferguson) collectively called as triangles. Loss development triangles shows how claims develop overtime, allowing the actuary to extrapolate future evolution of occurred claims. It is part of the exercise to do an analysis on the reserve segmentation, the existence or not of outliers and possible trends. Based on this analysis and the inputs received from different departments (e.g. claims, reinsurance, product, finance and risk) the actuary should adapt the coefficients to better reflect the expected future claims development.

The Unallocated Loss Adjustment Expense (ULAE) reserve is calculated by paid to paid method. Basically this method says that ULAE reserve should be estimated by applying the ratio between ULAE and CLAIMS paid over the loss reserves.

D.2.1.5. Investment management expenses

Investment management expenses need to be included according to Article 31 of the delegated act. Following Allianz guidance, they are determined as 1.5 bp of the net BE TP which is then split into two parts related to gross claims and gross premium provisions based on the share of those in the net BE (without future premium). Investment management expenses are not ceded.

D.2.1.6. Risk Margin

The market value of liabilities is defined as the discounted BE reserve plus a RM, also known as Market Value Margin, representing the cost of capital to run off the business until final settlement. In other words, the RM is the cost of holding the necessary capital in excess of the best-estimate of the liabilities. Hence, the RM is integral part of the market value of liabilities and links the calculation of liabilities to risk models.

The calculation of the RM is based on the assumption that the whole portfolio of (re)insurance obligations, including any related reinsurance contracts is transferred to another (re)insurance undertaking – called reference undertaking - immediately (i.e. $T=0$).

The transfer scenario is defined such that only non hedgeable risks need to be considered. Especially it is assumed that the transfer of insurance and reinsurance obligations includes any reinsurance contracts relating to these obligations and that the reference undertaking is assumed not to have any (re)insurance obligations and any own funds before the transfer takes place. Only after the transfer of the portfolio the reference undertaking would raise eligible own funds, these assets are considered to be selected in such a way that they minimise the SCR for Market Risk that the reference undertaking is exposed to. For non-life insurance obligations Market Risk can be considered to be nil as a result of the above 'transfer' assumptions.

The risk categories to be captured are:

- Underwriting Risk with respect to the transferred business: premium reserve RC and claims reserve RC. (The Premium RC is adjusted to reflect the legally bound future premium only, called Premium Reserve RC.)
- Credit Risk with respect to reinsurance contracts, SPVs, intermediaries and any other material exposures
- Operational Risk

EH SA bases the calculation of RM on the IM SCR. For the RM calculation, one of the main inputs is the RC.

For Reserve Risk and Premium Reserve Risk a roll-forward approach is used which is in line with the usual approach for those risks. Hence, previous year Model results are used.

D.2.1.7. Counterparty Default Adjustment

In order to separate the individual risks as specified under SII, a CDA is calculated. In the calculation, the risk mitigation effect of reinsurance is taken into account even though the risk of the counterparties' default remains. This has to be considered separately and an adjustment is made to the reinsurance recoveries in form of the CDA.

The following (simplified) version of the CDA is calculated:

$$CDA = -\max\left\{(1 - RR) \times \frac{PD}{1 - PD} \times Dur_{mod} \times BE_{rec}; 0\right\}$$

Where:

- RR = Recovery Rate = the possible % of retrieval even after a Reinsurer defaults
- PD = Probability of Default of the counterparty within the next 12 months
- Dur_{mod} = modified Duration of the (ceded) recoverables
- BE_{rec} = Best-Estimate of the (ceded) recoverables, i.e. The total ceded reserves

The motivation of the formula is detailed below:

- The formula is a time-discrete simplification of the time-continuous formula with “ln(1-PD)” inside, i.e. the 1st order Taylor-Approx;
- The CDA is like the expected loss for ceded recoverables with a duration of “ Dur_{mod} ” years.

D.2.2. Level of uncertainty

In this section is shown both the uncertainty of undiscounted claims reserves estimations (i.e. Stochastic reserve analysis) as well as the sensitivity of TP on certain input parameters.

D.2.2.1. Stochastic Reserving

Stochastic simulations (“Mack-Bootstrapping”) are conducted on the IFRS claims reserves for all LoBs in order to provide reserve distributions around the quantitative BE reserves.

The table below lists the ratio (RC/Res) between net claims reserves (Res) and the 1year net reserve risk capital.

Figure 21: Uncertainty of reserves as of 31.12.2018 (in K€)

Net reserve	1 year net RC	RC/Res	1 year net CoV.
426,932	141,614	33.17%	12,05%

D.2.2.2. Sensitivity Studies on Technical Provisions

The premium reserves reflect the present value of all future outflows less inflows from future events post the valuation date that will be incurred under the insurer's existing policies that have not yet expired.

Hence, future outflows (i.e. Future claims and administrative costs) and future inflows (i.e. Future premiums) are taken into account in the premium reserves estimation. The future outflows are estimated via an adjusted CR. As this parameter is a key driver of the premium reserves level, the sensitivity of (undiscounted) premium provisions on changing combined ratios has been tested and is quite significant.

Figure 22: Sensitivity of undiscounted premium provisions to CRs changes (MVBS figures) as of 31.12.2018

Undiscounted premium provisions (in K€)	Base Case	-2% CR	-2% CR
Gross	114,400	94,415	134,385
Net	106,558	100,786	112,331

Furthermore, the impact of a 5% change in the UPR (Cash) on the premium reserves level has been tested. Results are displayed in the table below.

Figure 23: Sensitivity of undiscounted premium provisions to UPR changes (MVBS figures) as of 31.12.2018

Undiscounted premium provisions (in K€)	Base Case	-5% UPR	-5% UPR
Gross	114,400	104,941	123,859
Net	106,558	103,578	109,539

D.2.3. Material changes in calculation assumptions for Technical Provisions

In 2018, no operational, legal or model changes have been implemented or impacted the calculation of the TP.

D.2.4. Differences with Technical Provisions in financial statements

The following table discloses the reconciliation between TPs as disclosed in financial accounting statements and TPs as disclosed for solvency purposes.

Figure 24: Reconciliation between financial statements TP and TP for solvency purposes

Technical Provisions reconciliation (in M€)	Q4 2018
BeGAAP	2,443.2
Equalization reserves	-261.8
Salvages & Subrogation reclassification	-364.5
DAC reclassification	-33.5
Other	0.0
IFRS	1,783.4
BeGAAP premium reserves	-476.0
MVBS premium provisions	107.5
Loss reserves discounting	-13.7
Risk Margin	38.3
Investment management expenses	0.1
Other	0.0
MVBS	1,439.6

It should be noted that the BeGAAP amount provided in the QRT is not in line with the one shown in the table above. Indeed, the amount in the QRT was not corrected with the latest adjustments.

The main differences between the financial accounting statements and the TP for solvency purposes are given for the following reasons:

- Gross salvage reserve is presented as a liability in Solvency II (deducted from TP) and as an asset in BeGAAP, salvage reserve ceded is presented as an asset in Solvency II and presented as a liability in BeGAAP (deducted from TP);
- Deferred acquisition costs are not recognized in Solvency II valuation and presented as a liability in BeGAAP (deducted from TP);
- On IFRS and BeGAAP the premium reserves reflect the unearned part of the written premium, calculated policy by policy, prorata temporis based on the number of days between the closing date of the calculation period and the expiration of the contract. While for MVBS, premium provisions reflect the expected present value of future cash inflows and outflows, including future claims, premiums and expenses related to existing contracts;
- Loss reserve discounting: MVBS TP reflect the present value of the liabilities, while BeGAAP and IFRS reserves are undiscounted;
- RM is a relevant component of MVBS TP that is not required under BeGAAP nor IFRS.

EH SA does not apply a Matching Adjustment.

D.2.5. Volatility Adjustment

In accordance with the technical guidance provided by EIOPA and Allianz, the discount effect is currently calculated by taking into account the Volatility Adjustment (VA) inside the risk-free SWAP (yield) curves. A sensitivity study has been performed where only the EUR SWAP curve is applied with and without VA to the cashflows, i.e. omitting the impact of different settlement currencies. Doing this results in almost same discounted reserves for the LEs with a high share of EUR.

Figure 25: BEL sensitivity to VA (in K€)

Net BEL	Discounted BEL		Estimated sensitivity	Estimated sensitivity %
	EUR SWAP - VA	EUR SWAP		
527,570	533,136	535,155	-2,019	-0.38%

As shown in the table above, the impact of the VA is negligible (only 0.38% deviation between the discounted reserves with VA and without VA).

D.2.6. Transitional risk-free interest rate-term structure

EH SA does not apply the transitional risk-free interest rate-term structure referred to in Article 308c of Directive 2009/138/EC.

D.2.7. Transitional deduction

EH SA does not apply the transitional deduction referred to in Article 308d of Directive 2009/138/EC.

D.2.8. Recoverable from mitigation techniques

In 2018, EH SA had reinsurance recoverables of nearly 874M€. The recoverables are coming from non-life excluding health, which includes the credit and surety insurance and miscellaneous LoBs. Of these recoverables, 99.6% come from claims provisions, with the remaining due to premium provisions. It has to be noted that there were no recoverables from SPVs.

D.3. Other liabilities

D.3.1. Valuation of other liabilities

The following table summarizes the amounts for EH SA other liabilities, classified by other liabilities classes as disclosed in the QRT, for both MVBS valuation and BeGAAP valuation.

Figure 26: Other liabilities (MVBS vs BeGAAP) as of 31.12.2018

In K€	MVBS	BeGAAP
Other technical provisions	0	0
Contingent liabilities	0	0
Provisions other than technical provisions	62,821	62,411
Pension benefit obligations	190,337	190,329
Deposits from reinsurers	6,020	6,021
Deferred tax liabilities	108,154	55,597
Derivatives	0	0
Debts owed to credit institutions	5,886	5,886
Financial liabilities other than debts owed to credit institutions	78,984	63,476
Insurance & intermediaries payables	142,161	307,203
Reinsurance payables	243,850	73,977
Payables (trade, not insurance)	132,126	132,099
Subordinated liabilities	0	-0
Subordinated liabilities not in Basic Own Funds	0	-0
Subordinated liabilities in Basic Own Funds	0	0
Any other liabilities, not elsewhere shown	107,899	279,985
Total other liabilities	1,078,239	1,176,983

Hereafter is an overview of valuation and recognition bases applied for assets positions recognized within EH SA.

Liabilities account	MVBS valuation	BeGAAP valuation	Differences
Provisions other than Technical Provisions	IFRS values can be used for SII reporting purposes.	In BeGAAP, provisions are recorded to cover all planned or expected risks and charges.	In BeGAAP, the liability is lower by 0.4M€ compared to MVBS because a historical booking on provisions.
Pension benefit obligations	IAS 19 is considered a reasonable approach in valuing pension liabilities for SII purposes.	In BeGAAP, EH SA records a provision for a pension plan in the statutory accounts only if the assets of the plan are lower than the minimum reserves as defined under the Belgian law. In addition to that, EH SA decided to record the provisions for pensions based on IAS 19R.	There is no significant difference between MVBS and BeGAAP.
Deposits from reinsurer	In MVBS, deposits from reinsurers are recorded at market value.	In BeGAAP, deposits from reinsurers are recognized at their nominal value.	There is no significant difference between MVBS and BeGAAP.
Deferred Tax Liabilities (DTL)	The principles of IAS 12 are applied for deferred taxes under MVBS.	In BeGAAP, DTL are recognized on: <ul style="list-style-type: none"> Realized gains on intangible assets, tangible assets and securities issued by the Belgian public sector, whereas the taxation of such gains is deferred; and 	In BeGAAP, the liability is lower by 52.6M€ compared to MVBS because DTL are not recognized in BeGAAP except tax debt related to the equalization reserve write-down in the German branch (booked on a deferred tax account in BeGAAP only).

		<ul style="list-style-type: none"> Foreign deferred taxes of the same nature as those mentioned in the above 	
Debts owed to credit institutions	In MVBS, debts owed to credit institutions are measured at fair value. Adjustments for own credit standing are excluded in MVBS.	In BeGAAP, debts owed to credit institutions are recognized at their nominal value.	There is no significant difference between MVBS and BeGAAP.
Financial liabilities other than debts owed to credit institutions	In MVBS, financial liabilities other than debts owed to credit institutions are recorded at fair value. Adjustments for own credit standing are excluded in MVBS.	In BeGAAP, financial liabilities other than debts owed to credit institutions are recognized at their nominal value.	The liability is lower by 15.5M€ in BeGAAP compared to MVBS due to a different netting of certain cash pooling positions.
Insurance & intermediaries payables	In MVBS, payables are recognized at the amounts actually due on repayment (i.e., their settlement amount) but only include amounts past due for payment.	In BeGAAP, insurance and intermediaries payables are recorded at their nominal value.	In BeGAAP, the liability is higher by 165M€ because EBNR ceded are presented as an asset in MVBS and deducted from TP in BeGAAP.
Reinsurance payables	In MVBS, payables are recognized at the amounts actually due on repayment (i.e. their settlement amount) but only include amounts past due for payment.	In BeGAAP, reinsurance payables are recorded at their nominal value.	In BeGAAP, the liability is lower by 169.9M€ compared to MVBS because of the following adjustments: <ul style="list-style-type: none"> Some liabilities are netted with assets in BeGAAP while in MVBS liabilities have to be un-netted: -92.2M€; In MVBS, ceded premiums written but not yet due are not shown as ceded premium written (they are included in the TP instead). Thus, they are not recognized as reinsurance payables: -77.7M€.
Payables (Trade, not Insurance)	Payables are generally recognized at the amounts actually due on repayment (i.e., their settlement amount). Due to their short-term nature, the settlement amount is considered to be a good proxy of the fair value for MVBS.	In BeGAAP, trade payables are recorded at their nominal value. They are composed of fiscal and social debts.	There is no significant difference between MVBS and BeGAAP.
Any other liabilities not elsewhere shown	Depending on the nature of the item, a revaluation at fair value could occur in MVBS.	The recognition basis depends on the nature of the item.	In BeGAAP, the liability is higher by 172.1M€ compared to MVBS because of the following adjustments: <ul style="list-style-type: none"> Some liabilities are netted with assets in BeGAAP while in MVBS liabilities have to be un-netted: -12.1M€; Recognition in BeGAAP of dividend to be paid (160M€) in 2018.

D.3.2. Financial liabilities

The pricing of loans within the Group takes into consideration volume and term of a loan by applying market interest rates existing at inception (benchmark rates) with adjustments for various market factors described herein, in particular the credit worthiness of the debtor, exchange risks and particular features of the facility, e.g. collateral, subordination (credit spread).

a. Benchmark rate

The relevant benchmark rate depends on the coupon format of the debt instrument. For instruments with a floating rate coupon, the benchmark rate is the respective EURIBOR or LIBOR Rate (as of the date of loan inception) for a given currency (benchmark rate). The choice of the relevant EURIBOR or LIBOR-rate depends on the coupon re-set frequency.

For instruments with a fixed rate coupon the appropriate benchmark rate is the swap-rate of the relevant currency and with the same term as the underlying debt instrument.

b. Credit spread

The benchmark rate is increased by the credit spread, which is determined by the risk profile associated with the underlying debt instrument, including its final maturity. The basis for the determination of the credit spread is given by:

- Spreads as observed in the secondary market (or, if available recent primary market levels) of directly comparable transactions;
- And/or comparable credit default swap (CDS) levels;
- And/or relevant indices provided by agencies such as S&P, Bloomberg, etc.

In addition, the credit spread shall also include EH SA credit spread.

D.3.3. Leasing arrangements

Refer to section D.1.5 for information regarding leasing arrangements.

D.3.4. Deferred Tax Liabilities

On 31 December 2018, DTL equalled 108.2M€ (MVBS value). DTL are mainly due to temporary differences on TP, provisions for pension obligations and revaluation of available for sales investments.

D.3.5. Economic benefits

Economic benefits could be generated for example by a growth in gross domestic product with economy which could have an impact on the exposure. However, this is taken into account when defining the assumptions to assess the outflows generated by the insurance business.

D.3.6. Employee benefits

In accordance with the regulatory environment and collective agreements, the Group has established defined-contribution and defined benefit pension plans (company or multi-employer) in favour of employees.

Defined-contribution plans are funded through independent pension funds or similar organizations. Contributions fixed in advance (e.g. Based on salary) are paid to these institutions and the beneficiary's right to benefits exists against the pension fund. The employer has no obligation beyond payment of the contributions.

During the year ended December 31st 2018, EH SA and its subsidiaries (Euler Hermes Services, EH Credit, EH recouvrement and all the service entities) recognized expenses for defined-contribution plans of 8M€ (2017: 6.8M€). Additionally, EH SA and its subsidiaries paid contributions for state pension schemes of 26.1M€ in 2018 (2017: 25.8M€).

There also exist multiple Defined Benefit Plans within EH SA which are proper to different EH SA branches.

The following tables (IFRS) show respectively the breakdown of the employee benefits by the nature of the liability and the breakdown of the employee benefits by nature of the assets.

Figure 27: Employee benefits breakdown by nature of liability and asset as of 31.12.2018 (IFRS figures)

In K€	Total
Actuarial obligation - Total - Opening	-866,560
Current period service cost	-13,037
Interest on obligation	-17,417
Employee contributions	-2,800
Plan amendment	6
Acquisitions/disposals of subsidiaries	13
Plan curtailments	0
Plan settlements	0
Actuarial gains (losses) due to a change in assumptions	6,915
Actuarial gains (losses) due to a change in experience	458
Benefits paid	24,226
Currency translation difference	10,194
Other	-508
Removal of the discretionary clause	0
Actuarial obligation - Total - Closing	-858,511
Fair value of plan assets - Total - Opening	650,496
Interest income on plan assets	13,557
Actuarial gains (losses) due to a change in experience	15,961
Employee contributions	2,471
Employer contributions	13,239
Acquisitions/disposals of subsidiaries	0
Plan curtailments	0
Plan settlements	0
Benefits paid	-18,942
Currency translation difference	-9,264
Other	257
Fair value of plan assets - Total - Closing	667,777
Net commitments <0	-192,720
Net commitments >0	1,986

Multiple assumptions are used for the calculation of employee benefits:

- Discounting rates;
- Inflation rates;
- Expected rate of salary increase;
- Plan retirement age; as well as
- Others actuarial and financial assumptions that is relevant. Estimation of the future benefit payments of the employee of the German entities (IFRS figures)

D.3.7. Contingent liabilities

EH SA does not recognize any contingent liability.

D.4. Any other information

There is no other information to disclose with regards to valuation for solvency purposes.

E. Capital Management

E.1. Own funds

E.1.1. Information on the own funds

E.1.1.1. Management of the own funds

Capital poses the central resource for EH SA to support its multiple activities. It ties to the EH SA's Risk Strategy, which defines the relevant Risk Appetite with regard to the risk bearing capacity including EH SA's capital and solvency targets as well as risk limits, thus implementing EH SA's business strategy. Capital management describes the set of activities undertaken by EH SA to ensure its adequate capitalization. The following principles are applied:

- Capital management protects the Group's capital base and supports effective capital management on Group level in line with the Group risk policy. It allocates capital to the underlying risk drivers under the budget limited by the Risk Strategy and with the target of optimising the expected return under this constraint. Risk considerations and capital needs are integrated into management and decision-making processes. This is done by attribution of risk and allocation of capital to the various segments, LoBs and investments;
- EH SA facilitates the fungibility of capital from a group-wide perspective by pooling/upstreaming available excess capital to EH Group while at the same time ensuring a sufficient level of capital is held at EH SA level. This includes a consideration of a buffer above the Minimum Capital Ratio to take into account potential market volatility;
- EH SA ensures to comply with regulatory minimum capital requirements;
- Capital is centrally managed in accordance with Group-wide rules and allocated to the benefit of the Group and its shareholders;
- EH SA capitalization is managed using adequate buffers above minimum regulatory. Excess capital not required for business purposes over the (three year) plan horizon should be up-streamed by EH SA;
- EH SA management is committed to have shareholders participate in the economic development of the Group through dividend payments;
- The capital allocation for steering the business is based on the IM also taking into account other constraints (such as rating and liquidity);

Please refer to section B.3.1.2 for further details on the capital management strategy.

E.1.1.2. Description of the own funds

Figure 28: Evolution of own funds (MVBS)

<i>in M€</i>	Q4 2018	Q4 2017	Variation
Total assets	3,737.8	3,888.5	-150.6
Total liabilities	2,517.8	2,671.0	-153.2
Excess of assets over liabilities before Look Through	1,220.0	1,217.5	2.6
Look Through (OPCI)	95.3	89.7	5.6
Excess of assets over liabilities after Look Through	1,315.3	1,307.2	8.2
- Minority OPCI	-95.3	-89.7	-5.6
- Dividends	-160.0	-80.0	-80.0
- Own Shares	-31.6	-31.8	0.2
SII Own funds	1,028.5	1,105.7	-77.2

The table here above shows that the SII Own Funds decreased by 77.2M€. This significant decrease is mainly explained by a 80M€ additional dividends, compared to 2017, expected to be paid to shareholders. Variations of Q4 2018 SII Own Funds compared to Q4 2017 is also explained by a positive impact of the Market Value for certain investments offsetted by a negative impact from retained earnings due to the offset of profits by dividends expected to be paid to shareholders.

EH SA own funds are exclusively composed of basic own funds. The own funds are composed of Tier 1 unrestricted for more than 97% and of Tier 3 for the rest. EH SA does not have any ancillary own funds. The available own funds were used for all calculations in this report. The table below summarizes EH SA own funds composition:

Figure 29: Composition of own funds as of 31.12.2018 (MVBS)

In M€	Total	Tier 1 - unrestricted	Tier 3
Ordinary share capital (gross of own shares)	229.4	229.4	0.0
Share premium account related to ordinary share capital	179.8	179.8	0.0
Reconciliation reserve	591.3	591.3	0.0
An amount equal to the value of net DTA	28.0	0.0	28.0
Total basic own funds after deductions	1,028.4	1,000.5	28.0

E.1.1.3. SCR and MCR covers

The table below summarizes available and eligible amounts of own funds to cover both SCR and MCR.

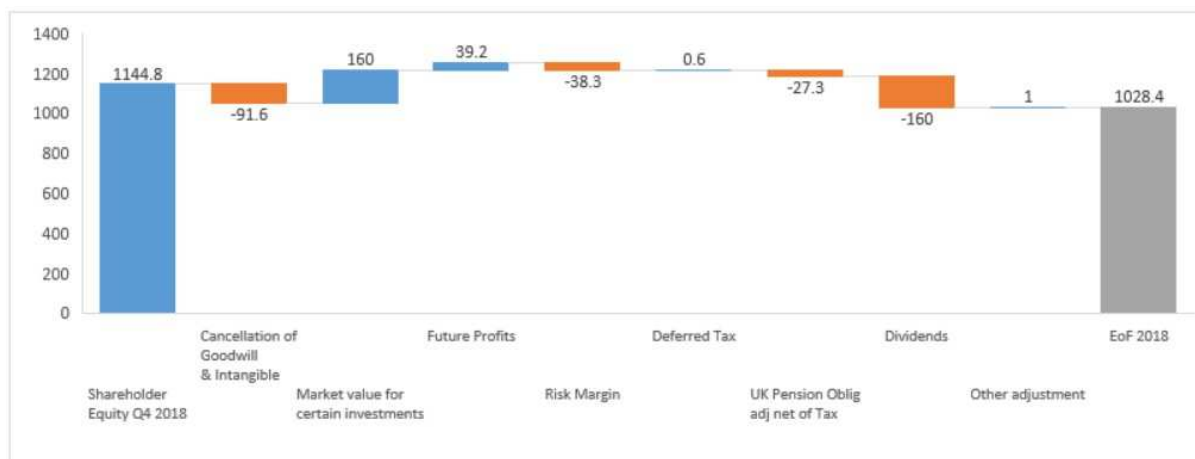
Figure 30: Available and eligible own funds to meet SCR and MCR as of 31.12.2018 (MVBS)

In M€	Total	Tier 1 - unrestricted	Tier 3
Total available own funds to meet the SCR	1,028.4	1,000.5	28.0
Total available own funds to meet the MCR	1,000.5	1,000.5	0.0
Total eligible own funds to meet the SCR	1,028.4	1,000.5	28.0
Total eligible own funds to meet the MCR	1,000.5	1,000.5	0.0

E.1.1.4. Differences between valuation in financial statements and for solvency purposes

Evaluated from IFRS balance sheet, MVBS aims at showing an economic valuation of all assets and liabilities. Nevertheless, there are some differences between the two valuation methods, which are monitored. The figures hereunder intend to show the main differences.

Figure 31: Bridge EoAL IFRS-BoF as of 31.12.2018 (in M€)



Considering assumptions as of the end of year 2018, the eligible SII own funds value are 1,028.4M€ compared to 1,144.8M€ in IFRS.

E.1.1.5. Description of items deducted from own funds

EH SA does not have any ring-fenced or matching adjustment portfolio.

EH SA does not have any item deducted from own funds.

E.1.2. Additional ratios

EH SA does not disclose any other additional ratios.

E.1.3. Loss absorbency mechanism

EH SA does not have any own funds item related to Article 71 (1)(e) of the Delegated Regulation.

E.1.4. Reconciliation reserve

The following table summarizes the calculation of reconciliation reserve.

Figure 32: Breakdown of the reconciliation reserve as of 31.12.2018 (MVBS)

In M€	Total
Excess of assets over liabilities	1,220.0
Own shares (held directly and indirectly)	31.6
Foreseeable dividends, distributions and charges	160.0
Other basic own fund items	437.2
Reconciliation reserve	591.3

E.2. Solvency Capital Requirement and Minimum Capital Requirement

E.2.1. Evolution of SCR and MCR ratios

The table below shows the evolution of the RC components between 2017 and 2018.

Figure 33: Breakdown of the SCR

In M€	Q4 2018	Q4 2017	Δ	%
Market	339	322	17	5%
Credit	264	334	-70	-21%
P/C Underwriting risks	148	148	0	0%
L/H Underwriting risks	28	25	3	11%
Business Risk	11	13	-2	-14%
Operational Risk	56	53	3	6%
Total Standalone RC	846	895	-49	-5%
Diversification effect	381	366	14	4%
Total Diversified RC	465	528	-63	-12%
Capital Add-on	92	136	-44	-32%
Tax impact	-67	-73	6	-8%
SCR	490	591	-101	-17%

In 2018, the only model changes which had a quantitative impact on SCR was immaterial. It consisted in a correlation review with both an elimination of cross effects adjustments and a review and changes in correlation settings due to additional Lapse risk factors. Other qualitative model changes happened during the period, such as changes in the Allianz Standard for Model Change.

As part of the 2015 regulatory approval process, a temporary capital add-on was defined by EH on its Trade Credit Insurance & Surety (TCI&S) model component. The add-on applies across all IM entities to cover the above findings from the NBB remediation plan until its completion.

The main component of the capital add-on is on the TCI&S risk model. This add-on covers the observations made by the regulators.

Moreover, as the UK pension funds were not taken into account by the IM, EH SA decided to calculate a RC and to consider it as an add-on.

In 2018, EH SA's MCR amounted to 151.2M€. It has decreased by 3.1% compared to 2017 where the MCR amounted to 156M€.

As regards to the MCR ratio, it has decreased over the reporting period reaching 680% as of 31.12.2018 compared to 709% as of 31.12.2017. The decrease in MCR in Q4 2018 compared to Q4 2017 is offsetted by a decrease in SII own funds which is more significant.

E.2.2. Standard formula and Undertaking Specific Parameters

As EH SA is using an IM and do not disclose any regulatory points related to the standard formula, including Undertaking Specific Parameters.

E.2.3. Inputs to calculate the MCR

The Minimum Capital Ratio for EH SA based on IM is shown in the table below for Q4 2018. The MCR equals the linear MCR for the IM. The calculation approach is explained below the table.

Figure 34: MCR calculation (In M€)

IM	MCR	AMCR	SCR	MCR linear	45% SCR	25% SCR	MCR combined
IM	151.1	3.7	490.2	151.1	220.6	122.6	151.1

The formula used to calculate the MCR is as follows :

$$MCR_{(linear, nl)} = \sum_s \alpha_s \cdot TP_{(nl, s)} + \beta_s \cdot P_s$$

Where :

- $TP_{(nl, s)}$ = TP without a Risk Margin for Non-Life insurance and reinsurance obligations in the segment s after deduction of the amounts recoverable from reinsurance contracts and SPVs, with a floor equal to zero
- P_s = Premiums written for insurance and reinsurance obligations in the segment s during the last 12 months, after deduction of premiums for reinsurance contracts, with a floor equal to zero
- The parameters α and β are defined in the table below:

Figure 35: Main inputs for MCR calculation

	Segment (SII LoB)	Factor for TP	Factor for premiums written
9	Credit and suretyship insurance and proportional reinsurance	17.7%	11.3%
12	Miscellaneous financial loss insurance and proportional reinsurance	18.6%	12.2%

E.2.4. Material changes to SCR and MCR

There were no material changes to EH SA's SCR and MCR in 2018 except those described in the previous section.

E.3. Use of the duration-based Equity Risk sub-module in the calculation of the Solvency Capital Requirement

EH SA does not use the duration-based Equity Risk sub-module in the calculation of its SCR as it is not applicable to its business.

E.4. Differences between the standard formula and any Internal Model used

E.4.1. Description of the Internal Model

E.4.1.1. Purposes for using an Internal Model

EH SA has implemented an IM for the computation of the SCR attached to the credit and surety portfolio.

The standard formula has a number of limitations for the representation of the Credit and Surety risk, starting from its classification as premium risk. These limitations are overcome by using an IM, and especially a Credit Risk type model for the TCI&S LoB. Such a model is also better aligned to the way the risk profile is steered.

The following elements are considered as limitations in the standard formula applied to credit and surety risk:

- Classification of TCI&S risk as premium risk while the underlying risk drivers are credit related;
- Separate consideration of Cat Risk while it is an inherent part of the underlying credit insurance risk;
- Partial applications of non-proportional treaties such as Stop Loss;
- Underestimation of non-linear risk mitigation features present in the policies;
- Backward looking view on risk mitigation measures implemented in policies.

E.4.1.2. Structure of the Internal Model

A Credit Risk model is essentially a two steps approach:

- Simulation of the exposure which are defaulting leading to define the Exposure at Default (EAD);
- Application of the mitigation factors either present in policies, in the reinsurance treaties or other mitigation clauses leading to define the ultimate loss borne by the insurance company.

This modelling framework allows capturing of all the necessary feature of EH SA risk profile by:

- Providing one loss distribution covering all loss scenarios and events;
- Reflecting directly in the loss distribution risk mitigation features (either present in policy or a reinsurance treaty);
- Reflecting directly in the loss distribution risk mitigation features attached to the policies;
- Reflecting portfolio evolution through the use of the most recent exposure;
- Reflecting management actions by taking into account risk underwriting stance and risk actions plan in the calibration of the model parameters.

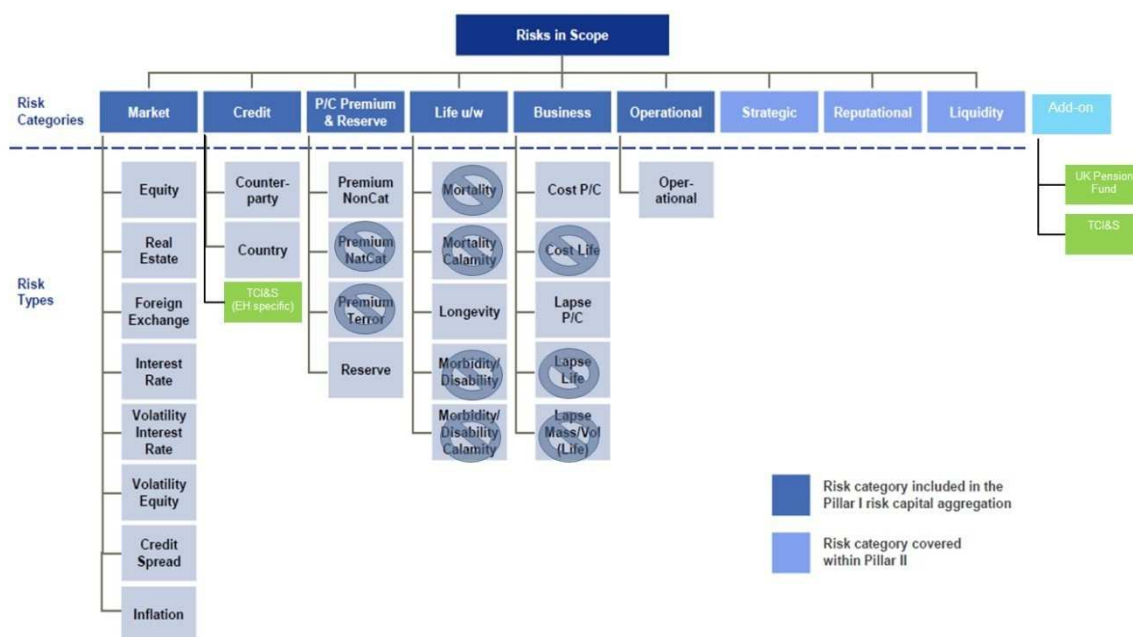
E.4.1.3. Scope of the Internal Model

The EH SA Internal RC model covers:

- All of its major reinsurance operations through its TCI&S, underwriting (P&C Premium and Reserve & Business) and operational risk models;
- Its investment portfolio through its market risk and credit risk models;
- Its German Pension Funds through its longevity risk model.

The chart below depicts the scope and structure of the IM:

Figure 36: IM scope as of 31.12.2018



N.B. : The excluded risks are not applicable to EH SA’s risk profile

E.4.2. Methodologies

E.4.2.1. Process within the Internal Model

EH SA uses a full IM to calculate its RC. The main methodologies and assumptions used in its IM are detailed in the following sections.

E.4.2.1.1. Market Risk

a. Definition of the measurement of the risk

Value at Risk (VaR) quantifies the change in economic value as the minimum amount of capital required to ensure economic solvency for shock scenarios calibrated to a one year period with a given probability level. A probability level of 99.5% is retained for the RC.

The modelling approach within Market Risk has the four following generic components:

- The definition of risk factors and their impacts;
- The distributional assumptions;
- The calibration of the risk factors;
- Valuation of positions.

b. Change of economic capital

The approximation is the assumption that the underlying portfolio remains unchanged while being valued, so that risk factors are applied to the current portfolio positions, instantaneously at the as-of-date.

c. Distributional assumptions

All risk factors reflecting Market Risk have either a lognormal or a normal distribution.

d. Calibration of risk factor distribution and to Measurement period

EH SA calibrates the distribution of risk factors on historical observation of weekly time series. This means the distribution of risk factors needs to be scaled to reflect the longer horizon.

e. Scenario based aggregation and its advantages

By means of Monte Carlo simulations, i.e. generation of independent samples of scenarios, EH SA generates a set of random scenarios, sufficiently large to estimate statistical quantities.

E.4.2.1.2. Reserve Risk

a. Reserving Uncertainty

Loss reserving is the process of forecasting unpaid liabilities. In order to measure the uncertainty embedded with forecasting, it is needed to obtain a predictive distribution of the unpaid liabilities and the associated cash flows. For most stochastic reserving models discussed in the actuarial literature, it is not easy or rather impossible to obtain a predictive distribution analytically. Therefore, a simulation approach i.e. bootstrapping is adopted.

b. Cash flow estimation for Reserve Risk

Where a paid bootstrap has been used to estimate reserve uncertainty in a LoB, the projected cash flow for that LoB is already available as defined by the bootstrap.

Where either an incurred bootstrap or a lognormal simulation of the reserve has been used a cash flow estimate is required in order to obtain an estimation of the paid claims over the first future time period.

c. Dependencies

A rank normal correlation is applied within the ultimate gross loss distributions of the reserving LoBs.

d. The emergence pattern methodology

The evaluation of risk as it materialises over the first calendar year of development is based on a methodology using emergence patterns. These are patterns which describe the loss recognition over time for both premium and Reserve Risk.

e. Risk Capital

Even though the SCR is defined using the VaR at the confidence level of 99.5%, EH SA uses the term Ultimate Reserve RC for the difference between the VaR at the 99.93 percentile of the ultimate loss distribution at the horizon date and the mean of the ultimate loss distribution at the as-of-date. For a profit distribution this is the difference between the 0.07 percentile and the mean.

The RM is calculated according to the method prescribed by the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) for SII.

f. Loss reserve RM calculation

The RM by LoB is calculated for the loss reserves. First, the net risk profile by LoB is mapped to the SII LoBs. Next, the RC is calculated and then used to generate the RM.

g. Premium reserve RM calculation

The methodology for calculating the RM for the premium reserve is identical to that used for the loss reserves for all calendar years except the first. Using the net risk profile from the emergence pattern model section, the capital required for the Premium Risk is calculated.

E.4.2.1.3. Credit Risk

EH decided to manage Credit Risk calculation with the combined use of two different models:

- Moody's "KMV" tool Risk Frontier which is a Moody's solution for reinsurance and investments modelling;
- EH TCI&S model which is a specific model developed by EH in order to capture the specificities of its credit and surety insurance business (buyer focused risk assessment and default definition, policy features and reinsurance structure)

Credit RC is calculated at first separately for each sub-type of Credit Risk (investment, reinsurance and insurance risks) prior to be consolidated across Credit Risks.

E.4.2.1.3.1. Credit Risk for reinsurance and investment modelling

Credit Risk is measured as a change in market value of the portfolio over a certain time horizon, due to defaults and credit quality migrations.

RC calculation is done through IM based on a Value-at-Risk ("VaR") approach. Following this approach, the loss in the portfolio value of businesses is assessed within a one year timeframe for a large number of shock scenarios with a probability of occurrence up to 99.5% for RC calculation. This loss distribution provides Credit Value at Risk (CVaR) and expected losses.

The required internal RC is defined as the difference between the portfolio value under best estimate conditions and the portfolio value under the adverse conditions associated with the desired confidence level. The loss distribution is then derived.

For investment portfolio, EAD and Loss Given Default (LGD) are estimated following a linear model derived from a statistical analysis of historic data by asset classes.

E.4.2.1.3.2. Credit Risk for trade credit insurance & surety

The EAD is defined as the exposure of the buyer at the time of the default or for EH SA the claims declared before application of any loss mitigation techniques.

EH is using a Merton-type approach as a basis to build its default process with a Gaussian copula framework.

The LGD is obtained by applying to the EAD all possible loss reduction features. Then the simulation is based on Monte Carlo numerical method based on correlated Gaussian path.

a. A model based on a static approach of the risk underwriting policy

EH SA chose to integrate management actions that are foreseen for the next year.

EH SA has opted for the use of a simulation approach to determine its loss distribution. It is the natural approach in presence of non-homogeneous portfolios in high dimension.

For SII purposes, the RC is then measured from the simulated loss distribution using the CVaR.

This choice also has the advantage of allowing the simulation of “extreme scenarios”, in particular the increase in frequency of claims (multiple loss events) and the occurrence of large losses (single loss events). Those events are covered by the man-made risk component of the standard formula.

b. A model distinguishing the systemic risk and the idiosyncratic risk

In the case of Trade Credit Insurance, a particular limit/exposure default is triggered if an invoice sent by the policyholder is not paid by the buyer. In general, such a default event is reported as an insured claim.

The central element of the model is to determine in a particular scenario:

- Whether or not a claim is to be expected on a counterpart;
- Whether or not the triggered claim will lead to an indemnification by EH SA;
- Whether or not EH SA can recover part of the indemnified amount later on.

The capacity of the buyers/counterparties to fulfil their commitments (e.g. to pay the received invoices) can depend either on its own actions but also on the economic environment. As a consequence, EH SA judged that the commonly used credit factor modelling that distinguishes an idiosyncratic risk and a systemic risk is considered as the most adequate for the simulation of losses in the Trade Credit Insurance and Surety portfolio.

c. A point-in-time framework

The calibration of the parameter reflects the situation of the coming 12 months period.

E.4.2.1.4. Aggregation and diversification

The aggregation method for the EH SA IM is based on an integrated Monte-Carlo simulation for Market Risk taking marginal risk distributions for non-Market Risk into account by modelling dependencies via a Gaussian Copula approach and taken into account diversification effects across sources of risk.

E.4.2.2. Difference between standard model and Internal Model

E.4.2.2.1. Market Risk

The scopes of IM & SM computations are identical for the Market Risk. It covers the EH SA investment portfolio. There are however some differences in risk as some risks covered in the Market Risk of the SM are covered in the Credit Risk of the IM.

Hereafter is an overview of the main differences between the Market Risk sub-modules of the SM and the IM:

- Credit Spread Risk:
 - For covered and other bond: lower shocks are applied in the IM compared to the SM;
 - Intra-risk diversification: the SM approach does not allow for any diversification when aggregating all the values of shocked instruments where the IM approach allows for a significant diversification between the asset classes.
- Foreign Exchange Risk :
 - Intra-risk diversification: the SM does not allow for diversification in the sub-module which is not the case in the IM;
 - Level of shocks: while a single level of shock of 25% is defined in the SM approach, a specific level of shock is used in the IM;
- Interest Rates Risk :
 - In the SM, up and down stresses % changing the yield curve varies by term to maturity. A minimum is defined for interest rates up stress;
 - In the IM, changes in the yield curve such as twists are considered, shifts for long-term are set. In addition, volatility stress is applied to yield curves;
 - In the IM, there is diversification of Interest Rates Risk.
- Equity Risk:
 - The average shock level for equity type 1 and equity type 2 are slightly higher in IM than SM.
- Property Risk:
 - The average shock level for property risk is lower in IM than in SM.

Other differences come from difference in granularity/calibration between the two models.

Note also that EEA sovereign bonds, AAA and AA rated non-EEA sovereign bonds, supranational, and mortgage loans on residential property are not exempt from Spread Risk in the IM.

E.4.2.2.2. Credit Risk

The IM Credit Risk covers some components of the SM Market Risk and of the non-life Underwriting Risk. The SM counterparty default risk components are all covered by the IM Credit Risk.

The IM Credit Risk covers risks which are not covered in the SM (counterparty risk on European State bonds and counterparty risk on the SCR equivalent losses ceded to reinsurers).

As a consequence, these differences added to the differences in classification/granularity and calibration between the models and the differences in modelling (discrete approach for SM vs stochastic approach for IM) explain the differences in Credit Risk.

E.4.2.2.3. Life Risks

The life risk bears only on the German defined benefit pension fund. For the SM, EH SA has taken the decision not to model this risk in application of the EIOPA rules.

E.4.2.2.4. Non-Life Risks

Both models capture the same types of risks EH SA is facing but following different classification and methods. Both models cover:

- The Premium, Reserve and Business Risks due to non-renewal of policies;
- The ordinary claims level and the extraordinary claims level (recession, single loss events).

The classification is different between the two models. All risks (Premium, Reserve and Business) are under Non-Life Risk for the SM while the equivalent of the Premium Risk of the TCI&S business is classified under Credit Risk for the IM and the Lapse Risk is under Business Risk. This has a double impact: representation and diversification.

On components classified both under the Non-Life Risks, the main difference lies in:

- the methodology (discrete approach for the SM vs stochastic approach for the IM);
- the calibration (across the industry for the SM vs own calibration for the IM);
- the introduction of a diversification between “sub” LoBs (i.e. different products classified under credit and surety for EIOPA) of EH SA and a diversification between countries;
- the diversification approach (diversification limited to non-life risk in the SM while extended to all risks in the IM).

The relative weights of these various components contribute all significantly to the difference between IM and SM.

On the TCI&S portfolio, EH SA has developed its own model which has been classified as Credit Risk. This IM presents the following significant differences with the SM:

- Computation at the level of the risk: buyer level (i.e. client of the policyholder);
- Random scenario generation to simulate the loss distribution allowing for covering different extreme scenario which are embedded in the Premium Risk and not captured in parallel.

The results of the IM and its comparison to the SM shows that the difference is due to two main reasons: first the non-justified calibration of the recession risk by EIOPA and second, to the fact that the calibration of the Premium Risk by EIOPA is not in line with EH own experience (EIOPA is roughly 50% higher than EH own calibration using EIOPA method) while the contribution of the large/single losses to the SCR are equivalent.

E.4.2.2.5. Business Risks

Both models try to capture the deterioration of future earnings following a shock in terms of commercial activity. In the IM, the business risk has two components:

- One not comparable with the SM (the new production risk – SCR equal to the fixed cost attached to the new production);
- One which is partially comparable with the SM (Retention Risk – loss of operating profit to due to a less performant than anticipated renewal campaign).

The SM covers only this second risk.

However, on the component with similar philosophy, the calibration is not comparable and therefore the results are not directly comparable:

- IM – loss of operating profit on 100% of the portfolio;
- Standard Model – loss of operating profit on the profitable portfolio.

E.4.2.2.6. Operational Risk

The SM and IM approaches are significantly different. The IM is based on own expert scenarios of Operational Risk while the SM is based across the industry calibration. As a consequence, EH SA will not comment on the difference between the two models.

E.4.2.2.7. Diversification

The diversification mechanisms are significantly different due to:

- Different risk taxonomies (classification of risks) and underlying risk factors;
- Calibration factors which are different (in particular for the Operational Risk which is diversified in the IM and not in the SM);
- Different computation approaches (discrete for SM vs stochastic for IM).

Given the major differences highlighted above, it is difficult to compare diversification drivers and benefits between the SM and IM.

E.4.2.2.8. Tax relief

The tax relief methodology is identical between SM and IM computation. Both methodologies calculate per branch the minimum of:

- The tax rate multiplied by the RC (if necessary splitting the RC per tax rate category); and
- The DTL in the MVBS.

E.4.3. Data quality

EH SA has implemented a data quality Key Performance Indicator (KPI) system across the whole company in accordance with the SII expectations. This system is designed to identify the issues that might occur on the data and the IT systems involved in the calculation of the RC requirements.

The KPIs are consolidated and reported to the different committees through the data quality dashboards.

These KPIs are reported separately: KPIs per risk type on one side and IT KPIs on the other side.

The quality of the data used at EH SA to calculate the RC is under control: only 2% of the KPIs are identified as “KO”.

E.4.4. Risks not covered by standard formula but covered by Internal Model

Please refer to section E.4.2.2 of this report for differences in the risks and methodologies used between the SM and the IM. In particular, differences in business risk are described in section E.4.2.2.5.

E.5. Non-compliance with the Minimum Capital Requirement and/or with the Solvency Capital Requirement

E.5.1. Non-compliance with the Minimum Capital Requirement

EH SA is compliant with the Minimum Capital Requirement.

E.5.2. Non-compliance with the Solvency Capital Requirement

EH SA is compliant with the SCR.

E.6. Any other information

EH SA does not have any additional disclosures regarding its capital management.

Appendix 1: Key terms and abbreviations

Terms / Abbreviations	Description
ALM	Asset Liability Management
APAC	Asia and Pacific
BE	Best Estimate
BEL	Best Estimate Liabilities
BeGAAP	Belgian Generally Accepted Accounting Principles
BoD	Board of Directors
BoF	Basic Own Funds
BU	Business Unit
CAT	Catastrophe
CDA	Counterparty Default Adjustment
CEIOPS	Committee of European Insurance and Occupational Pensions Supervisors
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIFS	Critical or Important Functions or Services
COBIT	Control Objectives for Information and Related Technologies
COSO	Committee of Sponsoring Organizations
CR	Combined Ratio
CRO	Chief Risk Officer
CVaR	Credit Value at Risk
DAC	Deferred acquisition costs
DACH	Germany, Austria and Switzerland
DE	Germany
DTA	Deferred Tax Assets
DTL	Deferred Tax Liabilities
EAD	Exposure at Default
EEA	European Economic Area
EH	Euler Hermes
EH Re	Euler Hermes Reinsurance
EH Re AG	Euler Hermes Reinsurance AG
EIOPA	European Insurance and Occupational Pensions Authority
EoAL	Excess of Assets over Liabilities
EU	European Union
EUR	Euro
FiCo	Finance Committee
FP	Future Premiums
FX	Exchange rate
G/L	Gains/Losses
HKD	Hong Kong Dollar
HR	Human Resource

IAS	International Accounting Standards
IFRS	International Financial Reporting Standards
IM	Internal Model
IRCS	Integrated Risk & Control System
IT	Information Technology
KPI	Key Performance Indicator
LGD	Loss Given Default
LoB	Line of Business
LRC	Loss Reserve Committee
LTI	Long-Term Incentives
MAAC	Model and Assumptions Approval Committee
MC	Management Committee
MCR	Minimum Capital Requirement
MMEA	Mediterranean countries, Middle East and Africa
MVBS	Market Value Balance Sheet
NBB	National Bank of Belgium
OPCI	Organisme de Placement Collective en Immobilier
OREC	Operational Risk Event Capture
ORSA	Own Risk and Solvency Assessment
P&C	Property & Casualty
PAAC	Parameters & Assumptions Approval Committee
QRT	Quantitative Reporting Templates
RC	Risk Capital
RiCo	Risk Committee
RM	Risk Margin
RPF	Risk Policy Framework
SA	Société Anonyme
SAA	Strategic Asset Allocation
SCR	Solvency Capital Requirement
SFCR	Solvency and Financial Condition Report
SII	Solvency II
SM	Standard Model
SPV	Special Purpose Vehicle
TP	Technical Provisions
TRA	Top Risk Assessment
UK	United Kingdom
ULAE	Unallocated Loss Adjustment Expenses
UPR	Unearned Premium Reserve
USD	United States Dollar
VA	Volatility Adjustment
VaR	Value at Risk

Appendix 2: Publically disclosed QRTs

Publically disclosed Quantitative Reporting Templates can be found on the EH Group main website:
<http://www.eulerhermes.com/>

Appendix 3: Disclaimer

To the best of EH SA's knowledge, the information contained herein is accurate and reliable as of the date of publication. However EH SA does not assume any liability whatsoever for the accuracy and completeness of the information contained herein.