

EUROPEAN CAPTIVES ANALYTICAL REVIEW OF SOLVENCY II REPORTS

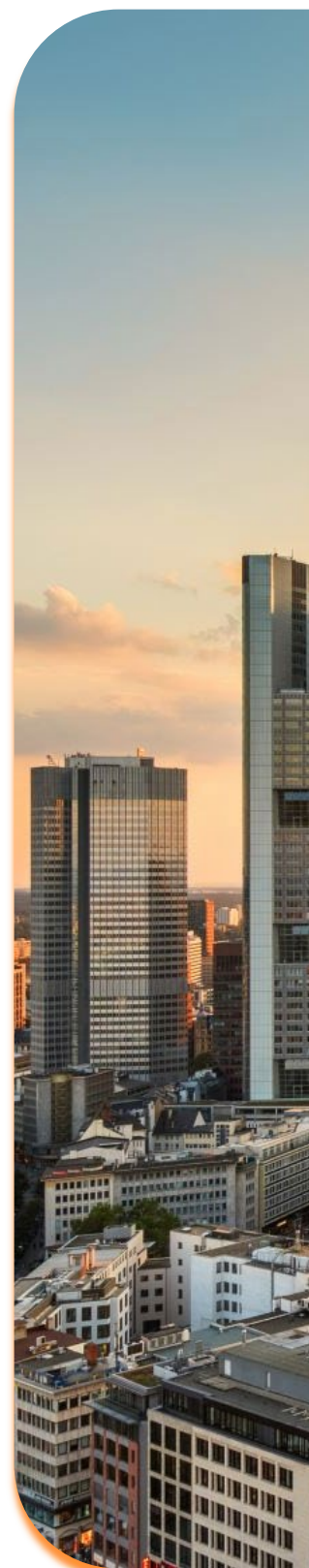
2023 Years End

October 2024

SCOR
The Art & Science of Risk

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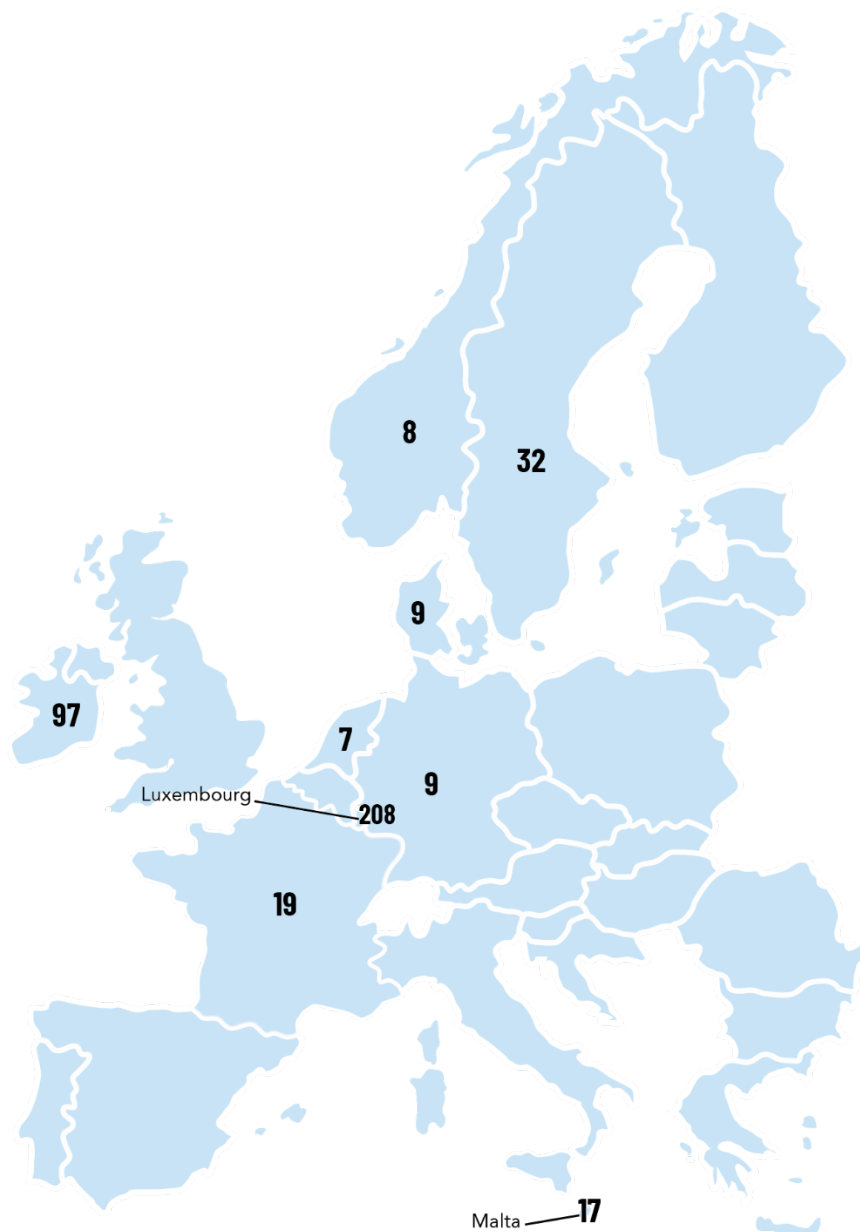


I. Introduction: Scope and purpose of the study

This study provides a quantitative overview of European captives owned by large industrial and commercial companies and is designed to serve as a benchmark and a reference for captive professionals.

Through extensive research SCOR has been able to identify over 400 licensed European insurance or reinsurance companies acting as captives:

Number of (re)insurance captives per country in the EEA



Number of (re)insurance captives belonging to an industrial or commercial company in the EEA, identified as at June 2024, including captives without exhaustive data found. Please note that the following study only focus on 197 captives for which sufficient data was found.

Of these, we have selected 197 captives that meet the two following conditions:

- They belong to an industrial or commercial company¹ that can be identified, they write P&C risk². Please note captives retaining Employers benefit and Life risks are excluded from the study.
- They have released a recent “Solvency and Financial Condition Report” (SFCR) including all the regulatory quantitative reports³.

The study provides a statistical analysis of this sample of 197 captives on the following topics: captive and parent company domicile, breakdown of premium, assets and reserves by line of business or category, solvency ratios and capitalization.

Overview of the “typical” European corporate captive

<i>Amounts in EUR millions</i>	25% quantile	<u>Median captive:</u> 50% quantile (median)	75% quantile
Gross Written Premium	3.3	10.8	34.7
Net Written Premium	3.0	8.0	20.4
Balance sheet	27.3	72.3	148.2
Technical provisions	3.1	11.9	41.5
Own funds	18.2	39.2	89.8
Solvency	168%	219%	294%

While we believe our selected sample is large enough to be representative of the European captive landscape, it is by no means exhaustive. The study also provides statistics at the industrial sector level.

Data presented hereafter is extracted from the collected SFCRs⁴. All amounts are “Solvency II” values.

¹ Captives of insurance groups have been excluded; captives of banking groups have been included when they manage only the bank’s operational risk exposure.

² Run-off captives excluded.

³ Comprehensive and consistent data as of 31/12/2023 or more recent, made available to our data provider

⁴ Data source: Solvency II Wire Data, <http://solvencyiiwiredata.com>

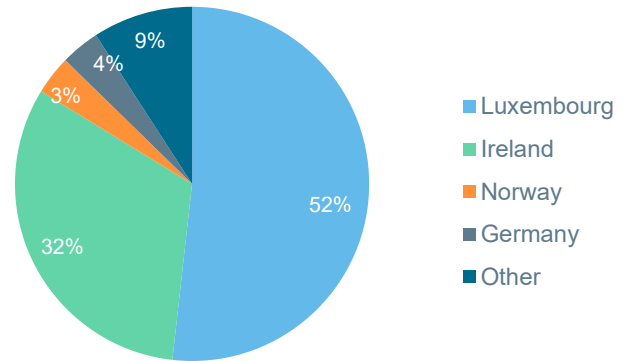
II. Statistical overview of European captives

A. Geographical overview

Most of the European captives are based in Luxembourg and Ireland

Luxembourg and Ireland are the domiciles for 84% of the captives in our sample. These two countries account for 75% of reported gross written premium and 78% of reported assets. The other captives considered in this study are registered in Denmark, Germany, Malta, the Netherlands, Norway and Sweden.

CAPTIVES PER DOMICILE COUNTRY

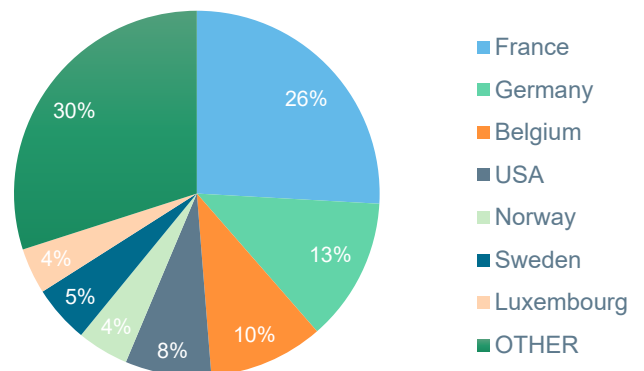


Country of the regulatory license. By number of captives

European captives mostly belong to groups based in France, Germany and Belgium

The headquarters of the captive owners are mostly based in western European countries, primarily France, Germany and Belgium.

CAPTIVES PER PARENT COMPANY'S COUNTRY



Headquarters of the ultimate parent company of the captive. By number of captives

Some statistical behaviors:

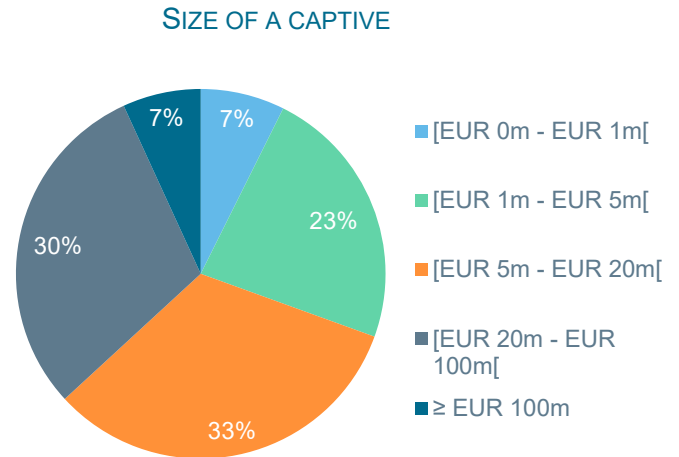
- Captives based in Denmark, Germany, Norway and Sweden mostly belong to domestic groups;
- Groups based in Luxembourg, Denmark, Ireland and Norway mostly domicile their captives in the same country;
- US-based groups locate their European captives in Ireland (100%);
- Groups based in Belgium (100%), Spain (80%) and France (73%) mostly base their captives in Luxembourg.

B. Premium

The median captive writes premium of around EUR 10.8 million

The gross annual P&C premium written by the captives in the sample amounts to a total of EUR 5,699 million. This is largely driven by a few major players:

- The largest captive writes over EUR 292 million, while the smallest ones write less than EUR 0.1 million;
- 10% of the captives account for half the total premium over the sample, which is as much as the bottom 90%;
- 50% of the captives write less than EUR 10.7 million GWP.

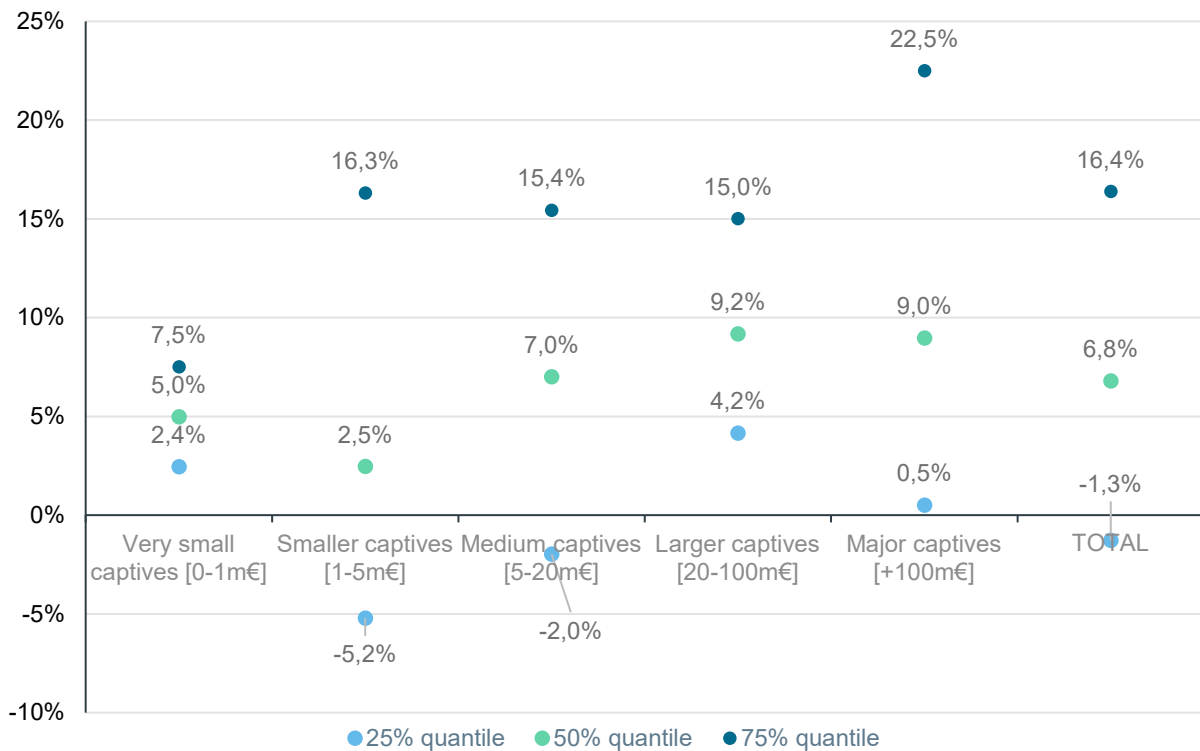


Annual gross written premium (Non-Life business QRT S.05.01.02, C0200, R0110 + R0120 + R0130, latest reported year), gross of retrocession

For the median captive, premium has grown by 6.8% since last year

Most of the captives report a material growth in their written premium.

PREMIUM GROWTH BETWEEN 2022 AND 2023

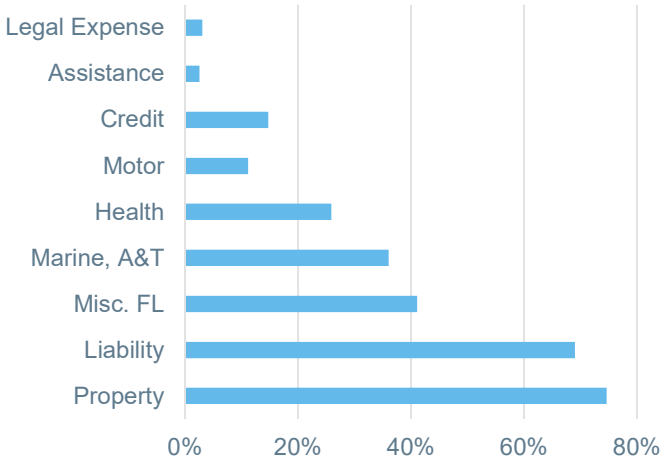


Change in gross written premium between latest reporting year and previous one, for captives where both data are available.
Sample size: 108 captives

Half of the business written by captives is Property

Captives report on their premium according to the lines of business defined by the Solvency II framework.

OCCURRENCE OF EACH LOB

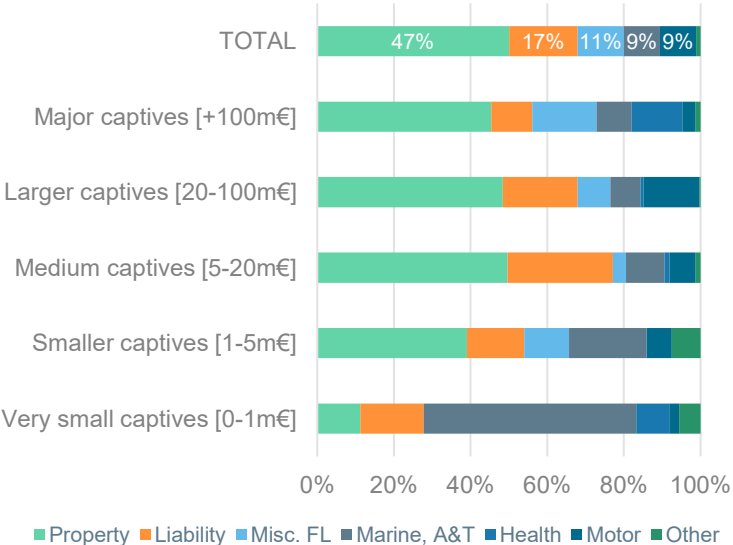


Frequency of a positive gross written premium for the LoB.

Property business is the most frequent, with 75% of the captives writing some, amounting to an average of 47% of the premium. Liability business is the second most frequent line, written by 69% of the captives, amounting to 17% of the premium on average. Many captives (57%) write both Property and Liability business. Very few captives write Legal expense or Assistance business.

For medium-sized captives, Property and Casualty make 77% of the premium. Marine is material for the major captives. Misc. financial loss is a large part of the smallest captives.

GW PREMIUM PER LOB



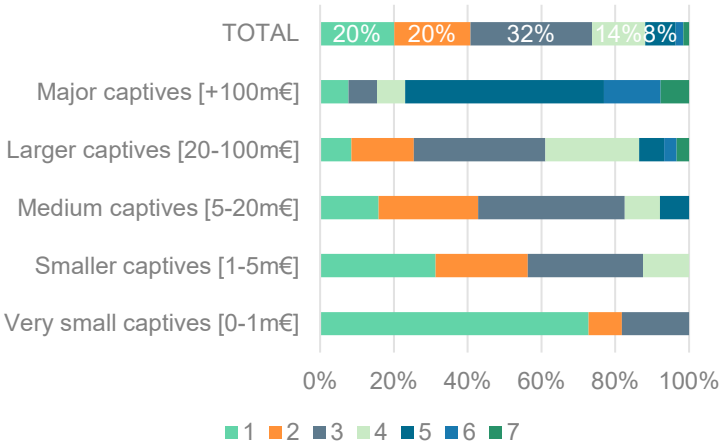
Average gross written premium per "Solvency II" line of business. "NP casualty" line included in "Liability". "Other" includes "Credit & Surety", "Legal Expense" and "Assistance".

The median captive manages two or three different lines of business

The larger captives tend to be present on a wider range of risks.

Twenty percent of the captives (20%) write only one line of business. These monoliner captives are mostly dedicated to writing Property (6%), Liability (5%) or MFL business (4%). Their average size is EUR 11.2 million in gross written premium, the largest being EUR 137 million, and their cumulated share is 8% of the overall sample premium.

NUMBER OF LOB



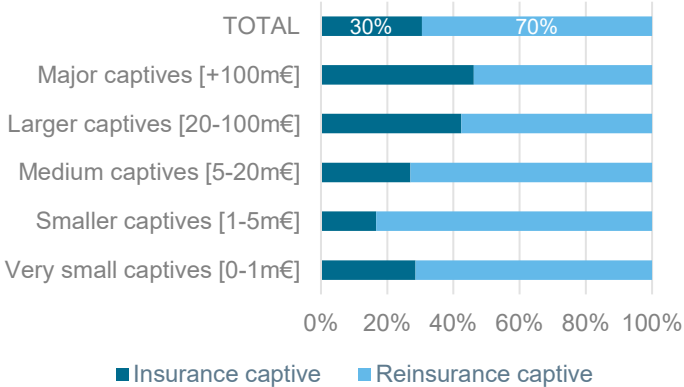
Number of different Lines of business written by a captive

Most of the business written by captives is reinsurance business (70%)

Gross written premium can be further differentiated between premium written directly and premium assumed via reinsurance.

A third of the captives in the sample write direct business, the proportion being lower for the smaller captives and larger for the bigger ones. This requires the captives to be granted an insurance license by their national authorities for each of the lines of business in which they operate. When they have an insurance license to operate in one branch, captives can provide reinsurance services and take on any business from other insurance companies, provided their articles of incorporation permit it. More than half (57%) of the insurance captives in the sample write such reinsurance business.

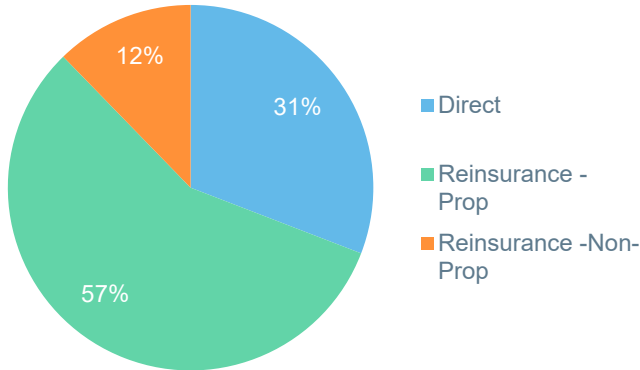
NATURE OF THE CAPTIVE



Number of captives reporting some "direct business" gross written premium

The other captives (69%) in the sample write only accepted business. To do so, they need only one general "reinsurance" license. There is no regulatory restriction as to the branches in which captives can provide reinsurance services. However, they need to have a partnership with a licensed insurance company (the "fronter"), from which they accept the business.

PREMIUM SPLIT PER TYPE OF CONTRACT



Total premium volume reported as direct business / reinsurance business

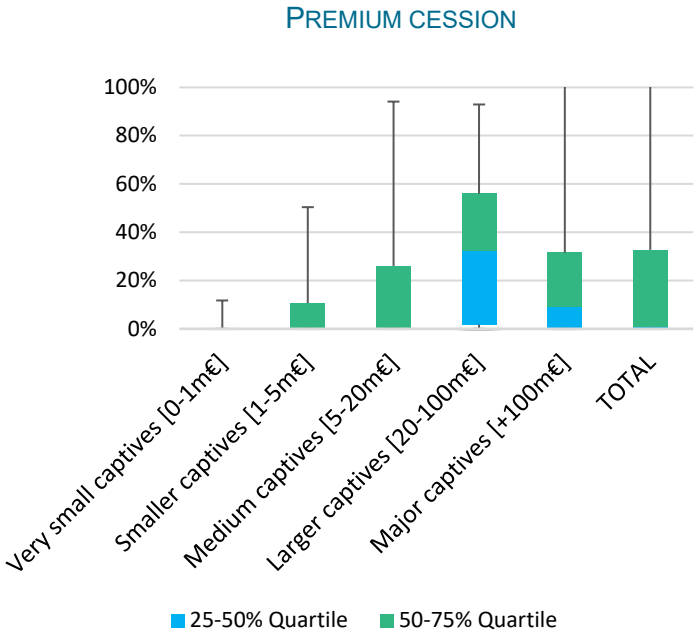
With regard to volumes, premium is mostly accepted through proportional reinsurance (e.g. quota share). Non-proportional reinsurance contracts (e.g. excess of loss) make up for 16% of the total.

The median captive retrocedes 1% of its premium, with a strong heterogeneity

Regarding the total premium, 28% of the total premium written by the captives is retroceded⁵. In the sample, this amounts to EUR 1,595 million.

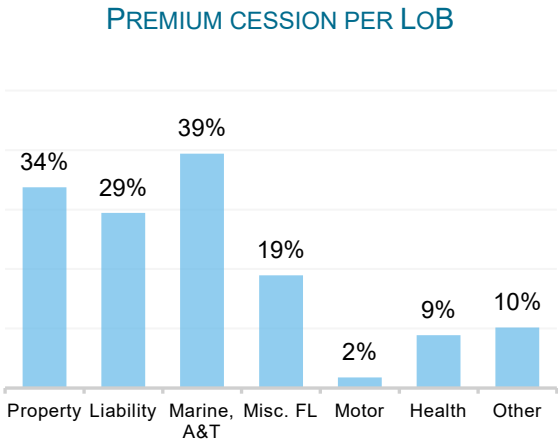
Behaviors are very different. Many captives retain all of their risk (49% of the captives don't retrocede any premium, and the median premium cession rate is 1%), while some retrocede most of it (10% of the captives retrocede more than 60% of their GWP).

As illustrated below, the bigger captives tend to retrocede a higher share of their premium.



Distribution of cession rate, based on gross written premium, latest reported year

The average cession rate is different for the different lines of business. Motor premium is almost fully retained, whereas half of Marine premium is ceded or retroceded.



Average cession rate, based on gross written premium, latest reported year

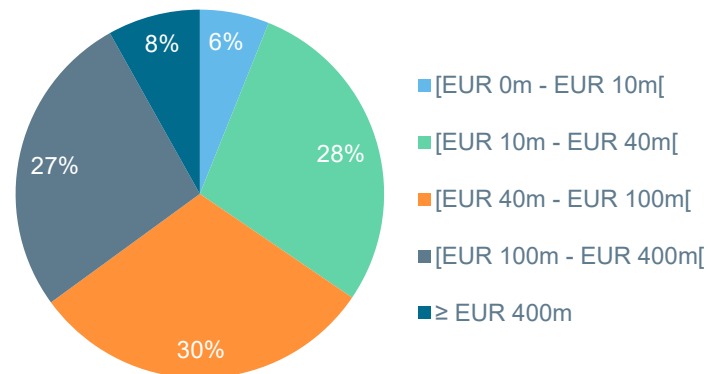
⁵ Based on the information reported by the companies in the quantitative report S.02.01.02

C. Assets

The median captive accounts for EUR 72 million

The total assets held by captives within our sample amount to EUR 27,496 million. The average balance sheet size is EUR 139 million, and the median EUR 72 million. Again, this is very heterogeneous, with certain captives exceeding EUR 1,480 million and others standing at less than EUR 3 million.

SIZE OF THE BALANCE SHEET



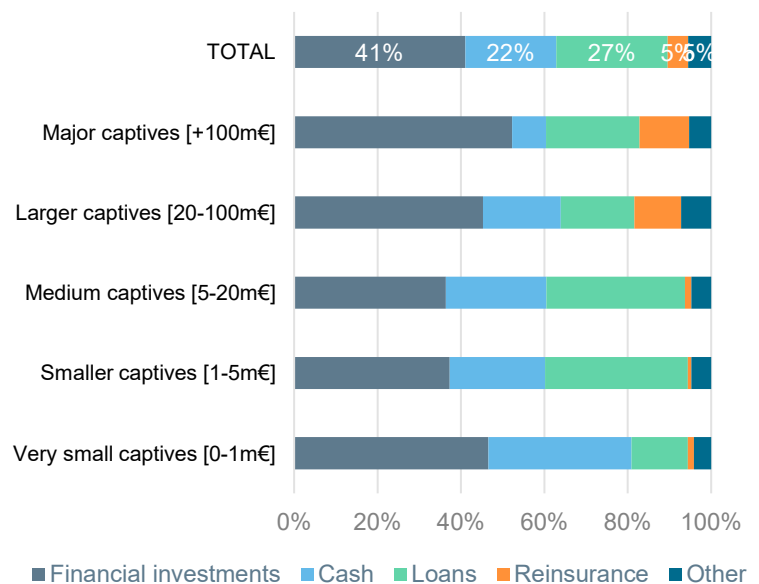
Total size of the Solvency II balance sheet, QRT S.02.01.02, C0010, R0500, latest reporting year

Half of the assets are made up of financial investments and cash

Almost all the captives (94%) report some cash or cash equivalent assets. Most (75%) also report some financial investments. Together, these two accounting items represent over half (63%) of the total assets on the balance sheet.

Half of the captives (53%) hold loans. Less than half of the captives (40%) hold reinsurance recoverables. Other assets are made up of deposits to cedants, insurance and reinsurance and other receivables.

ASSET ALLOCATION

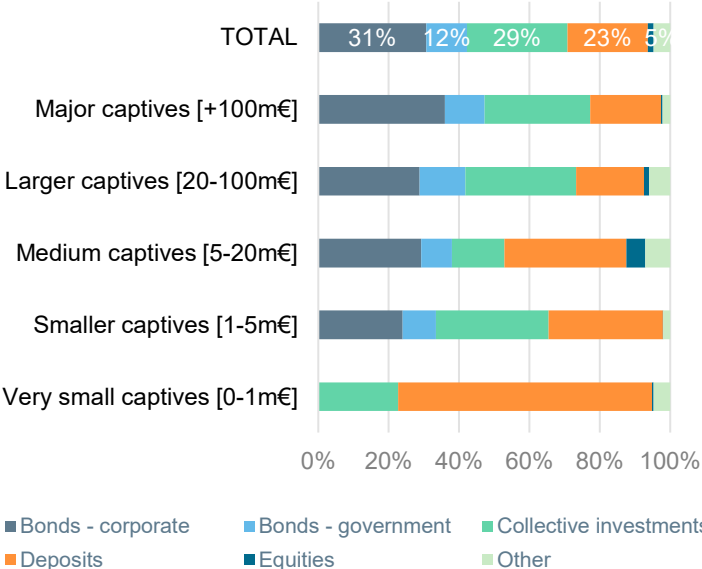


Average asset allocation, per captive size category

Investments are directed towards corporate and government bonds (42%)

Financial investments are made up of deposits, collective investment undertakings, corporate and sovereign bonds. Equities and participations account for a very limited share of the total, and there are hardly any investments in real estate, collateralized securities or derivatives.

FINANCIAL INVESTMENTS



Average financial investments allocation (non-cash), per captive size category

Loans are material (27% of total assets)

The second largest item on the asset side of the balance sheet is loans and mortgages (27% of the sample amount, reported by 53% of the captives in the sample). There is limited information available here: “loans on policies” account for 0%, “loans and mortgages to individuals” make up 2% and the remaining 22% is reported as “other”. This category is expected to include loans to related companies.

D. Technical provisions

The median captive holds EUR 12 million of reserves

Technical provisions (gross of reinsurance and net of recoveries) amount to EUR 8,444 million in the sample. On average this is EUR 43 million per captive, ranging from – EUR 7 million to + EUR 567 million.

Under Solvency II rules, technical provisions are split between Life and Non-Life, then further split between Health and Other.

No captive in the sample reports any technical provision related to unit-linked liabilities. Overall, technical provisions related to Life guarantees are below 5% of the total. Non-life technical provisions account for 95% of the total technical provisions in our sample.

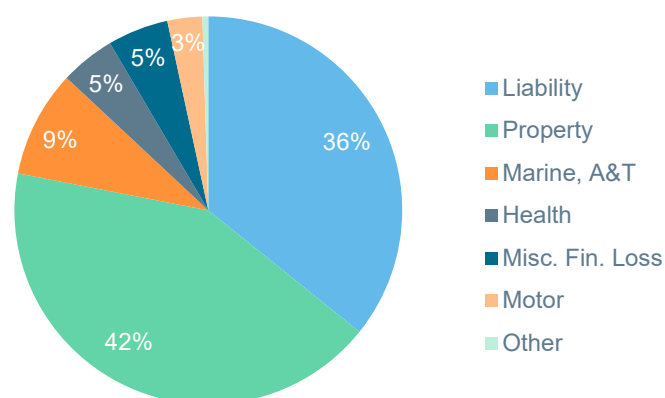
	Non-Life technical provisions		Life technical provisions		
	Health Non-Life	Other	Health Life	Other	Unit Linked
Occurrence	27%	97%	7%	10%	0%
Share	5%	90%	1%	4%	0%

Gross total technical provisions, QRT S.02.01.02, C0010, R0520, R0560, R0610 and R0690, latest reporting year

Property business makes up 42% of the P&C technical provisions

Property business generates the largest share of the provisions. The second largest share is generated by Liability. The “technical provisions over premium” ratio tells how many years there are between the inception of the policy and the average settlement of the claims (3.1 years for Liability, 1.3 years for Property).

NON-LIFE TECHNICAL PROVISIONS



Average split of technical provisions, QRT S.17, latest reporting year. Gross of reinsurance. Includes risk margin

Outstanding claims are the main component of the technical provisions (93%). The “best estimate of claims” consists of discounted values of all future claims payments for reported claims and incurred but not yet reported claims (IBNR).

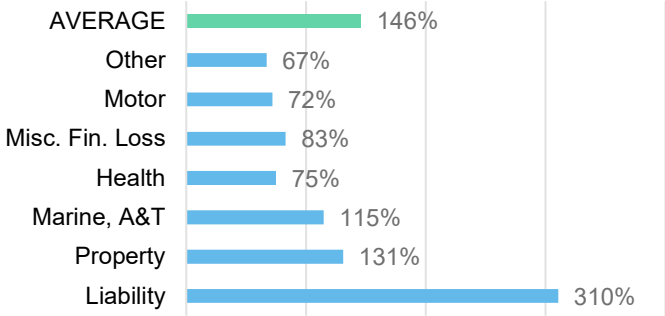
Benchmark of premium reserves and risk margin

In the Solvency II balance sheet, technical provisions (TP) also include a best estimate amount for premiums (liability value of unpaid premium within the contract boundaries) and a risk margin (cost of the capital required to bear the risk).

Except for Motor business, the best estimate of premium (BEP) is often negative, meaning that the future premium is expected to generate a profit for the company that is immediately recognized in the Solvency II own funds. It amounts to minus EUR 98 million in the sample. This is around 1.2% of the total technical provisions. This amount can also be seen as 1.7% of the total written premium.

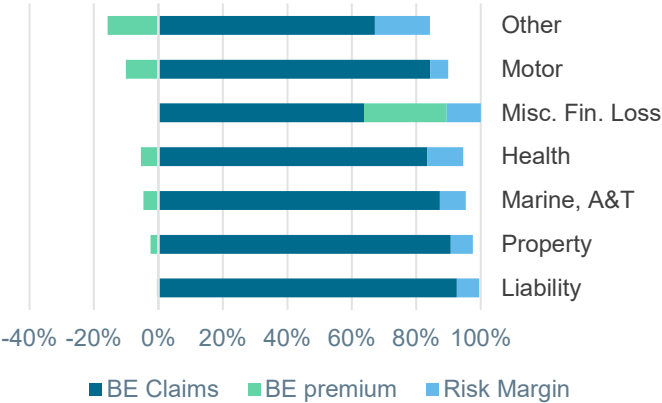
The risk margin usually depends on the volatility of the line of business and the length of the risk.

RESERVING RATIO



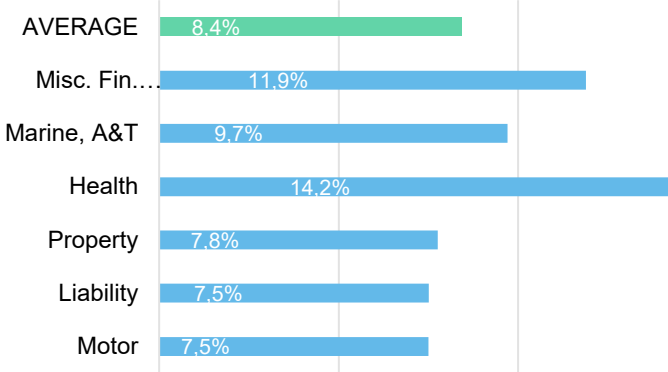
Average reserving ratio (gross technical provisions divided by gross written premium), per line of business

FOCUS ON P&C TECHNICAL PROVISIONS



Average share of the best estimate of claims, best estimate of premium and risk margin in the economic technical provisions

RISK MARGIN / BE RATIO



Average ratio of the risk margin on top of the best estimate of claims and premium

Other financial liabilities are not material in the balance sheet

On the liabilities side of the balance sheet, own funds and technical provisions are the main components, making up respectively 57% and 31% of the total.

Most captives (80%) also report some deferred tax liabilities, amounting to 7.2% of the balance sheet size. Payables account for 1.1%. Financial debts, subordinated debt and other debts are not material.

E. Own funds and solvency

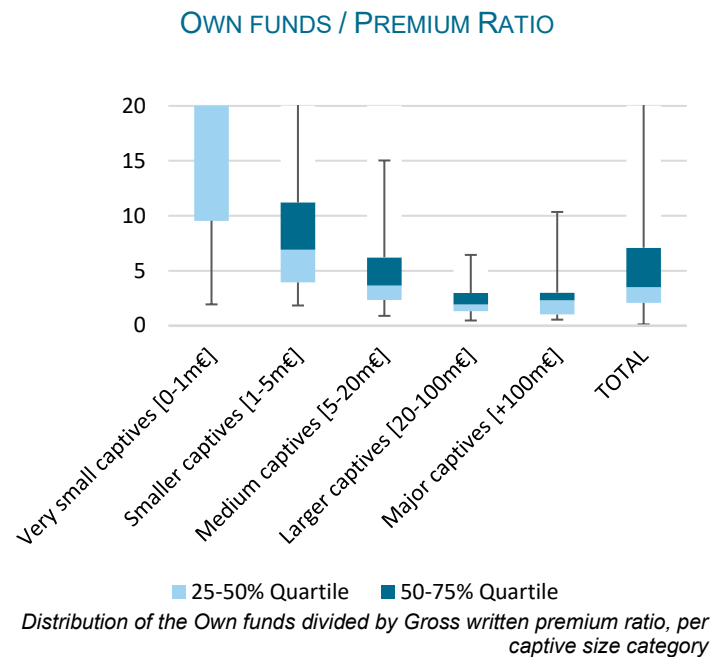
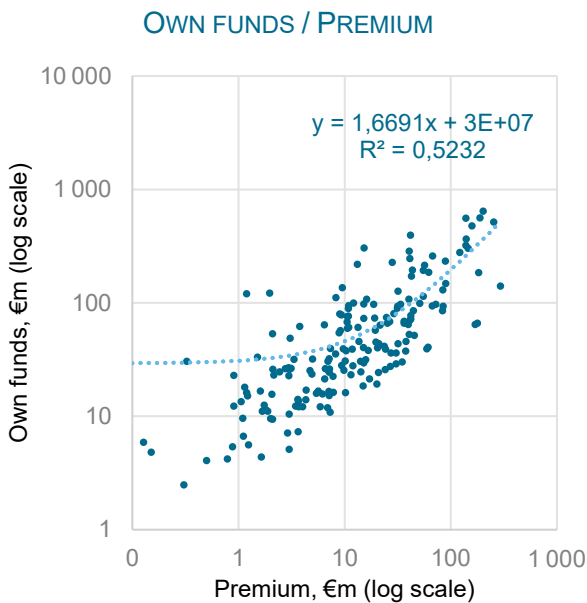
The median captive holds EUR 39 million of own funds

In the sample, total available own funds (OF, i.e. the net value of the captives on the economic balance sheet) amount to EUR 15,787 million, i.e. EUR 80 million per captive on average. Own funds range from EUR 1.6 million for the smallest captives up to EUR 647 million for the largest.

Own funds are about twice the premium plus EUR 30 million

There is some obvious correlation between own funds and gross written premium. Statistical analysis of the sample shows that the own funds are about twice (1.67) the premium plus EUR 30 million, or about four times the premium amount. Yet the amount of own funds also depends on the risk written, the diversification between risks, the reinsurance in place, the growth perspectives, the risk appetite of the captive, etc.

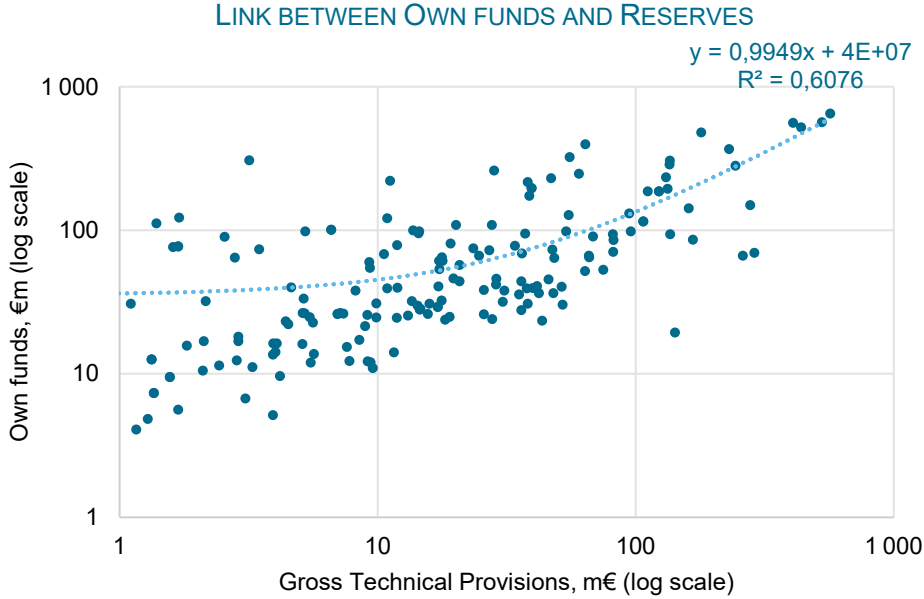
Link between own funds and premium



For larger captives, this own-funds ratio tends to be lower. This can be explained by the “diversification benefits” that materialize for the larger companies.

Own funds are about 1 time the amount of the technical provisions plus EUR 40 million

Likewise, own funds can be compared with the technical provisions on the economic balance sheet.



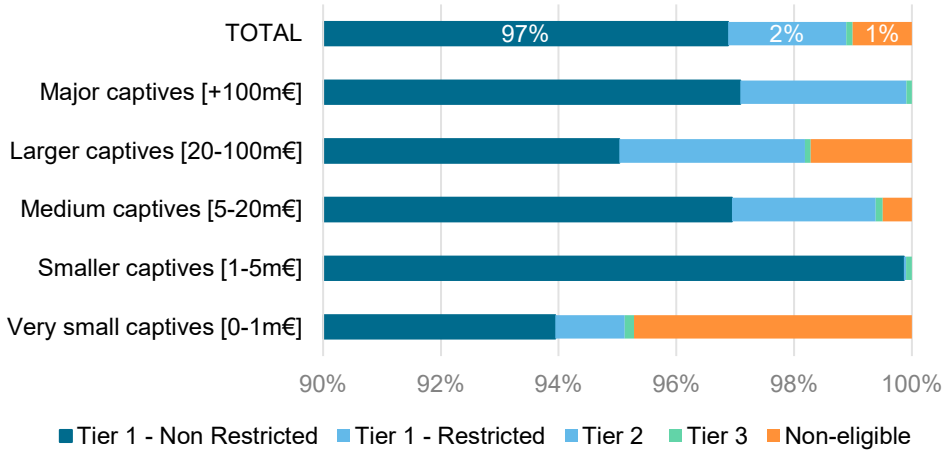
Linear correlation between available own funds and gross technical provisions

The own funds are predominantly composed of “non-restricted Tier 1” items (98%)

Only 5% of the captives subtract some “non-eligible” items from their “available” own funds, either by removing some non-admitted funding items or capping the share of lower-Tier items, as per Solvency II rules.

In the sample, total eligible own funds (EOF, the “regulatory capital”) amount to EUR 15,407 million, i.e. EUR 81 million per captive on average. The chart below demonstrates no specific financing plans according to captive size.

FROM AVAILABLE OWN FUNDS TO REGULATORY CAPITAL



Average tiering of available own funds into the Solvency II regulatory categories

Eligible own funds (EOF) include over 97.6% of “Tier 1 non-restricted” amounts (shares and accumulated profit).

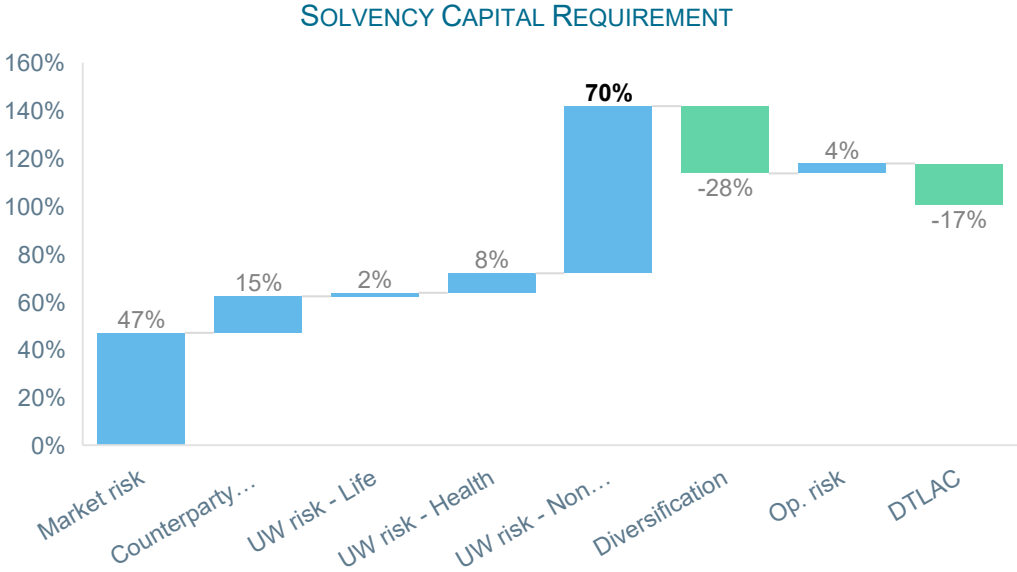
No captive reports any “Tier 1 restricted” amounts (subordinated debt issued before Solvency II went live in 2016).

Few captives (12%) report some “Tier 2” amounts. This most often includes subordinated loans but can also include some ancillary own funds such as a letter of credit. Amounts range from EUR 0.3 million to EUR 72 million (conditional median of EUR 9.0 million).

Few captives (11%) report some “Tier 3” own funds, which are made up of the net deferred tax assets on their balance sheet. The amount is usually small (conditional median of EUR 0.2 million).

Non-Life underwriting risk generates 70% of the capital requirement

Non-Life underwriting risk is the main risk for the captives. It encompasses premium risk (if the premiums charged are not sufficient to face future attritional claims, due to adverse frequency or severity), reserve risk (if the booked reserves are not sufficient to face the settlement of past claims, due to adverse deviation) and CAT risk (exposure to the most severe natural or man-made catastrophes), as well as the diversification between those risks. Non-Life underwriting risk is measured based on net premium and reserve amounts and net exposures, and thus can be reduced by reinsurance.



Average split of the capital requirement between the contributing risks, Solvency II Standard Formula
 UW = underwriting; Op. risk = operational risk; DTLAC = loss absorbing capacity of deferred tax

All the captives in the sample report a capital requirement for market risk. As a general rule, market risk is driven by the more volatile investments (equities), a mismatch between assets and liabilities, or a concentration on a single counterparty.

Counterparty risk is assessed by 99% of the captives. This reflects the default risk of a counterparty (bond issuer, creditor, account keeper reinsurer), based on its credit rating. The level of counterparty risk appears to be higher than is seen with commercial (re)insurance companies. This might be a consequence of intra-group loans and cash pooling schemes.

Diversification between the five main risks is recognized for an average of 28%. The more balanced the risk profile, the higher the diversification benefit.

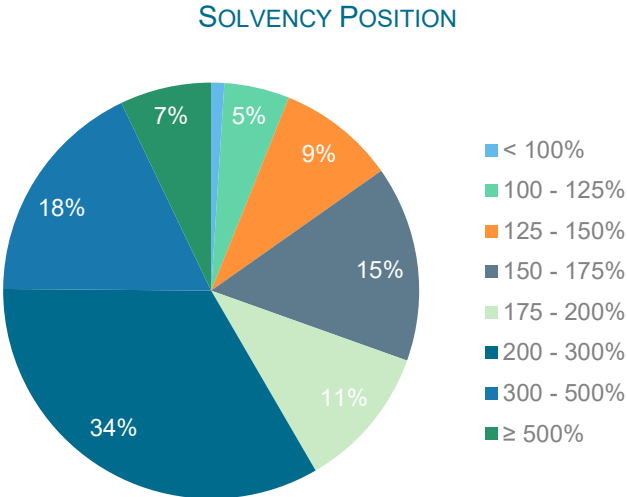
Operational risk is usually not material.

More than two third of the captives (70%) take into account the loss-absorbing capacity of deferred tax (LAC DT), when a large loss scenario would give rise to a tax credit or offset an existing tax liability.

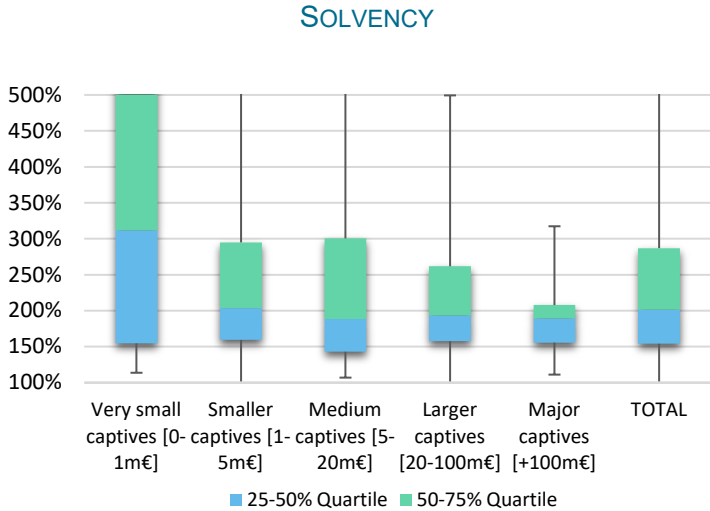
The median captive holds twice the solvency capital requirement

The solvency ratio is calculated as the eligible own funds amount divided by the solvency capital requirement⁶. The captives in the sample show a solvency ratio between 80% and +1,385%. The median ratio is 201%.

Solvency position (Eligible Own Funds over Solvency Capital Requirement ratio)



Distribution of the solvency ratio of the captives



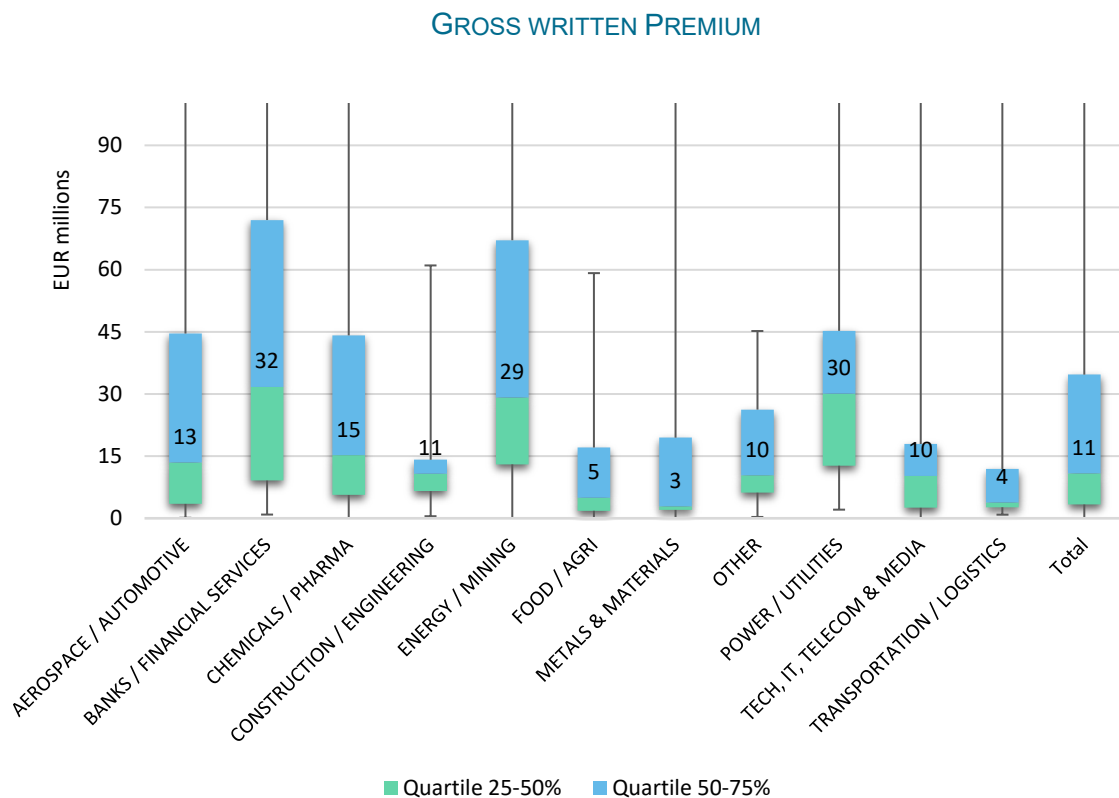
Distribution of the solvency ratio of the captives per size category

⁶ The minimum capital requirement MCR position has not been studied here.

III. Focus on industrial sectors

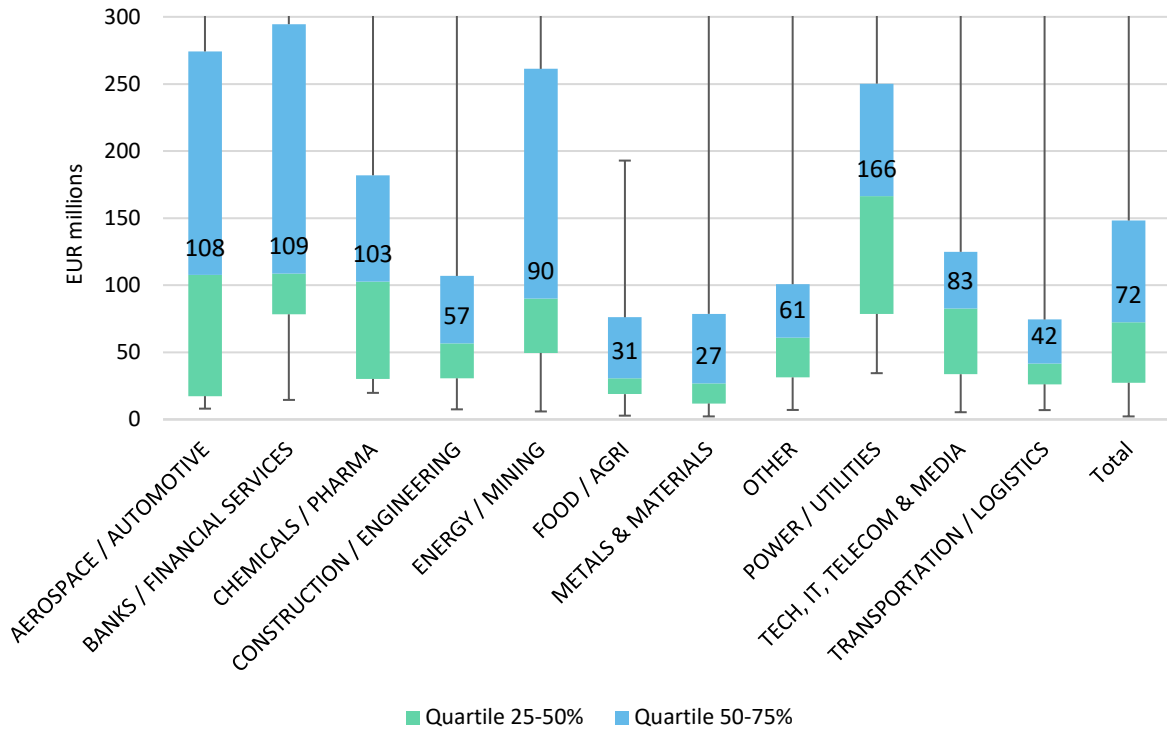
To provide some benchmarks by peer groups, the 197 captives in the study have been further categorized by industrial sector. The 10 considered sectors each contain between 11 and 21 captives. The “other” category includes 37 captives for groups in the fields of consulting and audit, retail, consumer goods, medical supplies, hospitality, leisure, public authorities and miscellaneous.

This first chart shows the average gross premium written by the captives for each industrial sector, as well as the distribution per quartile.

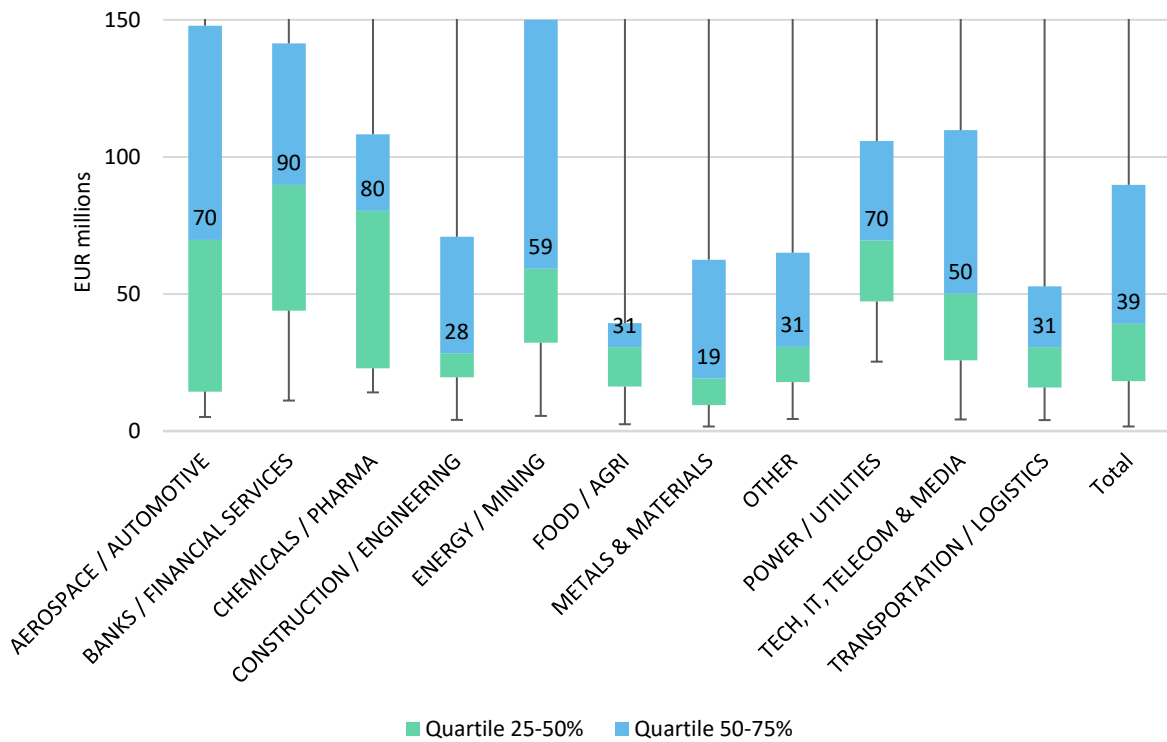


Read: for the captives of groups in the fields of Aerospace and Automobile, the median annual gross written premium is EUR 13 million. The smallest captive writes EUR 0.12 million; the smallest 25% of the captives write between EUR 0.12 million and EUR 3.4 million; the second quartile between 3.4 and 13, etc. The largest captive in this group writes premium of EUR 177 million.

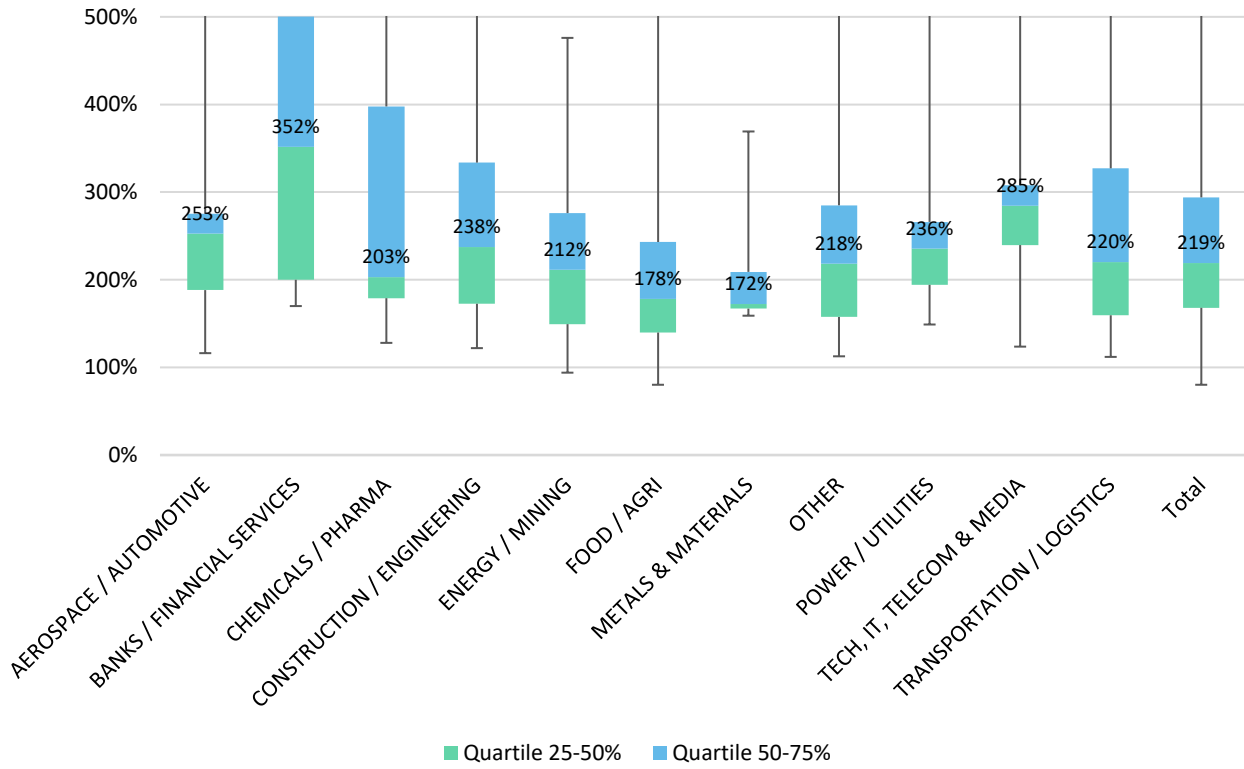
ASSETS (SIZE OF THE BALANCE SHEET)



CAPITAL

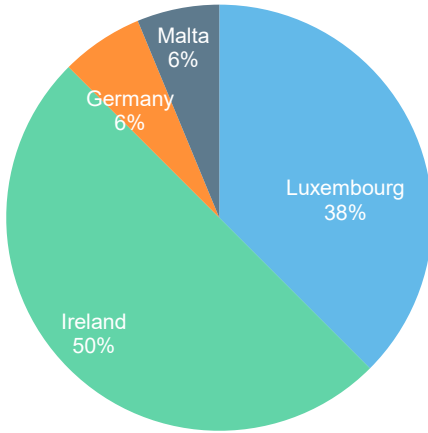


SOLVENCY

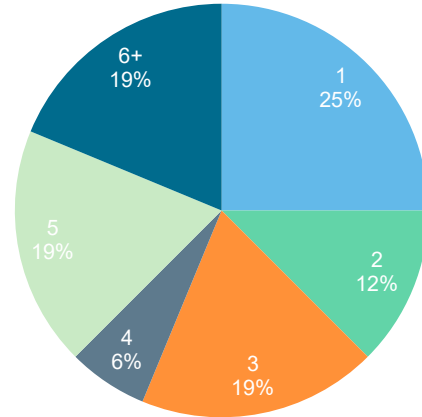


A. AEROSPACE / AUTOMOTIVE (16 CAPTIVES)

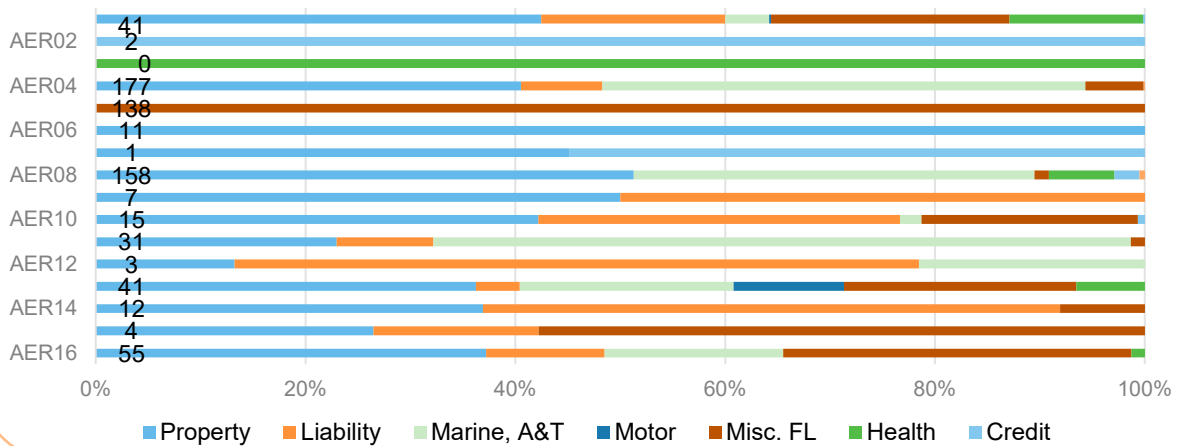
Domicile of the captive



Number of LOB



Composition of the GW Premium

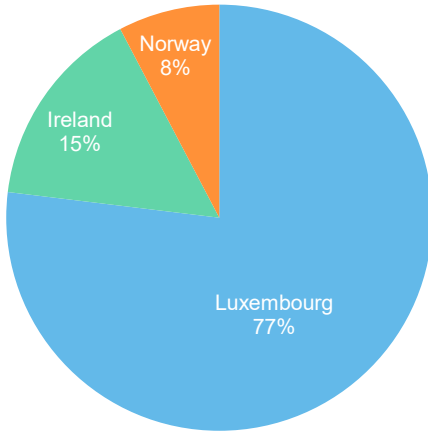


Solvency

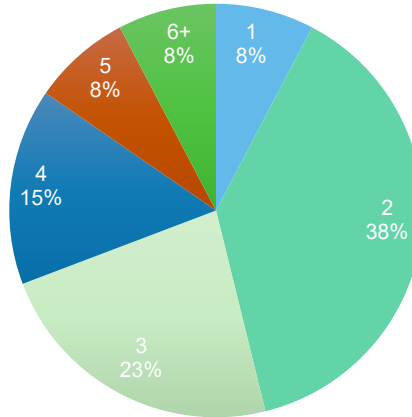


B. BANKS / FINANCIAL SERVICES (11 CAPTIVES)

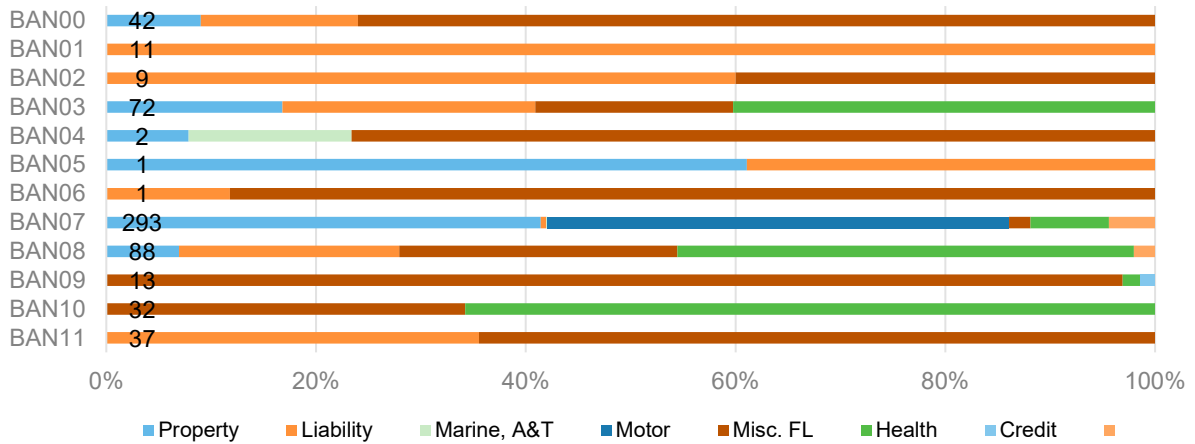
Domicile of the captive



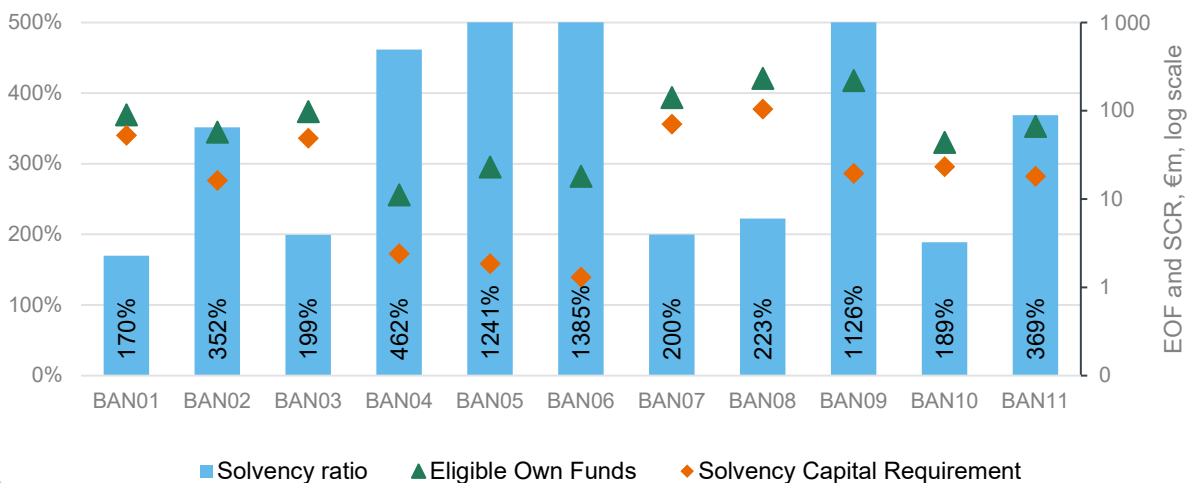
Number of LOB



Composition of the GW Premium

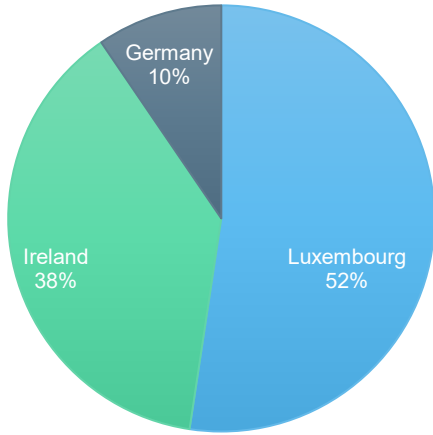


Solvency

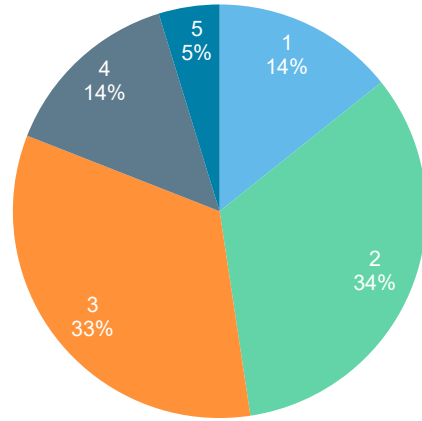


C. CHEMICALS / PHARMA (18 CAPTIVES)

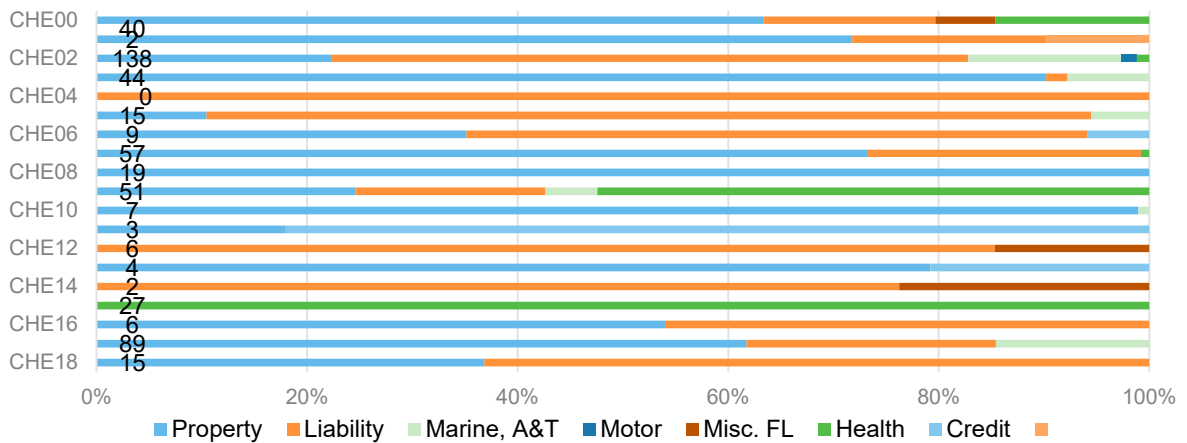
Domicile of the captive



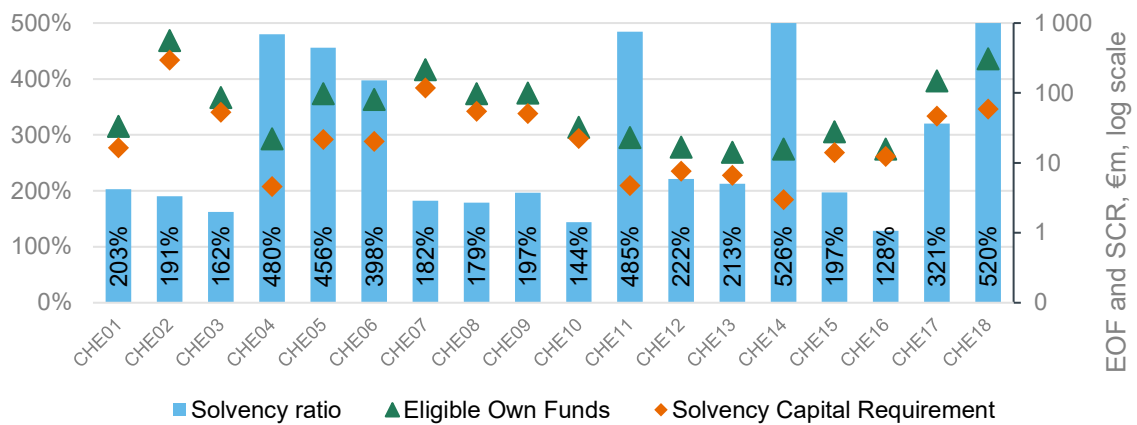
Number of LOB



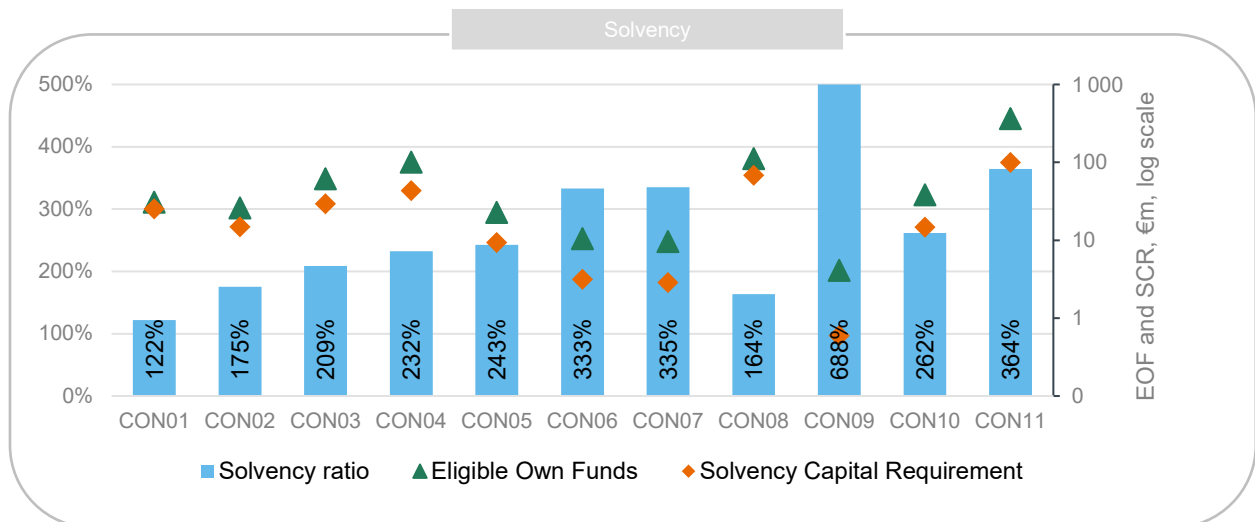
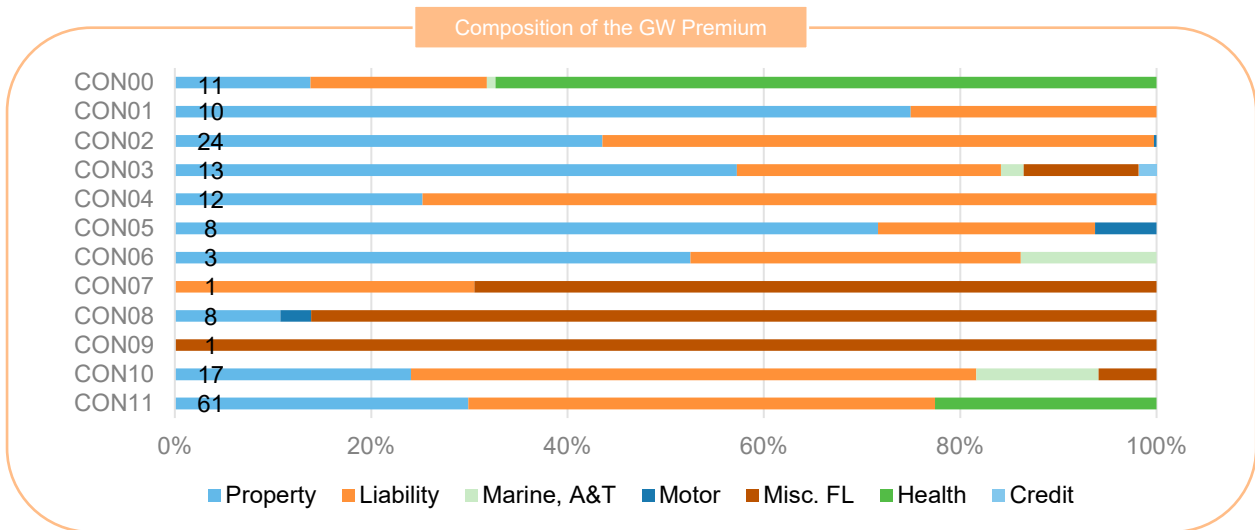
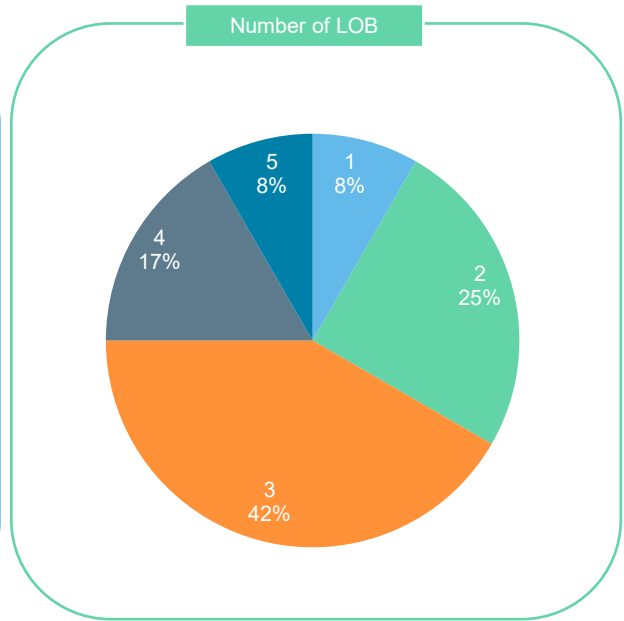
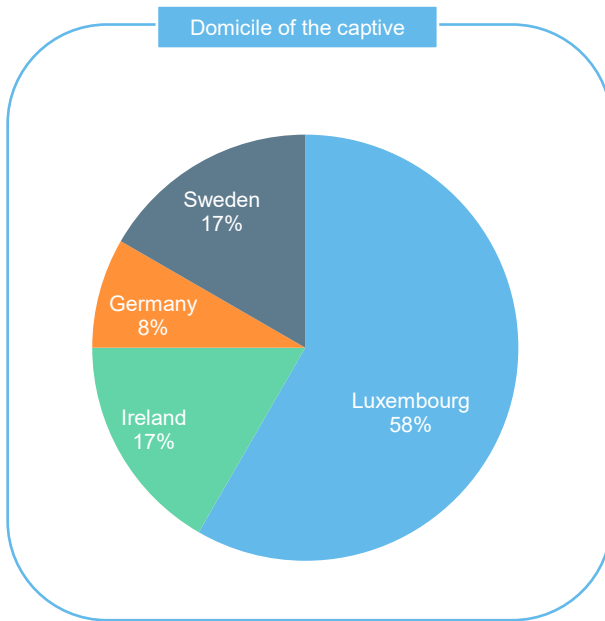
Composition of the GW Premium



Solvency

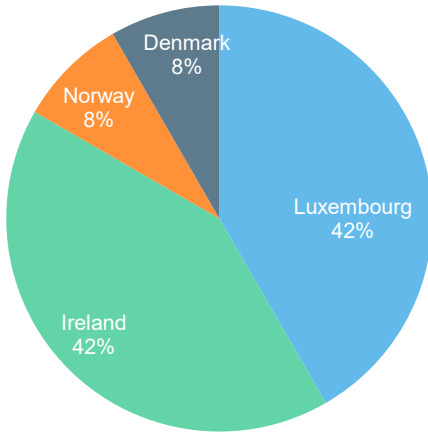


D. CONSTRUCTION / ENGINEERING (11 CAPTIVES)

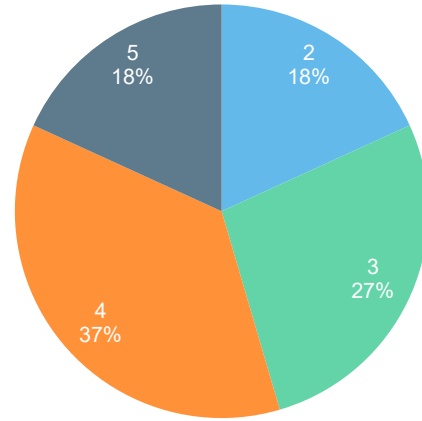


E. ENERGY / MINING (14 CAPTIVES)

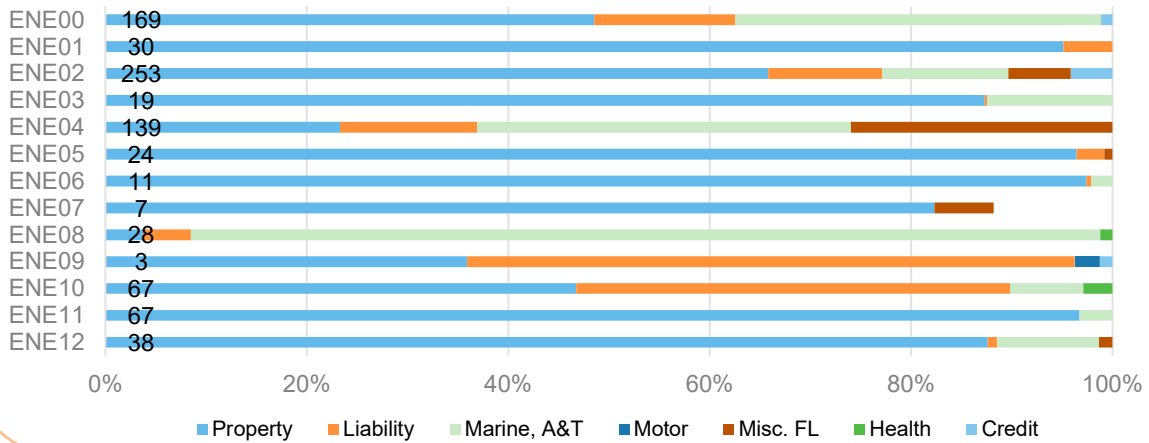
Domicile of the captive



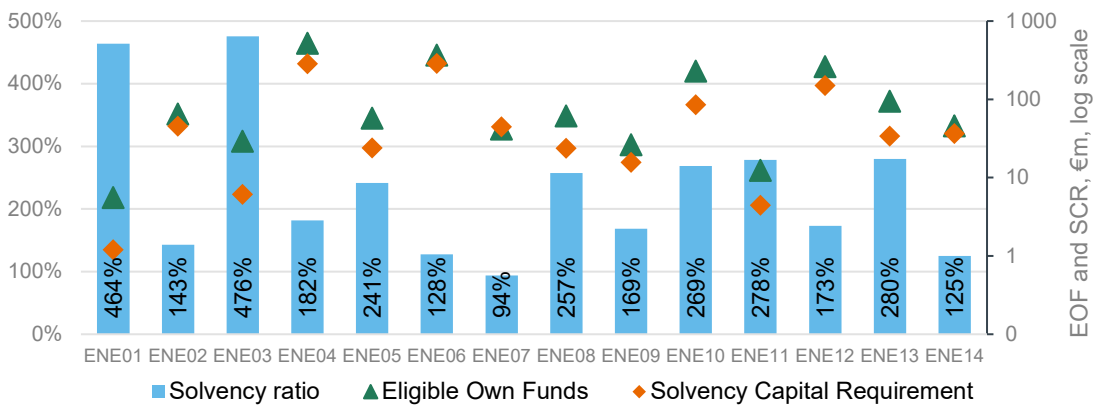
Number of LOB



Composition of the GW Premium

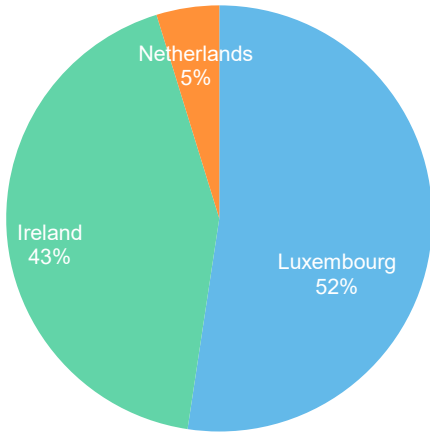


Solvency

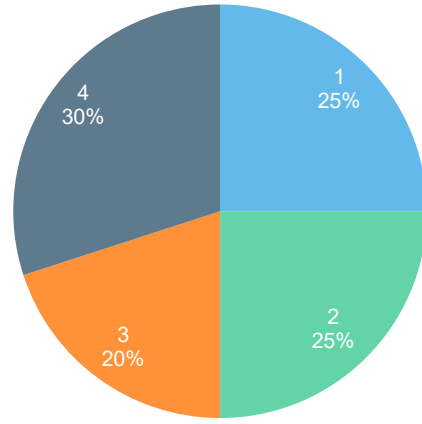


F. FOOD / AGRI (21 CAPTIVES)

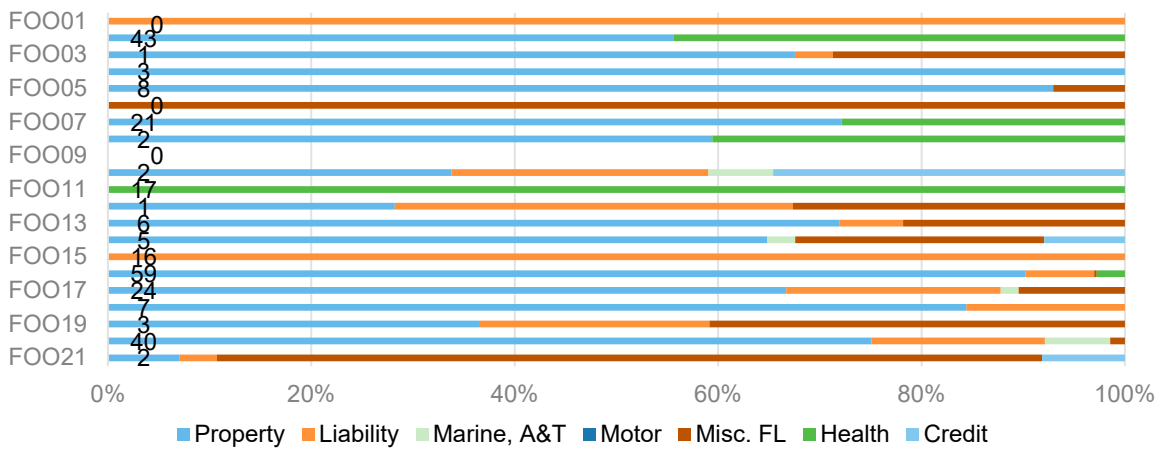
Domicile of the captive



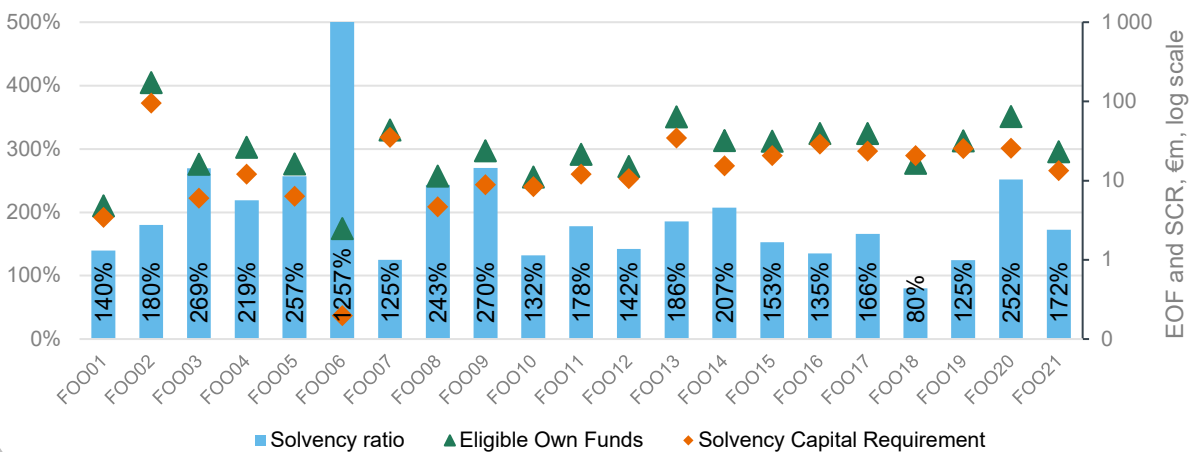
Number of LOB



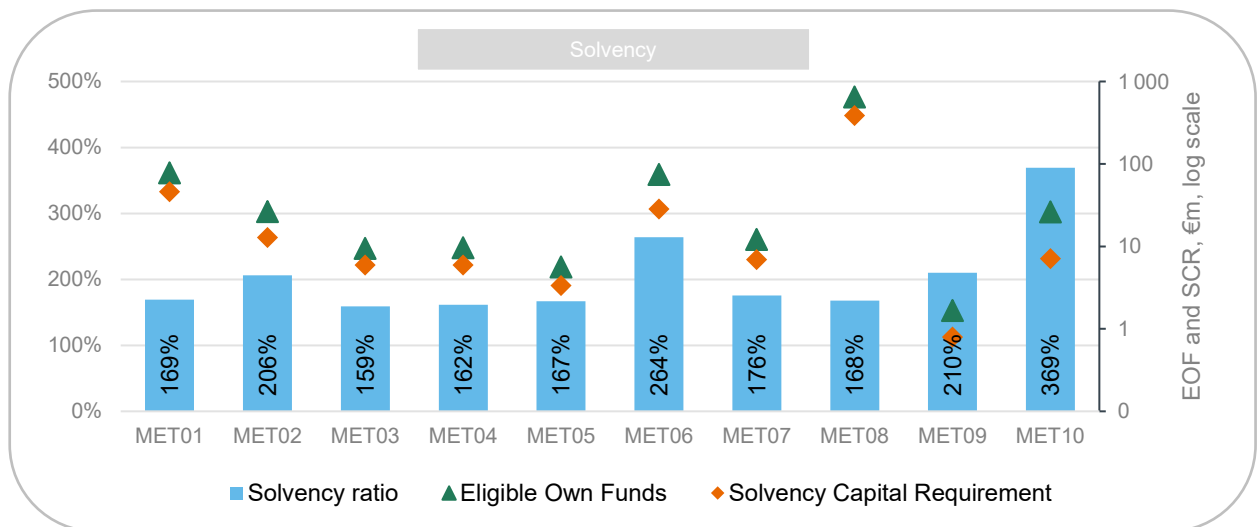
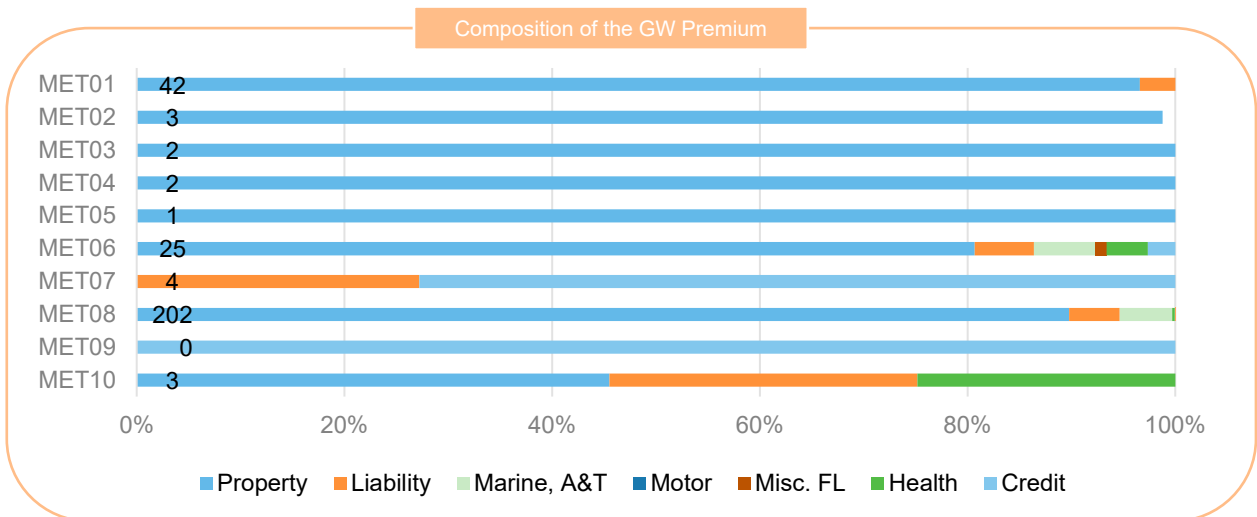
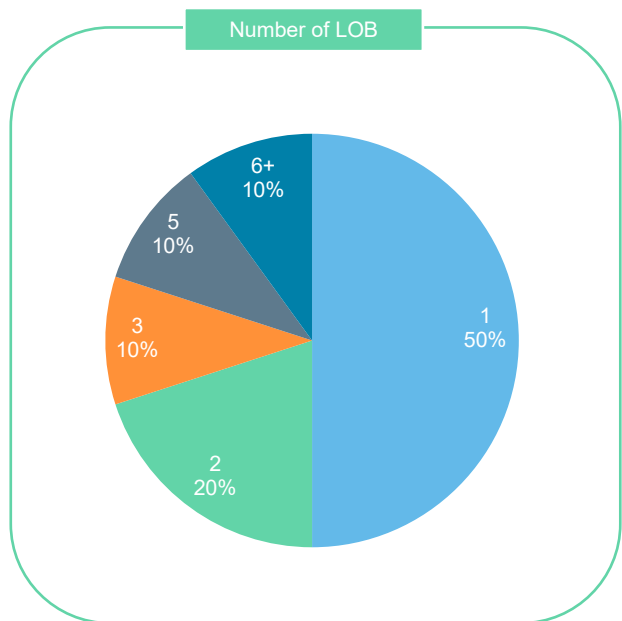
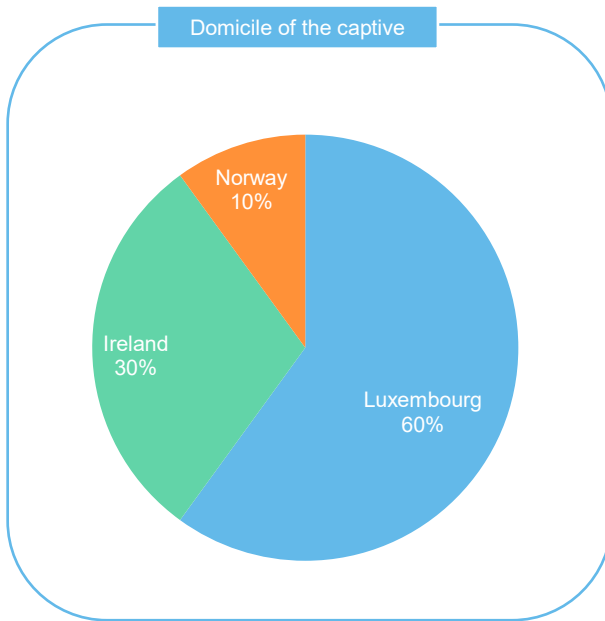
Composition of the GW Premium



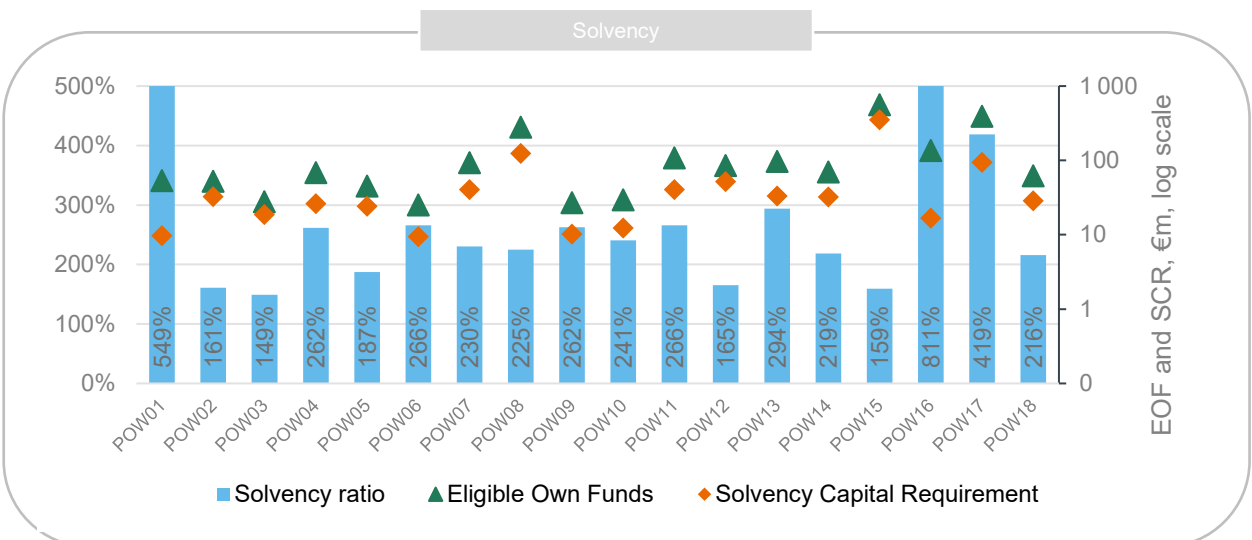
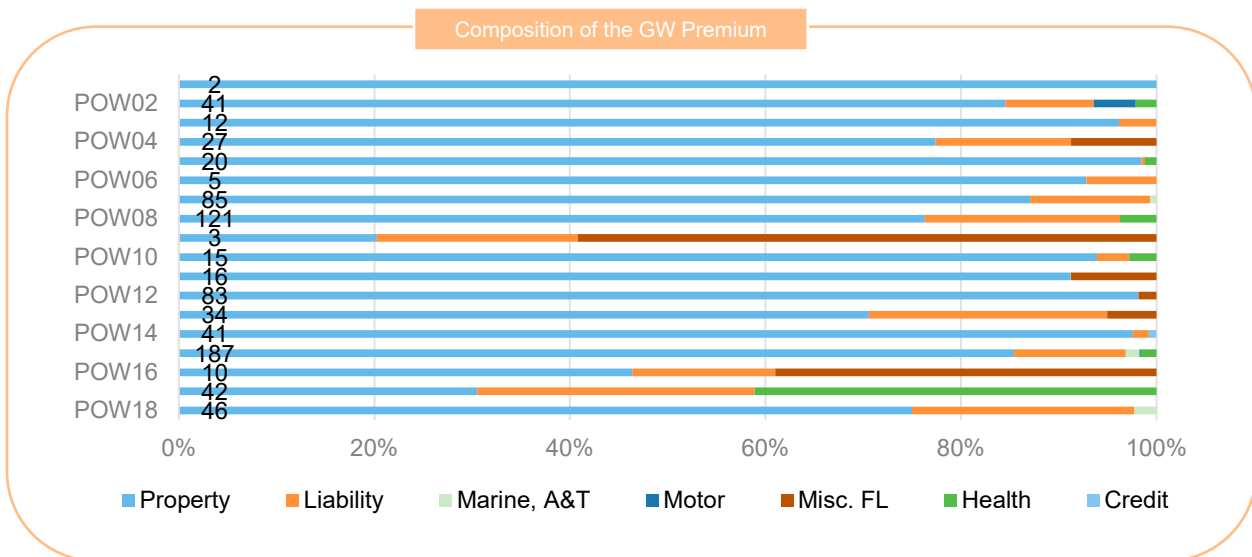
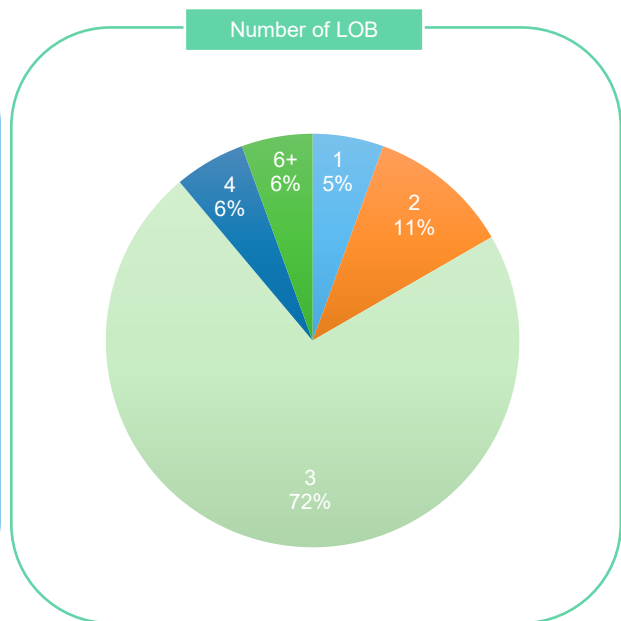
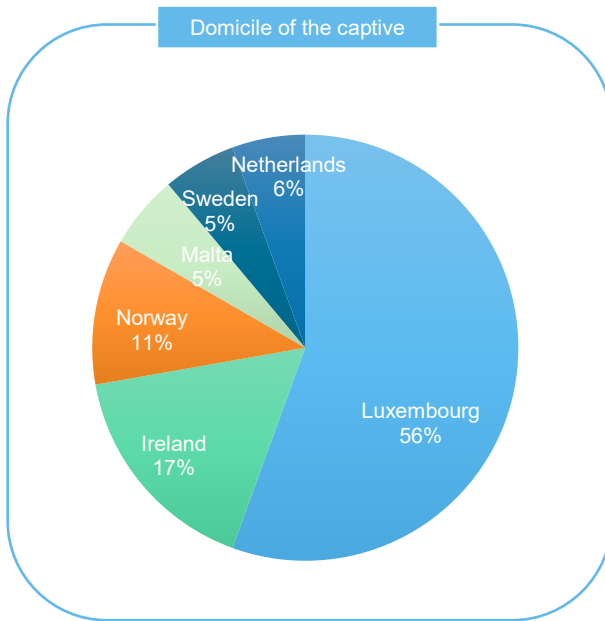
Solvency



G. METALS & MATERIALS (10 CAPTIVES)

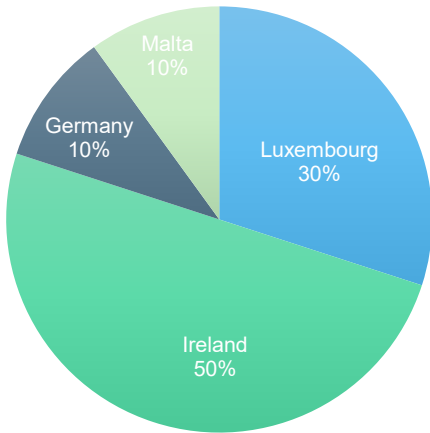


H. POWER / UTILITIES (18 CAPTIVES)

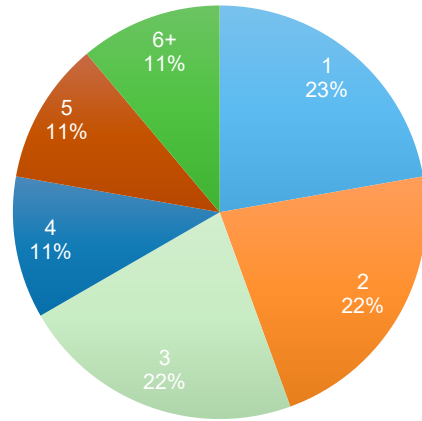


I. TECH, IT, TELECOM & MEDIA (9 CAPTIVES)

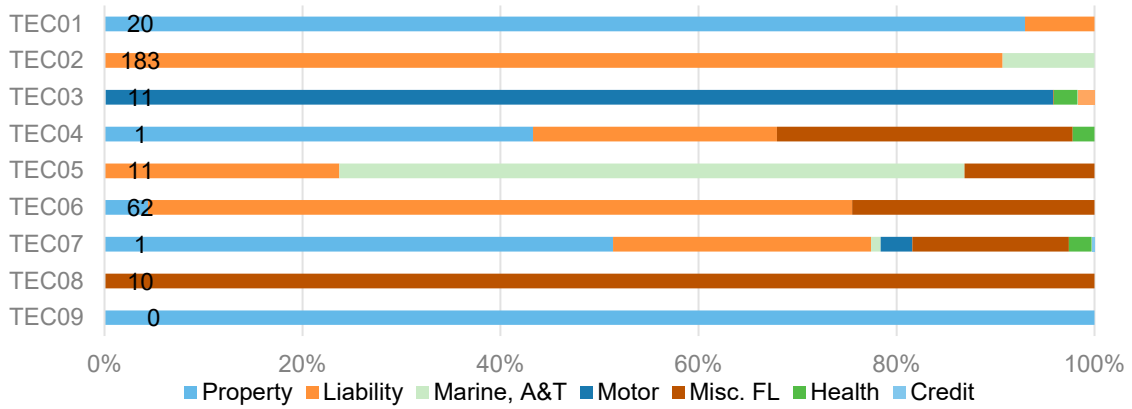
Domicile of the captive



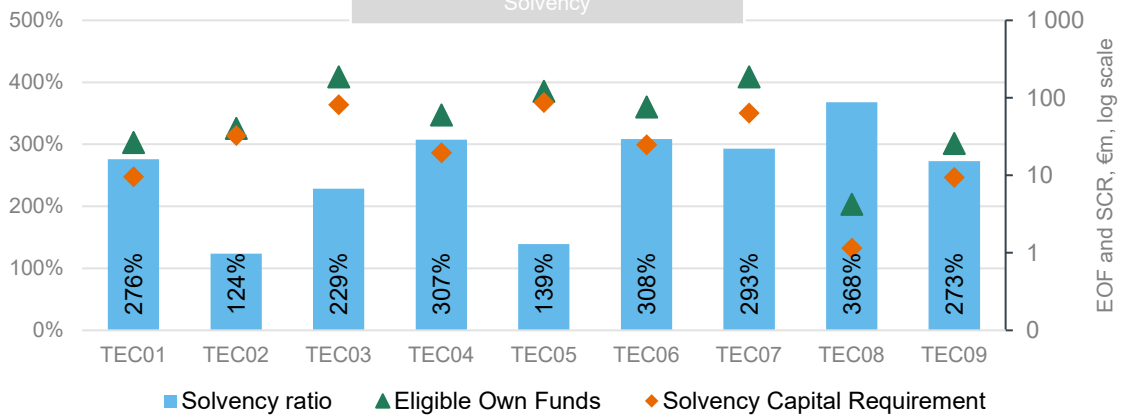
Number of LOB



Composition of the GW Premium

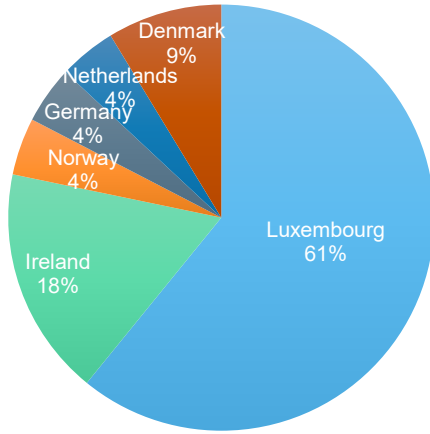


Solvency

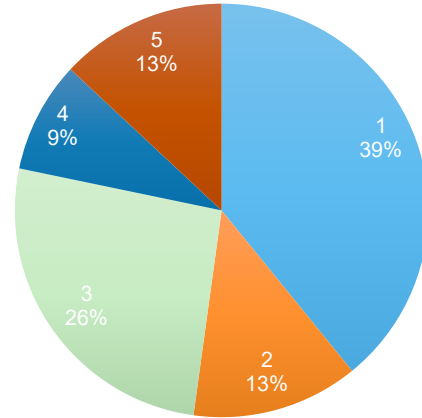


J. TRANSPORTATION / LOGISTICS (19 CAPTIVES)

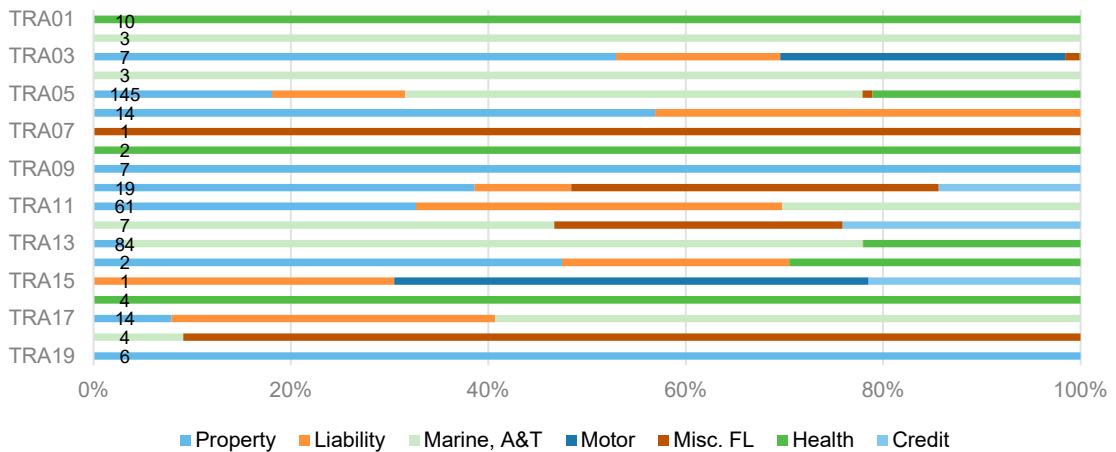
Domicile of the captive



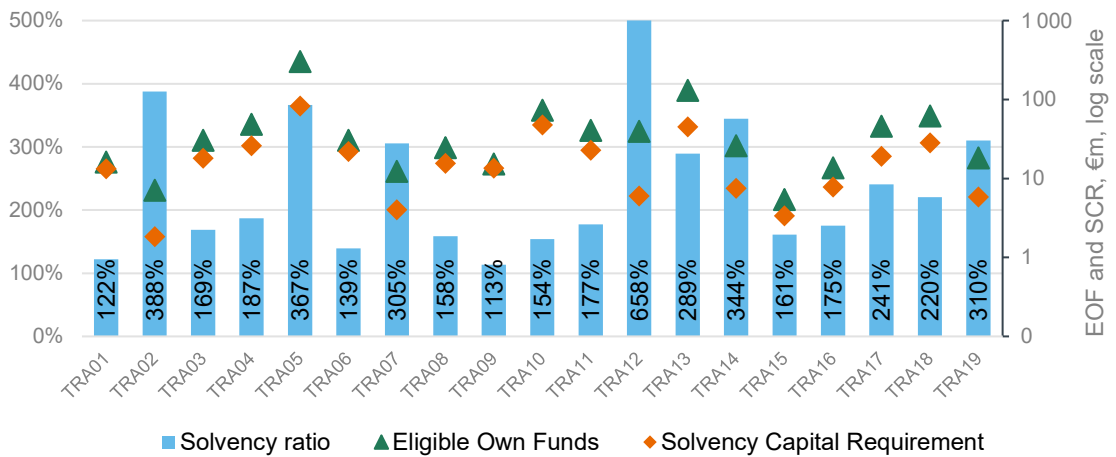
Number of LOB



Composition of the GW Premium



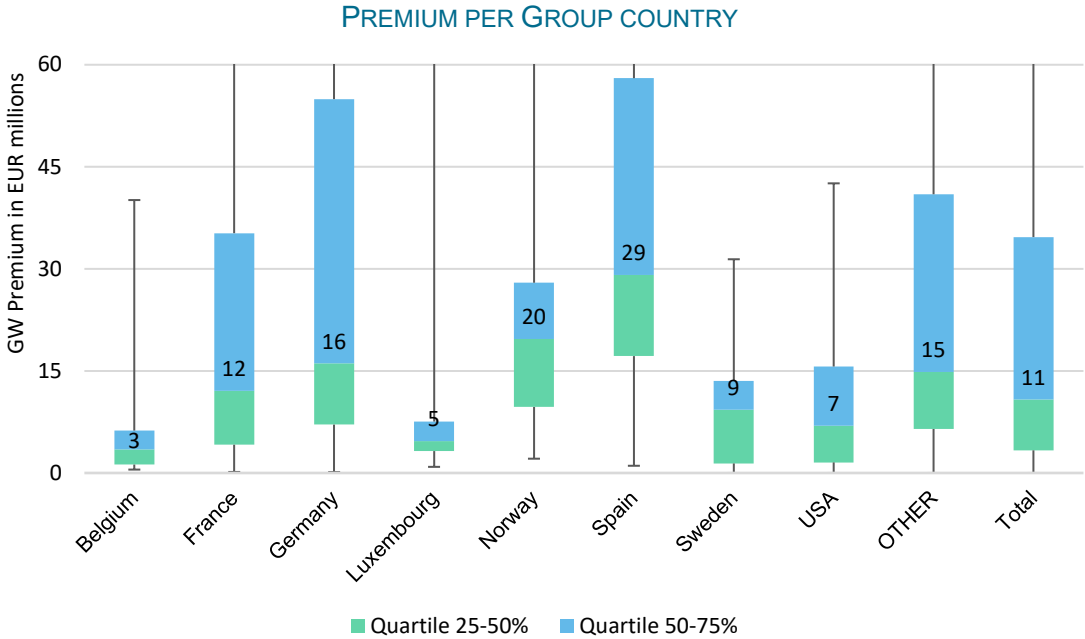
Solvency



IV. Focus on corporate group headquarters

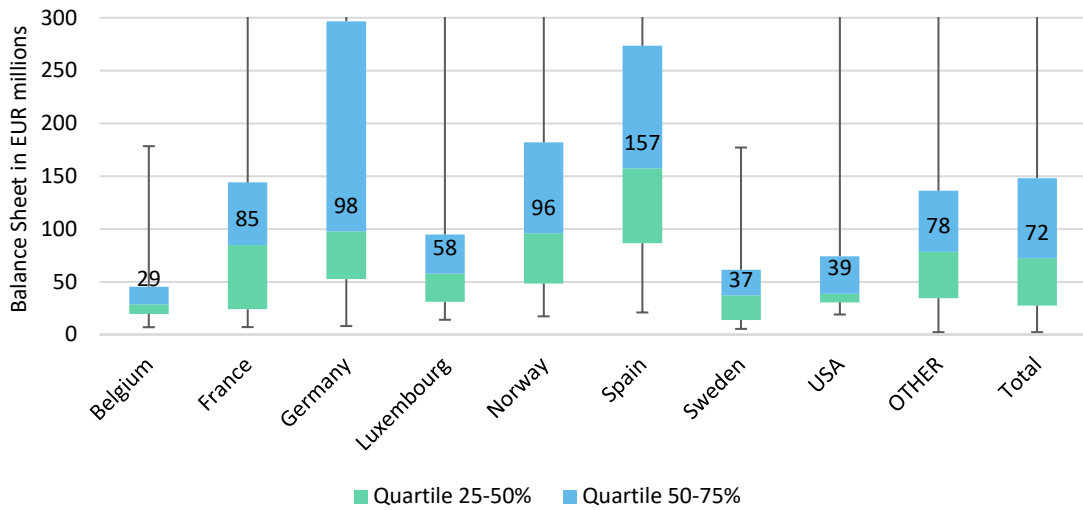
To provide some benchmarks by peer groups, the captives in the study have been considered by the geography of the group. The eight considered countries each own between 9 and 46 captives. The “other” countries own 47 captives for groups based in the Netherlands, the UK, Italy, Switzerland, South Africa, Ireland, Portugal, Austria, etc.

This first chart shows the average gross premium written by the captives for each country, as well as the distribution per quartile.

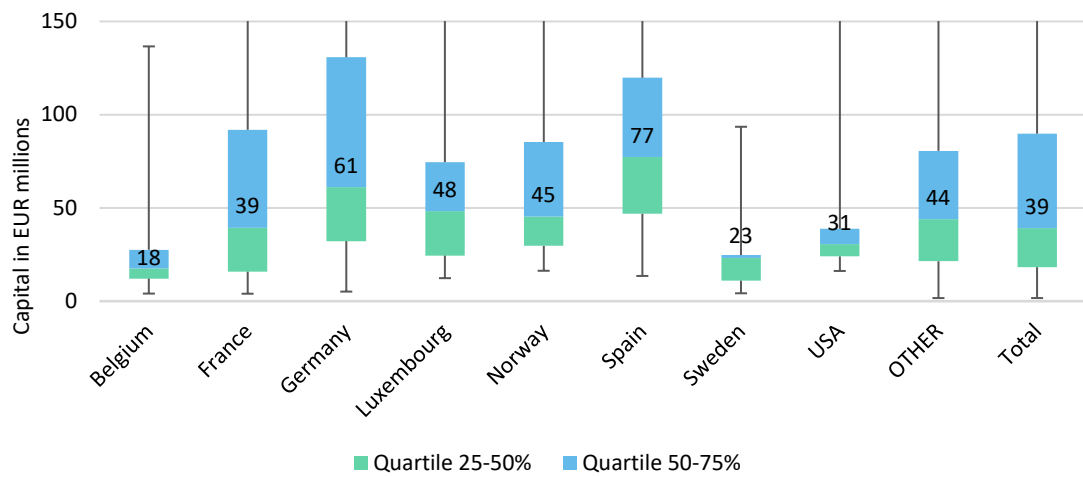


Read: for the captives of groups headquartered in France, the median annual premium is EUR 12 million. The smallest captive writes EUR 0.15 million; the smallest 25% of the captives write between EUR 0.15 million and EUR 4.31 million; the second quartile between 4.1 and 12m, etc. The largest captive in this group writes premium of EUR 169 million.

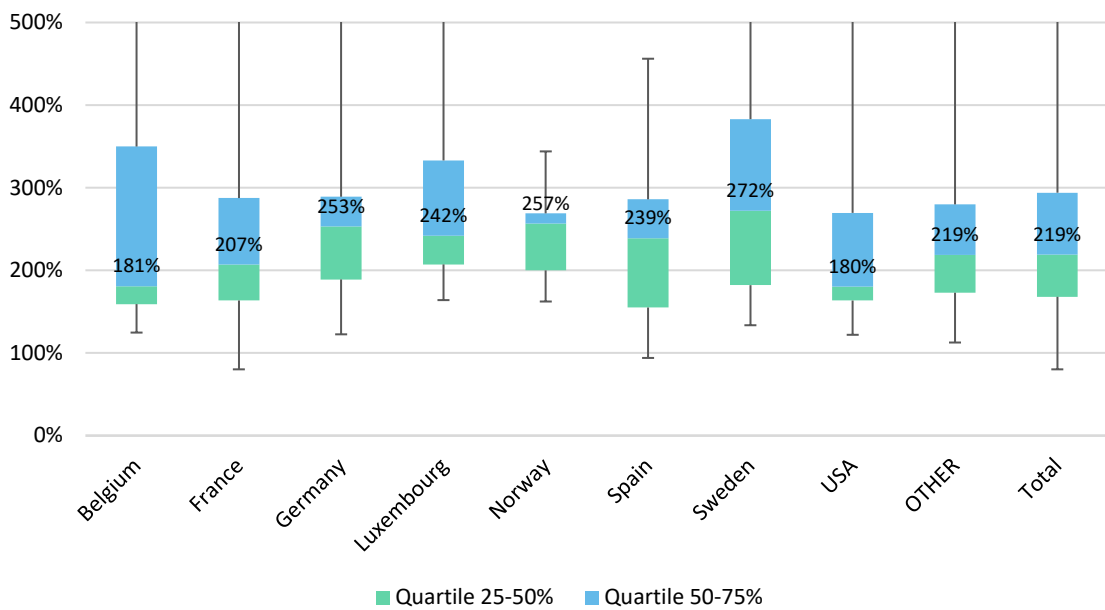
ASSETS PER GROUP COUNTRY



CAPITAL PER GROUP COUNTRY



SOLVENCY PER GROUP COUNTRY





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